Syntactic change and information structure

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1. Introduction

- Information structure (IS) and syntactic change – the traditional view: fluctuations in usage frequency may trigger loss/reanalysis of 'stylistically' marked patterns linked to IS categories such as topic or focus (derived by 'optional' transformations/movement operations) – e.g., loss of rarely used patterns, functional bleaching of overused patterns etc.

- **Examples...**

1. OV to VO in the history of English: Increase of surface VO orders due to an overuse of 'stylistically motivated' NP postposition led to a reanalysis of surface VO orders (derived by rightward movement in the target grammar) as the underlying, basic word order (Stockwell 1977, Kemenade 1987):

(1)   a. þu hafast t_i gecoren [$_{NP}$ þone wer]$_i$
           you have   chosen   the man
      b. þu hafast [$_{VP}$ gecoren [$_{NP}$ þone wer]]
          (ApT 34.23; Fischer et al. 2000: 148)

2. Rise of agreement markers Overuse of topic left dislocation leads to a reanalysis of the formerly marked construction as 'neutral' syntax:

   (i)   the former topic is reinterpreted as the new subject

   (ii) the resumptive pronoun becomes a (prefixal) subject agreement marker on the verb (Givón 1976; see e.g. Ashby 1977, Auger 1993, 1994, and Zribi-Hertz 1994 on Colloquial French):

(2)   The wizard$_i$, he$_i$ lived in Africa $\rightarrow$ The wizard, he-lived in Africa
      TOPIC   PRON.   SUBJECT   AGR

- Problems with the traditional view:
- There are at least some indications that the ratio of relevant IS-related patterns may remain constant over time (cf. Pintzuk 1999, Taylor & Pintzuk 2012 on VO-order/NP-postposition in the history of English)

- It seems that learners acquire (even subtle) information-structural distinctions, by and large, early and flawlessly (Westergaard 2003, 2010).

- Goal of this talk: To explore the wiggle room left for IS-related syntactic change

- Background assumptions:
  (i)   The relative usage frequency of IS categories such as topic, focus etc. remains diachronically stable. Only the grammatical form, i.e., the structural means used to express these pragmatic functions can be subject to change (including both structural properties and the selection of form-function pairings).
  (ii)   In many cases, IS-related syntactic change involves competition between different strategies to realize one and the same IS category.

- Competition between IS-related patterns: In German, new information can be marked
  (i)   by prosody (nuclear stress) + movement (scrambling, (3a)/fronting, (3b)), or
  (ii)   by prosody alone, (3c):

(3)   Wem   hat   er   das   Buch   gegeben?
      who.DAT has   he   the.ACC   book   given
      'Who did he give the book to?'
      a. Er   hat   [das   Buch]ᵢ   [dem   STUDENTEN]ꜰᴏᴄᴜꜱ   tᵢ   gegeben.
         he   has   the.ACC   book   the.DAT   student   given
         'He gave the book to the student.'
      b. [Dem STUDENTEN]ꜰᴏᴄᴜꜱ hat er [das Buch] gegeben.
      c. Er hat [dem STUDENTEN]ꜰᴏᴄᴜꜱ [das Buch] gegeben.

- **Structure of the talk**:
 I. Typology of IS-related changes:
     (i)   **Loss** of IS-related patterns due to independent (morphosyntactic) changes (e.g., loss of word order variation in the history of English, cf.Biberauer & Roberts 2005, 2006; Taylor & Pintzuk 2012, to appear) ⇒ **section 2**
     (ii)   **Fossilization**
         a. reanalysis of IS-related patterns as semantically/pragmatically neutral (EPP-driven) syntactic movement (see also Givón 1979) ⇒ **section 3**
         b. Grammaticalization giving rise to IS-related morphology (topic/focus markers, determiners etc.) or lexicalized/petrified collocations (cf. e.g. Lehmann 2008 on the development of clefts in French);
     (iii)   **Cannibalization** (the functions linked to pattern A are taken over by another pattern B, leading to the loss of A) ⇒ **section 4**
     (iv)   **Rise of new IS-related syntactic patterns**:
         a. Syntactic optionality may be exploited for the encoding of pragmatic functions (later subject to grammaticalization)
         b. Reanalysis of syntactic patterns linked to other IS categories ⇒ **section 5**
 II. Case study: Fossilization of XP-fronting and the rise of generalized V2 in the history of German ⇒ **section 6**

2. Loss of IS-related patterns due to independent changes

- <u>Traditional observation</u>: Early Germanic languages exhibit a greater degree of word order variation than their present-day descendants.

- <u>Old English (OE)</u>: Variation between surface OV and VO order, cf. the subordinate clauses in (4) taken from Taylor & Pintzuk 2012 (see also Mitchell 1985, Kemenade 1987, Pintzuk 1999, Pintzuk & Taylor 2006, the papers in Taylor and van der Wurff 2005, and many others).[1]

(4) a. swa þæt se scinenda lig [his locc] **up ateah**
        so that the shining flame his locks up drew
        '… so that the shining flame drew up his locks'
        (cocathom2,+ACHom_II,_39.1:295.241.6706)
    b. be ðære he **gestrynde** [Enoch]
        by whom he sired   Enoch
        'by whom he sired Enoch'
        (cootest,Gen:4.17.205)

- <u>Recent finding</u>: Word order variation in Early Germanic is linked to the realization of IS categories (background/focus, given/new etc.):[2]

(5) Comp ... **background/given information** ... V **focus/new information**

(6) Comp **background/given information** ... **contrastive focus** V_{fin} **focus/new inf**.
     (Petrova & Hinterhölzl 2010 on OHG)

- <u>Taylor & Pintzuk (2012), to appear</u>: Loss of word order variation is not the result of performance factors/discourse changes:
  (i)   Loss of OV order in the course of the OE/ME cannot be attributed to an overuse of VO order as a focus marking strategy (leading to a gradual increase of surface VO orders that at some point rendered the OV option unlearnable)
  (ii)   Rather, VO order increases at the same rate for all kinds of objects, both given and new.
  (iii) The development of an increasingly fixed object position diminished the role of IS as a factor determining word order.

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[1] If complex verb forms are taken into account, the following basic orders can be observed in embedded clauses: S-O-V-Aux ('pure' OV), S-O-Aux-V (verb raising), S-V-Aux-O (extraposition), S-Aux-O-V (the 'mixed' order), and S-Aux-V-O ('pure' VO, or extraposition + verb raising).

[2] Cf. e.g. Roberts (1997), Biberauer & Roberts (2005), Kemenade & Los (2006), Kemenade (2009), Petrova & Speyer (2011), Taylor & Pintzuk (2012), to appear on OE; Schlachter (2004), (2009), Petrova (2009), Petrova & Hinterhölzl (2010) on OHG; Linde (2009) on Old Saxon, Burridge (1993) on Middle Dutch.

- This suggests that the loss of IS-related word order variation resulted from an independent change that led to a more rigid word order (probably linked to the loss of inflectional morphology (case)).
- Moreover, as pointed out by Petrova (2012: 1227):

  "This gives support to the idea that information structure is a relevant factor for surface variation only as long as optionality with respect to the positional realization of objects is allowed in the system of a language."

3. Fossilization

- Despite evidence suggesting otherwise (see above), it is fairly clear that **'fossilization'** (i.e., reanalysis of IS-related patterns as 'neutral' syntax) must be an option.
- <u>Topic-to-subject</u>: Many languages (including Early English, Early Romance etc.) went through a stage with regular fronting of topics (often accompanied by inversion/V2 effects), while their modern descendants are basic SVO languages.
- <u>Traditional analysis</u>: Reanalysis of topic position as structural subject position (Pintzuk 1995, 1999, Hulk & van Kemenade 1995, Kroch & Taylor 1997, Kemenade 2009 on English; Adams 1987, Vance 1989, 1997 on French; Ribeiro 1995, Eide 2006, 2010 on Portuguese):

(7)   topic – verb$_{fin}$ – ... >>> (XP) – subject – verb$_{fin}$ – ...

- <u>Loss of a low subject position in the history of English</u>: Kemenade & Los (2006), Kemenade (2009) argue for the existence of two subject positions in OE linked to the distinction between new and given information (see also Haeberli 1999, Fischer et al. 2000, Trips & Fuß 2008):

(i)   Material representing given information (pronouns, in particular) tends to occupy the high 'subject' position to the left of adverbs such as *þa/þonne*

(ii)   Material representing new information (in particular indefinite nominal subjects) tends to occupy a position to the right of *þa/þonne*:[3]

(8) a. Þa   *hi*   **þa**   hine   geornlice beheoldon...
        when they then   them   carefully beheld...
        'when they then carefully beheld him...'
        (coeust, LS_8_[Eust]:270.286; Kemenade & Los 2006: 236f.)

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[3] Further evidence for the existence of two subject positions comes from the placement of subjects relative to the secondary negator *na* (personal pronoun – *na* – DP subject), cf. Haeberli (1999), Kemenade (1999), (2009).

    b. forðæm *sio gesceadwisnes* **ðonne** hæfð ofercumen ðæt mod &
       because the wisdom   then   has   overcome   the mind and
       gewielð
       subdued
       (cocuraC,CP_[Cotton]:33.218.19.42; Kemenade & Los 2006: 237)

(9)   Gif hine **þonne** *yfel mon* hæfð [...]
         if   him   then   evil   man   has
         'If an evil man has him...'
         (coboeth,Bo:16.38.26.702; Kemenade and Los 2006: 237f.)

- In the course of the ME period, this kind of word order variation disappears; only the higher position survives, turning into a subjects-only position (with subjects becoming unmarked topics, cf. Birner & Ward 1998, Kemenade 2009, Westergaard 2010).
- <u>Generalization concerning changes that affect word order variation:</u>

(10)   *'Syntactic freezing': Subjects high, objects low* (Westergaard 2010)
       The loss of IS-related word order variation typically leads to preservation of a high position for subjects and a low position for objects (>>> basic VO order).

- <u>Possible (IS-related) explanation (Westergaard 2010)</u>: The diachronic pathway in (10) reflects the fact that subjects and objects tend to represent different IS categories:
(i)   Subjects typically represent given information;
(ii)   There is tendency for objects to refer to new information (cf. e.g. Birner & Ward 1998).
- From this point of view, the relevant pathways of word order change can be analyzed as instances of 'syntactic freezing' of patterns that are more frequently attested in the PLD than other possible patterns: (i) a high structural position linked to given subjects and a low (VO) position linked to new/focused objects.[4]
- <u>Question</u>: How can we formalize 'syntactic freezing'?
- <u>Idea (loss of low subjects)</u>: Loss of a movement dependency connecting the higher with the lower position.
- <u>Functional bleaching and fossilization</u>: When the original semantic/pragmatic function of movement becomes opaque, learners posit semantically vacuous

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[4] Interestingly, Westergaard observes that errors made during L1 acquisition are often of a different type, e.g. namely placement of given information in a low position (in cases where given subjects occupy a high positon, e.g. to the left of negation, in the target grammar); she then suggests that these production 'errors' can be attributed to the workings of least effort principles during L1 acquisition (cf. e.g. Roberts & Roussou 2003). Moreover, note that this scenario does not seem to be suited to explain the development of generalized OV in German and Dutch (from IS-related OV/VO variation in earlier stages), which must then be attributed to different factors (cf. e.g. Hinterhölzl 2004, 2009).

EPP-features to mimic the relevant patterns detected in the input (instead of discarding the relevant data):

(11)   *No loss of movement* (Simpson 2004)[5]
        Movement operations are not lost from a structure if the original trigger disappears, but rather are converted into 'fossilized' movement triggered by EPP features.

- <u>In the case at hand</u>: fossilization of the high subject position via EPP
- In English, the loss of a 'high' position for discourse-given material is most likely linked to an additional (and independent) morphosyntactic change, namely the loss of inflectional morphology and the development of rigid SVO order (cf. e.g. Haeberli 1999, Kemenade 2009)
- <u>Other possible scenarios</u>:
    (i)   **Fossilization due to competition** between different strategies to mark one and the same pragmatic function (see section 6 below).
    (ii)   **Fossilization as a result of grammaticalization/lexicalization** (not to be discussed here in detail, but see the next section on the development of petrified/semi-lexicalized collocations)

4. Cannibalization

- Changes where the IS-related functions of a syntactic pattern are taken over by other patterns/strategies, often leading to the loss of the former pattern.

4.1 Postverbal topical subjects (PTS) in Serbo-Croat

- Matić (2004, 2010) discusses an ongoing change in Serbo-Croat that affects a particular inversion pattern:

(12)   IMAO   sam   ja ženu MISIRKU
        had   aux-cl I   wife Egyptian
        'I had an Egyptian wife'
        (Matić 2010: 119)

- <u>Specific properties that set this pattern apart from other inversion patterns (Matić 2010f.)</u>:
    (i)   Typical rise-fall intonation; the post-verbal subject may not receive stress, in contrast to other inversion structures, cf. (12) vs. (13):

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[5] Note that this approach provides a diachronic explanation for the rise and existence of EPP-driven movement in general. Simpson (2004) argues that certain movement operations that apparently have no clear motivation in a certain synchronic stage of the grammar arise historically via a reanalysis of formerly pragmatically/semantically motivated operations (Focus etc.) as EPP-driven movement.

(13) [Context: What happened yesterday?]
Pojavio   se   PETAR.
appeared REFL Peter
'PETER appeared.'

  (ii) The subject must be directly adjacent to the verb (+clitics), while in other inversion patterns, sentence adverbials may intervene between the two elements:

(14) Pojavio   se   verovatno   PETAR.
appeared REFL probably   Peter
'It was probably PETER that appeared.'

(15) ?*Pojavio   se   verovatno   naš Petar okopet.
appeared REFL probably   our Peter around five
intended reading: 'Our Peter probably appeared around five.'

  (iii) **Discourse functions**:
    a) <u>Topicality</u>: The referent represented by the subject is interpreted as the (continuous) aboutness topic of the sentence (in contrast to other inversion patterns where the subject is typically linked to focus): (i) pronouns signal topic continuity; (ii) full nominal subjects are used to refer back to another discourse referent mentioned earlier;
    b) <u>Change in speaker attitude/perspective</u>:

(16) [Previous discourse: Eve had a headache then she got a fever and a bad cough. She could only lie in bed.]
Nije   **ona** bila teško bolesna [ali je   stalno   kukala].
NEG-AUX she   was   hard   ill   but AUX constantly whined
'She wasn't seriously ill, but she was whining all the time.'
(Matić 2010: 122)

- <u>Topic continuity</u>: Speaker makes a set of assertions about Eve.
- <u>Change in perspective</u>: In the preceding discourse, the speaker reported what happened; in the PTS clause, he's making a comment on the situation previously described.
- <u>Observation</u>: **Competing strategies to encode topics in Serbo-Croat** (Matić 2010: 122f.):
  (i) Pro-drop (also linked to topic-continuity; cf. (17) and the bracketed clause in (16))
  (ii) Preverbal overt subjects (typically used to introduce a new aboutness topic, or to retrieve a topic mentioned earlier, cf. (18)):

(17)　　[I met Eve yesterday]
　　　　Bila　je　　bolesna.
　　　　was　 AUX　ill
　　　　'She wasn't well.'

(18)　　[Nobody wanted to go to the bar with me.]
　　　　Eva　je　　bila　bolesna.
　　　　Eve　AUX　was　ill
　　　　'Eve wasn't well.'

- However, while there is some overlap between the discourse functions of PTS and these constructions, the latter strategies cannot be used to express a change in speaker perspective:

	Topic continuity	Change in speaker perspective
Postverbal topical subjects	yes	yes
Pro-drop/zero topics	yes	yes/no
Preverbal topics	no	yes/no

Table 1: Interpretation of topic constructions in Serbo-Croat

4.1.1 Decline of PTS in the 20th century

- Based on a corpus of 19th and 20th century texts (each consisting of approx. 10.000 clauses), Matić (2010) traces a number of changes concerning the use, grammatical properties, and discourse functions of PTS (see Matić 2004, 2010 for full details):

(i)　**Drop in frequency** (from 5.8% (584 tokens) in the 19th c. to 0.8% (79 tokens) in the 20th c.)

(ii)　**Decline of full NP subjects** (from 68% (397 tokens) in the 19th c. to 35.4% (28 tokens) in the 20th c.)

(iii)　**Strong tendency verb-subject adjacency** (recall that sentence adverbials may not intervene between V and S), in contrast to 19th c. Serbo-Croat:

(19)　Dakle　**idem**　[od　　jutros]　**ja**　čaršijom.
　　　so　　　go　　　since　morning　I　　town-INSTR
　　　'So I've been going through the town since morning...'
　　　(Nušić, *Narodni*, 1883; Matić 2010: 131)

(20)　**Idem**　**ja**　[tako　svakog　dana]　Kondino　　　ulicom ...
　　　go　　I　　so　　　every　　day　　Konda-POSS　street-INSTR
　　　'Every day, I go along Konda's street ...'
　　　(*Vesti*, 2000; Matić 2010: 131)

(iv)   **Grammaticalization/Lexicalization**: Tendency for PTS to be confined to a closed class of verbs (copula, modals, verbs of cognition/emotion/existence: 89.9% (71 tokens) in the 20th century vs. 56.5% (330) tokens in the 19th c.). In particular, the bulk of all relevant cases (about two-thirds of all instances) is made up by a small set of semi-lexicalized, 'ready-made' collocations (verb+pronominal subject):

(21)   Modal verb/verb cognition/emotion + pronominal subject
   a.   *(ne) znam ja/znaš ti/zna on ...* [(not) know(s) + I/you/he...]
   b.   *(ne) umem ja/umeš ti/ume on ...* [(not) can + I/you/he...]
   c.   *neću ja/nećeš ti/neće on ...* [not-want + I/you/he...]
   d.   *(ne) mogu ja/možeš ti/može on ...* [(not) can + I/you/he...]
   e.   *(ne) volim ja/voliš ti/voli on ...* [(not) love(s) + I/you/he...]

(22)   Copula + pronominal subject
   a.   *bio je to/bila je to/bila su to ...* [was.MASC/FEM/PL AUX that ...]
        'It was him/her/them that...'
   b.   *nije to bio/nije to bila/nisu to bili ...* [NEG-AUX that was.MASC/FEM/PL AUX]
        'It wasn't him/her/them that...'
   c.   *bio sam ja/bio je on/bili su oni ...* [was AUX I/he/they...]
        'I was /he was/they were...'

(v)   **Loss of discourse functions**: In the 19th century corpus, PTS are regularly used as a means to mark textual cohesion (cf. adversative/concessive relations as in (23), or consecutive actions or reactive chains, cf. e.g. (24), examples taken from Matić 2010: 128f.). This does not seem to be any longer possible in present-day Serbo-Croat. Instead, textual cohesion is marked by other devices:
   (a)   a set of conjunctions/particles (e.g., *iako*, *mada* 'although', *ali* 'but')
   (b)   other topic constructions (see also (16) above).

(23)   Concession:
   ... [**može čovek** imati kožu meku kao rukavica i   mirisati
        can   man   have skin soft   as   glove   and smell
        na parfem] pa   opet   da ima   revolver u džepu
        on parfume and again to have   revolver in pocket
        '... a person may have a skin as soft as a glove and smell of parfume, but still he may have a revolver in his pocket.' (Nušić, *Sumnjivo*, 1886)

(24)　(Reactive/resultative) chain of events:
　　　[**Bio je　on** poša　pred　svjatago Nikolaja na　Stanjeviće] [...]
　　　AUX AUX he go　　before holy　N　　　to　S.
　　　[**šilja sam ja** za　　njega　momke　dva puta].
　　　send AUX　I　after　him　　boys　　　two　times
　　　'[This is how it all happened.] 'He had gone to Stanjevići before St. Nicholas'
　　　Day [...] and I sent my boys after him two times.' (Njegoš, *Pisma*, 1831)

- In sum, it seems that PTS ceases to be a productive pattern in present-day Serbo-Croat (as evidenced by the reduction of discourse functions and the fact that the vast majority of cases are petrified verb-subject collocations).

- <u>Two important further observations</u>:

  "In the 19th century, the conventions of creating a narrative chain seem to have favoured the explicit marking [of a change of perspective]; in the 20th century, the only living option is to leave it unmarked. Full NP PTSs in resultative and consecutive contexts are now replaced with preverbal topical subjects, i.e, with the SV order, while the place of VsX clauses with pronominal PTSs is taken by zero subject clauses." (Matić 2010: 135)

- PTS in Serbo-Croat – concluding summary:
  (i)　**Fossilization as grammaticalization/lexicalization**: PTS are mostly limited to a small set of 'semi-lexicalized' verb-subject collocations in the present-day language;
  (ii)　**Cannibalization**: Many discourse-related functions previously marked by PTS are now expressed by other structural means:
  　　a.　PTS with full DP subjects >>> preverbal topics;
  　　b.　PTS with pronominal subjects (expressing discourse/topic continuity) >>> pro-drop/zero topics
  　　c.　PTS expressing textual cohesion >>> adversative/concessive particles
  (iii)　**Some discourse-related functions formerly linked to PTS cease to be marked**: Loss of the IS/discourse-related category 'change of (speaker) perspective' in present-day Serbo-Croat.[6]

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[6]　Matić (2010) speculates that this change is due to general shifts in discourse organization that have been promoted by language contact with Western European languages and the fact that in the 20th century, the linguistic center of Serbo-Croatian moved from the Herzegovina area (where PTS still seem to be productive in the present-day language) to the north (i.e., Zagreb and Belgrade).

5. The rise of IS-related syntactic patterns

- <u>General considerations</u>: Two pathways leading to new IS-related form-function pairings:
  - (i) Syntactic patterns that can be optionally generated by the syntactic component can be put into service to express pragmatic functions (i.e., IS distinctions), cf. e.g. Biberauer & Roberts (2005), and Taylor & Pintzuk (2012, to appear) on OE. Subsequently, relevant pairings of syntax and IS may be subject to grammaticalization processes (>>> syntactic encoding of IS categories).
  - (ii) Reanalysis of syntactic patterns linked to other IS categories.

5.1 Clitic-doubling in Spanish (Gabriel & Rinke 2010)

- In contemporary peninsular Spanish, there are two superficially similar constructions, where an object (full DP or strong pronoun) is doubled by a co-referential clitic that attaches to the left of the finite verb:

(25) a. (Pedro le   dio   una manzana a JUAN).   **Clitic Doubling (CD)**
Peter CLIT gave an   apple   to John
'Peter gave him an apple.'
  b. (Pedro le   dio   una manZAna)   (a Juan). **Clitic Right Dislocation**
Peter CLIT gave an   apple   to John   **(CLRD)**

- **Differences between CD and CLRD**:
  - (i) <u>Prosody</u>:
    - a. In CLRD, the right-dislocated object is part of a separate prosodic phrase, while in CD, the object and the clitic+verb cluster are part of the same prosodic unit.
    - b. In CD, the object may receive nuclear stress.
  - (ii) <u>Syntax</u>: In CD, the object occupies the structural object position, while in CLRD, the object occupies a right-peripheral, vP-external position (either via movement (Villalba 2000, López 2009) or base-generation (Suñer 2006))
  - (iii) <u>Information structure</u>: In CLRD, the object must be interpreted as a dislocated topic; in CD, the object usually represents focus/new information.
- <u>Distribution of CD (peninsular Spanish)</u>:
  - (i) Strong pronouns: obligatory (both direct and indirect objects)
  - (ii) Proper names: marginally possible (direct objects), optional (indirect objects)
  - (iii) Full DPs: ungrammatical (direct objects), optional (indirect objects).

- <u>Apparent paradox (Gabriel & Rinke 2010: 69)</u>: "elements which preferably or even obligatorily undergo clause-internal clitic doubling are exactly the ones that are more likely to perform the role of the topic in a given discourse."
- <u>Gabriel & Rinke</u>: This fact reflects the historical origin of CD, which – according to their analysis – developed via a reanalysis of CLRD.

- <u>Historical development of CD</u>:
- Early examples of doubling in medieval Spanish (12th/13th c.): instances of CLRD (cf. Fontana 1993)
    - (i) The dislocated element is always a topic;
    - (ii) The dislocated element regularly occurs to the right of the caesura, which indicates an intonation break:

(26) Esto   les   demando | a infantes de Carrion
       this   them demanded-3SG   to princes   of Carrion
       'He bade the princes of Carrion to do this.'
       (*Poema del mio Cid*; Gabriel & Rinke 2010: 71)

- From the 15th c. on, the frequency of doubling increases, affecting first (strong) pronominal objects and experiencer arguments.
- From the 16th c. on, doubling of pronominal objects becomes the rule.
- 16th-18th c.: Doubling is extended to full indirect objects and non-topical material:

(27) aquella carta que está sobre la   mesa, dásela
       that   letter that is   on   the table give-CL.DAT-CL.ACC
       [**al   mozo de la posada**].
       to-the boy   of the hostel
       'That letter that is on the table, give it to the boy of the hostel.'

Century	pronominal objects			indirect full DP objects			experiencer arguments		
	All	+CD	−CD	All	+CD	−CD	All	+CD	−CD
15th	42	7	35	105	1	104	10	3	7
	100%	17%	83%	100%	1%	99%	100%	30%	70%
16th	14	11	3	40	4	36	7	6	1
	100%	79%	21%	100%	10%	90%	100%	86%	14%
17th	38	27	11	62	13	49	14	6	8
	100%	71%	29%	100%	21%	79%	100%	43%	57%
18th	80	71	9	62	11	51	1	1	0
	100%	89%	11%	100%	18%	82%	100%	100%	0%

Table 2: Development of object doubling in the history of Spanish (13 texts from the 15th - 18th centuries), Gabriel & Rinke (2010: 75)

- Gabriel & Rinke: Reanalysis of CLRD as CD (**right-dislocated topic >>> vP-internal object that is part of the focus domain**):

(28) (... clit. verb) (DP_topic) >>> (... clit. verb DP)

- **Factors that promoted this change (Gabriel & Rinke 2010: 80)**:[7]
  (i) <u>Derivational economy</u>: CLRD is more complex than CD
  (ii) <u>Prosody</u>: Prosodic identification of CLRD relies exclusively on the perception of the prosodic boundary between the core sentence and the dislocated topic; if learners fail to detect that boundary, the former topic can be construed as part of the focus domain
  (iii) <u>Information structure/markedness</u>: Right-dislocated topics represent a marked structure, since the right periphery is usually reserved for focused material (in Spanish and cross-linguistically).

- According to Gabriel & Rinke, the restricted distribution of CD in present-day Spanish reflects the fact that this reanalysis first and foremost affected (highly) topical elements, which occurred particularly frequently in CLRD.
- <u>Upshot</u>: New IS-related form-function pairings may arise as the result of reanalyses of syntactic patterns previously linked to other IS categories.
- <u>No cannibalization</u>: even closely similar syntactic patterns such as CD and CLRD can co-exist as long as their pragmatic function are sufficiently different (cf. e.g. Hinterhölzl 2009).

6. Case study: Fossilization and the rise of generalized V2 in German
- <u>This section</u>:
  (i) <u>Fossilization of XP-fronting</u>: competition between different strategies to mark topics/given information
  (ii) Syntactic consequences of this change (loss of V1 and XP-XP-V orders)

6.1 Early German(ic): Deviations from strict V2
- <u>(Multiple) XP-fronting in early Germanic (cf. e.g. Kiparsky 1995, Fuß 2003, Axel 2007: 198ff.)</u>:
  (i) Operator movement (focus/wh-movement)
  (ii) Fronting of (referential) topics to a positon further to the left:

(29) *Topic-wh- ...*
     jah [arms fraujins] [ƕamma] andhuliþs warþ?
     and arm Lord-GEN whom revealed became
     'And to whom has the arm of Lord been revealed?'
     (Gothic Bible, Joh. 12:38)

---

[7] However, note that this analysis also raises a number of questions. For example, one might wonder why the topical character of pronouns, indirect objects, and experiencers did not block the reanalysis in (28). In particular, it is kind of unexpected that pronouns lead the charge, since they do not seem to be good candidates for right dislocation in the first place (note that pronouns cannot be used for 'post-hoc' identification of referents mentioned earlier, which is one of the most prominent functions of right-dislocation).

- Some residues of this system can still be observed in early OHG...
- Similar to Gothic, topics may occur to the left of fronted *wh*-phrases:

(30) [Uuexsal   dhes nemin] huuazs **bauhnida**?
      changing-NOM of-the name   what   meant
Lt.   *Mutatio nominis quid significabat?*
     'The changing of the name, what did it mean?'
     (*Isidor*, 532; Axel 2007: 209)

- In addition to a fronted XP and the finite verb, the left periphery may host clausal particles such as the interrogative marker *inu/eno*:

(31) Inu ni [angil]   **nist**   anaebanchiliih gote?
     INU   NEG angel-NOM NEG-is identical   God-DAT
     Lt. *Num angelus ęqualem cum deo habet imaginem?*
     'Is an angel not identical to God?' (*Isidor* 184; Axel 2007: 206)

- Mutiple fronting of non-operators (most frequent in the *Isidor*, cf. Robinson 1997, Axel 2007):[8]

(32) a. [Dhea uuehhun] [auur]   [in heilegim quhidim] **arfullant** sibun iaar.
         the   weeks   however in sacred   language fulfil   seven   years
      Lt. *Ebdomada namque in sacris eloquiis septem annis terminatur.*
        'The weeks, however, take seven years in sacred language.'   (*Isidor*, 457)

---

[8]   There is a small number of examples exhibiting V3 with pronouns (mostly confined to the *Isidor*-translation; very rare in other/later OHG records, see Fourquet 1938, Lippert 1974, Eythórsson 1995, Tomaselli 1995, Robinson 1997, and Axel 2007):

(i) a. [Erino   portun] *ih* **firchnissu**, iisnine grindila firbrihu
       bronze portals I   destroy-1SG iron   locks   break-1SG
       endi [dhiu chiborgonun hort]   *dhir* **ghibu**
       and   the   hidden   treasure   you   give-1SG
    Lt. *Portas aereas conteram et uectes ferreos confringam et dabo tibi thesauros absconditos*
      'I destroy bronze portals, break iron locks and give you the hidden
      treasures.' (Isidor, 157; Robinson 1997: 17)
    b. [Dhes martyrunga endi dodh] *uuir* **findemes**   mit   urchundin
       of-his martyrdom   and   death we   prove   with   testimony
       dhes   heilegin   chiscribes
       of-the   holy   scripture
    Lt. *Cuius passionem et mortem in suo loco scripturarum testmoniis*
      adprobabimus (Isidor, 516; Robinson 1997: 17)
   Note that in the majority of relevant V3 orders, the finite verb appears in absolute clause-final position (17 examples, according to Eythórsson 1995: 327), as in (ia). Possible conclusions: (a) The order XP-pron.-V_fin represents matrix SOV order, a residue of an earlier (Pan-Germanic) grammatical system (Lenerz 1984); (b) the pattern XP-pron.-V_fin was triggered for (archaic) metrical reasons (Behaghel 1932, Eythórsson 1995) "to avoid an unstressed element in absolute clause-final position." (Eythórsson 1995: 327f.); (c) orders such as (ib) can be attributed to extraposition.

b. [So] [auh in andreru stedi] [dhurah dhen selbun heilegun forasagun]
   so   also in other   places through the   same   holy   prophet
   uuard dhera   dhrinissa   bauhnunc sus   araughit: [...]
   became the-GEN Trinitiy-GEN meaning   in this way demonstrated

Lt. *Item alibi per eundem prophetam trinitatis sic demonstratur significantia:* [...]
   'In this way, also elsewhere the meaning of the Trinity was demonstrated by
   the same holy prophet: [...]'
   (*Isidor*, 328; Robinson 1997: 27)

- Generalizations on possible orderings/left periphery of **early** OHG (cf. e.g. Axel
  2007: 210):[9],[10]

> (33) a. *inu/eno* > topic > *wh* > V$_{fin}$ ... (interrogatives)
>   b.   topic > XP > V$_{fin}$ ... (declaratives)

- <u>Further deviation from canonical V2</u>: V1-declaratives (robustly attested in early
  OHG):

(34) **uuarun** thô   *hirta*   In thero lantskeffi uuahante [...]
     were   then/there shepherds in that   country   abiding

Lt. *Et pastores erant In regione eadem. uigilantes* [...]
     'And there were shepherds in that country abiding [...]'
     (*Tatian*, 85,29; Axel 2007: 113)

- <u>Discourse functions of V1 vs. V2 order (Hinterhölzl et al. 2005, Hinterhölzl &
  Petrova 2009)</u>:
  (i)   V1: Thetic/all-focus sentences (e.g., answers to questions like "What
        happened today?")
  (ii) V2: Signals topic continuity; initial constituent refers to an aboutness topic
        (previously mentioned in the discourse)
  (iii) Position of the finite verb separates topic and focus domains.

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[9] See Axel (2007) for a cartographic analysis of these facts based on Rizzi (1997); see Fuß (2008) for an
     alternative proposal assuming only a single C-head that may project multiple specifiers.

[10] Furthermore, adverbial clauses always occur at the outermost left edge of the clause (in both main
     and embedded contexts), giving rise to another deviation from V2:
     (i) /[thanne ih iuuuih santa/ uzzan   seckil] /[...]/ <u>eno</u> **uuas** iu iouuiht thes   uuan
            when I you   sent without bag   PRT was   you anything of-that need
       Lt. /*quando misi uos / sine saccolo* /[...]/ *numquid aliquid defuit uobis*
            'When I sent you without a bag [...], did you lack anything?' (*Tatian*, 575,1; Axel 2007: 210)
     Possible analyses include (i) adjunction to ForceP (Axel 2007); (ii) countercyclic late Merge, which
     applies (optionally) to a given syntactic object at the point of Spell-Out/Transfer (Fuß 2008, following
     Nissenbaum 2000, Chomsky 2004).

- Development of generalized V2 in the course of the OHG period (cf. e.g. Behaghel 1932, Näf 1979, Lenerz 1984, Axel 2007, Fuß 2008, Hinterhölzl & Petrova 2009):
  (i) loss of V1 in matrix declaratives
  (ii) loss of XP-XP-V$_{\text{fin}}$

6.2 Fossilization of XP-fronting in (pre-) OHG

- IS-driven multiple fronting of XPs began to erode in pre-OHG times as evidenced by examples where non-topics (indefinites/adjuncts) are fronted:

(35) a. [Neoman] **niuuirdit**   fona gote festi [...]
        nobody   NEG-becomes by   God   strengthened
     Lt. *Nemo erit a deo nisi firmus* [...]
        'Nobody will become strengthened by God [...]'
        (*Monsee Fragments*, XL,19; *St. Augustini sermo*; Axel 2007: 120)
   b. [Neo] **nist**   zi chilaubanne dhazs fona dhemu salomone
        never NEG-is to believe   that of   the   Salomon
        sii dhiz chiforabodot
        is this prophesied
     Lt. *Numquid de illo salomone creditur prophetatum? minime*
        'It can never be believed that this was prophesied by Salomon.'
        (*Isidor*, 638; Axel 2007: 120)
   c. endi [chiuuisso] **ist** *christus* in dheru selbun salbidhu chimeinit
        and certainly is Christ in that same   salve   meant
     Lt. *et utique christus ipsa unctione monstratur*
        'And certainly is Christ meant in that same salve.' (*Isidor*, 144; Axel 2007: 120)

- Fossilization of formerly IS-driven XP-fronting: When the original semantic/pragmatic function of XP-fronting became opaque, XP-fronting was grammaticalized as a purely syntactic operation (triggered by a semantically/pragmatically neutral (initially merely optional) EPP feature in C^0, Axel 2007, Fuß 2008, Hinterhölzl & Petrova 2009), with the associated loss of discourse effects (cf. (35)).
- In present-day German, the prefinite position (the so-called *Vorfeld* 'prefield') is discourse-semantically neutral – fronted XPs can assume a variety of different IS functions (cf. e.g. Grewendorf 2002, Bayer 2006).
- Open question: What factors blurred the IS trigger of XP-fronting in (pre-) OHG?
- Proposal: Fossilization of XP-fronting is linked to the existence of an alternative syntactic strategy to mark IS distinctions (given vs. new information), namely **clause-internal word order variation in the IP/TP domain** (see above):

(36)   Comp ... discourse-linked/given information ... V$_{\text{fin}}$ focus/new information

(37) nisanta   got sínan sun / In **uueralt** [thaz her **uueralt**   tuome]
      NEG-sent God his   son   to world   that He world   judged
      'God didn't send His son into the world that the world be condemned
      through Him'
 Lat. *non enim missit deus filium suum / In mundum ut l[sic]udic& **mundum***
      (Tatian 197, 30; Petrova & Hinterhölzl 2010)

(38) [Inti bráhtun imo / alle ubil habante ='and they brought to Him all evil people']
      Inti thie   thár hab&un **diuual**
      and   those PRT had   devil
      'and those who were possessed by devils'
 Lat. *& qui **demonia** habebant*
      (Tatian 59, 1; Petrova & Hinterhölzl 2010)

- Hypothesis: Due to the possibility of marking IS distinctions in the IP/TP domain
  (in particular, via leftward movement of XPs representing given
  information/topics), the status of main clauses with fronted topics became
  ambiguous. More precisely, they could be analyzed as resulting from

  (i)   XP-fronting triggered by IS properties (givenness/topicality) linked to C^0, or

  (ii) XP-fronting triggered by a semantically/pragmatically neutral EPP feature,
        preserving IS distinctions established at an earlier stage of the derivation (i.e.,
        by IP/TP-internal movement, cf. e.g. Frey 2004, 2006, Grewendorf 2005 on
        present-day German).

- Analysis (ii) is arguably the more parsimonious option, since it does not require
  double marking of one and the same IS-related category in different clausal
  domains (all clauses can be parsed by assuming that IS categories are marked
  within IP/TP only, while (i) requires that IS is sometimes marked within CP, and
  sometimes within IP).

- Why didn't English develop generalized V2?

  (i)   In contrast to German, English failed to develop generalized V-to-C
        movement (cf. Axel 2007, Fuß 2008);

  (ii) Restrictions on scrambling in OE (no scrambling of DP objects, cf. e.g.
        Kemenade 2009);

  (iii) Loss of scrambling (e.g., leftward movement of object pronouns) and
        development of a single structural subject position in Early ME (see above).

6.3 Syntactic consequences I: Loss of V1 declaratives
- The fact that V1-declaratives co-existed with cases of fronted non-topics suggests
  that the EPP-feature in C was initially only optionally present (see above).

- When the optional EPP feature became obligatory, SpecCP had to be filled by
  overt material (similar to the grammaticalization of the high subject position in
  English, see above) $\Rightarrow$ **loss of V1 declaratives**

- <u>Unclear</u>: Factors that promoted the change from optional to obligatory EPP in C
- <u>Proposal</u>: The development of an obligatory EPP feature in C is linked to a change in which the frequent clause-initial discourse-linker *thô* 'then' (>>> *da* in present-day German) was reanalyzed as a CP-expletive (in MHG/EModG replaced by *es* 'it', cf. Brugmann 1917, Lenerz 1985, Abraham 1993).
- *thô* 'then' in early OHG: Highly frequent clause-linker/discourse-continuative marker, often introducing V2-clauses:

(39) <u>Thô</u> **gihortun** inan thie iungiron sprechantan inti folgetun themo heilante. <u>Thô</u> **hiuuanta** sih ther heilant inti gisah sie imo folgente, quad in: uuaz suochet ir? Sie quadun imo: rabbi (thaz ist arrekit meistar) uuâr artos? <u>Thô</u> **quad** her in: quemet inti gisehet. (*Tatian* [16.2])

Lt.   John 1.37. *Et audierunt eum discipuli loquentem et secuti sunt Ihesum. 38. Conversus autem Ihesus et videns eos sequentes se, dicit eis: quid quęritis? Qui dixerunt ei: rabbi (quuod dicitur interpretatum magister) ubi habitas? 39. Dicit eis: venite et videte.*

'The two disciples heard him speak, and they followed Jesus. Then Jesus turned, and seeing them following, said to them, "What do you seek?" They said to Him, "Rabbi" (which is to say, when translated, Teacher), "where are You staying?" He said to them, "Come and see."'

- *tho* **was semantically underspecified**:
(i)   *tho* could be used to translate a variety of different elements (conjunctions such as Lat. *et*, discourse particles like Lat. *autem*; cf. Betten 1987);
(ii) *tho* could be doubled by other temporal adverbs (Axel 2007: 156):

(40)   inti <u>uuas</u> **tho** giheilit ira tohther [fon dero ziti]
    Lt. [...] *& sanata est filia illius ex illa hora.*
     'And her daughter was healed from that hour.'
     (Tatian, 273,31)

- <u>Observation</u>: In the course of the OHG period, *thô* 'then' gains a wider distribution in thetic/all-focus clauses.

- Two competing structures for thetic/all-focus sentences in early OHG:[11]
  - (i) V1 (+*tho* 'then')
  - (ii) *tho*+V2

(41) a. <u>uuarun</u> **thô** hirta In thero lantskeffi uuahante [...]

Lt. *Et pastores erant In regione eadem. uigilantes* [...]

'And there were shepherds in that country abiding [...]'

(Tatian, 35,29)

  b. **tho** <u>uuas</u> man In hierusalem [...]

Lt. *homo erat in hierusalem*

'There was a man in Jerusalem [...]'

(Tatian 37,23)

- **Analysis: Non-obligatory XP-fronting in early OHG**
- (i) Adverbial element *tho* 'then' base-generated at the left edge of the IP/TP-domain (the so-called *Mittelfeld*);
- (ii) **V1**: finite verb moves to C; if present, *tho* remains in the IP/TP domain, cf. (41a);
- (iii) **V2**: *tho* may undergo optional (EPP-driven) fronting to clause-initial position (semantically/pragmatically neutral operation, variants are functionally equivalent):

(42) a. [$_{CP}$ $\varnothing$ [$_{C'}$ V$_{fin}$] [$_{TP}$ *tho* ...]]

  b. [$_{CP}$ *tho* [$_{C'}$ V$_{fin}$] [$_{TP}$ __ ...]]

---

[11] Note that the competition between V1 and *tho*+V2 is not confined to thetic/all-focus sentences. Both patterns are used more generally to mark (new) foregrounded actions/events/situations along the main story line of a narrative (Lawson 1980, Betten 1987, Hinterhölzl & Petrova 2005, 2009, Petrova & Solf 2008), e.g. turn-taking (with verba dicendi):

(i) **thô** <u>quadun</u> sie Imo. uuer bist thú thanne? thaz uuir then giantuuvrten then
thie unsih santun. uuaz quidis thu fon thir selbemo? <u>quad</u> her **thô**: [...]

Lt. *Dixerunt ergo ei: quis es? ut responsum demus his qui miserunt nos; quid dicis de te ipso? Ait:* [...]

'Then they said to him, "Who are you, that we may give an answer to those who sent us? What do you say about yourself? He said: ...'

(Tatian, 47,15; John, 1,22-23)

The cognate words Gothic *þanuh*, Old English *þa* and Old Saxon *tho* fulfill similar discourse functions (cf. Petrova & Solf 2008, Hinterhölzl & Petrova 2009, Fuß 2008, Trips & Fuß 2009).

- Corpus study: loss of matrix V1 in thetic/all-focus sentences in three OHG texts (from 830-1025)[12]

	All	V1	*tho* + V2
Tatian, 830	141	70	71
	100%	49.6%	50.4%
Otfrid von Weißenburg (gospel harmony, around 870)	45	14	31
	100%	31.1%	68.9%
Notker (translation of Boethius' *De Consolatione Philosophiae*, around 1025)	47	0	47
	100%	0%	100%

Table 3: Loss of V1 in thetic/all-focus sentences in OHG

- **OHG/*Tatian*** (around 830): free variation between V1 and tho+V2 in thetic/all-focus sentences, cf. (41) above.

- **OHG/Otfrid of Weißenburg** (around 870, gospel harmony): clear preference for V2 in thetic/all-focus sentences

- **OHG/Notker** (around 1025, translation of Boethius' *De Consolatione Philosophiae*): V2 (+expletive *thô*) has won out over V1.

- Comments:
  - (i) **Competition**: In contrast to other cases of variation (cf. e.g. Petrova & Hinterhölzl 2010 on the variation between OV and VO in OHG), two structures compete for the realization of a single IS category (or, an identical range of IS categories);
  - (ii) **Cannibalization**: In the course of time, one pattern wins out over the other, assuming all functions formerly expressed by its competitor.

- The complete loss of declarative V1-patterns is a side-effect of an independent change, namely the rise of an obligatory EPP feature in C...[13]

- At some point, the increase in the use of *thô* facilitated a reanalysis as an expletive occupying SpecCP satisfying C's EPP-feature (possibly driven by least effort strategies that favor the least costly derivation in case the input is ambiguous, cf. Roberts & Roussou 2003):

(30) a. [CP ... *thô* [C′ Vfin + C[+EPP] [TP t*thô* T [vP ...]]]] ⇒
     b. [CP *thô* [C′ Vfin + C[+EPP] [TP ... T [vP ...]]]]

---

[12] The relevant portions of Tatian and Otfrid are part of the Kali-Corpus (each between 10.000 and 12.000 tokens, http://www.kali.uni-hannover.de), while the numbers given for Notker refer to the edition of Tax (1986).

[13] But note that V1 continues to be available in other contexts like yes/no questions, imperatives, conditionals, jokes etc.

- The expletive use of clause-initial *da* 'then, there' can still be observed in present-day German dialects, which make only sparse use of the Vorfeld-*es*:

(43) **Do/*Es** is gsunga und gtanzt worn.   (impersonal passives)
 EXPL is sung and danced been
 'There was singing and dancing.'

(44) **Då**   seind ane   Beratungsstelln.   (existential constructions)
 There are   INDEF counseling centers (Mayerthaler & Mayerthaler 1990: 406)

- Question: What's the connection between this change and the rise of obligatory EPP in C?
- Expletives signal the presence of obligatory EPP-features: Expletives mark obligatory positions which are discourse-semantically neutral and have syntactic functions only:
 (i) SpecTP: English, Scandinavian, and Dutch (?);
 (ii) SpecCP in all Germanic V2 languages.

- In sum: The rise of an obligatory EPP in C was linked to the reanalysis of *tho* as a C-related expletive ⇒ **loss of V1 declaratives**.

6.4 Syntactic consequences II: Loss of multiple XP-fronting

- Proposal: The loss of multiple XP-fronting is also linked to the development of an obligatory EPP feature in C (accompanied by the emergence of CP-expletives).
- Observation: Positions linked to expletives are unique, in the sense that they cannot be realized more than once (no scrambling to pre-subject position in English, no V3 orders in German, Danish etc.).

Hypothesis: In relativized-minimality terms, an EPP feature can trigger movement of anything, and therefore an element attracted by EPP acts as an intervener for everything, and therefore exactly one category can move to that position. Such a specifier creates a "bottleneck", preventing movement of other categories over it (cf. e.g. Roberts 2004, Fanselow 2004, Frey 2006, Fuß, Roberts & Trips 2009). [14]

(45)   [$_{CP}$ [$_{CP}$ XP/expl C$_{[EPP]}$ …. YP ...]]

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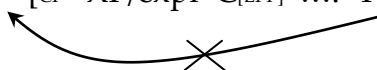
[14] Note that the generalized Relativized Minimality effect triggered by the presence of an EPP-feature must be relativized to the respective domain of the clause. Thus, the presence of an EPP-feature in T blocks multiple XP-fronting across T to higher positions in the inflectional domain, but crucially it does not prevent movement into the clausal left-periphery (i.e., the C-domain). This is possibly related to the traditional distinction between different types of XP-movement (i.e., A- vs. A'-movement; see Müller 1996, 1998, Grewendorf 2007 for detailed discussion and finer-grained hierarchies of different types of movement).

7. Concluding summary

- IS-related syntactic change:
  - (i) Loss of patterns/IS-related functions due to independent changes;
  - (ii) Fossilization of movement operations formerly triggered by IS-related features (again either due to independent changes or competition between different strategies to express IS functions)
  - (iii) Cannibalization
  - (iv) Rise of new form-function pairings due to the reanalysis of patterns linked to other semantic/pragmatic functions.

- Rise of generalized V2 in German:
  - (i) **Fossilization**: Competition between CP- and IP/TP-related marking of topics led to the development of an optional EPP-feature in C;
  - (ii) **Loss of V1**: Reanalysis of *tho* as a C-related expletive was accompanied by the rise of an obligatory EPP-feature in C.
  - (iii) **Loss of multiple XP-fronting**: Rise of expletives linked to obligatory EPP in C created a "bottleneck" blocking multiple XP-fronting (but see the appendix for an alternative analysis)

- Question for future research: What can the study of language change tell us about the interaction between syntax and IS? In particular:
  - i. Are IS-related distinctions syntactically encoded? (or is IS parasitic on syntactic optionality, as suggested by the loss of OV/VO in English)?
  - ii. If the answer to (i) is positive: Should IS-related dislocation be analyzed (a) in terms of movement into specifiers of functional heads that head IS-related projections (**multiple projections**), or (b) in terms of IS-related features that are parasitic on core functional heads (e.g., C) and may trigger movement if endowed with diacritic features (**multiple specifiers**) (see the appendix for some discussion)

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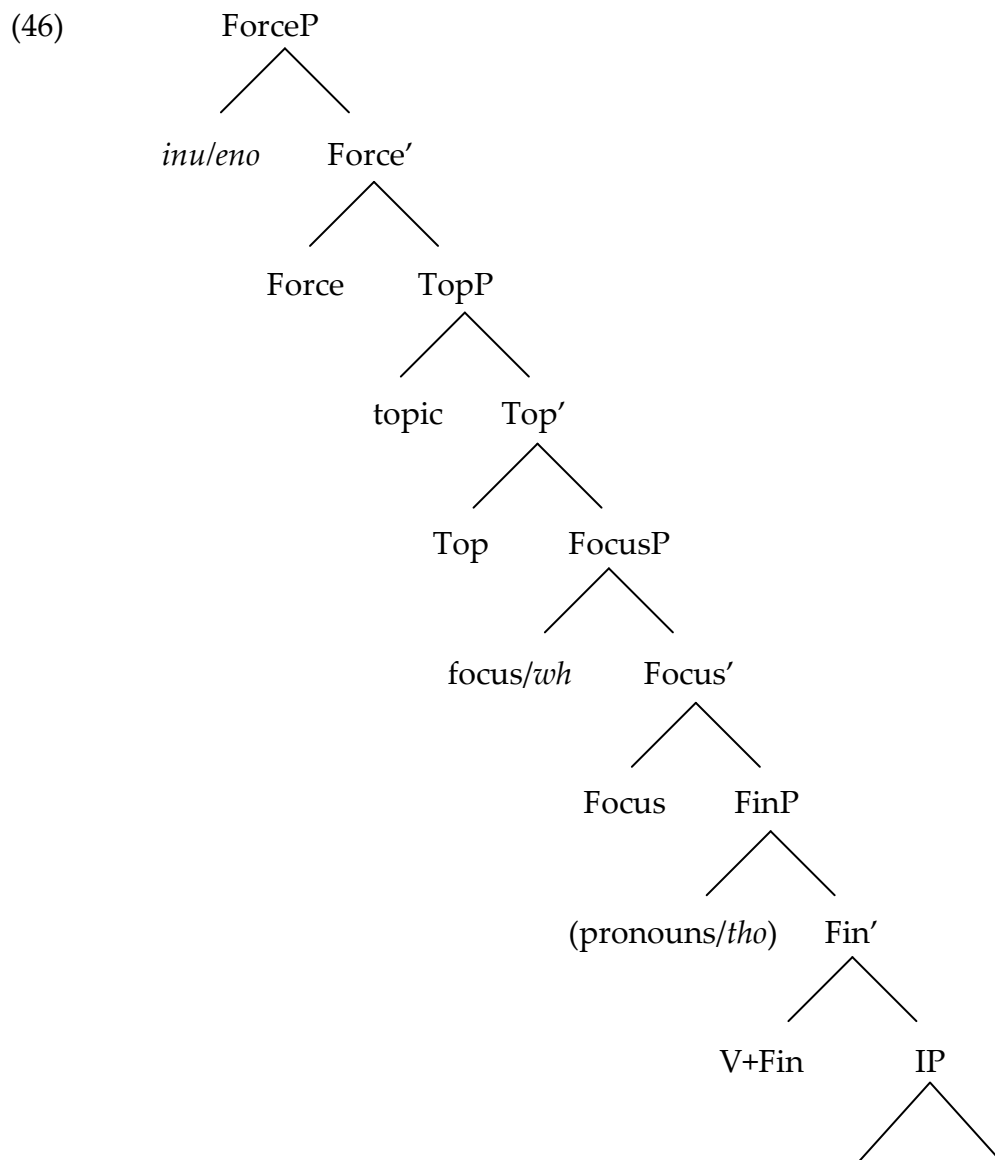
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Appendix: Multiple projections vs. multiple specifiers and the loss of V2 in German

- Axel (2007): fronted XP and finite verb do not (necessarily) enter into a spec-head relation in early OHG; verb movement targets a low head in the C-domain (Fin), while XPs can be fronted to a number of specifiers in a split CP: [15]

(46)

```
                ForceP
               /      \
          inu/eno    Force'
                    /      \
                Force      TopP
                          /    \
                      topic    Top'
                              /    \
                           Top    FocusP
                                 /      \
                          focus/wh     Focus'
                                      /      \
                                  Focus      FinP
                                            /    \
                              (pronouns/tho)    Fin'
                                               /    \
                                           V+Fin    IP
                                                   /\
                                                  /  \
                                                 /____\
```

- <u>Movement to spec positions triggered by</u>:
  - (i) semantic/pragmatic factors such as topic, focus, *wh*
  - (ii) a semantically vacuous EPP-feature (fronting of indefinites/*tho*)

---

[15] Axel (2007: 234) notes that "In the OHG sources there is no evidence that topics and *wh*-phrases occupied different positions." However, this claim is at odds with the word order generalizations she proposes on page 210 (my (33)), where (dislocated) topics appear to the right of *inu/eno* and to the left of *wh*-phrases. In particular, in contrast to what seems to be implied by Axel on page 234, dislocated topics cannot be analyzed in terms of adjunction to the root node, since they should otherwise appear to the left of the interrogative particle. Accordingly, I opted for the structure in (46) with different positions for topics and foci, even if that slightly misrepresents Axel's original proposals.

- Indefinites/adjuncts occupy SpecFinP, which may also host pronouns (the latter being an archaic trait).
- Loss of V3: At some point, the formerly split CP collapsed, giving rise to a structure with only two positions in the CP:

(47)   [$_{FinP}$ XP$_i$ [$_{Fin'}$ V$_j$+Fin [... t$_i$ ... t$_j$]]]

- Open questions:
  (i) No clear evidence for more than a single head position in the C-domain: (a) complementizers uniformly occupy a (single) head position directly above IP/TP, (b) left-peripheral particles are rather specs than heads (see Axel 2007);
  (ii) Historical development of a rigid V2 syntax in a split-CP model: triggers for conflation of the formerly split CP remain unclear.[16]
- Alternative approach - multiple specifiers: The C-domain of OHG is made up by only a single functional head (C), which may project multiple specifiers hosting fronted XPs, or particles directly merged in the left clausal periphery.
- Loss of V3 orders/multiple XP fronting: Loss of the possibility of multiple specifiers in the C-domain/Vorfeld ⇒ rigid V2.
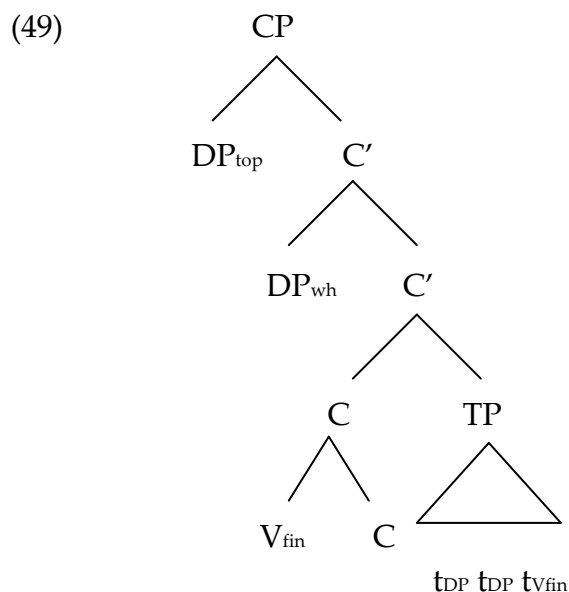
Theoretical assumptions...
- Features in C are hierarchically ordered (cf. e.g. Grewendorf & Sabel 1999, Lahne 2007), ensuring that they must be checked off in a certain order (higher specifiers correspond to features lower in the hierarchy).[17]
- Notational convention: Features assigned a diacritic *_* require overt movement/PF realization (cf. Roberts and Roussou 2003, Sternefeld 2007).
- C hosts the features [*fin/_V*] (which requires attraction of a finite element of the category V, cf. Lahne 2007), [*wh*], and [*top*], ranked according to the following hierarchy:

---

[16] Alternatively, one might assumes that the Modern Germanic V2 languages still have a split CP, but developed a restriction ruling out multiple XP fronting. However, most of the relevant proposals involve hard-wired locality restrictions in the spirit of Relativized Minimality or the Minimal Link Condition (see Grewendorf 2002, Fanselow 2002, 2004, Frey 2004, 2006), which are probably not subject to change.

[17] The relevant feature hierarchy for a given functional head is presumably determined by (semantic) conditions holding at the interfaces, in the sense that a 'wrong' hierarchy of specifiers hosting the relevant elements could not be interpreted at the interface to C-I. Furthermore, note that the ranking of semantic/pragmatic features in functional heads represents the reverse of what presumably holds at the interface to C-I, with 'lower' functional features giving rise to higher specifiers (see also Müller 2007). In addition, morphosyntactic features seem to have primacy over 'peripheral' semantic/pragmatic features (i.e., must be satisfied first). This might have to do with the fact that unvalued/unchecked morphosyntactic features lead to a crashing derivation, while unvalued/unchecked semantic/pragmatic features probably merely give rise to deviant interpretations.

(48) [*fin/_V*] > [*wh*] > [*top*]

- Accordingly, C must first attract the finite verb. Subsequently, a *wh*-specifier and a topic specifier are added by recursive applications of Merge:

(49)

```
                CP
              /    \
          DP_top    C′
                  /    \
              DP_wh     C′
                      /    \
                    C       TP
                  /   \    /  \
               V_fin   C  /____\
                         t_DP t_DP t_Vfin
```

- <u>XP-fronting in early OHG</u>: triggered by
    (i)   'strong' (i.e., starred) semantic/pragmatic features, or
    (ii)   a semantically vacuous EPP-feature optionally added to C (fronting of indefinites/*tho*).
    (iii) Of course, a fronted element can check both semantic/pragmatic features and the EPP.
- <u>Question</u>: How do EPP-features and starred features interact in cases of multiple XP-fronting, i.e., what's the position of the EPP in the feature hierarchy?
- <u>Conceptual consideration</u>: Checking/valuation of purely formal morphosyntactic features is imperative, since if unvalued, these constitute genuine uninterpretable features that cause a derivation to crash at both interfaces (see also fn. 17):

(50) [*fin/_V*] > [EPP] > [*wh*] > [*top*]

- <u>Observation</u>: Fronted elements for which it is likely that they are attracted by C's EPP-feature (indefinites/adjuncts, discourse-continuative marker *thô* 'then') occur directly to the left of the finite verb (i.e., in the lowest spec of CP):

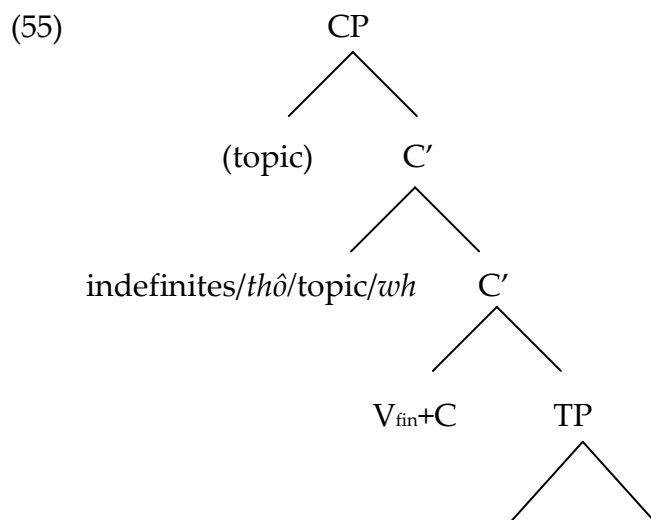(51) ... > (disloc.) topic > indef./adjunct/*thô* > V_fin ...

- <u>Indefinites/adjuncts</u>:

(52) a. [fon   themo tage inti ziti] *nioman* **ni=uueiz**...
          from that   day and time nobody NEG=know
      Lt. *De die autem illo et hore nemo scit*...
          (*Tatian*, Gospel Harmony, 146,6; TITUS)
      b. [Merun therra minna] *nioman* **habet** thanne thaz
          greater this   love   nobody   has   than   that
          uuer sin ferah seze   furi sina friunta.
          who his live lay-down for his   friends
          'No one has greater love than this, than that he lay down his life for his
          friends.'
      Lt. *Maiorem hanc dilectionem nemo habet quam ut animam suam quis ponat pro*
          amicis suis.
          (*Tatian*, Gospel Harmony, 168,2; TITUS)

(53) So dhar after auh *chiuuisso* **quhidit** dher selbo forasago: ...
      so thereafter also certainly said   the   same prophet
    Lt. *Sic enim subiecit idem propheta:* ...
        (*Isidor*, 5,9; TITUS)

- In cases of mutliple fronting *thô* occurs directly left-adjacent to the finite verb:

(54) /[...] [siu] <u>tho</u>   **giuuanta** sih/
              she then turned   herself
      Lt. /[...] *conuersa illa*/
      'She then turned around.'
      (*Tatian*, 665,19; Axel 2007: 224)

- In cases where only a single element is fronted (indefinite/*thô*/topic/*wh*), only the
  lowest SpecCP is projected:

(55)
```
                    CP
                   /  \
              (topic)   C'
                       /  \
  indefinites/thô/topic/wh   C'
                            /  \
                        Vfin+C   TP
                                 /\
                                /__\
```

Multiple projections vs. multiple specifiers

- Major differences:
  (i) absence/presence of multiple head positions in the left periphery;
  (ii) nature of the specifier closest to the position of the finite verb:
      (a) SpecFinP in a multiple projections analysis (reserved for pronouns and non-topic/non-focus elements attracted by C's EPP feature, cf. Axel 2007);
      (b) multi-purpose position in a structure like (55); content is determined by various factors including:
          (i) the hierarchical ordering of features in C
          (ii) the actual feature content of C in each individual sentence;
          (iii) the interaction between C's EPP feature and other substantial semantic/pragmatic features

- The multi-purpose character of this position carries over to present-day German (cf. e.g. Fanselow 2004, 2006, Bayer 2006), the only difference being that in present-day German, C has apparently lost its ability to project more than a single specifier.

- Loss of multiple XP-fronting: rise of generalized V2 results from a simple parametric change, namely the loss of multiple specifiers in the CP.

- Proposal: The loss of multiple XP-fronting is another consequence of the development of an obligatory EPP feature in C (resulting from the reanalysis of *tho*). More precisely, the presence of expletives signals to the learner that a functional head may project only a single specifier.

(56) *Generalization: Expletives and multiple specifiers*
      A functional head F can project multiple specifiers only if the grammar does not contain an expletive related to F.

- The fact that expletives 'close off' the projection of a functional head follows from:
  (i)   strict cyclicity;
  (ii) the assumption that the expletive itself acts as a probe, initiating an Agree relation with a functional head F after the expletive has been merged as specifier of F (Chomsky 2000, 2004).

- Strict cyclicity: A lower head H_1 may not any longer trigger syntactic operations after a higher head H_2 has been merged, acting as a probe (Chomsky 2000: 132):

(57) Properties of the probe/selector α must be satisfied before new elements of the lexical subarray are accessed to drive further operations.

- In a structure like (58), H_1 is inert after H_2 (which has been subsequently added to the structure) has initiated an Agree operation:[18]

(58)

Agree
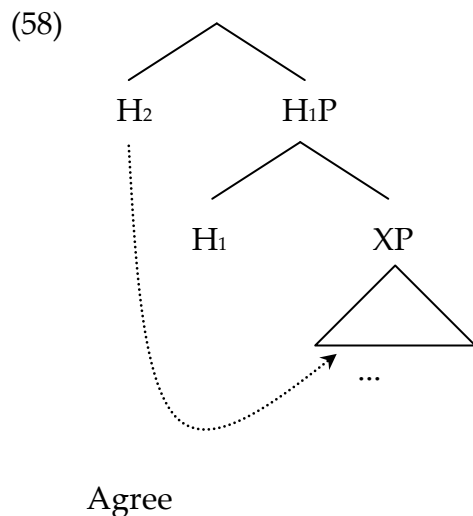
- <u>Expletives as probes</u>: The checking/valuation relation between a functional head F and an expletive merged in F's specifier is initiated by the expletive itself (cf. Chomsky 2000: 128, 2004: 114).

- <u>Derivation of generalization (56)</u>: After an expletive has established an Agree relation with C or T, C/T become inert and may not trigger further operations. As a result, they can neither attract further elements nor project additional specifiers.

- <u>Loss of V3 in OHG – reanalysis of *thô* as an expletive-like element</u>:

(59) a. [$_{CP}$ ... *thô* [$_{C'}$ V_{fin} + $C_{[+EPP]}$ [$_{TP}$ t$_{thô}$ T [$_{vP}$ ...]]]] $\rightarrow$
      b. [$_{CP}$ *thô* [$_{C'}$ V_{fin} + $C_{[+EPP]}$ [$_{TP}$ ... T [$_{vP}$ ...]]]]

  (i)   insertion of *thô* in SpecCP eliminates C's EPP-feature.
  (ii)   *thô* carries an uninterpretable feature [uF] that renders it active and must be eliminated as well.[19]

---

[18] This assumption seems to be implicit in most work on the strict cycle (for related discussion cf. e.g. Chomsky 1995: 234f., Collins 1997: 81ff., and in particular Chomsky 2000: 132f.); it follows more or less directly if phases are equated with phrases as for example in Müller (2007). The status of (57) is somewhat less clear under the assumption that T may initiate syntactic operations only after it has inherited the relevant uninterpretable features from C (Chomsky 2004). One might argue, however, that this particular situation does not conflict with (57), since T in fact has no probe properties prior to Merge of C. After C has been added, the relevant features (e.g., uϕ, EPP) are handed over to T, giving rise to cases of 'parallel probing' where operations triggered by C and T apply in parallel.

[19] As to the nature of [uF], we might speculate that it relates either to C's clause type features (i.e., [+declarative] in the case at hand) or to the fact that C in V2 languages is typically linked to finiteness. The latter might be taken to indicate that both C and the expletive *thô* carry an uninterpretable tense specification [uTns]. This seems to make the correct typological prediction that cross-linguistically, C-related expletives are confined to V2 languages. I leave this point open for future research.

(iii)   Following Chomsky (2000, 2004), *thô* acts as a probe that accesses C as the closest goal. As a result, *thô*'s [uF] deletes.

(iv)   Crucially, C is inert and cannot trigger any further operations after it has been accessed by the expletive probe. Thus, C may not project further specifiers, ruling out a structure as in (60).

(60)   *CP

XP   C′

        thô   C′

                    C   TP

        Agree

            ...
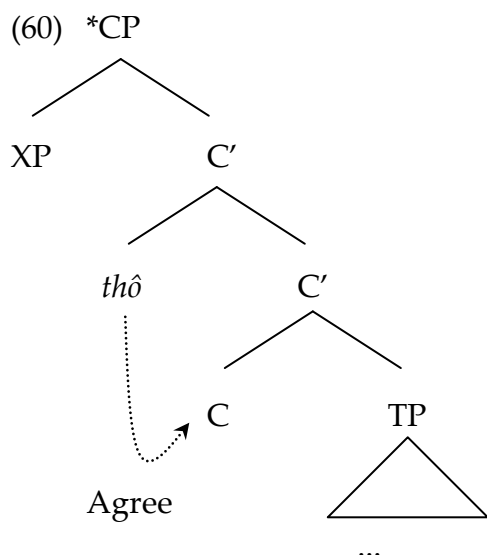
- After the reanalysis, examples with clause-initial *thô* provided positive evidence to the learner that at least in a certain context, C could not project more than a single specifier.

- The relevant examples were particularly frequent in OHG, which suggests that they played an important role in the PLD constructed from the input.

- Together with the fact that the original semantic/pragmatic motivation for XP-fronting was becoming more and more opaque, the reanalysis of *tho* can be taken to have tipped the scales in favor of a strict V2 grammar that lacks the possibility of multiple specifiers in the C-domain.