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Advanced topics in German syntax

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Introduction

- How would you derive the following sentence?

(1) Gelesen glaube ich, dass das Buch niemand hat.
     read   believe I   that the book no.one   has
     'I believe that no one has read the book.'

1 The position of the verb, OV vs. VO

- The translational equivalent of John loves Mary yields an SVO sentence in German, but un-der marked discourse conditions, OVS is possible as well:

(2) a. Der   Peter **liebt** den   Hans
         the.NOM Peter loves the.ACC John
         'Peter loves John.'
     b. Den   Hans **liebt** der   Peter.
         the.ACC John loves the.NOM Peter
         'Peter loves John.'

- if the V precedes the arguments, a yes-no-question obtains; the SU precedes the OBJ in the unmarked case, but the reverse ordering is possible as well, thus instantiating VSO and VOS:

(3) a. **liebt** der   Peter den   Hans?
         loves the.NOM Peter the.ACC John
     b. **liebt** den   Hans der   Peter?
         loves the.ACC John the.NOM Peter
         'Does Peter love John?'

? Propose a hypothesis how the two sentence types could be related

- in clauses introduced by a complementizer, the unmarked order is SOV, OSV is possible un-der certain discourse conditions; crucially, the V cannot occur between the two arguments:

(4) a. dass der   Peter den   Hans **liebt**
         that the.NOM Peter the.ACC loves
     b. dass den   Hans der   Peter **liebt**
         that the.ACC John the.NOM Peter loves
         'that Peter loves John.'
     c. *dass der   Peter **liebt** den   Hans
         that the.NOM Peter loves the.ACC John

- the three sentence types are termed
  - verb-second
  - verb-first
  - verb-final

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- verb-second: the verb follows the first constituent, it need not be the linearly second element:

(5)   a.   Er **liest** ein Buch
           he reads a   book
           'He reads a book.'
      b.   Der Mann **liest** ...
           the man   reads
           'the man reads ...'
      c.   Der Mann   von meiner Schwester **liest** ...
           the husband of   my   sister   reads
           'My sister's husband reads ...'
      d.   Der Mann   von meiner Schwester, die   ich nicht ausstehen kann, **liest** ...
           the husband of   my   sister   who I   not   stand   can   reads
           'The husband of my sister, who I cannot stand, reads ...'

  – if more than one constituent occurs before the verb, ungrammaticality results while the order subject>temporal adverbial is fine in sentences introduced by complementizers:

  (6)   a.   *Er heute **liest** ein Buch
              he today reads a   book
              'He reads a book today.'
        b.   dass er heute ein Buch liest
              that he today a   book reads

- verb-final: does not mean that the verb is the last element of the sentence:

(7)   a.   dass Peter ein Buch **liest** über Linguistk/das ihm   nicht gefällt
           that Peter a   book reads about linguistics/that he.DAT not   pleases
           'that John reads a book about linguistics/which he does not like.'

- fundamental questions

  – is the position of the verb related to the distinction main clause–subordinate clause?
  – is the position of the verb related to illocutionary force (sentence mood)?
  – are the three sentence types transformationally related?
  – if yes, which is derived from which and how does one know?

1.1   Verb position and the main clause–subordinate clause relationship

- the traditional distinction main clause–subordinate clause is orthogonal to the different types of sentences

  – main clauses

  (8)   a.   Peter liest   ein Buch.
              Peter reads a   book
        b.   Liest Peter ein Buch?
              reads Peter a   book
        c.   Einmal in Ruhe ein Buch lesen!
              once   in calm a   book read
              'If only I could calmly read a book!'

– subordinate clauses:

(9)   a.   (Ich hörte,) Peter habe   ein Buch gelesen
            I   heard Peter has.SBJV a   book read
            'I heard that Peter had read a book'
      b.   Trinkt Peter so weiter ...
            drinks Peter so forth
            'If Peter continues drinking like this ...'
      c.   ... dass Peter ein Buch liest
              that Peter a   book reads
            'that Peter reads a book'

1.2   Verb position and illocutionary force

- verb second: declaratives, questions, exclamatives

(10)   a.   Peter liest   ein Buch.
            Peter reads a   book
            'Peter reads a book.'
      b.   Peter liest   ein Buch?
            Peter reads a   book?
            'Does Peter read a book?'
      c.   Der PETER liest   aber laut!
            the Peter   reads but   loudly
            'Boy does Peter read loudly!'

- verb-first: imperatives, questions, exclamatives

(11)   a.   Lies ein Buch!
            read a   book
            'Read a book!'
      b.   Liest er ein Buch?
            reads he a   book
            'Does he read a book?'
      c.   Läse   er doch ein Buch!
            read.SBJV he PRT   a   book
            'If only he read a book!'

- verb-final: declaratives, questions, exclamatives

(12)   a.   dass er ein Buch liest
            that he a   book reads
            'that he reads a book'
      b.   ob er wohl ein Buch reads?
            if he PRT   a   book reads?
            '(I wonder) if he reads a book?'
      c.   dass er dieses Buch tatsächlich gelesen hat!
            that he this   book indeed   read   has
            'That he indeed read this book!'

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2 The relationship between V-final and V-second/V-first clauses

- 2 possibilities
    - unrelated (Construction Grammar)
    - derived from each other
        * V-second/V-first from V-final
        * V-final from V-second/V-first

✎ Compare the following pairs w.r.t. acceptability. Does this tell you something about the relationship between main and subordinate clauses?

(13) a. Er hat ihm   schon lange nicht mehr vertraut.
          he has he.DAT PRT   long not   more trusted
          'He hasn't trusted him for a long time.'
      b. Ihm   hat er schon lange nicht mehr vertraut.
          he.DAT has he PRT   long not   more trusted

(14) a. dass er ihm   schon lange nicht mehr vertraut hat.
          that he he.DAT PRT   long not   more trusted has
          'that he hasn't trusted him for a long time'
      b. dass ihm   er schon lange nicht mehr   vertraut hat.
          that he.DAT he PRT   long no   longer trusted has

(15) a. Leider   hat er ihm   nicht mehr   vertraut.
          unfortunately has he he.DAT no   longer trusted
          'Unfortunately, he hasn't trusted him anymore.'
      b. Leider   hat ihm   er nicht mehr   vertraut.
          unfortunately has he.DAT he no   longer trusted

2.1 The topological model

2.1.1 The sentence bracket

- Observation 1: Once the predicate is complex, the verbal elements frame the sentence in V1- and V2-clauses:

    (16) a. Peter hat ein Buch gelesen.
              Peter has a   book read
              'Peter read a book.'
          b. Hat Peter ein Buch gelesen?
              has Peter a   book read

    → the verbal elements form a bracket: left and right sentence bracket

- Observation 2: once a complementizer is present, we obtain verb-final order:

    (17) a. Peter liest   das Buch →
              Peter reads the book
          b. *dass Peter liest   das Buch
               that Peter reads the book
          c. dass Peter das Buch liest
              that Peter the book reads

    - Hypothesis: since the left sentence bracket is occupied by the complementizer, the verb has to go into the right sentence bracket (complementary distribution)
    → complementizer and the verbs in the right sentence bracket also form a bracket

- Elements that occur in the left sentence bracket:

  - the finite verb
  - complementizers
  - relative particles like wo (cf. *der Mann, den wo ich gesehen hab* 'the man who I saw')

- Elements that occur in the right sentence bracket:

  - finite Verb in V-final clauses

    (18)   dass Peter das Buch liest
            that Peter the book reads

  - non-finite verbs:

    (19)   dass Peter das Buch lesen will
            that Peter the book read wants
            'that Peter wants to read the book'

  - separable particles of particle verbs

    (20)   dass Peter mit dem Rauchen aufhörte
            that Peter with the   smoking stops
            'that Peter stopped smoking'

  - the infinitival particle *zu* 'to'

    (21)   Peter versucht, das Buch [zu lesen]
            Peter tries   the book to   read
            'Peter tries to read the book.'

    ☞ evidence for the classification: position relative to other non-verbal elements:

- finite and non-finite verbs in the right bracket

  - finite complement clauses preferably follow the right bracket:

    (22)   a.   dass Peter (??dass Maria ihn liebt) glaubt,   dass Maria ihn liebt
                 that Peter that   Mary him loves believes that Mary him loves
                 'that Peter believes that Mary loves him.'
            b.   dass Peter (??dass Maria ihn liebt) geglaubt hat, dass Maria ihn liebt
                 that Peter that   Mary him loves believed has that Mary him loves
            c.   Peter hat (??dass Maria ihn liebt) geglaubt, dass Maria ihn liebt
                 Peter has that   Mary him loves believed that Mary him loves

  - nominal objects precede the right sentence bracket

    (23)   a.   dass Peter das Buch liest   (*das Buch)
                 that Peter the book reads the   book
            b.   dass Peter das Buch gelesen hat (*das Buch)
                 that Peter the book read   has the   book
            c.   Peter hat das Buch gelesen (*das Buch)
                 Peter has the book read   the   book

- separable prefixes in the right sentence bracket

  - finite complement clauses follow the right bracket

  (24) a. dass Peter (??dass er krank ist) feststellte, dass er krank ist
            that Peter that he ill is realized that he ill is
        b. Peter stellte (??dass er krank ist) fest, dass er krank ist
            Peter realized that he ill is prt that he ill is

  - nominal objects precede the right bracket

  (25) a. dass Peter ein Problem feststellte (*ein Problem)
            that Peter a problem realized a problem
        b. Peter stellte ein Problem fest (*ein Problem)
            Peter realized a problem PRT a problem

2.1.2 The topological model: overview

- Basic (radical) idea: V2-, V1- and V-final clauses have a lot in common, are based on the same structure

prefield	LB	middle field	RB	postfield
Peter	hat	ein Buch	gelesen	über Linguistik
	hat	Peter ein Buch	gelesen	über Linguistik?
Peter	will	ein Buch	lesen	über Linguistik
	dass	Peter ein Buch	las	über Linguistik
	dass	Peter ein Buch	gelesen hat	über Linguistik
	dass	Peter ein Buch	lesen will	über Linguistik
Peter	liest	ein Buch		
	lies	ein Buch!		
Es	regnet			
	hör	endlich	auf	mit Jammern!
	wenn	das nur gut	geht!	
Peter	hat		gesagt	dass er kommt
	um	ein Buch	zu lesen	

2.1.3 Prefield

- occupied by exactly one constituent
- constituent can have any grammatical relation (subject, object, adjunct etc.)
- the constituent is prominent (topic/focus) if it is neither subject or a sentence/temporal adverbial
- must be filled in declarative clauses: expletive *es* 'it'

  (26) a. *(Es) klappert die Mühle am rauschenden Bach.
            it clatters the mill at.the rushing brook
        b. dass (*es) die Mühle am rauschenden Bach klappert
            that it the mill at.the rushing brook clatters

- cannot be occupied by certain unstressed elements like the reflexive pronoun of inherently reflexive verbs, modal particles like *halt, eben,* the accusative object pronoun *es* 'it' as well as separable prefixes:

  (27) a. *Sich hat er nicht geschämt.
             self has he not   be.ashamed
        b. *Halt ist Peter ein Säufer.
             PRT is Peter a   drunkard
             'Well, Peter is a drunkard.'
        c. *Es (das Kind) hat der   Vater gesehen.
             it the child has the.NOM father seen
             'The father saw it.'
        d. *Ab hat er ihn geholt.
             PRT has he him fetch
             'He picked him up.'

- Problem: multiply occupied prefields, cf. Müller (2005):

  (28) a. [Fast   alles]   [im Sitzen] bewältigte Joaquim Rodriguez auf dem Weg
             almost everything in   sitting managed J.   R.   on the way
             zum   Gipfel
             to.the top
             'J.R. managed almost everything sitting on the way to the top.'
        b. [Fahrern] [Epo] sollte   man besser nicht geben.
             cyclists   epo   should one rather not   give
             'One should rather not give Epo to cyclists.'

2.1.4 Middle field

- basically all elements of the clause can occur here except for those elements that occupy the sentence bracket (and the expletive *es*)
- need not be occupied
- contains an arbitrary number of constituents
- word order is very free (the following variants are not all equally neutral); unmarked order is often taken to be SU>IO>DO (controversial)

  (29) a. dass der   Hans der   Maria dieses Buch gestern   gab.
             that the.NOM John the.DAT Mary this.ACC book yesterday gave
             'that John gave this book to Mary yesterday'
        b. dass gestern der Hans der Maria dieses Buch gab
        c. dass dieses Buch der Hans der Maria gestern gab
        d. dass der Maria der Hans dieses Buch gestern gab
        e. dass der Hans gestern der Maria dieses Buch gab

- order governed by grammatical, pragmatic and processing factors
- unmarked order of weak pronouns different from that of DPs; less variable

  (30) SU > DO > IO (er es ihr vs. *es ihr er/??er ihr es)

2.1.5 The postfield

- the following clauses occur obligatorily or at least preferably in the postfield:

    – *so-dass* clauses:

    (31)   a.   Das Kind schlief,   so dass die Eltern   ausgehen konnten
                   the child was.asleep so that the parents go.out   could
                   'The child was asleep so that the parents could go out.'
            b.   Das Kind hat (*/??so dass ...) geschlafen, so dass ...
                   the child has so   that   been.asleep so that

    – *dass*-complements of it seems:

    (32)   weil   es (*dass die Grünen gewinnen) scheint, dass die Grünen gewinnen
              because it that   the greens win   seems   that the greens   win
              'because it seems that the Greens will win'

    – finite subject- and object clauses and adverbial clauses (unless they are in the prefield):

    (33)   a.   Ich habe mich (??ob er kommt) gefragt, ob er kommt
                   I   have me if   he comes   asked if he comes
                   'I wonder if he will come.'
            b.   Ich habe (??als Peter den Raum verließ) geweint, als   Peter den Raum
                   I   have when Peter the room left   cried   when Peter the room
                   verließ
                   left
                   'I cried when Peter left the room.'

- constituents that can optionally occur in the postfield:

    – non-finite complement clauses:

    (34)   Er hat versucht, ein Lied zu singen
              he has tried   a   song to sing
              'He tried to sing a song.'

    – relative clauses

    (35)   Er hat ein Buch {das   ihm   gefiel} gelesen, {das   ihm   gefiel}
              he has a   book which he.dat pleased read   which he.dat pleased
              'He read a book that he likes.'

    – PPs (but not NPs/DPs):

    (36)   a.   Er hat ein Buch {über Linguistik} gelesen {über Linguistik}
                   he has a   book about linguistics read   about linguistics
                   'He read a book about linguistics.'
            b.   Er hat lange {mit Maria} geredet {mit Maria}
                   he has long with Mary talked with Mary
                   'He talked to Mary for a long time.'

    – adverbials

    (37)   weil   ich {letztes Jahr} die Fahrprüfung bestanden habe {letztes Jahr}
              because I   last   year the driving.test passed   have last   year
              'because I passed the driving test last year'

2.1.6 A few exercises

- The following contrast discovered in Reis (1980) suggests that there is an ordering restriction causal adverb≻modal adverb, but only in subordinate clauses:

(38) a. dass Hans wegen des   Tadels   sorgfältig schreibt
          that John because the.GEN criticism carefully writes
          'that John writes carefully because of the criticism'
      b. *dass Hans sorgfältig wegen des   Tadels   schreibt
          that John carefully because the.GEN criticism writes

(39) a. Hans schreibt wegen des   Tadels   sorgfältig.
          John writes   because the.GEN criticism carefully
          'John writes carefully because of the criticism'
      b. Hans schreibt sorgfältig wegen des   Tadels.
          John writes   carefully because the.GEN criticism

  – The following examples suggest a different explanation – which?

(40) a. Hans hat wegen des   Tadels   sorgfältig geschrieben.
          John has because the.GEN criticism carefully written
          'John wrote carefully because of the criticism.'
      b. *Hans hat sorgfältig wegen des   Tadels   geschrieben.
          John has carefully because the.GEN criticism written

(41) a. dass Hans sorgfältig schreibt wegen des   Tadels
          that John carefully writes   because the.GEN criticism
          'that John writes carefully because of the criticism'
      b. Hans hat sorgfältig geschrieben wegen des   Tadels.
          John has carefully written   because the.GEN criticism

- unstressed elements like modal particles, the accusative neuter pronoun *es* and reflexive *sich* preferably occur right after the left bracket (optionally after the SU):

(42) a. Leider   hat {sich/ es/ halt} der Peter zu selten   gewaschen
          unfortunately has self   it   PRT the Peter too seldom washed
          'Unfortunately, Peter washed himself/it too seldom.'
      b. weil   {sich/ es/ halt} der Peter zu selten   gewaschen hat
          because self   it   PRT the Peter too seldom washed   has

  – how would one have to formulate these generalizations without reference to the topological model, i.e., without referring to the left bracket (but e.g. with reference to main vs. subordinate clause, V2- vs. V-final clause etc.)?

- Analyze the following sentences according to the topological model (if you don't know German, do it together with a German-speaking colleague):

(43) a. Dass Peter gesagt hat zu dir, dass er sich fürchtete, als er hörte davon, habe ich jedem in aller Ausführlichkeit erzählt, der es hören wollte.
      b. Die Hoffnung, dass alles besser werden würde im nächsten Jahr, hätte diejenigen unter uns be?ügeln sollen, die in allem immer bloß das Schlechteste sehen, was man sich überhaupt vorstellen kann auf dieser Welt.

2.1.7 Limits of the topological model

- Why do the following examples show that the topological model is not sufficient?

(44)   a.   Ein Buch zu lesen hat Peter versucht.
            a   book to read has Peter tried
            'Peter tried to read a book.'
            (vgl. *Der Maria ein Buch hat Peter geschenkt)

        b.   dass Peter hätte nach Berlin fahren sollen
            that Peter has   to   Berlin travel should
            'that Peter should have traveled to Berlin'

(45)   a.   Ich habe die   Gäste$_i$ einander$_i$ nicht vorgestellt.
            I   have the.ACC guests each.other not   introduced
            'I haven't introduced the guests to each.other.'

        b.   *Ich habe einander$_i$ die   Gäste$_i$ nicht vorgestellt.
            I   have each.other the.ACC guests not   introduced

        c.   Einander$_i$ habe ich die   Gäste$_i$ nicht vorgestellt.
            each.other have I   the.ACC guests not   introduced

3 Deriving V2-/V1-clauses from V-final clauses

- try to provide a surface-oriented analysis of the following example and describe the difficulties you encounter:

  (46) Peter konfrontierte Maria$_i$ mit sich$_i$.
        Peter confronted   Mary   with self
        'Peter confronted Mary with herself.'

- We have seen evidence that V1-/V2- and V-final clauses share large parts of the clause structure: the middle field, the right bracket and the postfield → This part is largely uncontested
- There is a long tradition that V1-/V2-clauses are derived from V-final clauses; for early implementations, cf. Drach (1937), Thiersch (1978), den Besten (1983); this is also largely uncontroversial
- two ingredients:
  - movement of the verb to a higher position
  - A$'$-movement of a phrase to a position above the verb

- but: there is disagreement in one important aspect:
  - on some approaches V2-/V1-clauses and V-final clauses are of the same (categorial) type, viz., CP: 'uniformity hypothesis';
  - because there are certain differences between V2-/V1-clauses and V-final clauses, others have argued in favor of the 'difference hypothesis', viz., they are not of the same type, cf. Reis (1985), Stechow and Sternefeld (1988), Sternefeld (2006), Müller (2010*a*)

- the different views correlate with different implementations of verb-second
  - the verb and the complementizer occupy (more or less) the same position, cf. also the topological model, where C and the finite verb occupy the same position; in more recent accounts, V2 involves V-to-C-movement, with head-adjunction
  - the landing site is a positional category, not a projection category, cf. Stechow and Sternefeld (1988), Sternefeld (2006); thus V2-clauses are more likes VPs rather than CPs
  - V2 involves reprojection → V2-clauses are VPs/TPs, cf. Fanselow (2009), Müller (2010*a*)

3.1 Evidence for verb movement

3.1.1 Elements that form a semantic unit are merged together

- in V-final clauses, the verbal elements are adjacent

  (47) a. dass Peter der   Maria das   Buch geschenkt hat
            that Peter the.DAT Mary the.ACC book given   has
        b. Peter hat der   Maria das   Buch geschenkt
            Peter has the.DAT Mary the.ACC book given
            'Peter gave the book to Mary.'

- In V-final clauses, verb and particle are adjacent:

  (48) a. dass Peter ein Auto aussucht
            that Peter a   car   selects
            'that Peter selects a car.'
        b. Peter sucht   ein Auto aus
            Peter selects a   car PRT

- In V-final clauses, verb and idiomatic NP are adjacent:

  (49)   a.   dass Peter gestern   ins   Gras biss
             that Peter yesterday in.the grass bit
             'that Peter died yesterday.'
         b.   Peter biss gestern   ins   Gras.
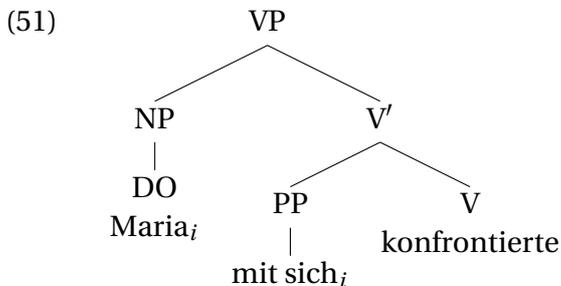   Peter bit   yesterday in.the grass

    → pattern makes sense if the V-final position is basic and the V2-position is derived

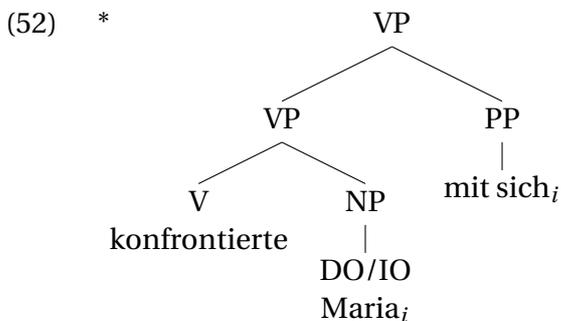### 3.1.2 Hierarchy of arguments

- The reflexivization facts in (50) show that the DO is structurally higher than the PP:

  (50)   Peter konfrontierte Maria$_i$ mit   sich$_i$.
         Peter confronted   Mary   with self
         'Peter confronted Mary with herself.'

- this follows if this sentence is derived from a V-final structure (by moving the verb):

  (51)

```
                    VP
                   /  \
                 NP     V′
                  |    /  \
                 DO  PP     V
               Maria_i |  konfrontierte
                    mit sich_i
```

- but not if the V2-position is taken to be basic:

  (52)   *

```
                         VP
                        /  \
                      VP     PP
                     /  \     |
                    V    NP  mit sich_i
              konfrontierte |
                         DO/IO
                        Maria_i
```

3.1.3 Verbs that fail to undergo V2

- certain verbs (mostly backformations) only occur in the V-final order, cf. *uraufführen* 'premiere':

  (53)   a.   dass sie   das Stück uraufführten
             that they the play   premiered
         b.   *Sie uraufführten das Stück.
         c.   *Sie führten das Stück urauf.
         d.   *Sie aufführten das Stück ur.
         e.   *Sie urführten das Stück auf.

- can be described if – for whatever reason – these verbs fail to undergo movement (the reverse seems more difficult to justify, i.e. that they would only be grammatical in their derived position)

3.2 Evidence for XP-movement to the prefield

3.2.1 Subcategorization

- questioned constituents bear the same case as constituents in the middle field:

  (54)   a.   Wen   hat Peter gesehen?
                whom has Peter seen
          b.   Peter hat den   Papst gesehen.
                Peter has the.ACC pope seen

- in echo-questions, the *wh*-word occurs in the middle-field in the position of regular objects:

  (55)   Peter hat wen   gesehen?
           Peter has whom seen

- Once the *wh*-word is fronted, the position of the object can no longer be occupied:

  (56)   *Wen   hat Peter den   Papst gesehen?
           whom has Peter the.ACC pope seen

→ makes sense if arguments are merged in the middle field and moved to the prefield

3.2.2 Reconstruction

- Constituents in the prefield are interpreted in a lower position:

  (57)   a.   Sich selbst$_i$ hat der Peter$_i$ ein Buch geschenkt
                self   INTENS has the Peter a   book given
                'Peter gave himself a book.'
          b.   *Den   Peter$_i$ denk ich nicht, dass er$_i$ mag.
                the.acc Peter think I   not   that he likes
                'Peter, I think he does not like.'

  → if only the surface position mattered, we would expect the reverse grammaticality judgments: (57-a) should be out (Condition C violation), while (57-b) should be fine
  – (57) makes sense if constituents in the prefield originate in the middle field and can be interpreted there (by reconstruction/interpreting them before movement)

3.2.3 Expletive *es* 'it'

- The expletive it only occurs in the V2-order, never in the V-final order

  (58)   a.   *(Es) klappert die Mühle am   rauschenden Bach.
                it   clatters the mill   at.the rushing   brook
          b.   dass (*es) die Mühle am   rauschenden Bach klappert
                that it   the mill   at.the rushing   brook clatters
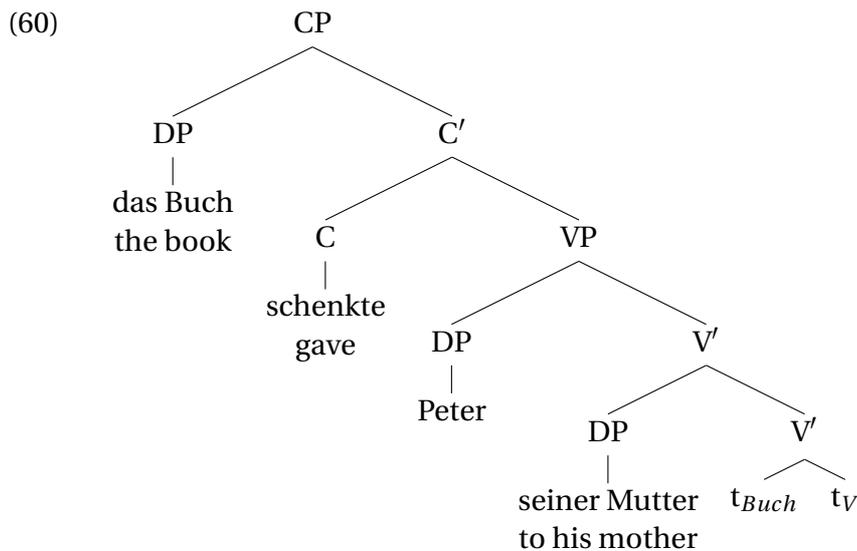 (59)   a.   *(Es) wurde wild   getanzt
                it   became wildly danced
                'There was wild dancing going on.'
          b.   dass (*es) wild   getanzt wurde
                that it   wildly danced became

→ expletive = last resort to ensure that the prefield is occupied (under the reverse perspective, deletion of *es* would be obligatory, but one would wonder why it should be introduced in the first place)

3.3 Uniform or different?

3.3.1 Evidence for movement to C

- Standard assumption: V2-clauses involve two steps

    - movement is V-to-C-movement (perhaps via T): note that the elements that occur in the LB are all heads (if the landing site were a phrasal position, one would expect that larger constituents can land there)
    - XP-movement of an arbitrary constituent to SpecCP

    (60)

```
                          CP
                 _____
                DP              C′
                |          _____
            das Buch      C          VP
            the book      |      _____
                       schenkte  DP        V′
                         gave    |     _____
                              Peter    DP        V′
                                       |        ___
                                  seiner Mutter  t_Buch  t_V
                                  to his mother
```

    - under the assumption that C has only 1 specifier, we can derive the V2-property (seems reasonable given that German is not a multiple wh-fronting language)
    - note that for other heads, the 1-specifier restriction arguably does not hold in German: VP/vP (external argument + successive-cyclic movement)

3.3.1.1 Complementary distribution

- Observation: finite verb and a complementizer cannot co-occur at the beginning of the clause:

    (61)   a. *dass liest   Peter das Buch
                that reads Peter the book
           b.   dass Peter das Buch liest
                that Peter the book reads

- classical interpretation: they compete for the same position, but there is only space for one element
- presupposition: there is a requirement that this position be filled; in the absence of a complementizer, the verb has to move to fill the position (a PF requirement?)
- for criticism of applying the notion of complementary distribution in this context, cf. (Stechow and Sternefeld 1988: 402ff.)

3.3.1.2 A putative problem

- embedded questions, relative clauses and comparative clauses are V-final even though there is no overt complementizer (V2-versions of (62) are ungrammatical; (62-c) from Haider 1993: 91):

  (62) a. Ich frage mich, warum Peter nicht gekommt ist.
            I   ask   myself why   Peter not   come   is
            'I wonder why Peter didn't come.'
        b. Ich suche   den Mann, dem   ich ein Buch geschenkt habe.
            I   look.for the man   who.DAT I   a   book given   have
            'I am looking for the man who I gave a book to.'
        c. Es gibt   mehr funktionale Köpfe, als   man hören kann
            It gives more functional   heads than one hear   can
            'There are more functional heads than one can hear.'

- in the traditional topological model, it is concluded from this that the *wh*-word and the relative pronoun actually occupy the left bracket; but there are strong arguments against this:
    - *wh*-questions receive a non-uniform treatment: the *wh*-word is in the prefield in matrix questions but in the left bracket in embedded questions
    - *wh*-phrases and relative phrases can be complex:

      (63) a. Ich frage mich, [mit wessen neuem Auto] er fährt.
                I   ask   myself with whose new   car   he drives
                'I wonder whose new car he drives.'
            b. der Mann, [dessen kranke Mutter] ich besucht habe
                the man   whose ill   mother I   visited have
                'the man whose ill mother I visited'

    → while complementizers and finite verbs are heads, wh-questions and relative clauses involve full phrases → a non-uniform class of elements that occupy the left bracket
    - implies a non-uniform treatment among German varieties

3.3.1.3 The solution comes from non-standard varieties

- Observation: In some (Upper) German dialects we find a complementizer in embedded questions, relative clauses and comparatives

  (64) a. Ich frage mich, warum dass Peter nicht gekommen ist.
            I   ask   myself why   that Peter not   come   is
            'I wonder why Peter didn't come.'
        b. der Mann, dem   wo ich ein Buch geschenkt habe
            the man   who.dat C I   a   book given   have
            'the man who I give a book to'
        c. Es gibt   mehr funktionale Köpfe als   wie/was/dass man hören kann
            It gives more functional   heads than how/what   one hear   can
            'There are more functional heads than one can hear.'

- if we assume that in St. German there is also a silent C present, we can uphold the analysis in terms of complementary distribution: since C is occupied no movement is necessary

  (65) a. Ich fragte mich, warum Ø Peter nicht gekommen ist.
        b. Ich suche den Mann, dem Ø ich ein Buch geschenkt habe.
        c. Es gibt mehr funktionale Köpfe als Ø man hören kann

→ the requirement about filling the 2nd position cannot be a PF-requirement (unless the complementizer is actually deleted and deletion occurs after movement: counter-feeding)

- once we postulate silent complementizers, one wonders why there are no silent complementizers in main clauses that block V2-movement ...

3.3.1.4 Embedded verb second

- Certain verbs can embedded a V2-complement, while others cannot (cf. English complement clauses without *that*):

(66) a. Ich {glaube, denke, vermute etc.}, Peter kommt auch
          I   believe think   suspect   Peter comes too
      b. *Ich {will, leugne, bedauere etc.}, Peter kommt auch
          I   want deny   regret   Peter comes too

- if V2 is related to the C-head (i.e. whether it attracs the verb or not), this property can be stated in terms of selection: the matrix verb selects a C-head of a certain type: selection is a local relationship between head and complement

3.3.1.5 The positioning of weak elements high up in the middle field

- unstressed elements like modal particles, the accusative neuter pronoun *es* and reflexive *sich* preferably occur right after the left bracket (optionally after the SU), cf. also (Haider 1993: 76):

(67) a. Leider   hat {sich/ es/ halt} der Peter zu selten   gewaschen
          unfortunately has self   it   PRT the Peter too seldom washed
          'Unfortunately, Peter washed himself/it too seldom.'
      b. weil   {sich/ es/ halt} der Peter zu selten   gewaschen hat
          because self   it   PRT the Peter too seldom washed   has

  – of course, the facts can also be captured if one assumes that they have to occur after the highest overtly realized head of the clause/have to occur right above TP, cf. (Fanselow 2009: 88)

3.3.1.6 Verum focus

- stress on the finite verb in C/the complementizer has the same effect: focus on the truth value, cf. (Haider 1993: 76)

(68) a. Ich behaupte aber,   er WAR zu der Zeit nicht ihr Mann
          I   claim   though he was at that time not   her husband
          'I claim though that he WASn't her husband at that time.'
      b. Ich behaupte aber,   DASS er zu der Zeit nicht ihr Mann   war
          I   claim   though that he at that time not   her husband was

  – note that stress on the V in the V-final order induces contrastive focus on tense/the verb meaning

16

3.3.1.7 *V-to-C-movement as adjunction*

- old times: verb movement = substitution, the verb moves into a position that is completely empty (C = a positional category)

(69)
```
            C′
          /    \
         C      VP
      lachte₁   / \
            Peter  __₁
```

- advantage: with this notion, stating the V2-requirement as a requirement to fill the C position is straightforward
- ! what is strange about (69) is that the verb is now the head of the CP even though it is not a complementizer in any obvious way
- the notion of a positional category is not obviously compatible with the X'-system as C would dominate V
- nowadays: there are no empty positions anymore in modern (Minimalist) syntax: a head may be phonologically empty, but it will always contain features
- head movement is nowadays modeled as head-adjunction (rather than substitution) → V adjoins to C:

(70)
```
               C′
            /      \
           C        VP
          / \       / \
         V   C   Peter  __₁
      lachte₁
```

- ✐ question: to what extent does the modern analysis capture the intuition that verb movement applies to fill a certain position?
  - → C is not defective per se so that nothing as such requires verb movement; rather, it has to be triggered by some feature of C (e.g. [type:udekl], [uV*$_{min}$]) → the difference between V2- and V-final clauses then resides in the different featural makeup of C

- ✐ suppose that the requirement is recast as a requirement that the C node must contain overt material, (i) what about embedded questions/relative clauses and (ii) what if you adopt a post-syntactic approach to morphology? (iii) Why does C have to be empty under V2?
  - → (i): deletion would have to follow movement; (ii) requirement to fill the position can no longer be captured; (iii) big mystery: no root complementizers in German? But: verbs never adjoin to complementizers, focus markers etc. when they move ...

- ✐ Why is the following ungrammatical?

  (71)   *Peter sollen₁ das Buch hätte   lesen __₁.
         Peter should the book had.SBJV read
         'Peter should have read the book'

- ✐ Why is the following pair another argument for deriving V2- from V-final clauses?

  (72)   a. *Peter braucht ein Buch zu lesen.   b. Peter braucht kein Buch zu lesen
             Peter needs   a   book to read   Peter needs   no   book to read
                                                       'Peter need not read a book.'

3.3.2 Differences between V2- and V-final clauses

- most of them taken from (Stechow and Sternefeld 1988: 392ff.)
- asymmetries in the occupation of the prefield: a priori unexpected if both clause types belong to the same category
  - V2: topics, wh-words (only main clauses) (relative pronouns only residually in so-called V2-relatives: *Es gibt Bücher, die langweilen mich zu Tode*)
  - V-final: wh-words (embedded, residually main clauses), relative pronouns (topics in Bavarian emphatic topicalization: *An Mantl dass da Xaver kafft hot hot neamad glaubt*)

- extraction of an element in SpecCP of a V2-clause must not terminate in SpecCP of a V-final clause; a stopover in an intermediate V-final clause also leads to ungrammaticality, cf. Müller (2010*a*)

  (73) a. Was$_1$ meinst du, __$_1$ wird gleich geschehen?
            what think you will soon happen
            'What do you think will happen soon?'
        b. *das Unglück, das$_1$ du meinst, __$_1$ wird gleich geschehen
            the disaster which you think will soon happen
            'the disaster which you think will happen soon'
        c. *Ich weiss, was$_1$ du meinst, __$_1$ wird gleich geschehen
            I know what you think will soon happen
            'I know what you think will happen soon.'
        d. *Wen glaubt er, dass du meinst, hat sie getroffen?
            whom believes he that you think has she met
            'Who does he believe that you think she met?'

  - extraction from a V-final clause into SpecCP of a V2-clause is possible, though:

    (74) Wen$_1$ glaubst du, dass Hans __$_1$ geküsst hat?
          whom believe you that John kissed has
          'Who do you believe John kissed?'

- V-final and V2-clauses in the middle field: Only the former seem acceptable, cf. (Grewendorf 1988: 231)

  (75) a. Der Student hat mir, dass es regnet, zu spät mitgeteilt.
            The student has me.DAT that it rains too late told
            'The student told me too late that it was raining.'
        b. ??Der Student hat mir, es regne, zu spät mitgeteilt.
            The student has me.DAT it rains.cond too late told

- V-final CPs can be embedded under prepositional correlates while V2-CPs cannot:

  (76) a. Darauf, dass man ihn wählen würde, hatte er stark gehofft.
            on.it that one him elect would had he strongly hoped
            'I had hoped very much that one would elect him.'
        b. *Darauf, man würde ihn wählen, hatte er stark gehofft
            on.it one would him elect had he strongly hoped

- extraposed CPs are compatible with an *es*-correlate only in V-final order (*dass*-clauses more nominal?):

  (77) a. Sie hat (es) mir gesagt, dass er das Buch gekauft hat
            she has it   me told   that he the book bought has
            'She told me that he had bought the book.'
        b. Sie hat (*es) mir gesagt, er habe   das Buch gekauft.
            She has it   me told   he have.cond the book bought

- prepositions that optionally select finite *dass*-clauses cannot select V2-clauses, cf. (Haider 1993: 78):

  (78) a. ohne   dass ich davon gewusst habe
            without that I   of.it   known have
            'without me knowing about it'
        b. *ohne   ich habe davon gewusst
            without I   have of.it   known

- V2- and V-final clauses cannot be coordinated, cf. (Grewendorf 1988: 211):

  (79) a. *Peter glaubt, dass er genug   gearbeitet hat und er könne   sich jetzt zur
            Peter thinks that he enough worked   has and he can.cond self now to
            Ruhe setzen
            rest sit
            'Peter thinks that he has worked enough and can now retire.'
        b. *Peter glaubt, er habe   genug   gearbeitet und dass er sich jetzt zur Ruhe
            Peter believes he have.cond enough worked   and that he self now to   rest
            setzen könne
            sit   can.cond
            'Peter believes (that) he has worked enough and can retire now.'

- embedded *wh*-questions require V-final order:

  (80) a. Sie sagte, wann sie ins   Wirtshaus gehe
            she said   when she in.the pub   go.cond
            'She said when she would go to the pub.'
        b. *Sie sagte, wann gehe   sie ins   Wirtshaus.
            She said   when go.cond she in.the pub

- In Bavarian, complementizers can inflect (Grewendorf 1988: 207):

  (81) a. I woass, ob-st/dass-st   du a Spitzbua   bi-st.
            I know   if-2SG/that-2SG you a naughty.boy be-2SG
        b. I woass, ob-ts/dass-ds ihr Spitzbuam   sei-ts
            I know   if-2PL/that-2PL you naughty.boys be-2PL

    - Interestingly, this inflect can also occur on wh-words in indirect questions

      (82) a. I woass, mit wem-st   du   im   Kino warst.
                I know   with he.DAT-2SG you.2SG in.the movie were
            b. I woass, warum-ts ihr   wegganga seits.
                I know   why-2PL you.2PL left   are

- – at first sight, this could be taken as an argument that the wh-word and the complementizer do occur in the same position (as assumed in some versions of the topological model)
- – however, alternatively, one can assume that the inflection is indeed inserted into the C-node and then cliticizes onto the *wh*-word

3.3.2.1 *Explanations for the asymmetries under the difference hypothesis*

- difference in size: V2-clauses are bigger, include TopP
    - – no topicalization in V-final: topics target a different position, which is included in V2- but not in V-final clauses (V-final clauses are smaller)
    - – no extraction from SpecCP of V-final to SpecCP of V2: perhaps some kind of improper movement: If the prefield in V2-clauses is higher than SpecCP (cf. above), this would violate the Williams cycle

- difference in category: *dass*-clauses are nominal, V2-clauses are verbal
    - – no V2-clauses in the middle-field: the middle field is the area where elements are status- (and case-)governed by the verb, while this does not hold for elements in the postfield; it has been argued that V2-clauses are not status-governed and therefore cannot occur in the middle-field (cf. Stechow and Sternefeld 1988: 398); however, V2-complement clauses are selected by the matrix verb (it seems), which would seem to involve government ...
    - – the verbal status of V2-clauses could also account for its incompatibility with correlates and the prepositions that select finite complement clauses

- for some doubly-filled comp-based explanations that do not work for Southern varieties (and therefore are not general enough), see (Stechow and Sternefeld 1988: 395,398)
- for functional explanations, see (Stechow and Sternefeld 1988: 400f.)

3.3.2.2 *Explanations based on the uniformity hypothesis*

- The differences will have to be related to different feature contents of the C-head; this, of course, re-introduces the difference hypothesis via the backdoor

3.3.3 Alternatives to V-to-C-movement

- if V2-clauses are structurally/categorially different, how can this be derived?

3.3.3.1 *Sternefeld (2006) C as a positional category*

- C is a positional category, has no syntactic category feature, selects a VP
- under V-final, C can be merged with a nominal element like *dass* 'that'
- under V2, a copy of the verb is merged with C (similar to inter-arboreal movement), the V+C-complex (which inherits the selectional feature) is then merged with VP
- satisfies cyclicity/the extension condition (unlike classical head movement)
- → essentially a categorial distinction: V-final = nominal, V2= verbal
- However, how you can assure that C will only have one specifier if it does not have a proper category feature, i.e., if it is actually a VP, how can you rule out multiple adjunction?

3.3.3.2 *V2 as vP-first: Müller (2004)*

- Müller (2004): V2 as vP first: vP is emptied except for its head and whatever XP happens to be on the edge of vP, then, vP undergoes remnant mvt to SpecCP:

(83) $[_{CP} [_{vP}$ Das Buch t_{Fritz} t_{VP} hat] $[_{C'}$ C $[_{TP}$ Fritz $[_{T'} [_{VP}$ *dasBuch* gelesen] $[_{T'}$ t_{vP} T]]]]]

- the V2-property is essentially stipulated: exactly 1 verb and 1 edge element
- not really clear why C has to be empty
- what about T-related elements like sentential adverbs? The fact that they can occur in the prefield suggests that there must be remnant TP-movement, but normally, TPs do not move, see (Fanselow 2009: 97)

3.3.3.3 *Reprojection: Fanselow (2009), Müller (2010*a*)*

- Münchhausenbewegung: V moves and takes itself as a complement (Haider 2010)

(84)
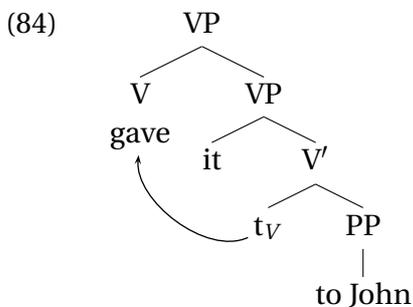
→ possible advantage V-movement only necessary for ditransitives (but not transitives, unergatives and unaccusatives)

- V2-movement as reprojection: V takes a VP/TP as its complement, cf. Müller (2010*a*)

(85)

(86)

21
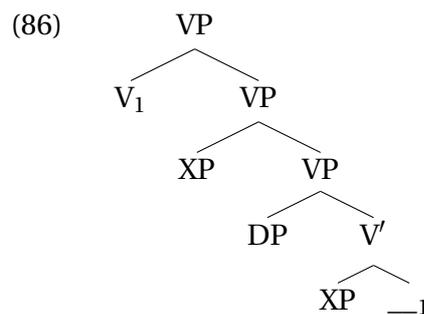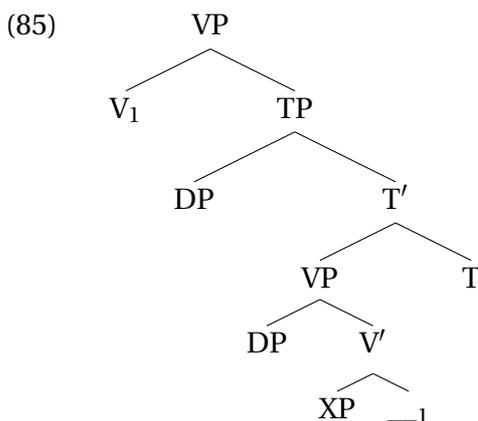
- implementation issues

  - implementation: V has an uV/uT/[∗F∗]-feature (that needs to be checked under c-command); since there is nothing in V's c-command domain, it moves as a last resort and takes VP/TP as its complement and reprojects because it is the element with the selectional/movement inducing feature (crucial assumption: the V cannot check the feature on itself); in Fanselow's approach it's the T-head that reprojects (the verb itself is a V-T-complex); the movement-inducing feature is thus a Münchhausen feature
  - another feature needs to be added to ensure that there will be a specifier of V, this means that the verb may also bear a [uwh]-feature to trigger wh-movement (unless wh-movement is not feature-driven, cf. Fanselow 2009: 111); one has to make sure that this feature is only checked after reprojection, e.g. by ordering them, see (Müller 2010*a*: 116)
  - these features are not inherent features but can optionally be added to finite verbs (can be linked to pragmatic properties such as independent assertion etc. that characterize V2-clauses)
  - to account for V-final clauses, we need to assume that complementizers like *dass* either have to select TPs so that a VP with reprojection is ruled out (Müller (2010*b*)) or a TP with an unchecked T-feature (Fanselow 2009: 108)

- possible advantages:

  - satisfies cyclicity
  - verbs like *uraufführen* that fail to undergo V2 may lack the relevant feature/cannot be assigned the relevant feature
  - it follows why verb movement never leads to complex heads (the verb does not adjoin)
  - it is likewise clear why the root C is always empty because under this approach there is no root C

- possible difficulties:

  - you have to ensure that reprojection takes place after the entire VP/TP has been built, otherwise, you will end up with more than one constituent before V (arguably, if reprojection applies to early, features of the root-head, e.g. T, will be unchecked, crashing the derivation)
  - reprojection violates the head-movement constraint (skips the intervening T-head in Müller's analysis), but it may be too strict anyway
  - if the V that is to undergo reprojection selects a clausal complement that contains a VP/TP, one has to ensure that the [∗F∗] cannot be checked against it, see (Müller 2010*a*: 113f.)
  - since on many accounts VPs can have several specifiers in German, it is not fully clear how the V2-property can be derived
  - even worse, VP and TP are adjunction sites in German so that it is not clear how the V2-property can still be derived (for discussion, see Fanselow 2009: 110)
  - how does agreement/finiteness work in such a system? If the features are on T, how can they end up on V?

- how can the the facts that suggest that complementizers and finite verbs occupy the same position captured under these approaches?

  - embedded verb second: certain verbs can select CPs and VPs/TPs
  - position of weak elements high up in the middle field: restated as: have to occur below the highest overtly realized head of the clause (Fanselow 2009: 88)
  - verum focus: obtains if the highest head of the clause is stressed
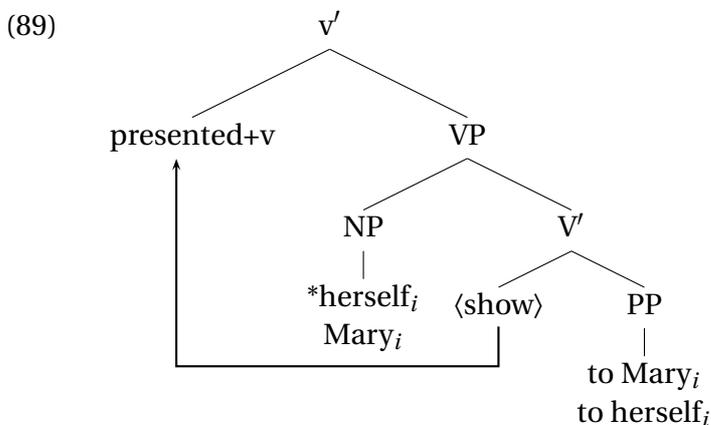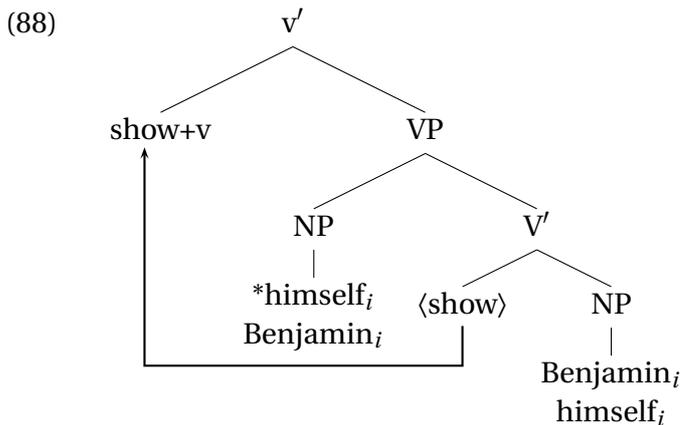
4 Articulation of the clause structure: vP/TP/TopP?

4.1 Functional structure in English

4.1.1 Evidence for vP

- with respect to word order, only ditransitives require a vP-shell and V-to-v-movement:

(87) a. I presented Mary$_i$ to herself$_i$.
b. Emily showed Benjamin$_i$ himself$_i$ in the mirror

(88)

(89)

- coordination facts show that both arguments form a constituent to the exclusion of the verb:

(90) a. Sam gave [the cloak to Lee] and [the magic chalice to Matthew].
b. Benjamin gave [Lee the cloak] and [Nathan the chalice]

- DP-PP-construction: the verb can form idiomatic expressions with the PP to the exclusion of the DP: V is first merged with the PP:

(91) a. Lasorda *sent* his starting pitcher *to the showers*. ('unter die Dusche schicken')
b. Mary *took* Felix *to the cleaners* / to task / into consideration. ('übers Ohr Hauen od. bis aufs Hemd ausziehen/zur Brust nehmen/in Betracht ziehen')
c. Felix threw Oscar to the wolves. ('den Wölfen zum Frass vorwerfen')
d. Max carries such behavior to extremes. ('auf die Spitze treiben')

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- 3 theory-internal arguments:

  - without a vP-shell, the structural difference between unergative and unaccusative verbs cannot be captured (under bare phrase structure, both arguments would be complements of V)
  - Burzio's generalization can be captured more easily with a vP: both properties (selecting an external argument and assigning accusative) are properties of the same head
  - the passive generalization can be captured straightforwardly if passive affects v (or, if passive involves a special kind of v):

    - only verbs that select an external argument can be passivized (unergatives not in all languages)
    - both the external argument and the accusative get lost in the passive (the case is not lost in all languages)

4.1.2 Evidence for TP

4.1.2.1 Evidence for a head-position

- modal verbs, auxiliaries and the dummy verb *do* occur in a structurally higher position than the finite lexical verb, cf. their position relative to negation or certain adverbials (note that they can also undergo T-to-C-movement, unlike lexical verbs):

  (92)   a.   John often eats fish.
         b.   John will often eat fish.
         c.   John has often eaten fish.

  (93)   a.   John does not eat fish. (*eats not fish)
         b.   John will not eat fish.
         c.   John has not eaten fish.

- the order if fixed in English:

  (94)   T/(Mod) > (Neg) > (Perf) > (Prog) > v > V

- modal verbs and auxiliaries can move to T, lexical verbs cannot → belong to different categories
- modal verbs are in complementary distribution with each other → it is usually concluded from this that modal verbs belong to a separate category, viz. T (additional assumption: functional categories are not recursive, i.e. cannot embed a TP, only VP)

  (95)   a.   *John must should seek Mary.
         b.   *Peter will can seek Mary.

- modal verbs cannot be embedded by verbs selecting non-finite forms:

  (96)   a.   *John hoped to can read it.
         b.   *John has can/could understand it.

4.1.2.2 *Evidence for a specifier position*

- On the surface the subject is not adjacent to its predicate in many cases → must have been merged low (for theta-reasons) and later raised into a higher specifier:

  (97)   John$_1$ will have been __$_1$ eating the pigs.
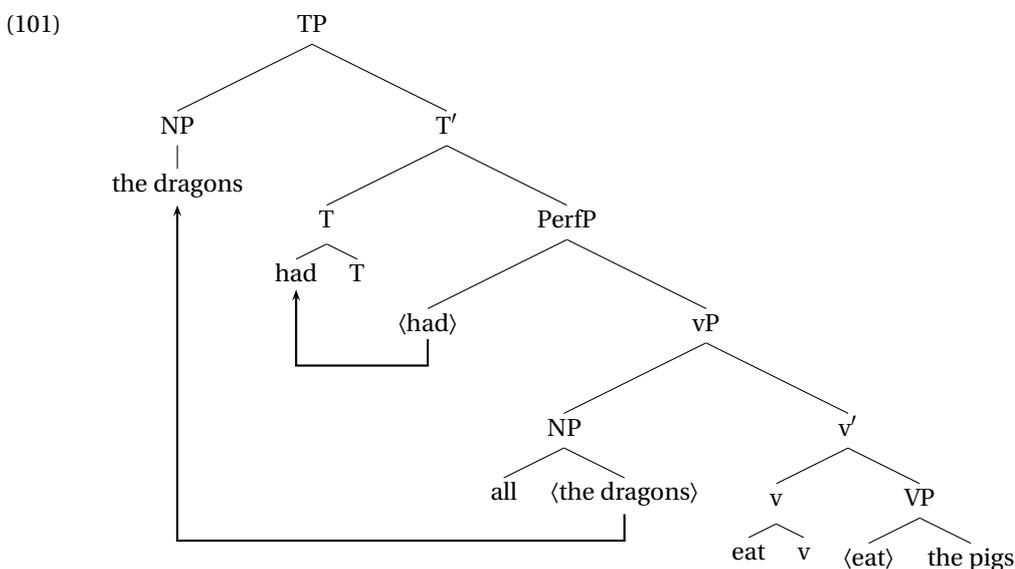
- quantifier float

  (98)   a. [All the dragons] had eaten the pigs.
          b. [Both the twins] might have been at the party.

  (99)   a. [The dragons] had [all] eaten the pigs.
          b. [The twins] might have [both] been at the party.

  (100)   The dragons had all eaten the pigs.

  (101)

- expletive constructions: the subject stays low in the presence of *there*, which occupies SpecTP:

  (102)   a. There are many fish in the sea.
          b. There were people playing on the beach.

  (103)   a. Many fish are in the sea.
          b. People were playing on the beach.

- coordinate structure constraint: apparently asymmetric ATB-subject extraction (from SpecTP and from within VP) in (104-a); unproblematic if the subject originates in VP, (104-b):

  (104)   a. [$_{DP}$ the girls] will [[$_{VP}$ write a book] and [$_{VP}$ be awarded __ a prize for it]]
          b. [$_{DP}$ the girls] will [[$_{VP}$ __ write a book] and [$_{VP}$ be awarded __ a prize for it]]

- no intermediate reconstruction with VP-movement, (105-b) (unlike DP-movement, (105-a)); makes sense if the moved VP contains a trace of the subject, cf. (105-c)

  (105)   a. [Which stories about each other$_{i/j}$] did they$_i$ say the kids$_j$ liked __?
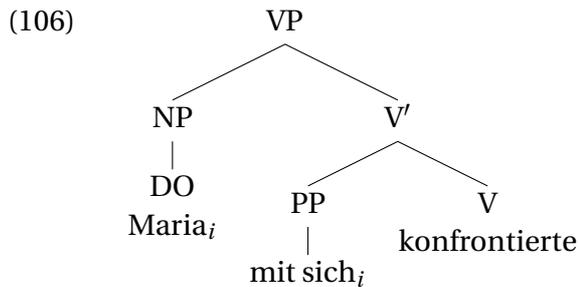   b. ... but [listen to each other$_{*i/j}$], they$_i$ say the kids$_j$ won't __.
          c. ... but [~~the kids~~$_1$ listen to each other$_{*i/j}$], they$_i$ say [the kids$_j$]$_1$ won't __.

4.2 Functional structure in German

4.2.1 Evidence for vP

4.2.1.1 Evidence for a higher head-position?

- no necessity for VP-shell since

    - in V-final order the DO already c-commands the PP, V-movement thus not necessary to obtain the right word order:

    (106)

    ```
                        VP
                       /  \
                     NP    V′
                     |    /  \
                     DO  PP    V
                   Maria_i |  konfrontierte
                        mit sich_i
    ```

    - in V2-clauses, the verb does move, but to a higher position (and the DO as well in case it precedes the verb)

- coordination data are inconclusive: (107) suggests that, as in English, the objects form a constituent to the exclusion of the verb:

    (107) dass Peter [den   Hans mit seiner Vergangenheit] und [die Maria mit ihrer
           that Peter the.ACC John with his   past   and the Mary with her
           Zukunft] konfrontierte
           future   confronted

    - However, this may involve backward deletion of V in the first conjunct; evidence: backward deletion can affect more than just one verb:

    (108) dass Peter [den   Hans mit seiner ~~Zukunft konfrontierte~~] und [die Maria
           that Peter the.ACC John with his   future   confronted   and the Mary
           mit ihrer Zukunft] konfrontierte
           with her   past   confronted

    → coordination of two full VPs

- for evidence for verb movement, see the section on TP
- One might still postulate a vP for theory internal reasons, to capture

    - the difference between unergative and unaccusative verbs (but: is there any evidence internal to German that this corresponds to a specifier vs. object asymmetry? There are asymmetries, but perhaps they are only semantic)
    - to capture Burzio's generalization
    - to capture the passive generalization

4.2.1.2 Evidence for a higher specifier position?

- Is there any evidence that it is possible to topicalize VP without including a trace of the subject?

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4.2.2 Evidence for TP

4.2.2.1 Evidence for a higher head position?

- modal/aux as a separate category?

  – Unlike in English, modal verbs in German are not in complementary distribution with each other and they can be embedded by verbs selecting non-finite complements:
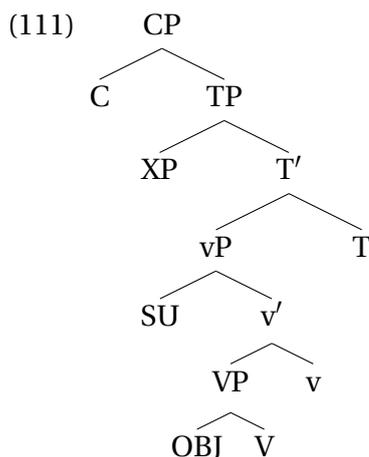
  (109)   a.   dass Hans das Buch lesen   {können/wollen/dürfen}   muss
              that John the book read.INF can.INF/want.INF/may.INF must.3SG
              'that John must be able to/want to/be allowed to read the book'
          b.   dass Hans das Buch lesen   {können/müssen/dürfen}   will
              that John the book read.INF can.INF/must.INF/may.INF want.3SG
              'that John wants to be able to/have to/be allowed to read the book.'

  – modal verbs can be embedded by verbs selecting non-finite forms:

  (110)   a.   dass er das Buch {wird/hat}   lesen {müssen/können/dürfen}
              that he the book will.3SG/has.3SG read must.INF/can.INF/may.INF
              'that he will/has have to/had to/be able to/been able to/be allowed to/been allowed to read the book'
          b.   Sie {glaubt/scheint}   singen   zu {dürfen/müssen/wollen}
              She believe.3SG/seem.3SG sing.INF to may.INF/must.INF/want.INF
              'She believes/seems that she may/must/want to sing.'

  → it is often concluded from this that modals, auxiliaries and verbs selecting non-finite forms all belong to the same category V (but see Wurmbrand 2001)

- additional verb positions? difficult to diagnose since v/T would be clause-final where relatively few constituents can occur ...:

  (111)

  ```
              CP
             /  \
            C    TP
                /  \
              XP    T'
                   /  \
                 vP    T
                /  \
              SU    v'
                   /  \
                 VP    v
                /  \
              OBJ   V
  ```

  – Aux/Mod in T? position of negation adverbials:

    * English: negation and VP-adverbials can occur between V and aux:

    (112)   a.   Cindy has not read the book.
            b.   Cindy has often embraced Mary.

* this is not the case in German:

(113) a. *dass Cindy das Buch gelesen   nicht hat
          that C.   the book read.PTCP not   have.3SG

       b. *dass Cindy das Buch gelesen   häufig hat
          that C.   the book read.PTCP often have.3SG

* however, the ungrammaticality of (113) is arguably related to the fact that negation and adverbs like 'often' are normally left-adjoined to VP, cf. VP-topicalization:

(114) a. [{häufig} gefehlt   {*häufig}] hat   er nicht.
          frequently been.absent frequently have.3SG he not
          'He has not frequently been absent.'

       b. [{nicht} gefehlt   {*nicht}] hat   nur Hans.
          not   been.absent not   have.3SG only John
          'Only John has not been absent.'

– verbs that fail to undergo V2
  * verbs that fail to undergo V2-movement can occur in V-last position, cf. Haider (1993)
  * if there were movement to v/T one might expect V-final orders to be ungrammatical as well, contrary to fact:

(115) a. *Sie uraufführten das Stück.
          they premiered   the play

       b. dass sie das Stück uraufführten
          that they the play premiered

       c. um   das Stück uraufzuführen
          in.order.to the play   premier.INF

  * not a bad argument, but it could be that the only movement step that is blocked is movement to C (depends on what the movement restriction is due to, cf. Sabel 2000, Sternefeld 2006: 511–519)

– adjacency requirement
  * material that is adjoined to VP follows the finite V in V-final clauses; if there were V-to-T-movement, one would expect that V follows the extraposed/right-adjoined material, contrary to fact (the particle cannot be stranded):

(116) a. [angefangen **damit**] hat   er noch nicht
          begun   it.with have.3SG he still   not
          'He hasn't begun with it yet.'

       b. dass er **damit** anfing
          that he it.with began

       c. dass er anfing **damit**
          that he began it.with

       d. *dass er an t$_V$ **damit** fing
          that he PRT   it.with began

  * however, right-adjunction is generally ungrammatical when the adjoined material occurs in the right bracket, i.e. even between non-finite verb and aux/modal:

(117) *dass er angefangen **damit** hat
         that he begun   it.with have.3SG

→ there could be an independent requirement that the verbal elements in the right bracket be adjacent (prosodic? cf. Wurmbrand 2007)

- – pro V-to-T-movement: no finite VP-topicalization
    - * if there weren't V-movement, it should be possible for the finite verb to undergo VP-topicalization, contrary to fact:

    (118)   a. dass Peter ein Buch liest
                    that Peter a   book reads
               b. *[Peter ein Buch liest]$_1$ C __$_1$
                    Peter a   book reads

    - * (118-b) is arguably out because V-to-C-movement has failed to apply
    - * but topicalization of finite verbs remains bad in V-last sentences:

    (119)   a. [ertrunken]$_1$ glaube ich nicht, dass er __$_1$ ist
                    drowned   believe I   not   that he   is
               b. *[ertrinkt]$_1$ glaube ich nicht, dass er __$_1$
                    drowns   believe I   not   that he

    - * (119-b) follows if V has moved to T so that it cannot be affected by VP-topicalization
    - * alternatively, (119-b) is ungrammatical because an X′, viz. T′ has been topicalized; however, the examples do not improve if the SU is affected as well:

    (120)   a. ?-??[jemand ertrunken] glaube ich nicht dass gestern   __ ist
                    someone drowned   beliebe I   not   that yesterday   is
               b. *[jemand ertrinkt] glaube ich nicht dass (heute) __
                    someone drowns believe I   not   that today

    - * however, topicalization of finite VPs is also ungrammatical in English (where there is no V-to-T-movement)
- – examples with a multiply-filled prefield seem te require V-to-T-movement so that they can be reanalyzed as instances of remnant movement (Fanselow 2009: 94, fn.9)

    (121)   [$_{VP}$ [trocken] [durch   den Regen] __$_1$] denke ich nicht dass du kommst$_1$
                 dry   through the rain   think I   not   that you come
                 'I don't think you'll get through the rain dry.'

- • alternative: there is a T-head but it is never the target of a final movement step

    - – problem : if T cannot be a final landing site of verb movement, V-to-C-movement requires a conspiracy of obligatory (V-to-v), V-to-T and T-to-C-movement (cf. Müller 2010a: 111)

4.2.2.2 *Evidence for a separate specifier position?*

- • there is clear evidence that subjects can stay low, i.e. that they remain in VP/vP:

    - – VP-topicalization can affect transitive subjects:

    (122)   [**Ein Aussenseiter** gewonnen] hat das Rennen noch nie.
            an outsider   won   has the race   still   not
            'An outsider has never won the race.'

    - – subjects can remain within the verbal complex:

    (123)   dass gestern   hätte   **jemand** das Auto waschen sollen
            that yesterday have.SBJV someone the car   wash.INF should
            'that someone should have washed the car yesterday'

– subjects can follow adverbials/modal particles that are assumed to mark the VP-boundary:

(124)   dass vermutlich gestern   wieder mal **jemand** den   Tiger geküsst hat.
        that probably   yesterday once again someone the.ACC tiger kissed has
        'that probably someone has once again kissed the tiger'

• however, it is less clear that higher subjects as in (125) occupy a designated subject position:

(125)   dass **jemand** vermutlich gestern   wieder mal den   Tiger geküsst hat.
        that someone   probably   yesterday once again the.ACC tiger kissed has

– since German has free word order, it may also be the case that the subject is affected by whatever operation makes free word order possible, cf. (126) with a scrambled object:

(126)   dass **den   Tiger** vermutlich gestern   wieder mal jemand   geküsst hat
        that the.ACC tiger   probably   yesterday once again someone kissed has

• some evidence in favor of a separate subject position: the SU is the only constituent that can precede weak pronouns without inducing markedness

(127)   a. dass es ihr   Peter gegeben hat
            that it she.DAT Peter given   has
        b. dass Peter es ihr   gegeben hat
            that Peter it she.DAT given   has

(128)   a. ??dass das Buch er ihr   geschenkt hat
             that the book he she.DAT given   has
        b. dass er ihr   das Buch geschenkt hat
            that he she.DAT the book given   has

(129)   a. ??dass dem   Peter er sie   vorgestellt hat
             that the.DAT Peter he she.ACC introduced has
        b. dass er sie   dem   Peter vorgestellt hat
            that he she.ACC the.DAT Peter introduced has

– the pattern follows if weak pronouns occur at the edge of VP/vP (or in a designated specifier position), while the SU can optionally move to SpecTP

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