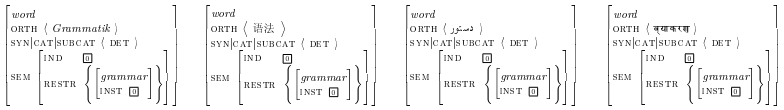

Syntax of Germanic languages

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July 3, 2025

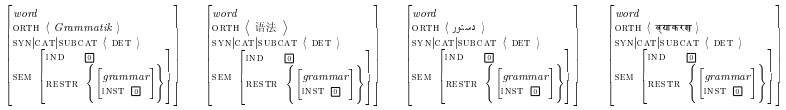
Source code of the slides and the book

The source code of the slides is available on GitHub:

https://github.com/stefan11/Germanic-Slides-English

The source code of the book (Müller 2023a) as well:

https://github.com/langsci/353



Syntax of Germanic languages

Phenomena

Stefan Müller

July 3, 2025

Introductory material

Terminology (part of speech, grammatical functions, topological fields, …): Chapter 1 in Müller (2023b).

Müller, Stefan. 2023. *Grammatical theory: From Transformational Grammar to constraint-based approaches*. 5th edn. (Textbooks in Language Sciences 1). Berlin: Language Science Press. DOI: 10.5281/zenodo.7376662.

Overview of phenomena: Chapter 2 in Müller (2023a).

Müller, Stefan. 2023. *Germanic syntax: A constraint-based view*. (Textbooks in Language Sciences 12). Berlin: Language Science Press. DOI: 10.5281/zenodo.7733033.

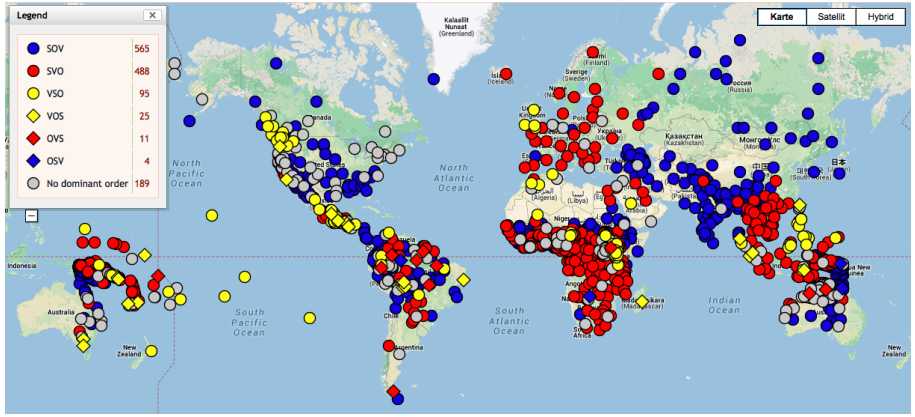
Variation

- order:
  - VO vs. OV
  - V2 vs. Non-V2
  - order of subjects and objects (fixed or free)
  - order of adverbs
- verb clusters
- subject requirement
- passive
  - personal passive
  - impersonal passive
  - objects of ditransitive verbs
- expletives
  - marking of clause type in main clauses (V2)
  - marking of clause type in embedded clauses (V3)

Warning: OV/VO vs. V2/non-V2

- Languages are classified according to order of subject, object and verb:
  - SOV
  - SVO
  - ...
- This does not mean that all sentences of a language always correspond to this pattern.
- Languages are classified according to their type.
- independent property: V2 or not V2.
- third independent property:
  possibility to reorder subject and objects (Scrambling).
- Haftka (1996):
  Deutsch ist eine V/2-Sprache mit Verbendstellung und freier Wortfolge
  German is a V2 language with verb in final position and free constituent order.
  Sounds crazy, but it is not.

Order of subject, object & verb in the world's languages



Matthew S. Dryer: Feature 81A: Order of Subject, Object and Verb,
The World Atlas of Language Structures

Subject, object and verb in the WALS

- Subjects are arguments with more agent-like properties.
- Objects are arguments with more patient-like properties.
- This is not necessarily what we assume to be subjects and objects within traditional grammars of particular languages.
  For example German: Subject = nominative (Reis 1982)

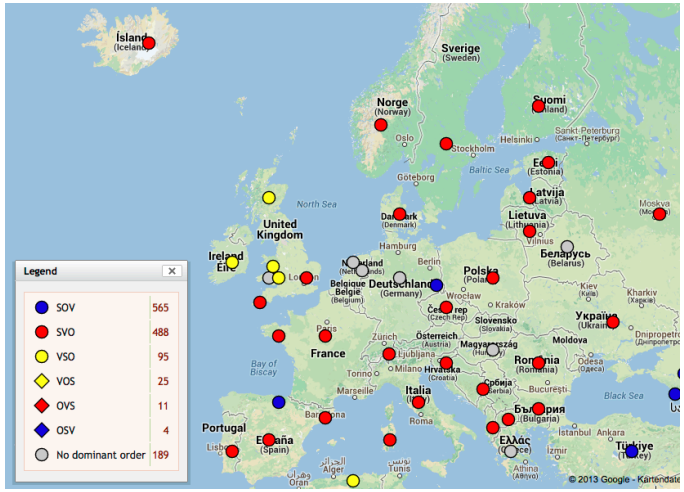
(1) Der Aufsatz interessiert mich.
the paper interests me
'I am interested in the paper.'

Dryer: Word order

- Dryer: Determining Dominant Word Order
  *Where a language is shown on one of the word order maps as having a particular order as the dominant order in the language, this means that it is either **the only order possible** or the order that is **more frequently used**.*
  I base my classification of Macushi here on the frequency counts, and since no order is more than twice as frequent as the next most frequent order, I treat this language as lacking a dominant order of subject, object, and verb.

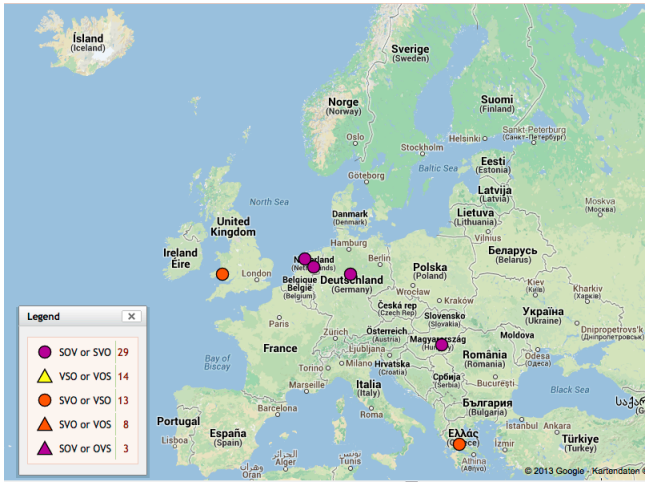
  German, Dutch and Frisian are V2 languages, that is, SVO and SVAuxOV orders are the result of verb fronting with a semantic function. These languages are usually counted among the SOV languages as well.

Subject, object, verb in Europe



SVO:
Islandic,
Norwegian,
Swedish,
Danish,
English

Dryer: Feature 81b: Two Dominant Orders of Subject, Object, and Verb



SVO oder SOV:
German,
Frisian,
Dutch

Languages without a dominant order in the WALS

Dryer:

A third subtype of language lacking a dominant order consists of languages in which different word orders occur but the choice is syntactically determined. For example, in **German and Dutch**, the dominant order is **SVO in main clauses lacking an auxiliary** and **SOV in subordinate clauses and clauses containing an auxiliary** [...]. Because this results in both orders being common, neither order is considered dominant here and these two languages are shown on the map as lacking a dominant word order. In general, if the word order varies according to whether there is an auxiliary verb, the language is shown on the map as lacking a dominant order.

Auxiliaries do not count, or do they?

(2) a. Kim sieht den Fuchs.
Kim sees the fox
'Kim sees the fox.'

b. Kim hat den Fuchs gesehen.
Kim has the fox seen
'Kim has seen the fox.'

Dreyer classifies (2a) as SVO and (2b) as SAuxOV.
Aux is ignored so that the pattern counts as SOV.

Other verb embedding verbs?

But what about (3)?

(3) a. Kim scheint den Fuchs zu sehen. (SVOV?)
Kim seems the fox to see
'Kim seems to see the fox.'

b. Kim scheint den Fuchs gesehen zu haben.
Kim seems the fox seen to have
'Kim seems to have seen the fox.'

It is just the finite verb that is placed differently because of clause type marking.

OV vs. VO: OV

OV: Verbs follow the object:

(4) a. dass sie ihn sieht$_1$ (German, SOV)
that she him sees
'that she sees him'

b. dass sie ihn gesehen$_2$ hat$_1$
that she him seen has
'that she has seen him'

c. dass sie ihn gesehen$_3$ haben$_2$ muss$_1$
that she him seen have must
'that she must have seen him'

Embedding verbs follow embedded ones.

OV vs. VO: VO

VO: Verbs precede their object:

(5) a. at hun ser$_1$ ham (Danish, SVO)
that she sees him

b. at hun have$_1$ set$_2$ ham
that she has seen him

c. at hun må$_1$ have$_2$ set$_3$ ham
that she must have seen him

OV: German, Dutch, Afrikaans, ...

VO: English, Danish, Norwegian, Swedish, ...

Particle verbs and resultative constructions

Haider (2020): further differences between VO and OV languages:

Particle verbs:

(6) a. Kim will **look up** the information. (verb < particle)
b. Kim wird die Information **nachschlagen**. (particle < verb)

Resultative constructions:

(7) a. Kim will **fish** the pond **empty**. (verb < pred)
b. Kim wird den Teich **leer fischen**. (pred < verb)

V2

- German (and other Germanic languages) are V2 languages:
  The finite verb is in second position in assertions and *w* questions.
- An arbitrary constituent can be placed in front of it:

(8) a. Das Kind gibt dem Eichhörnchen jetzt eine Nuss. (German)
the child gives the squirrel now a nut
'The child gives the squirrel a nut now.'
b. Dem Eichhörnchen gibt das Kind jetzt eine Nuss.
the squirrel gives the child now a nut
c. Eine Nuss gibt das Kind dem Eichhörnchen jetzt.
a nut gives the child the squirrel now
d. Jetzt gibt das Kind dem Eichhörnchen eine Nuss.
now gives the child the squirrel a nut

V2 vs. non-V2

- All Germanic languages are V2, except English:

(9) a. Bagels mag ich. (German)
b. Bagels, I like. (English)

(10) a. Gestern gab ich dem Eichhörnchen eine Nuss. (German)
b. Yesterday, I gave the squirrel a nut. (English)

- There is fronting in English, but the fronted constituent is placed before the subject and the verb.

Non-extractable Elements

Allmost all arguments can be frotned in V2 langauges.

Not all objects may be fronted in English (speaker dependent) (Hudson 1992: 258):

(11) a. We give children sweets.
b. These sweets, we give children _.
c. % These children, we give _ sweets.

Fronting may cross clause boundaries

(12) [Über dieses Thema]$_i$ habe ich sie gebeten, [[einen Vortrag $\_i$] zu
about this topic have I her asked a talk to
halten].[1] (German)
hold
'I asked her to give a talk about this topic.'

This means that V2 cannot be local reordering of constituents.

[1]Adapted from Hinrichs & Nakazawa (1989a: 21).

V2 and OV/VO

- V2 is independent of VO/OV. Danish is SVO and V2.

(13) a. Gert har læst bogen. (Danish)
Gert has read book.DEF

b. Bogen har Gert læst.
book.DEF has Gert read

Englisch as Residual V2

There is a residuum of V2 structures in questions:

(14) a. Which book did Sandy read?
b. Which book did Sandy give to Kim?
c. To whom did Sandy give the book?

Rizzi (1990: 375): *residual V2 language*

Clause types

Clause types are encoded via verb position. Apart from assertions and interrogative *w* clauses, there are V2 imperatives:

(15) Jetzt gib ihr das Buch! (German)
now give her the book
'Give her the book now!'

Yes/no questions and imperatives as V1:

(16) a. Gibt er ihr das Buch? (German)
gives he her the book
'Does he give her the book?'

b. Gib ihr das Buch!
give her the book

V2 is rare

V2 is rare (Holmberg 2015: 343).

- Germanic languages (except English, Haider & Prinzhorn 1986)
- modern Breton (Borsley & Kathol 2000)
- Estonian (Finno-Ugric, Holmberg 2015: 343),
- Sorbian (Plank 2003: entry 79) (Slavic)
- the Celtic languages Breton (Borsley & Kathol 2000), Cornish (Borsley, Tallerman & Willis 2007: 287)
- Old French (Adams 1987, Roberts 1993, Vance 1997),
- Old Italian, Old Spanish (Fontana 1997: Section 3.3.2),
- Rhaeto"=Romance (Poletto 2002, Anderson 2006),
- Kashmiri (India, Pakistan, Bhatt 1999: Chapter 4)
- the austronesian languages Taiof und Sisiqa, (Ross 2004: 495)
- Brasilian native language Karitiana from the Tupí family (Storto 2003)

Scrambling or not

Germanic OV languages (German, Dutch, ...):
in principle all orders of arguments possible:

(17) a. [weil] das Kind dem Eichhörnchen die Nuss gibt (German)
because the child the squirrel the nut gives
b. [weil] das Kind die Nuss dem Eichhörnchen gibt
because the child the nut the squirrel gives
c. [weil] die Nuss das Kind dem Eichhörnchen gibt
because the nut the child the squirrel gives
d. [weil] die Nuss dem Eichhörnchen das Kind gibt
because the nut the squirrel the child gives
e. [weil] dem Eichhörnchen das Kind die Nuss gibt
because the squirrel the child the nut gives
f. [weil] dem Eichhörnchen die Nuss das Kind gibt
because the squirrel the nut the child gives

Germanic VO languages (English, ...): Arguments have a fixed position.

(18) a. because the child gives the squirrel the nut
b. because the child gives the nut to the squirrel

Dative Shift requires recategorization. Marked by preposition.

Position of adverbials

German, Dutch, ...: position of adverbs free:

(19) a. weil das Kind dem Eichhörnchen die Nuss *gestern* gab (German)
because the child the squirrel the nut yesterday gave
'because the child gave the squirrel the nut yesterday'
b. weil das Kind dem Eichhörnchen *gestern* die Nuss gab
because the child the squirrel yesterday the nut gave
c. weil das Kind *gestern* dem Eichhörnchen die Nuss gab
because the child yesterday the squirrel the nut gave
d. weil *gestern* das Kind dem Eichhörnchen die Nuss gab
because yesterday the child the squirrel the nut gave

Danish, English, ...: Adverbs are placed in front of or after the VP:

(20) a. because the child *often* [gave the squirrel the nut]
b. because the child [gave the squirrel the nut] *often*

Extreme case nested VPs (Quirk et al. 1985: § 8.20, 495):

(21) It [*certainly* [$_{VP}$ may [*possibly* [$_{VP}$ have [*indeed* [$_{VP}$ been [*badly* [$_{VP}$ formulated]]]]]]]].

Verb complexes exist in OV languages only

- Usually objects are placed next to their verbs:

  (22) Somebody promised her [to read a book].

  (23) weil jemand [ihr [das Buch zu lesen] versprochen] hat
  because somebody her the book to read promised has
  'because somebody promised her to read the book'

- German, Dutch, ...all formation of verbal complexes:

  (24) weil es ihr jemand zu lesen versprochen hat (Haider 1991)
  because it her somebody read promised has

  Verbs at the end behave like one verb → scrambling is possible.

- English, Danish, ... do not allow reordering of arguments.

  (25) a. * Somebody promised a book her to read.
  b. # Somebody promised to read her a book.

Obligatory subjects

- English, Danish need a subject.
- German does not need a subject:

(26) a. Ihm graut vor der Prüfung. (German)
him.DAT dreads before the exam
'He dreads the exam.'

b. Heute wird nicht gearbeitet.
today is not worked
'There is no working today.'

- Subjectless verbs often may be realized with an expletive subject:

(27) Ihm graut es vor der Prüfung.
him dreads it.EXPL before the exam
'He dreads the exam.'

Sometimes expletives are not possible

- But sometimes this does not work:

(28) a. Mir ist schlecht.
me is sick
'I am sick.'

b. * Mir ist es schlecht.
me is it sick

c. * weil es mir schlecht ist
because it.EXPL me sick is

Case

- Islandic has the best-preserved inflection system of the Germanic languages.
- Icelandic is interesting since it has subjects that are not nominative (Zaenen et al. 1985).
- There is a unified way to assign case: Yip, Maling & Jackendoff (1987).

Impersonal passive

- German allows for an impersonal passive:

(29) weil noch gearbeitet wird (German)
because still worked is
'because there is still working there'

- English does not have the impersonal passive:

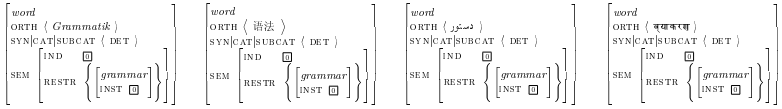
(30) * because (it) was worked

- Danish has it despite the subject condition: An expletive is inserted.

(31) a. fordi der bliver arbejdet
because EXPL is worked
'because there is working there'

b. fordi der arbejdes
because EXPL work.PASS
'because there is working there'

- German does not allow an expletive.



Syntax of Germanic languages

Phrase structure grammar and $\overline{\text{X}}$ Theory

Stefan Müller

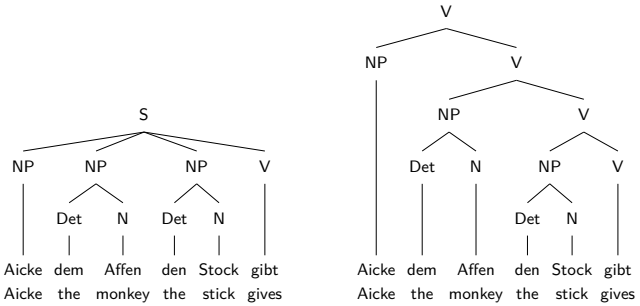
July 3, 2025

Literature

The following is based on Müller (2023a: Kapitel 3).

Müller, Stefan. 2023. *Germanic syntax: A constraint-based view*. (Textbooks in Language Sciences 12). Berlin: Language Science Press. DOI: 10.5281/zenodo.7733033.

Phrase structure



NP → Det, N
S → NP, NP, NP, V

NP → Det, N
V → NP, V

Rewrite rules are the real thing! Trees are just visualizations.
Sometimes a bracket notation is used:
[$_{\text{S}}$ [$_{\text{NP}}$ Aicke] [$_{\text{NP}}$ [$_{\text{Det}}$ dem] [$_{\text{N}}$ Affen]] [$_{\text{NP}}$ [$_{\text{Det}}$ den] [$_{\text{N}}$ Stock]] [$_{\text{V}}$ gibt]]

Example derivation with a flat structure

NP → Det N
S → NP NP NP V

NP → Aicke
Det → dem
Det → den

N → Affen
N → Stock
V → gibt

Aicke	dem	Affen	den	Stock	gibt
NP	dem	Affen	den	Stock	gibt
NP	Det	Affen	den	Stock	gibt
NP	Det	N	den	Stock	gibt
NP		NP	den	Stock	gibt
NP		NP	Det	Stock	gibt
NP		NP	Det	N	gibt
NP		NP		NP	gibt
NP		NP		NP	V
					S

NP → Aicke
Det → das
N → Buch
NP → Det N
Det → den
N → Stock
NP → Det N
V → gibt
S → NP NP NP V

Do try this at home!

You may try such grammars on your own.

- Go to https://swish.swi-prolog.org/.
- Click "'Program"'.
- Enter the following:

```
s --> np, v, np, np.
np --> det, n.
np --> [Aicke].
det --> [dem].
det --> [den].
n --> [affen].
n --> [stock].
v --> [gibt].
```

- Enter the following into the right box:
  `s([Aicke,gibt,dem,affen,den,stock],[]).`
- The word "'true"' should appear in the box on top. If so, celebrate!

A generative grammar

- The grammar that you entered can generate sentences.
- You can tests, which sentences the grammar generates by entering the following: `s([X],[]),print(X),nl,fail.`
- `s([X],[])` asks Prolog to find an X that is an "'s"'.
- `print(X),nl` prints the X and a newline.
- `fail` tells Prolog that we are not satisfied an expect it to find another solution.
- It tries to find and print other solutions and fails if it runs out of possibilities to try.
- Some grammars generate infinitely many Xs. So this process would never terminate (except if the computer runs out of memory …).

Sentences described by the grammar

- The grammar is not detailed enough:
  NP → Det N
  S → NP NP NP V

(32) a. Aicke dem Affen den Stock gibt
Aicke the monkey the stick gives

b. * ich dem Affen den Stock gibt
I the monkey the stick gives
(subject verb agreement *ich*, *gibt*)

c. * Aicke dem Affen dem Stock gibt
Aicke the monkey the stick gives
(case assignment of the verb: *gibt* needs accusative)

d. * Aicke dem Affen das Stock gibt
Aicke the monkey the stick gives
(determinator noun agreement *das*, *Stock*)

Subject verb agreement (I)

- agreement in person (1, 2, 3) and number (sg, pl)

(33) a. Ich schlafe. (1, sg)
b. Du schläfst. (2, sg)
c. Er schläft. (3, sg)
d. Wir schlafen. (1, pl)
e. Ihr schlaft. (2, pl)
f. Sie schlafen. (3,pl)

- How can this be expressed in rules?

Subject verb agreement (II)

- making the symbols more specific
  aus S → NP NP NP V wird

  S → NP_1_sg NP NP V_1_sg
  S → NP_2_sg NP NP V_2_sg
  S → NP_3_sg NP NP V_3_sg
  S → NP_1_pl NP NP V_1_pl
  S → NP_2_pl NP NP V_2_pl
  S → NP_3_pl NP NP V_3_pl
- six symbols for noun phrases, six for verbs
- six rules instead of one

Case assignment by the verb

- Case has to be represented:
  S → NP_1_sg_nom NP_dat NP_acc V_1_sg_ditransitiv
  S → NP_2_sg_nom NP_dat NP_acc V_2_sg_ditransitiv
  S → NP_3_sg_nom NP_dat NP_acc V_3_sg_ditransitiv
  S → NP_1_pl_nom NP_dat NP_acc V_1_pl_ditransitiv
  S → NP_2_pl_nom NP_dat NP_acc V_2_pl_ditransitiv
  S → NP_3_pl_nom NP_dat NP_acc V_3_pl_ditransitiv
- 3 * 2 * 4 = 24 new categories for NP in total
- 3 * 2 * x categories for V (x = number of different valence classes)

Determiner noun agreement

- Agreement in gender (fem, mas, neu), number (sg, pl) and case (nom, gen, dat, acc)

  (34) a. der Mann, die Frau, das Buch (gender)
  the man the woman the book
  b. das Buch, die Bücher (number)
  the book the books
  c. des Buches, dem Buch (case)
  the book the book
- from NP → Det N we get:

NP_3_sg_nom → Det_fem_sg_nom N_fem_sg_nom	NP_gen → Det_fem_sg_gen N_fem_sg_gen
NP_3_sg_nom → Det_mas_sg_nom N_mas_sg_nom	NP_gen → Det_mas_sg_gen N_mas_sg_gen
NP_3_sg_nom → Det_neu_sg_nom N_neu_sg_nom	NP_gen → Det_neu_sg_gen N_neu_sg_gen
NP_3_pl_nom → Det_fem_pl_nom N_fem_pl_nom	NP_gen → Det_fem_pl_gen N_fem_pl_gen
NP_3_pl_nom → Det_mas_pl_nom N_mas_pl_nom	NP_gen → Det_mas_pl_gen N_mas_pl_gen
NP_3_pl_nom → Det_neu_pl_nom N_neu_pl_nom	NP_gen → Det_neu_pl_gen N_neu_pl_gen
... dative	... accusative

- 24 symbols for determiners, 24 symbols for nouns
- 24 rules instead of one

Problems of this approach

- Gernalizations not captured.
- neither in the rules nor in category symbols
  - Where can an NP or an NP_nom be placed?
    Not: Where can an NP_3_sg_nom be placed?
  - Comonalities of rules are not obvious.
- Solution: Features with values and identity of values
  Category symbol: NP Feature: Per, Num, Kas, ...
  We get rules like the following:
  NP(3,sg,nom) → Det(fem,sg,nom) N(fem,sg,nom)
  NP(3,sg,nom) → Det(mas,sg,nom) N(mas,sg,nom)

Features and rule schemata (I)

- Rules with special values are generalized to schemata:

  NP(3,Num,Cas) → Det(Gen,Num,Cas) N(Gen,Num,Cas)
- Gen, Num and Cas values do not matter,
  as long as the values are identical
- The value of the person feature (first slot in NP(3,Num,Kas))
  is fixed by the rule: 3.

Features and rule schemata (II)

- Rules with specific values are generalized into rule schemata:

  NP(3,Num,Kas) → Det(Gen,Num,Kas) N(Gen,Num,Kas)
  S → NP(Per1,Num1,nom)
  NP(Per2,Num2,dat)
  NP(Per3,Num3,acc)
  V(Per1,Num1)
- Per1 and Num1 are identical for verb and subject.
- The values of other NPs do not matter.
  (notation for irrelevant values: '_')
- Case of the NPs are specified in the second rule.

Noun phrases

- Until now NPs were Det + N, but NPs can be much more complex:

  (35) a. ein Buch
  a book
  b. ein Buch, das wir kennen
  a book that we know
  c. ein Buch aus Japan
  a book from Japan
  d. ein interessantes Buch
  an interesting book
  e. ein Buch aus Japan, das wir kennen
  a book from Japan that we know
  f. ein interessantes Buch aus Japan
  an interesting book from Japan
  g. ein interessantes Buch, das wir kennen
  an interesting book that we know
  h. ein interessantes Buch aus Japan, das wir kennen
  an interesting book from Japan that we know

  Additional material in (35) are adjuncts.

Adjectives in NPs

- Suggestion:

  (36) a. NP → Det N
  b. NP → Det A N
- What about (37)?

  (37) alle weiteren schlagkräftigen Argumente
  all further strong arguments
  'all other strong arguments'
- (38) seems to be needed for the analysis of (37):

  (38) NP → Det A A N
- We do not want to stipulate a maximum number of adjectives in NPs:

  (39) NP → Det A* N

Adjectives in NPs (II)

- Problem: Adjective and noun do not form a constituent if we assume (40).

  (40) NP → Det A* N

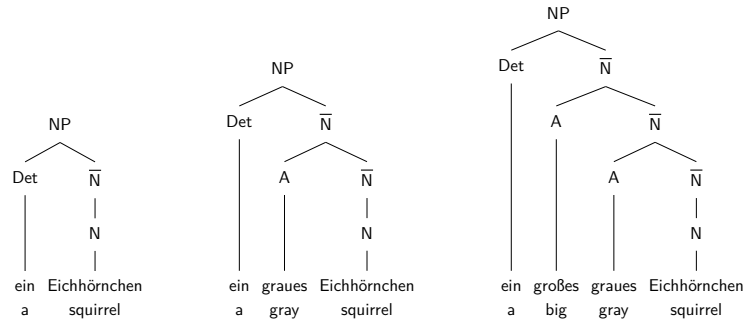
  Constituency tests suggest that A + N form a constituent:

  (41) alle [[großen Seeelefanten] und [grauen Eichhörnchen]]
  all big elephant.seals and gray squirrels
  'all big elephant seals and gray squirrels'

Adjective + noun as constituent

- Better rules:

  (42) a. NP → Det $\overline{\text{N}}$
  b. $\overline{\text{N}}$ → A $\overline{\text{N}}$
  c. $\overline{\text{N}}$ → N



Other adjuncts

- Other adjuncts are analogous:

  (43) a. $\overline{\text{N}}$ → $\overline{\text{N}}$ PP
  b. $\overline{\text{N}}$ → $\overline{\text{N}}$ RelativeClause

- With the rules introduced so far,
  we can anaylze all determiner-adjunct-noun combinations.

Complements

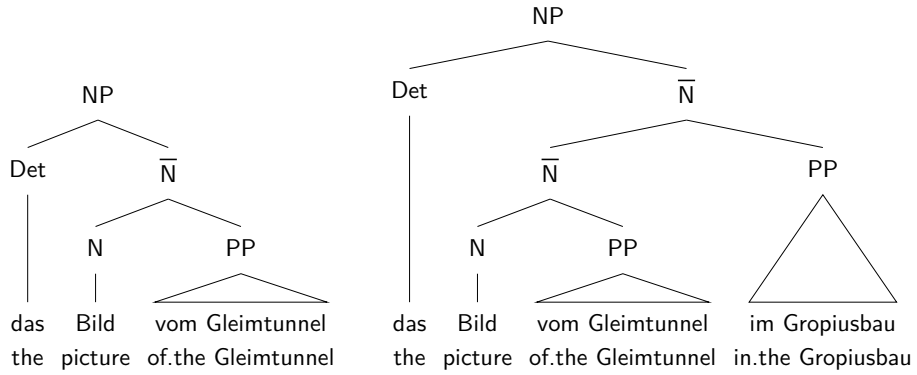
- $\overline{\text{N}}$ → N contains one noun only, but some nouns allow further arguments:

  (44) a. der Vater von Peter
  the father of Peter
  'Peter's father'
  b. das Bild vom Gleimtunnel
  the picture of.the Gleimtunnel
  'the picture of the Gleimtunnel'
  c. das Kommen der Installateurin
  the coming of.the plumber
  'the plumber's visit'

- Therefore:

  (45) $\overline{\text{N}}$ → N PP

Complements (and adjuncts)



Missing nouns (I)

- Noun is missing, but adjuncts are present:

(46) a. ein interessantes _
an interesting
'an interesting one'

b. ein neues interessantes _
a new interesting
'a new interesting one'

c. ein interessantes _ aus Japan
an interesting from Japan
'an interesting one from Japan'

d. ein interessantes _, das wir kennen
an interesting that we know
'an interesting one that we know'

Missing nouns (II)

- Noun is missing, but complement of the noun is present:

(47) a. (Nein, nicht der Vater von Klaus), der _ von Peter war gemeint.
no not the father of Klaus the of Peter was meant
'No, it wasn't the father of Klaus, but rather the one of Peter that was meant.'

b. (Nein, nicht das Bild von der Stadtautobahn), das _ vom Gleimtunnel war beeindruckend.
no not the picture of the motorway the of.the Gleimtunnel was impressive
'No, it wasn't the picture of the motorway, but rather the one of the Gleimtunnel that was impressive.'

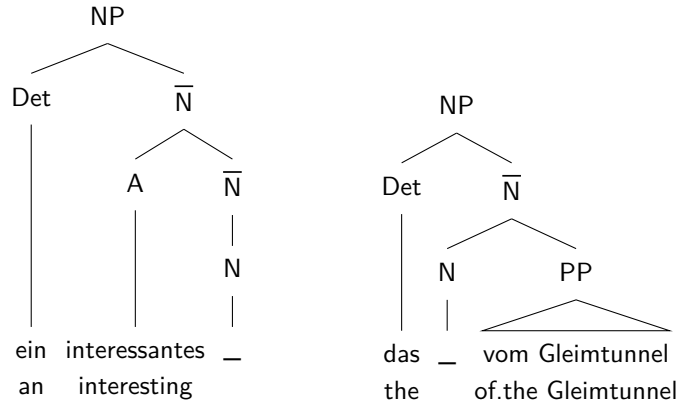
c. (Nein, nicht das Kommen des Tischlers), das _ der Installateurin ist wichtig.
no not the coming of.the carpenter the of.the plumber is important
'No, it isn't the visit of the carpenter, but rather the visit of the plumber that is important.'

- PSG: **Epsilon production**
- Notational variants:

(48) a. N →
b. N → ϵ

- Rules in (48) = empty boxes with the same labels as boxes with normal nouns

Analyses with empty nouns



Missing determiners – plural

- Determiners can be omitted as well:
  Plural:

(49) a. Bücher
books

b. Bücher, die wir kennen
books that we know

c. interessante Bücher
interesting books

d. interessante Bücher, die wir kennen
interesting books that we know

Missing determiners – mass nouns

- With mass nouns in the singular:

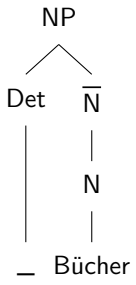
(50) a. Getreide
grain

b. Getreide, das gerade gemahlen wurde
grain that just ground was
'grain that has just been ground'

c. frisches Getreide
fresh grain

d. frisches Getreide, das gerade gemahlen wurde
fresh grain that just ground was
'fresh grain that has just been ground'

Missing Determiners

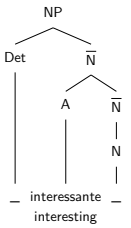


Missing determiners and missing nouns

Determiner and nouns can be dropped simultaneously:

(51) a. Ich lese interessante.
I read interesting
'I read interesting ones.'

b. Dort drüben steht frisches, das gerade gemahlen wurde.
there over stands fresh that just ground was
'Over there is some fresh (grain) that has just been ground.'



Adjective phrases

- Until now we only had simple adjective like *interessant* 'interesting'.
- Adjective phrases can be very complex:

(52) a. der seiner Frau treue Mann
the his.DAT wife faithful man
'the man faithful to his wife'

b. der auf seinen Sohn stolze Mann
the on his.ACC son proud man
'the man proud of his son'

c. der seine Frau liebende Mann
the his.ACC woman loving man
'the man who loves his wife'

d. der von seiner Frau geliebte Mann
the by his.DAT wife loved man
'the man loved by his wife'

- Rule for attributive adjectives has to be adapted:

(53) $\overline{\text{N}} \rightarrow \text{AP } \overline{\text{N}}$

- Rules for APs:

(54) a. $\text{AP} \rightarrow \text{NP A}$
b. $\text{AP} \rightarrow \text{PP A}$
c. $\text{AP} \rightarrow \text{A}$

Prepositional phrases

- The syntax of PPs is rather simple. First suggestion:

(55) $\text{PP} \rightarrow \text{P NP}$

- But PPs can be extended by measurement phrases and other additions qualifying the semantic contribution of the preposition:

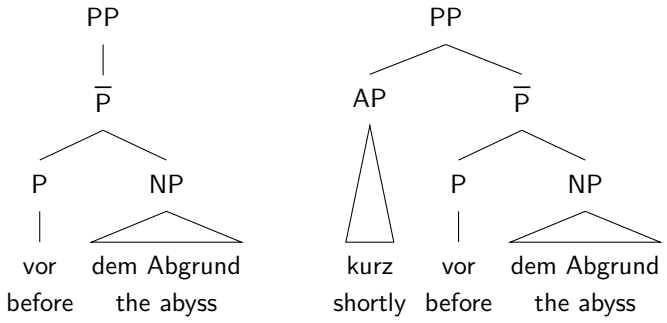
(56) a. [[Einen Schritt] vor dem Abgrund] blieb er stehen.
one step before the abyss remained he stand
'He stopped one step in front of the abyss.'

b. [[Kurz] nach dem Start] fiel die Klimaanlage aus.
shortly after the take.off fell the air.conditioning out
'Shortly after take off, the air conditioning stopped working.'

c. [[Schräg] hinter der Scheune] ist ein Weiher.
diagonally behind the barn is a pond
'There is a pond diagonally across from the barn.'

(57) a. $\text{PP} \rightarrow \text{NP } \overline{\text{P}}$
b. $\text{PP} \rightarrow \text{AP } \overline{\text{P}}$
c. $\text{PP} \rightarrow \overline{\text{P}}$
d. $\overline{\text{P}} \rightarrow \text{P NP}$

Prepositional phrases



Generalization over rules

- head + complement = intermediate level:

(58) a. $\overline{\text{N}} \rightarrow \text{N PP}$
b. $\overline{\text{P}} \rightarrow \text{P NP}$

- intermediate level + further constituent = maximal projection

(59) a. $\text{NP} \rightarrow \text{Det } \overline{\text{N}}$
b. $\text{PP} \rightarrow \text{NP } \overline{\text{P}}$

- parallel structures for AP and VP in English

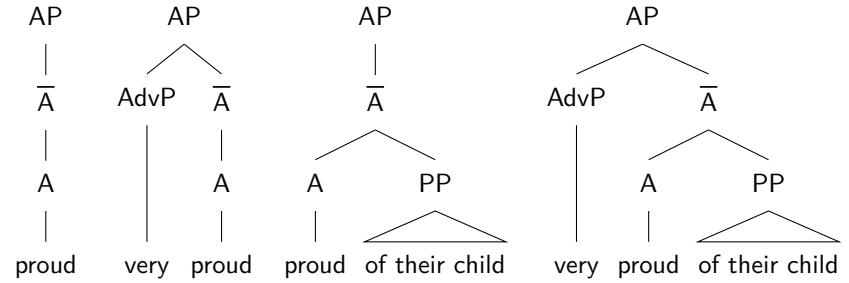
Adjective phrases in Englisch

(60) a. They are proud.
b. They are very proud.
c. They are proud of their child.
d. They are very proud of their child.

(61) a. AP → $\overline{\text{A}}$
b. AP → Adv $\overline{\text{A}}$
c. $\overline{\text{A}}$ → A PP
d. $\overline{\text{A}}$ → A

Adjective phrases in Englisch

(62) a. AP → $\overline{\text{A}}$
b. AP → AdvP $\overline{\text{A}}$
c. $\overline{\text{A}}$ → A PP
d. $\overline{\text{A}}$ → A



Further abstraction

- We saw how one can abstract over case, gender and so on (variables in rule schemata).

  (63) NP(3,Num,Cas) → D(Gen,Num,Cas), N(Gen,Num,Cas)

- In a similar way one can abstract over part of speech.
  Instead of AP, NP, PP, VP, one writes XP.
- Instead of (64), one writes (65):

  (64) a. PP → $\overline{\text{P}}$
  b. AP → $\overline{\text{A}}$

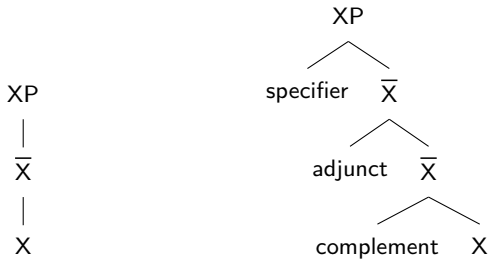
  (65) XP → $\overline{\text{X}}$

$\overline{\text{X}}$ Theory: Assumptions

Phrases have at least three levels:

- X^0 = head
- X′ = intermediate level (= $\overline{\text{X}}$, X-Bar → name of the theory)
- XP = highest level (= X″ = $\overline{\overline{\text{X}}}$), called maximal projection

Minimal and maximal structure of phrases



- Adjuncts are optional → there does not need to be an X′ with adjunct daughter.
- Some categories do not have a specifier or it is optional (e.g., A).
- Sometimes adjuncts to XP or head adjuncts to X are assumed.

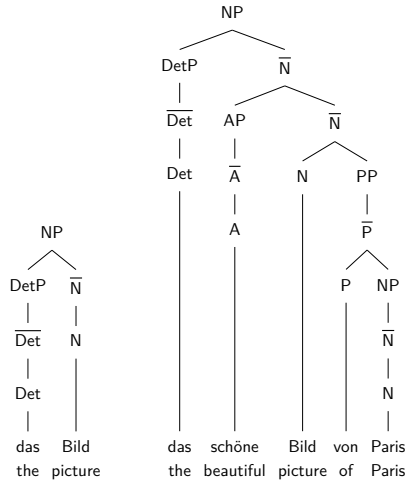
$\overline{\text{X}}$ Theory: Rules according to Jackendoff (1977)

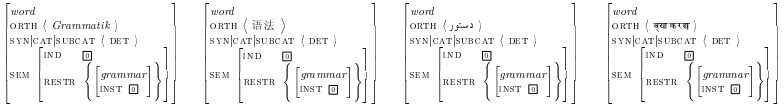
$\overline{\text{X}}$ rule	with specific categories	example strings
$\overline{\overline{\text{X}}} \rightarrow \overline{\overline{\text{specifier}}}\ \overline{\text{X}}$	$\overline{\overline{\text{N}}} \rightarrow \overline{\overline{\text{DET}}}\ \overline{\text{N}}$	the [picture of Paris]
$\overline{\text{X}} \rightarrow \overline{\text{X}}\ \overline{\text{adjunct}}$	$\overline{\text{N}} \rightarrow \overline{\text{N}}\ \overline{\text{REL\_CLAUSE}}$	[picture of Paris] [that everybody knows]
$\overline{\text{X}} \rightarrow \overline{\overline{\text{adjunct}}}\ \overline{\text{X}}$	$\overline{\text{N}} \rightarrow \overline{\text{A}}\ \overline{\text{N}}$	beautiful [picture of Paris]
$\overline{\text{X}} \rightarrow \text{X}\ \overline{\overline{\text{complement}}*}$	$\overline{\text{N}} \rightarrow \text{N}\ \overline{\overline{\text{P}}}$	picture [of Paris]

X stands for an arbitrary category, X is the head, '*' stands for arbitrarily many repretitions

X can be placed left or right in rules

NP structures with all projection levels





Syntax of Germanic languages

Valence, argument order and adjunct placement

Stefan Müller

July 3, 2025

Literature

Please read Müller (2023a: Chapter 4).

Müller, Stefan. 2023. *Germanic syntax: A constraint-based view*. (Textbooks in Language Sciences 12). Berlin: Language Science Press. DOI: 10.5281/zenodo.7733033.

The theory that is used in the following is Head-Driven Phrase Structure Grammar in a reduced version.

For HPSG, see Pollard & Sag (1987, 1994), Sag (1997), Müller (2025), Müller et al. (2024).

Presence of certain constituents

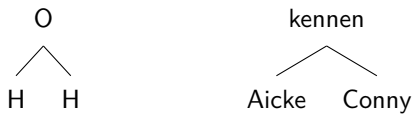
The sequences in (66) are not well-formed:

(66) a. * that the dolphin devours
b. * that of the dolphin the child the ball him his the child gives

Something is missing in (66a), there is too much in (66b).

Valenz in der Chemie und in der Linguistik

Tesnière (1959) adapts the concept of valence from chemistry:



Arguments

NPs in (67) are arguments of the respective verbs:

(67) a. [dass] der Delphin den Menschen erwartet
that the.NOM dolphin den.ACC human expects
'that the dolphin expects the human'
b. [dass] der Delphin dem Kind den Ball gibt
that the.NOM dolphin the.DAT child the.ACC ball gives
'that the dolphin gives the child the ball'

Syntactic arguments usually fill a semantic role (z. B. giver, agent, actor, …).

Tesnière (2015: Chapter 48):

drama scene: What is needed to act out a giving event?

- a giver
- something given
- a givee (recipient)

Adjuncts

- There can be adjuncts in addition to arguments:

(68) a. [dass] der Delphin dem Kind **schnell** den Ball gibt
that the.NOM dolphin the.DAT child quickly the.ACC ball gives
'that the dolphin gives the child the ball quickly'

b. that the dolphin gives the child the ball **quickly**

- Adjuncts convey additional information but do not fill a semantic role.

Optional arguments

Almost all arguments can be omitted, provided context provides enough info.

(69) a. Sie gibt Geld.
she gives money
'She gives money.'

b. Sie gibt den Armen.
she gives the poor
'She gives to the poor.'

c. Sie gibt.
she gives

d. Gib!
give

If we are playing the card game skat, it is clear who gives what to whom.

Obligatory arguments (rare)

There are some verbs which really have obligatory arguments:

(70) a. verschlingen (German)
devour

b. erwarten
await

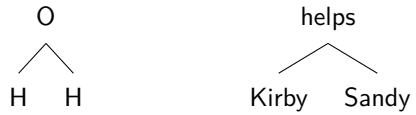
Arguments may be optional, arguments always are.

Chemistry and optional elements

The analogy with chemical bonds is helpful, but optional arguments remain confusing:

(71) a. Kirby helps Sandy.

b. Kirby helps.



Solution: syntactic and semantic valency.

Theater analogy helps us to find semantic arguments,
chemistry analogy helps for syntactic arguments.

One has to assume a special, one place verb for (71b).

Shopping instead of drama

- The analogy to shopping is better:
  We want to prepare pasta with tofu and tomato sauce.
  For tomato sauce we need onions.
- All ingredients are added to a shopping list.
- The shop does not have tofu.
- No problem, we can do pasta without tofu: tofu is optional.
- There are noodles. 10.000 types of pasta.
- Tomatos and onions. Done.
- Ah. Gummy bears. What? They were not on the list?
  Gummy bears are adjuncts!

Pasta, tomatos, onions and syntax

- There are several ways to make sure that all that is needed is present.
- Phrase structures as in GPSG

  (72) S → NP[*nom*] NP[*dat*] NP[*acc*] V[*ditransitive*]
- These were dropped in favour of lexical approaches
  (Jacobson 1987, Müller 2016: Section 5.5, Müller & Wechsler 2014a)
- reasons:
  - Partial VP Fronting (Nerbonne 1986, Johnson 1986)
  - Interactions with morphologie (Müller 2016: Section 5.5.1)
- Come back of phrasal approaches in Construction Grammar (Goldberg 1995).
  These do not work.
  (Müller 2006, 2010, 2013, Müller & Wechsler 2014a,b, Müller 2017, 2018, 2019, 2020, 2024)

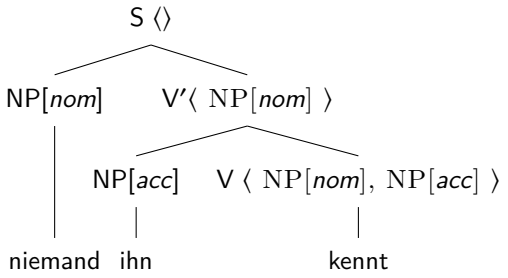
Valenzlisten

- Arguments are represented in lists:

  (73) a. *schläft* 'sleeps': ⟨ NP[*nom*] ⟩
  b. *kennt* 'knows': ⟨ NP[*nom*], NP[*acc*] ⟩
  c. *hilft* 'helps': ⟨ NP[*nom*], NP[*dat*] ⟩
  d. *gibt* 'gives': ⟨ NP[*nom*], NP[*dat*], NP[*acc*] ⟩
  e. *wartet* 'waits': ⟨ NP[*nom*], PP[*auf*] ⟩

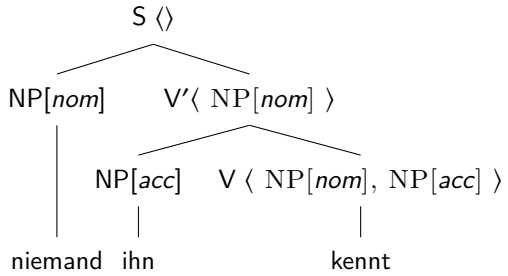
  NP[*nom*] stands for something like *Nudeln*.
  There are many ways to satisfy these valence requirements:
  sie 'she', *das Kind* 'the child', *der lachende Delphin* 'the laughing dolphin', ...
- Elements of lists are ordered in a certain order. This order corresponds to the order in English and other languages with fixed order and to the unmarked order in German (Höhle 1982).

Valence determining structure



- Valence requirements are represented in a list.
- One element of the list is combined with a head.
  List with remaining elements is passed up.
- Like shopping with an app:
  One element after the other is removed from the list.

Constraint-based theories and psycholinguistics



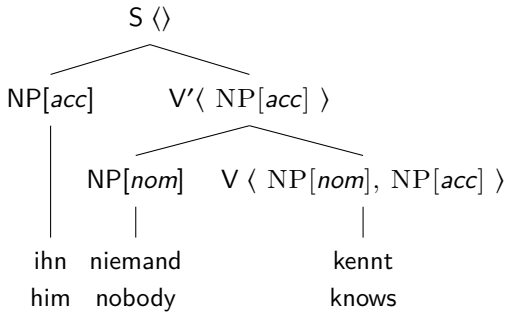
- I explain things bottom up.
- But this is not required by the theory.
  This is important from a psycholinguistic point of view, since processing is incremental.
  (Marslen-Wilson 1975, Tanenhaus et al. 1996, Sag & Wasow 2011, Wasow 2021)

Optional Arguments?

- There are several ways to deal with optional arguments.
- The most obvious: alternative lexical items.

(74) a. *gibt*: ⟨ NP[*nom*] ⟩
b. *wartet*: ⟨ NP[*nom*] ⟩

Scrambling: constituent order in German



- An arbitrary element of the list can be combined with the head.
  → order Acc < Nom can be analyzed.
  List with remaining elements is passed upwards.

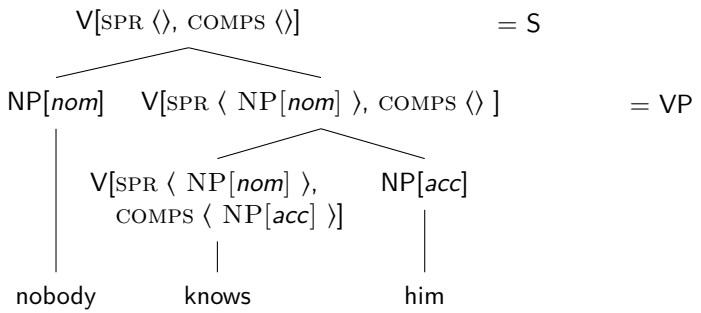
VP in SVO langauges

- Verbs and objects form a group:

(75) a. John promised to read the book and [**read the book**], he will.
b. He will [**read the book**].
c. Kim [[**sold the car**] and [**bought a bicycle**]].
d. He often [**reads the book**].
e. … [often [**read the book**] slowly], he will.

- Can be captured easily with two valency lists:
  one for complements (COMPS) and one for the subject (SPR for SPECIFIER).

Danish, English, ...

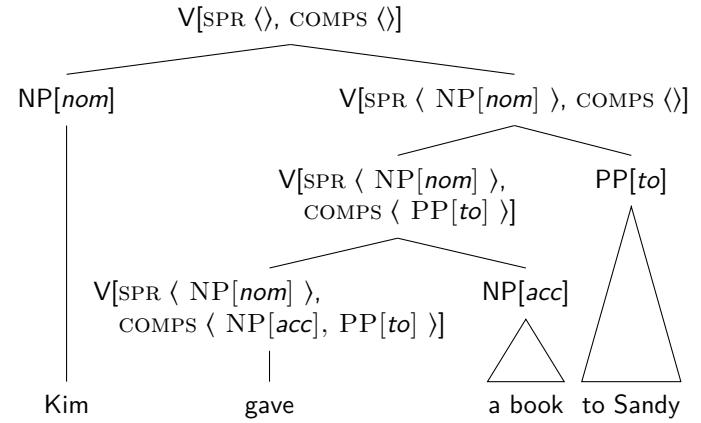


- English is a SVO language:
  complements to the right of the verb, subjects to the left
- Verb and complements form a phrase (VP = COMPS ⟨⟩).
  This phrase is combined with the subject.

No scrambling

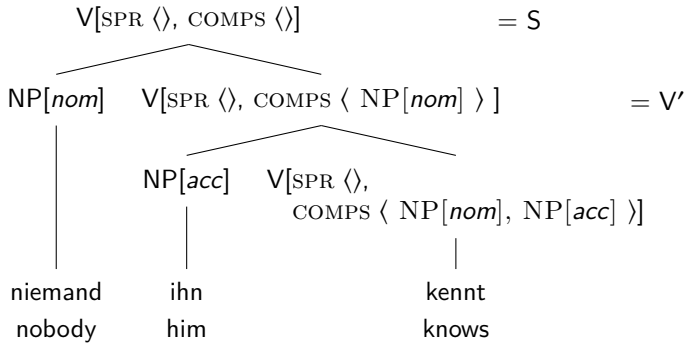
- Danish, English, ...:
  Elementes of the valence list have to be bound off from left to right.
- German, Dutch, ...:
  Elements can be combined with their heads in any order.

SVO: Ditransitive verbs: Saturation of COMPS starting left



For head-final languages without scrambling, combination from right to left.

German



The subject of a finite verb is in the COMPS list (Pollard 1996, Kiss 1995).

Abbreviations: S = [SPR ⟨⟩, COMPS ⟨⟩]
VP = [SPR ⟨ NP[nom] ⟩, COMPS ⟨⟩]
V′ = all other projections of V (except verbal complexes)

Immediate Dominance Schemata

- Theoretical papers often just show tree structures.
- But they do not appear out of the blue.
  There are rules or schemata that license them.
- For example, $\overline{\text{X}}$ schemata or rules for phrase structure or dependency structures.
- Rules for HPSG:

(76) Specifier-Head Schema and Head-Complement Schema (preliminary)
H[SPR 1] → H[SPR 1 ⊕ ⟨ 2 ⟩, COMPS ⟨⟩] 2
H[COMPS 1] → H[COMPS ⟨ 2 ⟩ ⊕ 1] 2

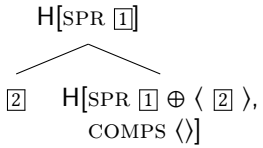
- H stands for *head*. The respective phrase contains or is the head.

Schemata as partial trees

- Schemata can be visualized as partial trees.

(77) Specifier-Head Schema (preliminary)
H[SPR 1] → H[SPR 1 ⊕ ⟨ 2 ⟩, COMPS ⟨⟩] 2

- Specifier-Head Schema in tree notation:



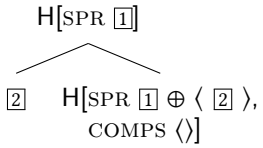
append (⊕)

- append concatenates two lists: ⟨ a ⟩ ⊕ ⟨ b ⟩ = ⟨ a, b ⟩.
- Concatenating a list L with the empty list results in L.
- Example: append divides the list ⟨ NP[*nom*], NP[*dat*], NP[*acc*] ⟩ as follows:

(78) a. ⟨⟩ ⊕ ⟨ NP[*nom*], NP[*dat*], NP[*acc*] ⟩ = ⟨ NP[*nom*], NP[*dat*], NP[*acc*] ⟩
b. ⟨ NP[*nom*] ⟩ ⊕ ⟨ NP[*dat*], NP[*acc*] ⟩ = ⟨ NP[*nom*], NP[*dat*], NP[*acc*] ⟩
c. ⟨ NP[*nom*], NP[*dat*] ⟩ ⊕ ⟨ NP[*acc*] ⟩ = ⟨ NP[*nom*], NP[*dat*], NP[*acc*] ⟩
d. ⟨ NP[*nom*], NP[*dat*], NP[*acc*] ⟩ ⊕ ⟨⟩ = ⟨ NP[*nom*], NP[*dat*], NP[*acc*] ⟩

Splitting the valence list

- Specifier-Head Schema in tree notation:

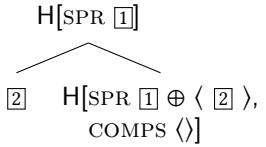


- Schema splits list into an arbitrary list (1) and a singleton list (⟨ 2 ⟩).
- For our example, this would be (78c):

(79) ⟨ NP[*nom*], NP[*dat*] ⟩ ⊕ ⟨ NP[*acc*] ⟩ = ⟨ NP[*nom*], NP[*dat*], NP[*acc*] ⟩
1 = ⟨ NP[*nom*], NP[*dat*] ⟩ und 2 = NP[*acc*]

Splitting the SPR list in specifier head structures

- The SPR list usually has just one element: NP[*nom*]/subject for verbs in SVO languages or determiner, if the head is a noun.

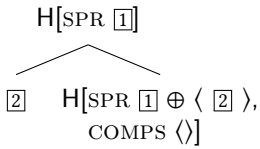


- 1 is the empty list, 2 is NP[*nom*] or Det.

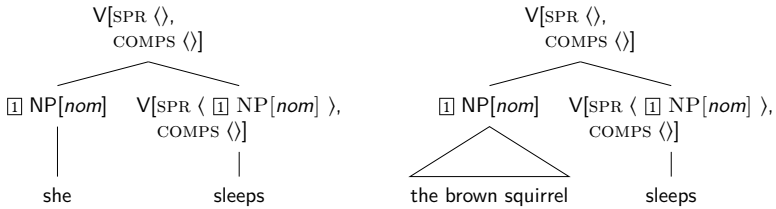
(80) a. $\langle\rangle \oplus \langle\ \mathrm{NP}[nom]\ \rangle = \langle\ \mathrm{NP}[nom]\ \rangle$
b. $\langle\rangle \oplus \langle\ \textsc{Det}\ \rangle = \langle\ \textsc{Det}\ \rangle$

Head has requirements. Schema cares for fulfillment

- Description of the daughter has to match with the daughter to be inserted.

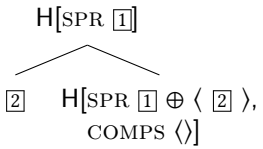


2 is determined by the head. Left daughter has to match.



The COMPS list in the specifier schema

- The COMPS list is empty.

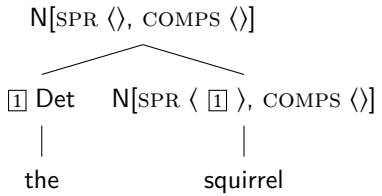


First all complements are combined with a head, then the specifier.

(81) [The dolphin [attacked [the shark]]]

Nominal structures

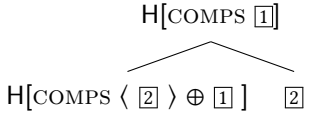
- The specifier schema is not just used for NP-VP structures, but also for nominal structures.



Head complement structures

- Picture nouns require a complement and are parallel to verbs in SVO structures:

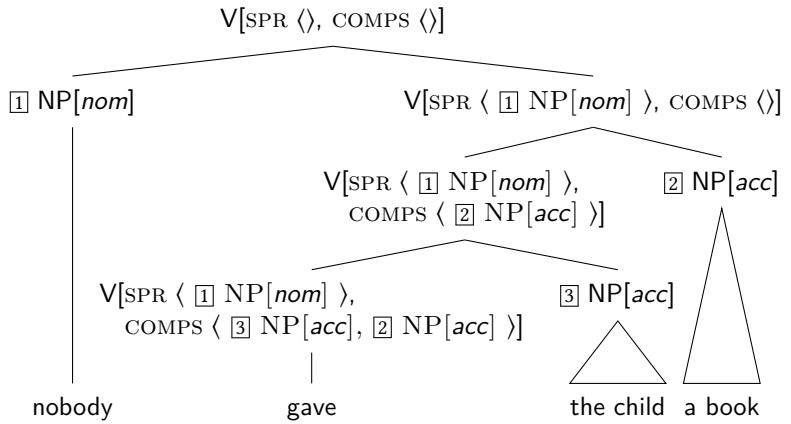
  (82) a picture of Kim



- stepwise combination with a ditransitive verb:
  - *gave* und *the child*
  - *gave the child* und *a book*

  (83) Nobody [[gave [the child]] [a book]].

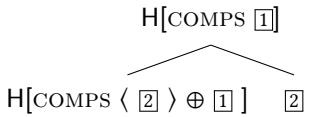
Sentence with a ditransitive verb



Schemata license partial trees.

Missing Details

- Until now some specifications of SPR and COMPS values were omitted.



- If the SPR value is not constrained, it can have arbitrary values.
- For example, a list with two genitive NPs and one accusative NP. With such a list we could analyze (84):

  (84) * his his him gave the child a book

- SPR and COMPS values have to be provided at the mother nodes:

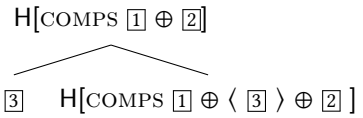
  (85) Specifier-Head Schema and Head-Complement Schema (final)
  a. H[SPR 1, COMPS 2] → H[SPR 1 ⊕ ⟨ 3 ⟩, COMPS 2 ⟨⟩] 3
  b. H[SPR 1, COMPS 2] → H[SPR 1, COMPS 2 ⊕ ⟨ 3 ⟩] 3

Final versions of the Schemata

- Specifier-Head-Schema and Head-Complement-Schema:

Scrambling

- Until now one element of the beginning or the end of the COMPS list is combined with the head.
- Works for English, but no explanation for scrambling.



- Length of 1 and 2 is not constrained. For a ditransitive verb:

(86) a. ⟨⟩ ⊕ ⟨ NP[*nom*] ⟩ ⊕ ⟨ NP[*dat*], NP[*acc*] ⟩
b. ⟨ NP[*nom*] ⟩ ⊕ ⟨ NP[*dat*] ⟩ ⊕ ⟨ NP[*acc*] ⟩
c. ⟨ NP[*nom*], NP[*dat*] ⟩ ⊕ ⟨ NP[*acc*] ⟩ ⊕ ⟨⟩

- 1 = empty List → VO language with fixed order like English
- 2 = empty List → OV language with fixed order
- no restriction for 1 and 2 → free order of arguments

Linearization rules

- The schemata are very abstract. Like $\overline{X}$ rules.
- But the order of the daughters is not fixed.
  a can be placed before b or b before a in a schema like (87):

(87) m → a b

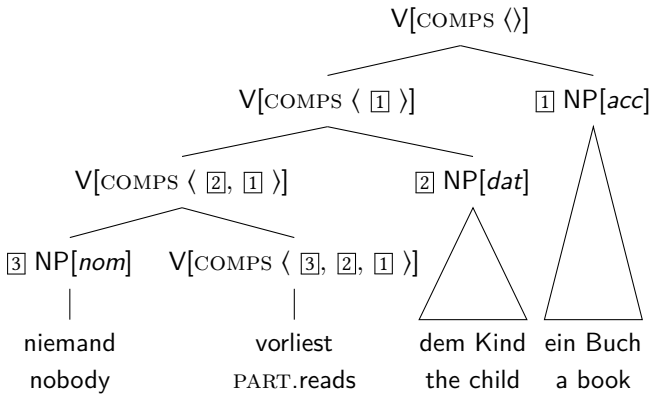
- Head-Complement-Schema can have both orders:
  head before complement and complement before head

(88) a. dem Kind ein Buch gibt
b. gives the child the book

- daughters without constraints do unwanted things:

(89) a. [dass] niemand dem Kind ein Buch vorliest
that nobody the child a book PART.reads
'that nobody reads a book to the child'
b. * [dass] dem Kind niemand vorliest ein Buch
that the child nobody PART.reads a book
[dass]
that nobody PART.reads the child a book

Unwanted structure



Linearization rules for head and complement

- rules:

(90) a. HEAD [INITIAL+] < COMPLEMENT
b. COMPLEMENT < HEAD [INITIAL–]

- German verbs (SOV): INITIAL–
  English verbs (SVO): INITIAL+
- German and English nouns: INITIAL+

Exercises – I

1. Please, provide valence lists for the following words:

   (91) a. laugh
   b. eat
   c. to douse
   d. bezichtigen (German)
   accuse
   e. he
   f. the
   g. Ankunft (German)
   arrival

   If you are uncertain as far as case assignment is concerned, you may use the Wiktionary: https://de.wiktionary.org/.

Exercises – II

2. Draw the trees for the following examples. NPs can be abbreviated.

   (92) a. weil Aicke dem Kind ein Buch schenkt (German)
   because Aicke the.DAT child a.ACC book gives.as.a.present
   'because Aicke gives the child a book as a present'
   b. because Kim gave a book to him
   c. Sandy saw this yesterday.
   d. at Bjarne læste bogen (Danish)
   that Bjarne read book.DEF
   'that Bjarne read the book'

Adjuncts

- Arguments are selected by their head.
- Adjuncts select their head.
- Dutch, German, ...:
  Adjuncts in sentences attach to any verbal projection (verb in final position).
- English, Danish, ...: Adjuncts attach to VP.

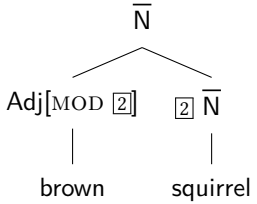
  (93) a. that everybody reads the book promptly
  b. that everybody promptly reads the book

The MOD feature

- MOD is parallel to SPR and COMPS:

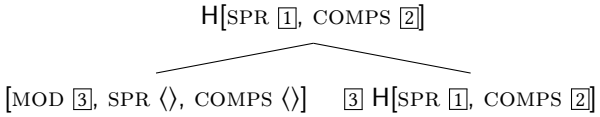
  (94) Lexical item for *brown*:

$$\begin{bmatrix} \text{PHON} & \langle \textit{ brown } \rangle \\ \text{MOD} & \overline{\text{N}} \\ \text{SPR} & \langle\rangle \\ \text{COMPS} & \langle\rangle \end{bmatrix}$$



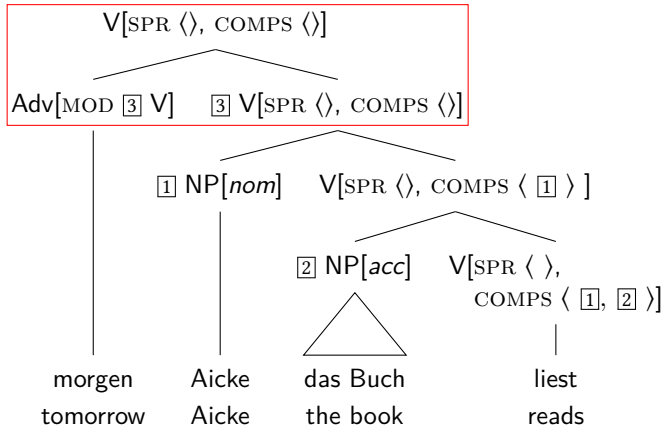
- The MOD value is a description or *none*.

The Head-Adjunct-Schema

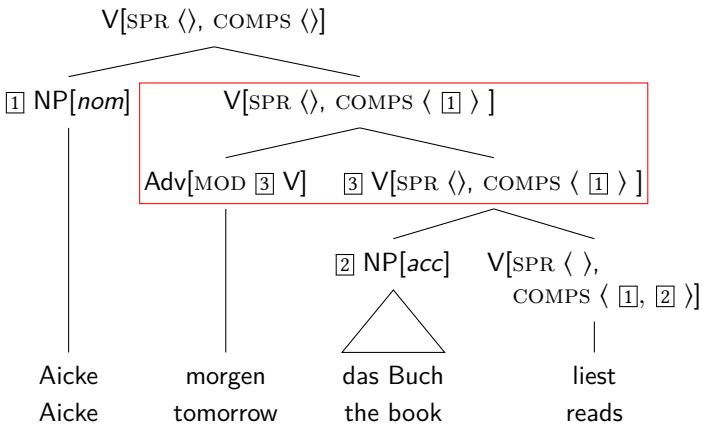


- MOD feature like SPR and COMPS feature.
  Value of MOD is a description of the head that can be modified:
  - German: MOD V[INI–]
  - English: MOD VP

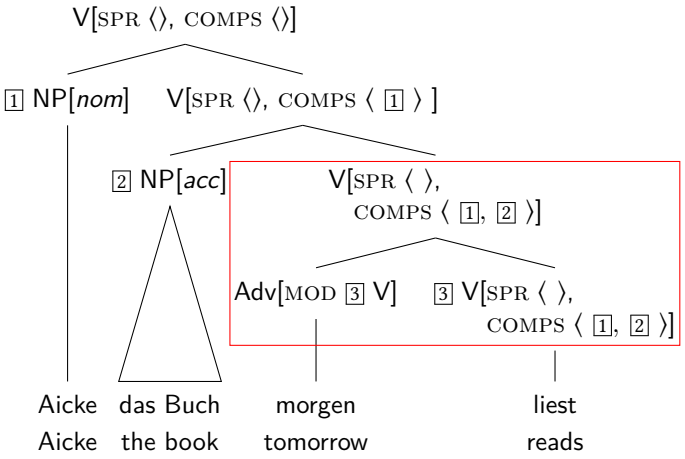
Free placement of adjuncts in German – I



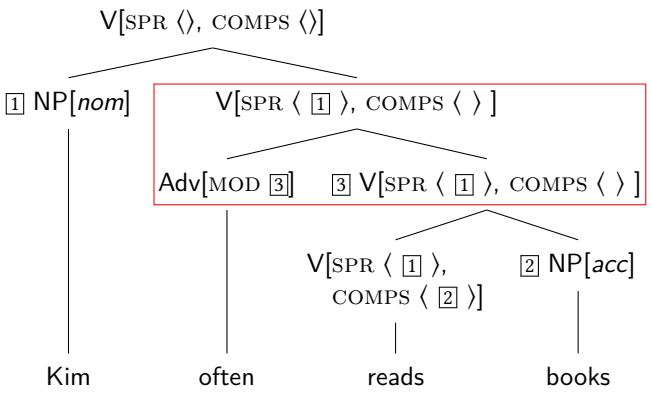
Free placement of adjuncts in German – II



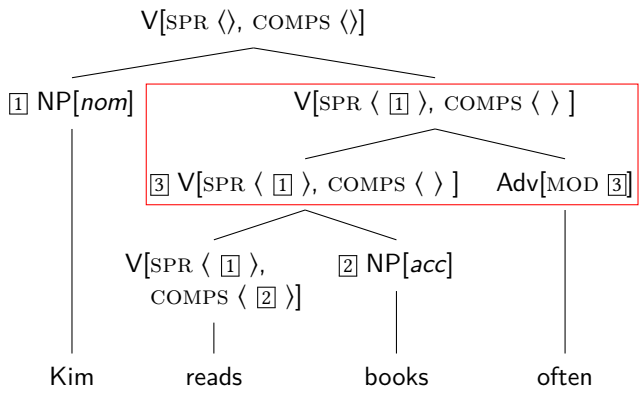
Free placement of adjuncts in German – III



Fixed position of adjuncts in English – I

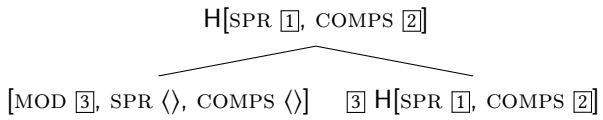


Fixed position of adjuncts in English – II



Details

- Adjuncts do not change the valence/saturation of a projection.
  (Whether I do put gummy bears into the trolley does not change the shopping list.)



- Adjuncts must be complete. Otherwise:

  (95) * Sandy read the book in the closet.

  (96) a. dass Aicke eine Stunde liest (German)
  that Aicke an hour reads
  'Aicke is reading for an hour.'

  b. * dass Aicke Stunde liest
  that Aicke hour reads
  'Aicke is reading for an hour.'

Linking

- All languages covered here have a list with valence information:

  (97) ⟨ NP, NP, NP ⟩

- It is called Argument Structure (ARG-ST).
- The case values differ (we come back to this later.)
- The order is parallel.

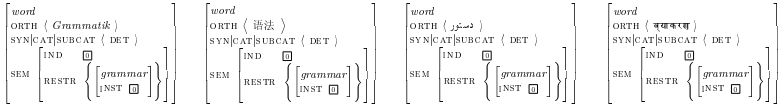
  (98) a. dass das Kind dem Eichhörnchen die Nuss gibt
  that the child the squirrel the nut gives
  'that the child gives the squirrel the nut'

  b. that the child gives the squirrel the nut

- Linking between syntax and semantics is the same for all Germanic languages:

  (99) Lexical entry for *gives*/*gibt*:

$$\begin{bmatrix} \text{ARG-ST} & \langle\ \text{NP}_{[1]},\ \text{NP}_{[2]},\ \text{NP}_{[3]}\ \rangle \\ \text{CONT} & \begin{bmatrix} \textit{give} & \\ \text{AGENS} & [1] \\ \text{GOAL} & [2] \\ \text{TRANS-OBJ} & [3] \end{bmatrix} \end{bmatrix}$$



Syntax of Germanic languages

Verbal complex in SOV languages

Stefan Müller

July 3, 2025

Reference

Please read Müller (2023a: Chapter 4).

Müller, Stefan, 2023a. *Germanic Syntax*. Berlin: Language Science Press. In Vorbereitung.

Verbal complex

- German, Dutch allow verbal complex:

  (100) weil es ihr jemand zu lesen versprochen hat (Haider 1991)
  because it her somebody to read promised has
  'because somebody promised her to read it'

  The verbs at the end behave like a simple verb. Reordering the arguments is possible.
- Dutch:

  (101) a. dat Jan het boek wil lezen
  dass Jan das Buch will lesen
  'dass Jan das Buch lesen will'

  b. dat Jan Marie het boek laat lezen
  dass Jan Maria das Buch lässt lesen

  c. dat Jan Marie het boek wil laten lezen
  dass Jan Marie das Buch will lassen lesen
  'dass Jan Maria das Buch lesen lassen will'
- English, Danish, … do not allow reordering of constituents

Variation

- There is extreme variation in the sequences in the verbal complex.
- Standard German: superordinate verb is on the right: V_3 V_2 V_1

  (102) weil es ihr jemand zu lesen versprochen hat (Haider 1991)
  because it her somebody to read promised has
  'because somebody promised her to read it'

Variation

- In dialects, however, there are the most colorful sequences.
  E.g. the following (Müller 1999: 376):

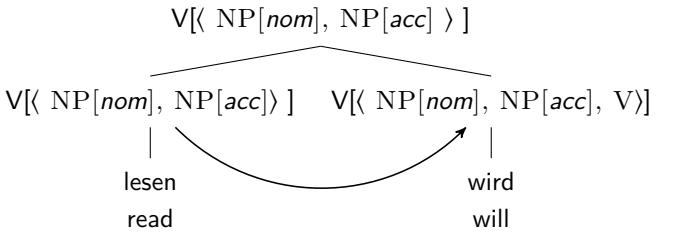
(103) a. Ich hätte stapelweise Akten können haben.
I had by.the.pile files can have
'I could have had files by the pile.'

b. weil ich mir das nich hab' lassen gefallen
because I me that not have let please
'because I did not put up with it'

c. wenn se mir hier würden rausschmeißen, ...
if they me here would out.throw
'if they would kick me out here'

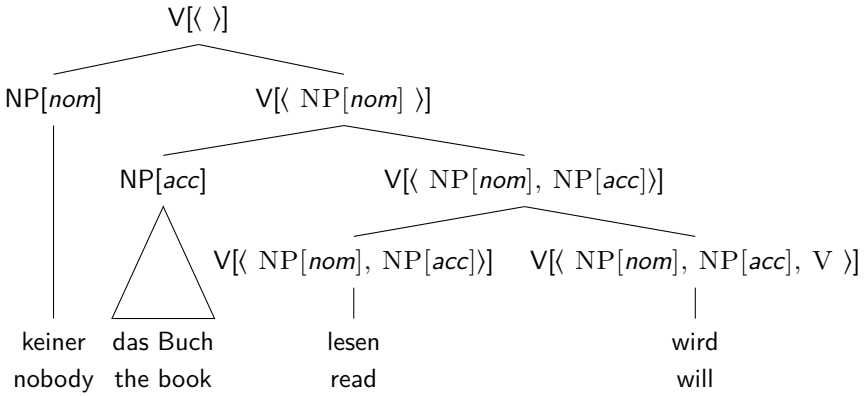
(Interview partner:
Insekten und andere Nachbarn – ein Haus in Berlin, ARD 15.11.1995)

Argument attraction

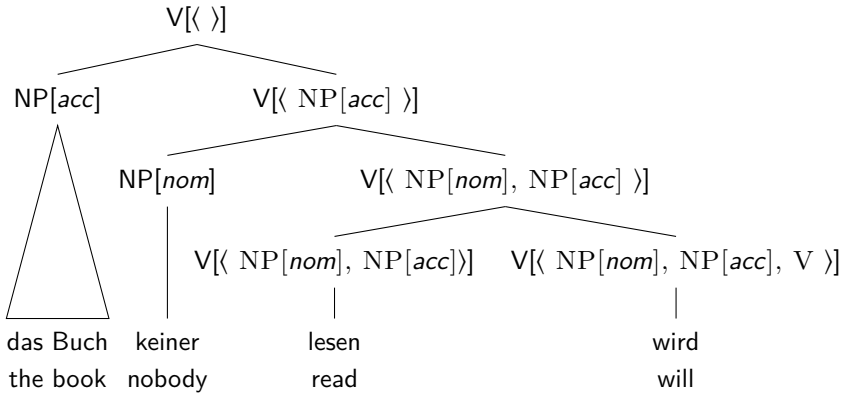


- *wird* requires infinitive without *zu* and its arguments
  (Geach 1970, Hinrichs & Nakazawa 1994)
- Verb is saturated and is no longer in the valency list at the parent node
- Combination of *lesen* and *wird* behaves like a simple verb and can be combined with the arguments in any order.

Verbal complex formation and scrambling: normal position



Verbal complex formation and scrambling: Acc < Nom



Subjects of non-finite verbs

(104) *lesen* infinite form:

$$\begin{bmatrix} \textsc{subj} & \langle\ \mathrm{NP}[\textit{nom}]\ \rangle \\ \textsc{comps} & \langle\ \mathrm{NP}[\textit{acc}]\ \rangle \end{bmatrix}$$

Subjects can only be combined with finite verbs:

(105) a. Kim hat Sandy versprochen, [das Buch zu lesen].
Kim has Sandy promised the book to read
'Kim promised Sandy to read the book.'

b. * Kim hat Sandy versprochen, [sie das Buch zu lesen].
Kim has Sandy promised she the book to read
Intended: 'Kim promised Sandy that she will read the book.'

Subjects of non-finite verbs

(106) a. [Das Buch lesen] wird Aicke morgen.
the book read will Aicke tomorrow
'Aicke will read the book tomorrow.'

b. * [Aicke lesen] wird das Buch morgen.
Aicke read will the book tomorrow

c. ?* [Aicke das Buch lesen] wird morgen.
Aicke the book read will tomorrow

Lexicon entry for auxiliary verb

(107) *werden* infinite form:

$$\begin{bmatrix} \textsc{subj} & \boxed{1} \\ \textsc{comps} & \boxed{2} \oplus \langle\ \mathrm{V}[\textsc{vform}\ \textit{bse},\ \textsc{lex}+,\ \textsc{subj}\ \boxed{1},\ \textsc{comps}\ \boxed{2}]\ \rangle \end{bmatrix}$$

The auxiliary verb *werden* requires an infinitive without *zu* (VFORM *bse*).

LEX+ ensures that the verbal complement is a word or verbal complex.

The subject (1) and the other arguments (2) are attracted.

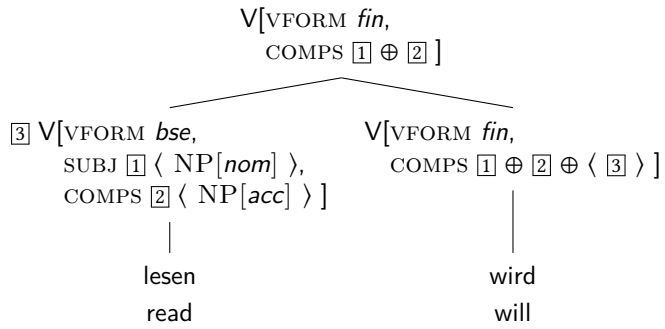
werden finite form

Finite verbs have the subject on the COMPS list.

(108) *wird* finite form:

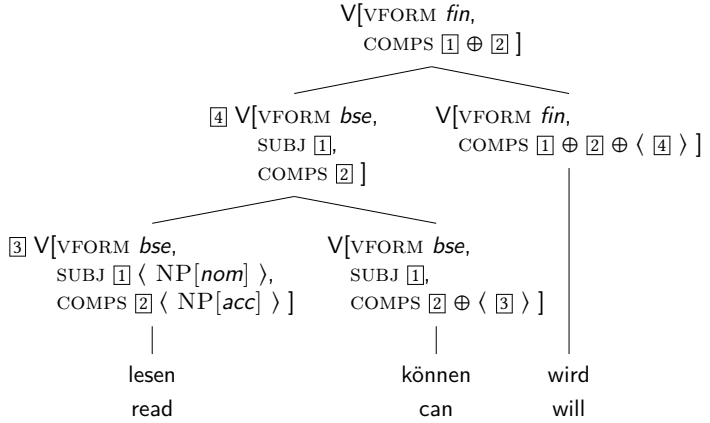
$$\begin{bmatrix} \textsc{subj} & \langle\rangle \\ \textsc{comps} & \boxed{1} \oplus \boxed{2} \oplus \langle\ \mathrm{V}[\textsc{vform}\ \textit{bse},\ \textsc{lex}+,\ \textsc{subj}\ \boxed{1},\ \textsc{comps}\ \boxed{2}\ ]\ \rangle \end{bmatrix}$$

Argument attraction in detail



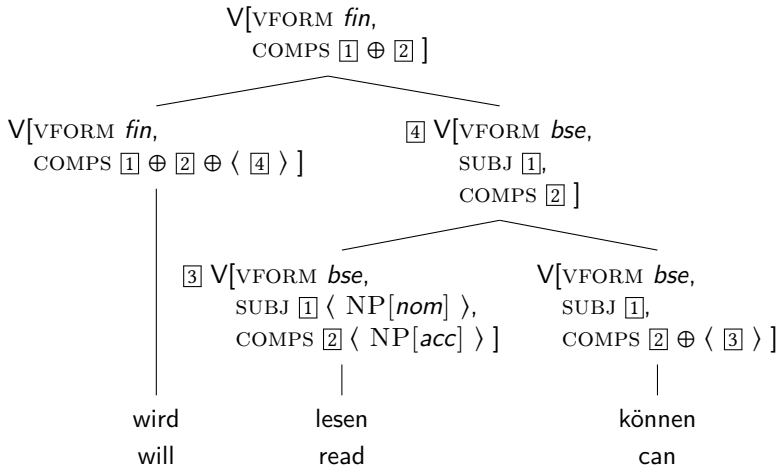
- Auxiliary verb requires infinitive without *zu* (3).
- Subject (1) and complements (2) are adopted.
- *lesen wird* has the same arguments as *liest*

More complex complexes

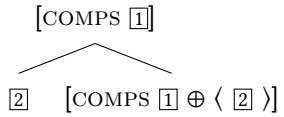


It also works for three, as long as one takes responsibility.

Or also the other way around



The Predicate Complex Schema



- In addition to the Head-Complement schema, there is also a Predicate Complex Schema
- This is very similar, but the result is not LEX−. Thus, repeated embedding of verbal complexes is possible.

English, Danish, ...

- Normally, an argument must be complete, when combined with its head.
- verbal complexes are different: words are connected directly.
- English and Danish only have the normal rule, in German and Dutch there is also the verbal complex rule.
- The auxiliary verbs embed a verb phrase in the SVO languages:

  (109) Nobody [will [read the book]].

Verb clusters without verb cluster formation?

- Suggestions for combining auxiliary verbs with a VP (Wurmbrand 2003a):

  (110) dass keiner [[das Buch lesen] wird]
  that nobody the book read will

- So, how does scrambling work?

  (111) dass [das Buch]$_i$ keiner [[$\_\_i$ lesen] wird]
  that the book nobody read will
  'that nobody will read the book'

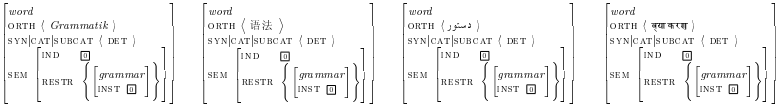
- scrambling as movement is problematic:
  no base order: Masloch et al. (2024), see Müller (2023a) for discussion

Exercises

1. Sketch the analysis of the verbal complexes for the following examples:

   (112) a. dass er darüber lachen wird
   b. dass er darüber wird lachen müssen
   c. dass er über diesen Witz wird haben lachen müssen

2. Search in the newspaper or in corpora (COSMAS, COW) for two verbal complexes with at least three verbs and analyze them.
3. Look for verbal complexes with more than four verbs in corpora. Document your approach.



Syntax of Germanic languages

Verb position: Verb-first and verb-second in V2 languages

Stefan Müller

July 3, 2025

References

This section is covered in chapter 6 in Müller (2023a).

Müller, Stefan, 2023a. *Germanic Syntax*. Berlin: Language Science Press. In Vorbereitung.

Claim: German SPO

- Claim: German is subject predicate object
- This is the most common pattern,
  if you only look at declarative sentences with subject, predicate and object.
- However, it already does not apply to psychological predicates:

  (113) Dem Mann gefallen die Bilder.
  the.DAT man please the.NOM pictures
  'The man likes the pictures.'

- It does not apply to free text, in which in particular adverbials occur,
  which can occupy the first position in the sentence.
- German is an SOV language and also a verb second language (V2).
- V2 languages:
  Any constituents can be placed in front of the finite verb.
  All Germanic languages except English.

Claim: German SPO, recounted

taz, 01.02.2013:

Die Linke fordert in dem Entwurf auch eine Vermögensteuer von fünf Prozent auf Privatvermögen ab einer Million Euro, eine stärkere Besteuerung von Erbschaften und eine einmalige Vermögensabgabe für Reiche. **Ab Jahreseinkommen von 65.000 Euro** soll ein Spitzensteuersatz von 53 Prozent gelten, das Ehegattensplitting abgeschafft werden.

SPD-Fraktionsvize Joachim Poß kritisierte die Pläne als "'jenseits aller Vernunft und Realitätstauglichkeit"'. **Mit solchen Vorschlägen** werde das wichtige Thema der Steuergerechtigkeit diskreditiert. **Zwar** sei es notwendig, Spitzenverdiener stärker an der Finanzierung wichtiger Zukunftsaufgaben zu beteiligen, "'aber mit Augenmaß und Vernunft"'. **Für eine Begrenzung von Managergehältern** setzt sich auch die SPD ein.

kursiv = subject = 2, fett = non-subject = 4

of course not representative ...

A9 soll Teststrecke werden

taz: 27.01.2015

Für selbstfahrende Autos soll es in Deutschland nach Angaben von Bundesverkehrsminister Alexander Dobrindt (CSU) bald eine Teststrecke geben. **Auf der Autobahn A9 in Bayern** *sei ein Pilotprojekt „Digitales TestfeldAutobahn" geplant*, wie aus einem Papier des Bundesverkehrsministeriums hervorgeht. **Mit den ersten Maßnahmen für diese Teststrecke** solle schon in diesem Jahr begonnen werden. **Mit dem Projekt** soll die Effizienz von Autobahnen generell gesteigert werden. ***„Die Teststrecke* soll so digitalisiert und technisch ausgerüstet werden, dass es dort zusätzliche Angebote der Kommunikation zwischen Straße und Fahrzeug wie auch von Fahrzeug zu Fahrzeug geben wird"**, sagte Dobrindt zur Frankfurter Allgemeinen Zeitung. **Auf der A9** sollten sowohl Autos mit Assistenzsystemen als auch später vollautomatisierte Fahrzeuge fahren können. **Dort** soll die Kommunikation nicht nur zwischen Testfahrzeugen, sondern auch zwischen Sensoren an der Straße und den Autos möglich sein, etwa zur Übermittlung von Daten zur Verkehrslage oder zum Wetter. ***Das Vorhaben* solle im Verkehrsministerium von einem runden Tisch mit Forschern und Industrievertretern begleitet werden,** sagte Dobrindt. *Dieser* solle sich unter anderem auch mit den komplizierten Haftungsfragen beschäftigen. Also: *Wer* zahlt eigentlich, wenn ein automatisiertes Auto einen Unfall baut? **[Mithilfe der Teststrecke] solle die deutsche Automobilindustrie auch beim digitalen Auto „Weltspitze sein können",** sagte der CSU-Minister. *Die deutschen Hersteller* sollten die Entwicklung nicht Konzernen wie etwa Google überlassen. **Derzeit** ist Deutschland noch an das „Wiener Übereinkommen für den Straßenverkehr" gebunden, das Autofahren ohne Fahrer nicht zulässt. **Nur unter besonderen Auflagen** sind Tests möglich. *Die Grünen* halten die Pläne für unnütz. *Grünen-Verkehrsexpertin Valerie Wilms* sagte der Saarbrücker Zeitung: „*Der Minister* hat wichtigere Dinge zu erledigen, als sich mit selbstfahrenden Autos zu beschäftigen." *Die Technologie* sei im Verkehrsbereich nicht vordringlich, **auch** stehe sie noch ganz am Anfang. **Aus dem grün-rot regierten Baden-Württemberg – mit dem Konzernsitz von Daimler** – kamen hingegen andere Töne. ***Was in Bayern funktioniere,* müsse auch in Baden-Württemberg möglich sein,** sagte Wirtschaftsminister Nils Schmid (SPD). **Von den topografischen Gegebenheiten** biete sich die Autobahn A81 an.

kursiv = subject = 11, fett = non-subject = 16

of course not representative ...

Subjects in corpora

- Hinrichs & Kübler (2005) 38.342 and 22.087 trees from TüBa-D/S und Z
- Spoken and written language (Verb*mobil* and taz)
- 50.3% and 52.1% of the sentences: subject in the Vorfeld (before the finite verb).
- assumption of SVO position would therefore not help either, because one would have to explain how the subject is placed after and something else is placed before it.

Motivation of the final position as basic position: particles

Bierwisch (1963): Verb particles form a close unit with the verb.

(114) a. weil er morgen **anfängt**
because he tomorrow at.catches
'because he starts tomorrow'

b. Er **fängt** morgen **an**.
he catches tomorrow at
'He starts tomorrow.'

This unit can only be seen in verb-last position, which suggests that this position should be viewed as the basic position.

Position of idioms

(115) a. dass niemand dem Mann den Garaus macht
that nobody the man the GARAUS makes
'that nobody kills the man'

b. ?* dass dem Mann den Garaus niemand macht
that the man the GARAUS nobody makes

c. Niemand macht ihm den Garaus.
nobody makes him the GARAUS
'Nobody kills him.'

Idiom parts want to be next to each other (115a,b).

Verb in initial position is derived. Only to mark the sentence type.

Position in subordinate clauses

Verbs in infinite subordinate clauses and in finite subordinate clauses introduced by a conjunction are always placed at the end
(apart from parentheses in the subordinate clause):

(116) a. Der Clown versucht, Kurt-Martin die Ware zu geben.
the clown tries Kurt-Martin the goods to give
'The clown tries to give Kurt-Martin the goods.'

b. dass der Clown Kurt-Martin die Ware gibt
that the clown Kurt-Martin the goods gives
'that the clown gives Kurt-Martin the goods'

Position of verbs in SVO and SOV languages

Ørsnes (2009):

(117) a. dass er ihn gesehen$_3$ haben$_2$ muss$_1$ (German)
that he him seen have must
'that he must have seen him'

b. at han må$_1$ have$_2$ set$_3$ ham
that he must have seen him

Only the finite verb is moved, the other verbs remain behind:

(118) a. Muss er ihn gesehen haben?
must he him seen have
'Must he have seen him?'

b. Må han have set ham?
must he have seen him
'Must he have seen him?'

Scope

Netter (1992: Abschnitt 2.3): Scope of adverbs depend on their order (preference rule?):
Adverb on the left scope over the following adverb and verb.

(119) a. weil er [absichtlich [nicht lacht]]
because he deliberately not laughs
'because he deliberately does not laugh'

b. weil er [nicht [absichtlich lacht]]
because he not deliberately laughs
'because he does not laugh deliberately'

Scope

The scope relations do not change when the verb position is changed.

(120) a. Er lacht absichtlich nicht.
he laughs deliberately not
'He deliberately doesn't laugh.'

b. Er lacht nicht absichtlich.
he laughs not deliberately
'He doesn't laugh deliberately.'

Analysis:

(121) a. Er lacht$_i$ [absichtlich [nicht _$_i$]].
he laughs$_i$ not deliberately _$_i$

b. Er lacht$_i$ [nicht [absichtlich _$_i$]].
he laughs$_i$ not deliberately _$_i$

Structure is exactly the same in (121) and (119).

Sometimes only SOV position possible

Haider (1997), Meinunger (2001): Some verbs in combination with *mehr als* only allow verb last position:

(122) a. dass Hans seinen Profit letztes Jahr **mehr als verdreifachte**
that Hans his profit last year more than tripled
'that Hans increased his profit last year by a factor greater than three'

b. Hans hat seinen Profit letztes Jahr **mehr als verdreifacht**.
Hans has his profit last year more than tripled
'Hans increased his profit last year by a factor greater than three.'

c. * Hans **verdreifachte** seinen Profit letztes Jahr **mehr als**.
Hans tripled his profit last year more than

Sometimes only SOV position possible

Höhle (1991), Haider (1993: 62): Verbs created via backformation often cannot be separated/ rearranged:

(123) a. weil sie das Stück heute **uraufführen**
because they the play today play.for.the.first.time
'because they premiere the play today'

b. * Sie **uraufführen** heute das Stück.
they play.for.the.first.time today the play

c. * Sie **führen** heute das Stück **urauf**.
they guide today the play PREFIX.PART

For an overview, see Müller (2015).

Danish

- Negation combines with the VP:

(124) at Jens ikke [$_{\text{VP}}$ læser bogen]
that Jens not reads book.DEF
'that Jens does not read the book'

- In V2 sentences, the finite verb is realized to the left of the negation:

(125) Jens læser ikke bogen.
Jens reads not book.DEF
'Jens is not reading the book.'

- This is seen by many as evidence of verb fronting:

(126) Jens læser$_i$ ikke [$_{\text{VP}}$ _$_i$ bogen].
Jens reads not book.DEF

Yes/No questions as in the German V1 position

(127) a. at Jens læser bogen
that Jens reads book.DEF
'that Jens reads the book'

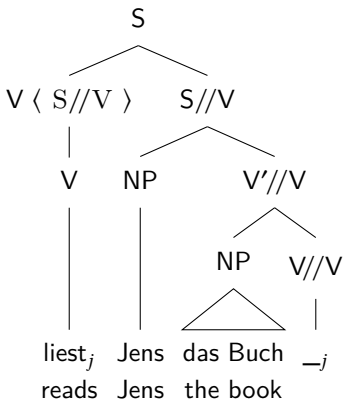
b. Læser Jens bogen?
reads Jens book.DEF
'Does Jens read the book?'

Analysis:

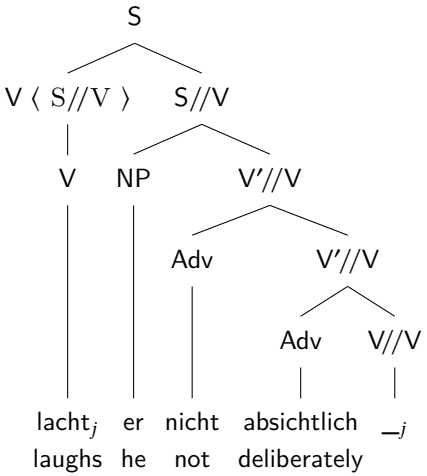
(128) a. at Jens [$_{\text{VP}}$ læser bogen]
that Jens reads book.DEF
'that Jens reads the book'

b. Læser$_i$ Jens [$_{\text{VP}}$ _$_i$ bogen]?
reads Jens book.DEF
'Does Jens read the book?'

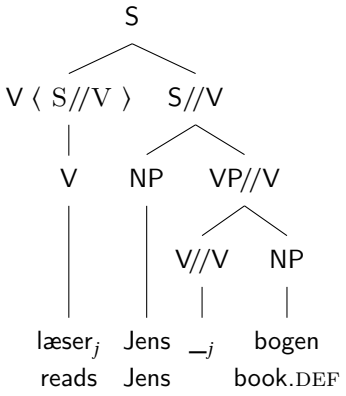
Verb movement in German as information transfer



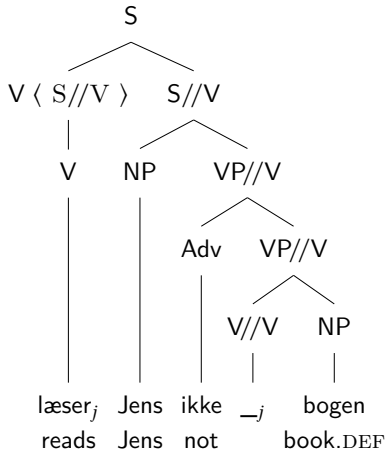
Scope



Verb movement in Danish



Verb movement with negation in Danish



Exercises

1. Sketch the analysis for the following examples:

   (129) a. dass er darüber lachen wird
   b. Wird er darüber lachen?

   (130) Arbejder Bjarne ihærdigt på bogen. (Danish)
   arbeitet Bjarne ernsthaft an Buch.DEF
   'Arbeitet Bjarne ernsthaft an dem Buch?'

Extraction

- Even in languages with a relatively fixed constituent position, it is sometimes possible to rearrange constituents:

(131) a. This book, I read yesterday.
b. Yesterday, I read this book.

Extraction

- The Germanic (V2) languages place some constituent before the finite verb:

(132) a. **Ich** habe das Buch gestern gelesen. (German)
I have the book yesterday read
'I have read the book yesterday.'
b. **Das Buch** habe ich gestern gelesen.
the book have I yesterday read
c. **Gestern** habe ich das Buch gelesen.
yesterday have I the book read
d. **Gelesen** habe ich das Buch gestern, gekauft hatte ich es aber schon vor einem Monat.
read have I the book yesterday bought had I it but yet before a month
'I read the book yesterday, but I bought it last month already.'
e. **Das Buch gelesen** habe ich gestern.
the book read have I yesterday

Extraction is not clause-bounded

- Extraction may cross one or several clause boundaries:

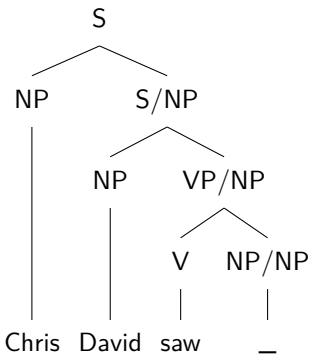
(133) a. Chris, David saw.
b. Chris, we think that David saw.
c. Chris, we think Anna claims that David saw.

Extraction is not clause-bounded

- In German probably more in the southern German varieties, but:

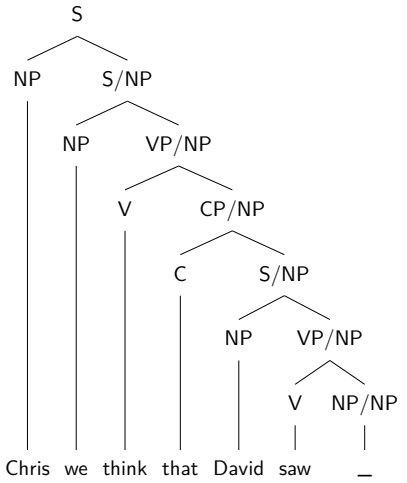
(134) a. [Um zwei Millionen Mark]$_i$ soll er versucht haben, [eine Versicherung _$_i$ zu betrügen].
around two million Deutsche.Marks should he tried have an insurance.company to deceive
'He apparently tried to cheat an insurance company out of two million Deutsche Marks.' [taz, 04.05.2001, S. 20]
b. "'Wer$_i$, glaubt er, daß er _$_i$ ist?"' erregte sich ein Politiker vom Nil.
who believes he that he is was.upset REFL a politician from.the Nile
'A politician from the Nile was upset: "Who does he believe he is?"'. [Spiegel, 8/1999, S. 18]
c. Wen$_i$ glaubst du, daß ich _$_i$ gesehen habe.
who believes you that I seen have
'Who do you believe that I have seen?' [Scherpenisse (1986: 84)]
d. [Gegen ihn]$_i$ falle es den Republikanern hingegen schwerer, [[Angriffe _$_i$] zu lancieren].
against him fall it the Republicans however more.difficult attacks to launch
'It is, however, more difficult for the Republicans to launch attacks against him.' [taz, 08.02.2008, S. 9]

Passing on information in the tree

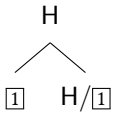


- The object is missing in the back (gap, trace): NP/NP
- Information about the missing object is represented at VP and S nodes
- Missing NP is fronted (the so-called filler)

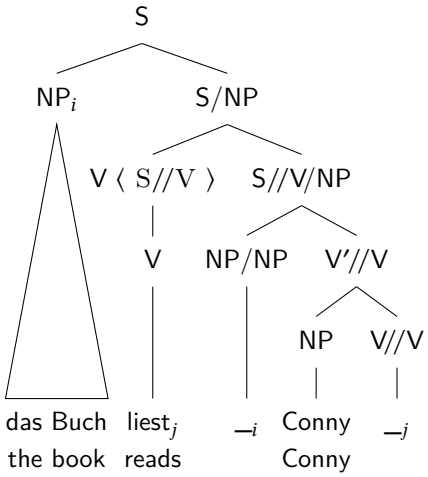
Passing on in the tree over longer distances



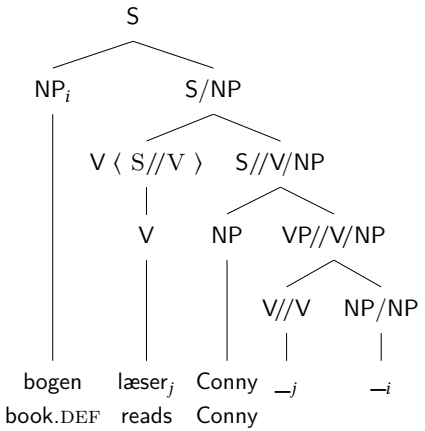
Filler-Head Schema



Extraction + verb movement = V2: German (SOV)



Extraction + verb movement = V2: Danish (SVO)



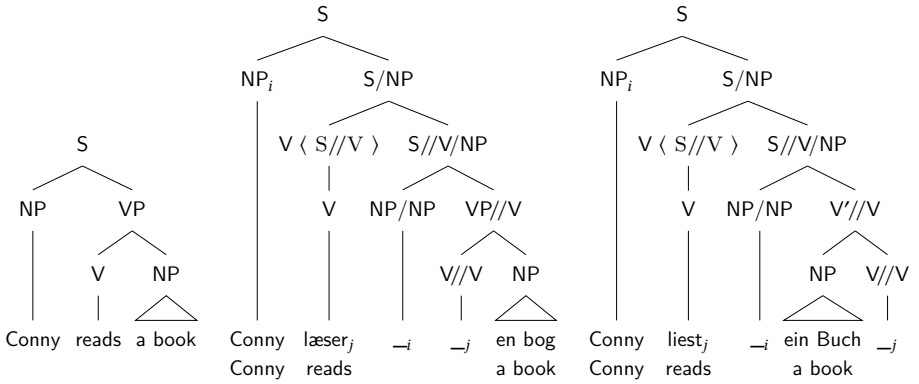
German differs from Danish in the OV/VO position and the associated VP formation, otherwise everything is the same with regard to V2.

Comparison English, Danish, German

The sentences look the same, but have a completely different structure:

(135) a. Conny reads a book.
b. Conny læser en bog.
c. Conny liest ein Buch.

Structures for English, Danish, German



V2 in the Germanic languages

- All Germanic languages (except English) have V2 sentences with verb fronting + fronting of a constituent.
- Sentences are always analyzed in the same way, even if the subject fills the antecedent.
- V1 sentences are not necessarily questions:

(136) a. Gibt er ihm das Buch?
gives he him the book
'Does he give him the book?'
b. Gib mir das Buch!
give me the book

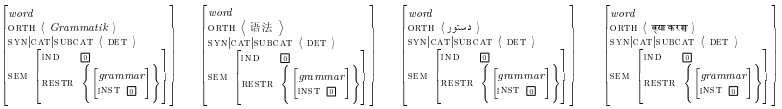
V2 in the Germanic languages

- V2 sentences not necessarily statements:

(137) a. Wem gibt er das Buch?
who gives he the book
'Whom does he give the book to?'

b. Jetzt gib ihm das Buch!
now give him the book
'Give him the book now!'

c. Jetzt gibt er ihm das Buch.
now gives he him the book
'He gives him the book now.'



Syntax of Germanic languages

Passive

Stefan Müller

July 3, 2025

Literature

Please read Müller (2023a: Chapter 7).

Müller, Stefan, 2023a. *Germanic Syntax*. Berlin: Language Science Press.

Subjects (German)

- What is a subject?
- In German, non-predicative nominal groups in the nominative case:

(138) a. Der Mann lacht.
the.NOM man laughs
'The man laughs.'

b. Der Mann hilft ihr.
the.NOM man helps her.DAT
'The man helps her.'

c. Der Mann gibt ihr ein Buch.
the.NOM man gives her.DAT a.ACC book.
'The man gives her a book.'

Subjects (German)

- What about the genitive and dative case in (139)?

(139) a. Des Opfers wurde gedacht.
the.GEN victim AUX remembered
'The victim was remembered.'

b. Dem Mann wurde geholfen.
the.DAT man AUX helped.
'The man received help.'

In German, these are not counted as subjects.

Subjects (Icelandic)

- The order for the SVO language Icelandic is identical (Zaenen et al. 1985):

(140) a. Þeim var hjálpað.
they.PL.DAT was helped

b. Hennar var saknað.
she.SG.GEN was missed

Grammatical function cannot be read from the position in V2 sentences, as the NPs could also be preceding objects.

- Zaenen, Maling & Thráinsson (1985) show that it makes sense to treat these non-nominatives as subjects.
  - controllability
  - position
  - ...
- Such non-nominative-subjects are also called **quirky subjects** oder **oblique subjects**.

Subject: Position V2-sentences

- Subjects immediately follow the finite verb when preceded by another constituent (Zaenen, Maling & Thráinsson 1985: Abschnitt 2.3):

(141) a. Með þessari byssu skaut Ólafur refinn.
with this shotgun shot Olaf.NOM the.fox.ACC

b. * Með þessari byssu skaut refinn Ólafur.
with this shotgun shot the.fox.ACC Olaf.NOM

Subject: Position V2-sentences

- wh-questions

(142) a. Hvenær hafði Sigga hjálpað Haraldi? (wh-question)
when has Sigga.NOM helped Harald.DAT

b. * Hvenær hafði Haraldi Sigga hjálpað?
when has Harald.DAT Sigga.NOM helped

- dative object can be fronted, but then it has to be realized in initial position

(143) Haraldi hafði Sigga aldrei hjálpað. (V2-Satz)
Harald.DAT has Sigga.NOM never helped

Subject: Position V1-sentences

- yes/no questions:

(144) a. Hafði Sigga aldrei hjálpað Haraldi?
has Sigga.NOM never helped Harald.DAT

b. * Hafði Haraldi Sigga aldrei hjálpað?
has Harald.DAT Sigga.NOM never helped

Quirky subjects and position

- certain datives:

(145) a. Hefur henni alltaf þótt Ólafur leiðinlegur?
has she.DAT always thought Olaf.NOM boring.NOM
'Has she always considered Olaf boring?'

b. Ólafur hefur henni alltaf þótt leiðinlegur.
Olaf.NOM has she.DAT always thought boring.NOM
'She always considered Olaf boring.'

c. * Hefur Ólafur henni alltaf þótt leiðinlegur?
has Olaf.NOM her.DAT always thought boring.NOM

- The equivalent in German would be:

(146) ?? Mich dünkt der Mann langweilig.
I.ACC thinks the.NOM man boring
'The man seems boring to me.'

dünkt is archaic and is usually used with a *dass* 'that' clause – if it is used at all

- but:

(147) Mir scheint der Mann langweilig.
I.DAT seems the.NOM man boring
'The man seems boring to me.'

Subjects in control constructions

- subjects in control constructions or in so-called *arbitrary control* can be omitted:

(148) a. Ég vonast til að fara heim.
I hope for to go home
'I hope to go home.'

b. Að fara heim snemma er óvenjulegt.
to go home early is unusual
'It is unusual to go home early.'

Quircky subjects in control constructions

- *vantar* 'to lack' takes two accusatives:

(149) Mig vantar peninga.
I.ACC lack money.ACC

- but still, the verb can be embedded under *vonast* 'to hope':

(150) Ég vonast til að vanta ekki peninga.
I hope for to lack not money.ACC
'I hope that I do not lack money.'

- to compare with German:

(151) * Ich hoffe, kein Geld zu fehlen.
I hope not.a.NOM money to lack
Intended: 'I hope that I do not lack money.'

Subject-verb agreement?

- Verbs agree with the nominative element.
  If there is none, the verb is third person singular (neuter).
- no congruency in (152a):

(152) a. Þeim var hjálpað.
they.DAT was helped
'They were helped.'

b. Hennar var saknað.
sie.SG.GEN wurde vermisst

- However, the dative and the genitive are still subjects, as we will see in a moment.

Quirky subjects in the passive: position

- Dative follows finite in V1:

(153) Var honum aldrei hjálpað af foreldrum sinum?
was he.DAT never helped by parents his
'Did his parents never help him?'

- Dative follows finite in V2:

(154) Í prófinu var honum vist hjálpað.
in Prüfung war er.DAT scheinbar geholfen
'Anscheinend wurde ihm bei der Prüfung geholfen.'

Quircky subjects in the passive: Control

- The dative subject can be omitted:

(155) a. Ég vonast til að verða hjálpað.
I hope for to be helped

b. Að vera hjálpað i prófinu er óleyfilegt.
to be helped in the.exam is un.allowed
'It is not allowed to be helped in the exam.'

- Compare:

(156) * Ich hoffe geholfen zu werden.
I hope helped to AUX

- Only possible with *bekommen*-passive:

(157) Ich hoffe hier geholfen zu bekommen.[2]
I hope here helped to AUX

[2] http://www.photovoltaikforum.com/sds-allgemein-ueber-solar-log-f38/solarlog-1000-mit-wifi-anschliesen-t96371.html. 10.01.2014

Case and case principles

- What types of case are there?
- How do cases depend on the syntactic context?
- Up to now, cases have been defined in valency lists,
  but once we know the principles, this no longer needs to be the case.
  Capture generalizations and
  only need one lexicon entry for the verb *lesen* 'to read' in (158):

(158) a. Er möchte das Buch lesen.
he.NOM wants the.ACC book read
'He wants to read the book.'

b. Ich sah ihn das Buch lesen.
I saw him the book read
'I saw him read the book.'

The case of the subject (and the object) is regulated by principle.

Structural and lexical case

- If the case of arguments depends on the syntactic environment, one speaks of structural case.
  Otherwise the arguments have lexical case.
- Examples of structural cases are:

(159) a. Der Installateur kommt.
the.NOM plumber comes
'The plumber comes.

b. Der Mann läßt den Installateur kommen.
the man lets the.ACC plumber come
'The man lets the plumber come.'

c. das Kommen des Installateurs
the coming of.the.GEN plumber
'the coming of the plumber'

Structural and lexical case

- In (159) the case of the subject of *kommen* 'to come' is expressed differently, in (160) the case of the object of *schlagen* 'to defeat':

(160) a. Judit schlägt den Weltmeister.
Judit defeats the.ACC world.champion
'Judit defeats the world champion.'

b. Der Weltmeister wird geschlagen.
the.NOM world.champion AUX beaten
'The world champion is beaten.'

Lexical case

- Genitive dependent on the verb is a lexical case:
  The case of a genitive object does not change with passivization.

(161) a. Wir gedenken der Opfer.
we.NOM remember the victims.GEN
'We remember the victims.'

b. Der Opfer wird gedacht.
the.GEN victims AUX remembered
'The victims are remembered.'

c. * Die Opfer wird / werden gedacht.
the.NOM victims AUX.3SG / AUX.3PL remembered

(161b) = impersonal passive, there is no subject.

The dative is a lexical case?

.

- Similarly, there are no changes with dative objects:

(162) a. Der Mann hat ihm geholfen.
the.NOM man has him.DAT helped

b. Ihm wird geholfen.
him.DAT AUX helped

- But what about (163)?

(163) a. Der Mann hat den Ball dem Jungen geschenkt.
the man has the ball the boy given

b. Der Junge bekam den Ball geschenkt.
the boy got the ball given

The dative is a lexical case?

- The classification of the dative case is the subject of controversial debate.
  Three possibilities for dative arguments:
  1. Hypothesis 1: All datives are lexical.
  2. Hypothesis 2: Some datives are lexical, others are structural.
  3. Hypothesis 3: All datives are structural.

Hypothesis 1: All datives are lexical

- If you treat the dative as a lexical case, you have to assume a conversion from lex. to str. case for the dative passive.
- Haider's (1986a: 20) examples are then immediately explained. Analogous examples are:

(164) a. Er streichelt den Hund.
he.NOM strokes the.ACC dog

b. Der Hund wird gestreichelt.
the.NOM dog AUX stroked

c. sein Streicheln des Hundes
his stroking of.the.GEN dog

Hypothesis 1: All datives are lexical

- With datives:

(165) a. Er hilft den Kindern.
he helps the.DAT children

b. Den Kindern wird geholfen.
the.DAT children AUX helped

c. das Helfen der Kinder (Kinder nur Agens)
the helping of.the.GEN children

d. * sein Helfen der Kinder
his helping the children

- Dative can only be expressed prenominally:

(166) das Den-Kindern-Helfen
the the-children-helping

Hypothesis 2: Some datives are structural, bivalent verbs

- If you only have the distinction structural/lexical,
  you get a problem with bivalent verbs:

(167) a. Er hilft ihm.
he helps him

b. Er unterstützt ihn.
he supports him

  The information in the dictionary entry of *help* and *support* must be different.
- With ditransitive verbs, case can be derived from general principles (nom, dat, acc), but this is not possible with bivalent verbs.
  → dative with *help* is classified as lexical,
  but dative with *give* as structural.
  Prediction: Dative passive is not possible with verbs with lexical dative.

Hypothese 2: The dative passiv with bivalent verbs – I

(168) a. Er kriegte von vielen geholfen / gratuliert / applaudiert.
he got by many helped congratulated applauded

b. Man kriegt täglich gedankt.
one gets daily thanked

Hypothese 2: The dative passiv with bivalent verbs – II

The examples in (169) are corpus examples:

(169) a. "'Da kriege ich geholfen."'[3]
there get I helped
'Somebody helps me there.'

b. Heute morgen bekam ich sogar schon gratuliert.[4]
today morning AUX I even already congratulated
'Somebody even wished me a happy birthday this morning already.'

c. "'Klärle"' hätte es wirklich mehr als verdient, auch mal zu einem
Klärle had it really more than deserved also once to a
"'unrunden"' Geburtstag gratuliert zu bekommen.[5]
insignificant birthday congratulated to AUX
'Klärle would have more than deserved to be wished a happy birthday, even an insignificant birthday.'

d. Mit dem alten Titel von Elvis Presley "'I can't help falling in love"'
with the old song by Elvis Presley I can't help falling in love
got cashier Markus Reiß to.the birthday congratulated

The Case Principle (I)

- Dative is regarded as a lexical case.
- All arguments are represented in a list in all languages.
ARGUMENT-STRUCTURE list or ARG-ST.
- ditransitive verb like *geben* has the ARG-ST-Wert:

(170) ⟨ NP[*str*], NP[*ldat*], NP[*str*] ⟩

str stands for structural case and *ldat* for lexical dative.
- For SVO languages, the first argument is the subject (SPR), the others COMPS.
In the SOV languages, all ARG-ST elements in finite verbs are in COMPS.

The case principle (II)

- The assignment of structural cases is governed by the following principle (Przepiórkowski 1999; Meurers 1999):

Prinzip (case principle)

- In a list that contains both the subject and the complements of a verbal head, the leftmost element with structural nominative case is assigned, unless it is raised by a superordinate head.
- All other elements in the list that are not raised and have a structural case are given accusative case.
- In nominal environments, elements with a structural case are assigned the genitive case.

- Principle goes back to Yip, Maling & Jackendoff (1987).

Aktive

prototypical valency lists:

(171) a. *schläft*: ARG-ST ⟨ NP[*str*]$_i$ ⟩
b. *unterstützt*: ARG-ST ⟨ NP[*str*]$_i$, NP[*str*]$_j$ ⟩
c. *hilft*: ARG-ST ⟨ NP[*str*]$_i$, NP[*ldat*]$_j$ ⟩
d. *schenkt*: ARG-ST ⟨ NP[*str*]$_i$, NP[*ldat*]$_j$, NP[*str*]$_k$ ⟩

The first element in the ARG-ST list gets nominative.
All others with structural case get accusative.

For the comparison with the passive, it makes sense to provide the NPs with small indices (i, j, k).

Passive

(172) a. *schläft*: ARG-ST ⟨ NP[*str*]$_i$ ⟩
b. *unterstützt*: ARG-ST ⟨ NP[*str*]$_i$, NP[*str*]$_j$ ⟩
c. *hilft*: ARG-ST ⟨ NP[*str*]$_i$, NP[*ldat*]$_j$ ⟩
d. *schenkt*: ARG-ST ⟨ NP[*str*]$_i$, NP[*ldat*]$_j$, NP[*str*]$_k$ ⟩

Passivizing the verbs results in the following ARG-ST"=lists:

(173) a. *geschlafen wird*: ARG-ST ⟨ ⟩
b. *unterstützt wird*: ARG-ST ⟨ NP[*str*]$_j$ ⟩
c. *geholfen wird*: ARG-ST ⟨ NP[*ldat*]$_j$ ⟩
d. *geschenkt wird*: ARG-ST ⟨ NP[*ldat*]$_j$, NP[*str*]$_k$ ⟩

In (173) another NP is now in first place.
First NP with structural case gets it nominative.
Lexical case as in (173c–d) remains as it is, namely lexically specified.

Comparison German, Danish, English, Icelandic

- German and Icelandic allow subjectless constructions,
  Danish and English do not.
- German, Icelandic and Danish allow impersonal passive,
  English does not.
- Danish, Icelandic allow promotion of both objects to the subject,
  German and English do not.
- Danish and Icelandic have a morphological passive,
  German and English do not.
- German allows the remote passive, Danish has the complex passive and English and Danish have the reportive passive.

Morphological and analytical forms in Danish

- morphological passive: *-s* suffix, present and past variants:

  (174) a. Peter læser avisen.
  Peter liest Zeitung.DEF
  'Peter liest die Zeitung.'

  b. Avisen læses af Peter.
  Zeitung.DEF liest.PRES.PASS von Peter
  'Die Zeitung wird von Peter gelesen.'

  c. Avisen læstes af Peter.
  Zeitung.DEF lesen.PAST.PASS von Peter
  'Die Zeitung wurde von Peter gelesen.'

- analytical form with *blive* + participle:

  (175) Avisen bliver læst af Peter.
  Zeitung.DEF wird gelesen von Peter
  'Die Zeitung wird von Peter gelesen.'

In German and English only analytical forms

- English and German do not have a morphological passive:

(176) a. The paper was read.
b. Der Aufsatz wurde gelesen.
the.NOM paper AUX read

Personal passive

- All the languages considered allow the promotion of an object NP to the subject.
- The subject can also be S or VP:

(177) a. At regeringen træder tilbage, bliver påstået.
dass Regierung.DEF tritt zurück wird behauptet
'Dass die Regierung zurücktritt, wird behauptet.'
b. At reparere bilen, bliver forsøgt.
zu reparieren Auto.DEF wird versucht
'Das Auto zu reparieren, wird versucht.'

Impersonal passives in German and Icelandic

- German, Danish and Icelandic have impersonal passives.
- German simply as a subjectless construction:

(178) weil noch getanzt wurde
because still danced AUX
'because there was still dancing there'

- Icelandic as well (Thráinsson 2007: 264):

(179) a. Oft var talað um þennan mann. (Icelandic)
often was talked about this Mann.ACC.SG.M
'This man was often talked about.'
b. Aldrei hefur verið sofið í þessu rúmi.
never has been slept in this bed.DAT
'This bed has never been slept in.'

Impersonal passives in Danish: Expletives

- Danish and English need a subject. Danish has a solution:

(180) a. at der bliver danset (Danish)
that EXPL AUX danced
'that there is dancing'
b. at der danses
that EXPL dance.PRES.PASS
'that there is dancing'

- In German, an expletive subject is excluded:

(181) * weil es noch getanzt wurde
because EXPL noch danced AUX

Primary and secondary object in German and English

- German and English only allow the promotion of one object:

(182) a. weil der Mann dem Jungen den Ball schenkt
because the.NOM man the.DAT boy the.ACC ball gives
'because the man gives the boy a ball as a present'

b. weil dem Jungen der Ball geschenkt wurde
because the.DAT boy the.NOM ball given AUX
'because the ball was given to the boy'

c. * weil der Junge den Ball geschenkt wurde
because the.NOM boy the.ACC ball given AUX

Primary and secondary object in German and English

- English: only an object can become a subject:

(183) a. because the man gave the boy the ball
b. because the boy was given the ball
c. * because the ball was given the boy

- However, the effect can be achieved by using a different valency pattern or *get*-passive

(184) a. because the man gave the ball to the boy
b. because the ball was given to the boy

Primary and secondary object in Danish

- In Danish, both objects can become the subject:

(185) a. fordi manden giver drengen bolden
weil Mann.DEF gibt Junge.DEF Ball.DEF
'weil der Mann dem Jungen den Ball gibt'

b. fordi drengen bliver givet bolden
weil Junge.DEF wird gegeben Ball.DEF
'weil der Junge den Ball gegeben bekommt'

c. fordi bolden bliver givet drengen
weil Ball.DEF wird gegeben Junge.DEF
'weil der Ball dem Jungen gegeben wird'

- Danish is different from Moro, for example (Ackerman et al. 2017): Objects are clearly differentiated. For example, their order is fixed:

(186) * fordi manden giver bolden drengen

Primary and secondary object in Icelandic

- Zaenen, Maling & Thráinsson (1985: 460):
The dative object can become an oblique subject:

(187) Konunginum voru gefnar ambáttir. [S_i Aux $\__i$ V O]
the.king.DAT were given.F.PL maidservants.NOM.F.PL
'The king was given female slaves.'

The accusative object then gets the nominative case.

- Or the accusative object becomes the subject:

(188) Ambáttin var gefin konunginum. [S_i Aux $\__i$ V O]
the.maidservant.NOM.SG AUX given.F.SG the.king.DAT
'The female slave was given to the king.'

- Side note: Verb always congruent with nominative.

Designated Argument Reduction

- Haider (1986a), Heinz & Matiasek (1994), Müller (2003):
  DESIGNATED ARGUMENT (DA) the subject of transitive and unergative verbs.
  (a "real" subject)
- DA-Wert of unaccusative verbs is the empty list.
- Passive = LR that subtracts the DA list from the argument structure of the input verb or stem.

(189)

	ARG-ST	DA
a. tanzen:	⟨1 NP[*str*]⟩	⟨1⟩
b. lesen:	⟨1 NP[*str*], NP[*str*]⟩	⟨1⟩
c. schenken:	⟨1 NP[*str*], NP[*ldat*], NP[*str*]⟩	⟨1⟩
d. helfen:	⟨1 NP[*str*], NP[*ldat*]⟩	⟨1⟩

Designated Argument Reduction

- Participle formation rule:

(190) Lexical rule for the formation of the participle (provisional):

$$\begin{bmatrix} \textit{stem} \\ \text{HEAD} \quad \begin{bmatrix} \textit{verb} \\ \text{DA } \boxed{1} \end{bmatrix} \\ \text{ARG-ST } \boxed{1} \oplus \boxed{2} \end{bmatrix} \mapsto \begin{bmatrix} \textit{word} \\ \text{ARG-ST } \boxed{2} \end{bmatrix}$$

- The designated argument is blocked.

Designated Argument Reduction

- ARG-ST list of the participle is either empty or begins with the object of the active form:

(191)

	ARG-ST
a. getanzt (unerg):	⟨⟩
b. gelesen (trans):	⟨NP[*str*]⟩
c. geschenkt (ditrans):	⟨NP[*ldat*], NP[*str*]⟩
d. geholfen (unerg):	⟨NP[*ldat*]⟩

- The first element of the ARG-ST list with structural case gets nominative case:

(192) Der Aufsatz wurde gelesen.
the.NOM paper AUX read

English: Promotion of the first object

- English: no dative, structural case for first object,
  lexical accusative for second object of *give*

(193)

	ARG-ST
b. dance (unerg):	⟨NP[*str*]⟩
c. read (trans):	⟨NP[*str*], NP[*str*]⟩
d. give (ditrans):	⟨NP[*str*], NP[*str*], **NP[*lacc*]**⟩
e. help (trans):	⟨NP[*str*], **NP[*str*]**⟩

- German can make the second object (accusative) the subject,
  English the first (the object that is closer to the verb, OV vs. VO):

(194) a. dass dem Jungen der Ball gegeben wurde
b. because the boy was given the ball

English: Personal passive with *help*

- English: no dative, structural case for first object, lexical accusative for second object of *give*

(195)

	ARG-ST
b. dance (unerg):	⟨NP[*str*]⟩
c. read (trans):	⟨NP[*str*], NP[*str*]⟩
d. give (ditrans):	⟨NP[*str*], NP[*str*], **NP[*lacc*]**⟩
e. help (trans):	⟨NP[*str*], **NP[*str*]**⟩

- German has an impersonal passive for *helfen*, but English has a personal one:

(196) a. weil ihm geholfen wurde
b. because he was helped

Danish: Promotion primary and secondary object

- Danish is like English: no dative, but allows the promotion of both objects of ditransitive verbs:

(197)

	ARG-ST
a. danse (tanzen, unerg):	⟨NP[*str*]⟩
b. læse (lesen, trans):	⟨NP[*str*], NP[*str*]⟩
c. give (geben, ditrans):	⟨NP[*str*], NP[*str*], **NP[*str*]**⟩
d. hjælpe (helfen, trans):	⟨NP[*str*], **NP[*str*]**⟩

Danish has two objects with a structural case, German and English only one.

- Personal passive: Promotion of an object with a structural case.

Generalized lexicon rule

- old:

(198) Lexicon rule for the formation of the participle (provisional):

$$\begin{bmatrix} \textit{stem} \\ \text{HEAD} \quad \begin{bmatrix} \textit{verb} \\ \text{DA} \ \boxed{1} \end{bmatrix} \\ \text{ARG-ST} \ \boxed{1} \oplus \boxed{2} \end{bmatrix} \mapsto \begin{bmatrix} \textit{word} \\ \text{ARG-ST} \ \boxed{2} \end{bmatrix}$$

First argument suppressed, second is now the first.

- *promote* provides the list $\boxed{3}$, which either corresponds to the list $\boxed{2}$ or if $\boxed{2}$ contains two NPs with structural case, additionally also a list in which the order of the two NPs is swapped, d. h., the second NP with structural case is placed first.

(199) Passiv-Lexikonregel für Dänisch, Deutsch, Englisch, Isländisch:

$$\begin{bmatrix} \textit{stem} \\ \text{HEAD} \quad \begin{bmatrix} \textit{verb} \\ \text{DA} \ \boxed{1} \end{bmatrix} \\ \text{ARG-ST} \ \boxed{1} \oplus \boxed{2} \end{bmatrix} \mapsto \begin{bmatrix} \textit{word} \\ \text{ARG-ST} \ \boxed{3} \end{bmatrix} \wedge \text{promote}(\boxed{2}, \boxed{3})$$

Result of the lexicon rule application for Danish

	ARG-ST
a. danset/-s (tanzen, unerg):	⟨⟩
b. læst/-s (lesen, trans):	⟨NP[*str*]$_j$ ⟩
c. givet/-s (geben, ditrans):	⟨NP[*str*]$_j$, NP[*str*]$_k$ ⟩
	⟨NP[*str*]$_k$, NP[*str*]$_j$ ⟩
d. hjulpet/-s (helfen, trans):	⟨NP[*str*]$_j$ ⟩

Icelandic

- Case distribution as in German:

(200)

	ARG-ST
b. dansa (unerg):	⟨NP[*str*]⟩
c. lesa (trans):	⟨NP[*str*], NP[*str*]⟩
d. gefa (ditrans):	⟨NP[*str*], **NP[*ldat*]**, **NP[*str*]**⟩
e. hjálpa (trans):	⟨NP[*str*], **NP[*ldat*]**⟩

- Impersonal passive is the same as *tanzen*,
  but *helfen* does not form an impersonal passive but a personal passive.
- *geben* allows two variants:
  Dative becomes oblique subject, accusative becomes subject.

Icelandic: Oblique subjects and double object constructions

- first NP becomes the subject, also NPs with lexical case
  (Wechsler 1995: 147–148)

(201)

	ARG-ST	SPR	COMPS
a. dansað (unerg):	⟨⟩	⟨ ⟩	⟨⟩
b. lesið (trans):	⟨NP[*str*]$_j$ ⟩	⟨NP[*str*]$_j$ ⟩	⟨⟩
c. gefið (ditrans):	⟨NP[*ldat*]$_j$, NP[*str*]$_k$ ⟩	⟨NP[*ldat*]$_j$ ⟩	⟨NP[*str*]$_k$ ⟩
	⟨NP[*str*]$_k$, NP[*ldat*]$_j$ ⟩	⟨NP[*str*]$_k$ ⟩	⟨NP[*ldat*]$_j$ ⟩
d. hjálpað (trans):	⟨NP[*ldat*]$_j$ ⟩	⟨NP[*ldat*]$_j$ ⟩	⟨⟩

Impersonal passive

- German, Icelandic: subject not obligatory
  Danish: Introduction of an expletive when mapping ARG-ST to SPR/COMPS.
- English and Danish map the first NP/VP/CP to SPR and the remaining arguments to COMPS and
  Danish inserts an expletive if there are no other elements,
  that could function as a subject.

(202)

	ARG-ST	SPR	COMPS
a. danset/-s (unerg):	⟨⟩	⟨ NP$_{expl}$ ⟩	⟨⟩
b. læst/-s (trans):	⟨NP[*str*]$_j$ ⟩	⟨NP[*str*]$_j$ ⟩	⟨⟩
c. givet/-s (ditrans):	⟨NP[*str*]$_j$, NP[*str*]$_k$ ⟩	⟨NP[*str*]$_j$ ⟩	⟨NP[*str*]$_k$ ⟩
	⟨NP[*str*]$_k$, NP[*str*]$_j$ ⟩	⟨NP[*str*]$_k$ ⟩	⟨NP[*str*]$_j$ ⟩
d. hjulpet/-s (trans):	⟨NP[*str*]$_j$ ⟩	⟨NP[*str*]$_j$ ⟩	⟨⟩

Mapping to COMPS in OV languages

All elements of ARG-ST are mapped to COMPS

	ARG-ST	SPR	COMPS
a. getanzt:	⟨⟩	⟨⟩	⟨⟩
b. gelesen:	⟨ NP[*str*] ⟩	⟨⟩	⟨ NP[*str*] ⟩
c. geschenkt:	⟨ NP[*ldat*], NP[*str*] ⟩	⟨⟩	⟨ NP[*ldat*], NP[*str*] ⟩
d. geholfen:	⟨ NP[*ldat*] ⟩	⟨⟩	⟨ NP[*ldat*] ⟩

All arguments of the participle can be prefixed I

Complements can be placed in front:

(203) a. Den Wählern Märchen erzählen sollte man besser nicht.
the.DAT voters fairy.tales tell should one.NOM rather not
'It is better not to tell voters fairy tales.'

b. Den Wählern erzählen sollte man solche Märchen nicht.
the.DAT voters tell should one.NOM such fairy.tales not
'One should not tell voters fairy tales.'

c. Märchen erzählen sollte man den Wählern nicht.
fairy.tales tell should one.NOM the.DAT voters not
'One should not tell voters fairy tales.'

However, the subject normally does not:

All arguments of the participle can be prefixed II

(204) a. * Dieser Mann erzählen sollte den Wählern solche
this.NOM man tell should the.DAT voters such
Geschichten besser nicht.
stories rather not

b. * Dieser Mann den Wählern erzählen sollte solche
this.NOM man the.DAT voters tell should such
Geschichten besser nicht.
stories rather not

c. * Dieser Mann solche Geschichten erzählen sollte den
this.NOM man such stories tell should the.DAT
Wählern besser nicht.
voters rather not

Bei Partizipien können beide Objekte der Aktivform vorangestellt werden:

All arguments of the participle can be prefixed III

(205) a. Diesen Plan den Wählern gegeben hat er nicht.
this.ACC plan the.DAT voters given has he not
'He didn't give this plan to the voters.'

b. Dieser Plan den Wählern gegeben wurde damals nicht.
this.NOM plan the.DAT voters given was back.than not
'This plan wasn't given to the voters back then.'

PVP see: Müller (1996), Müller (2002: Chapter 2.2.2) or Müller (2025: Chapter 15.2).

The auxiliary verb

- The passive auxiliary verb is similar for all the languages covered:

(206) Passive auxiliary verb for Danish, German, English:

$$\left[\begin{array}{l}\text{ARG-ST } \boxed{1} \oplus \boxed{2} \oplus \left\langle \left[\begin{array}{ll}\text{VFORM} & \textit{ppp} \\ \text{DA} & \langle\ \text{XP}_{ref}\ \rangle \\ \text{SPR} & \boxed{1} \\ \text{COMPS} & \boxed{2}\end{array}\right] \right\rangle\end{array}\right]$$

- DA-Wert excludes unaccusative verbs and weather verbs
- German forms verbal complex: arguments of the participle ($\boxed{1}$ and $\boxed{2}$) are attracted by the passive auxiliary verb (Hinrichs & Nakazawa 1989b).
- Verbal complex scheme allows unsaturated non-head daughter.
- Also works for languages that do not form verbal complexes: $\boxed{2}$ is then the empty list.

The morphological passive

- Lexicon rule also works for the morphological passive. A *-s* is simply added.

Perfect

- German: Only one participle for passive and perfect tense (Haider 1986a).
- The designated argument is blocked, but is contained in the lexicon element
- Perfect auxiliary verb unblocks it.

(207) a. dass der Aufsatz [gelesen wurde]
that the.NOM paper read AUX
'that the paper was read'

b. dass Kirby den Aufsatz [gelesen hat]
that Kirby the.ACC paper read AUX
'that Kirby has read the paper'

Perfect auxiliary verb *haben*:

$$\left[\text{ARG-ST } \boxed{1} \oplus \boxed{2} \oplus \boxed{3} \oplus \left\langle \begin{bmatrix} \text{VFORM} & \textit{ppp} \\ \text{DA} & \boxed{1} \\ \text{SPR} & \boxed{2} \\ \text{COMPS} & \boxed{3} \end{bmatrix} \right\rangle\right]$$

Analysis as a complex predicate for Danish and English?

- In an analysis with argument unblocking, one would have to assume structure in (208a–b):

(208) a. He [has given] the book to Mary.
b. The book [was given] to Mary.
c. He has [given the book to Mary].
d. The book was [given to Mary].

Otherwise we would know about the deblocked subject too late, because the participle would only require a PP – as in (208d).

Problem: (Partial) Fronting I

- Meurers (1999) has found a trick how to analyze the case assignment in (209):

(209) a. Gelesen wurde der Aufsatz schon oft.
read AUX the paper.NOM already often
'The paper has been read many times.'

b. Der Aufsatz gelesen wurde schon oft.
the paper.NOM read AUX already often
'The paper has been read many times.'

c. Den Aufsatz gelesen hat er schon oft.
the paper.ACC read AUX he already often
'He has read the paper many times.'

Problem: (Partial) Fronting II

- However, this does not work for Danish/English, because here we not only have case differences but also position differences:

(210) a. The book should have been given to Mary and
[given to Mary] it was.
b. He wanted to give the book to Mary and
[given the book to Mary] he has.

If no sophisticated mechanisms for the underspecification of different mappings can be found,
we will probably have to assume two different participle forms.

The remote passive

- Höhle (1978: S. 175–176): in certain contexts objects of *zu*-infinitives in the nominative case.
The following sentences are examples of the so-called long-distance passive:

(211) a. daß er auch von mir zu überreden versucht wurde[7]
that he.NOM also by me to persuade tried AUX
'that an attempt to persuade him was also made by me'
b. weil der Wagen oft zu reparieren versucht wurde
because the.NOM car often to repair tried AUX
'because many attempts were made to repair the car'

[7] Oppenrieder (1991: S. 212).

The remote passive I

Accusative objects of embedded verbs can become nominative in the passive:

(212) a. Dabei darf jedoch nicht vergessen werden, daß in der Bundesrepublik,
But should however not forgotten get that in the BRD
wo *ein Mittelweg zu gehen versucht wird*, die Situation der Neuen
where a middle.way to go tried gets the situation of.the new
Musik allgemein und die Stellung der Komponistinnen im besonderen
music generally and the position of.the composers in particular
noch recht unbefriedigend ist.[8]
still quite unsatisfactory is
'One should not forget that the situation of the New Music in general and the position of female composers in particular is rather unsatisfying in the Bundesrepublik, where one tries to follow a middle course.'

The remote passive II

b. Noch ist es nicht so lange her, da ertönten gerade aus dem Thurgau
still is it not so long ago there sounded just out of.the Thurgau
jeweils die lautesten Töne, wenn im Wallis oder am Genfersee
at.the.time the loudest sounds when in.the Valais or at.the Lake.Geneva
im Umfeld einer Schuldenpolitik mit den unglaublichsten Tricks *der*
in.the sphere of.a debt.policy with the most.unbelievable tricks the
sportliche Abstieg zu verhindern versucht wurde.[9]
sporty relegation to prevent tried got
'It still is not too long ago that the loudest protests were heard in the Thurgau itself when the most unbelievable tricks in the sphere of debt policies were applied to prevent relegation in the Valais or at Lake Geneva.'

The remote passive III

c. Die Auf- und Absteigenden erzeugen ungewollt einen Ton, *der*
the up and downclimbers create involuntarily a tone that
bewusst nicht als lästig *zu eliminieren versucht wird*, sondern zum
consciously not as annoying to eliminate tried gets but to.the
Eigenklang des Hauses gehören soll, so wünschen es sich die
own.sound of.the house belong should so wish it themselves the
Architekten.[10]
architects
'The people who go up and down produce a tune without intention which is not consciously sought to be eliminated but which, rather, belongs to the individual sound of the building, as the architects intended.'

[8] Mannheimer Morgen, 26.09.1989, Feuilleton; Ist's gut, so unter sich zu bleiben?
[9] St. Galler Tagblatt, 09.02.1999, Ressort: TB-RSP; HCT und das Prinzip Hoffnung.
[10] Züricher Tagesanzeiger, 01.11.1997, S. 61.

Examples with *beginnen*, *vergessen* and *wagen*

Wurmbrand (2003b):

(213) der zweite Entwurf wurde zu bauen begonnen,[11]
the.NOM second plan AUX to build started
'It was begun to build the second plan.'

(214) a. Anordnungen, die zu stornieren vergessen wurden[12]
orders that to cancel forgotten were
'orders that were forgotten to cancel'

b. Aufträge [...], die zu drucken vergessen worden sind[13]
orders that to print forgot were are
'orders that somebody forgot to print'

[11] http://www.waclawek.com/projekte/john/johnlang.html, 28.07.2003.
[12] http://www.rlp-irma.de/Dateien/Jahresabschluss2002.pdf, 28.07.2003.
[13] http://www.iitslips.de/news.html, 28.07.2003.

Examples with *beginnen*, *vergessen* and *wagen*

(215) a. NUR Leere, oder doch noch Hoffnung, weil aus Nichts wieder Gefühle entstehen,
die so vorher nicht mal zu träumen gewagt wurden?[14]
that this.way before not even to dream dared were
'that were not even dared to be dreamed of in this way before'

b. Dem Voodoozauber einer Verwünschung oder die gefaßte Entscheidung zu einer Trennung, die bis dato noch nicht auszusprechen gewagt wurden[15]
which until now yet not express dared were
'which until now have not been dared to express'

[14] http://www.ultimaquest.de/weisheiten_kapitel1.htm, 28.07.2003.
[15] http://www.wedding-no9.de/adventskalender/advent23_shawn_colvin.html, 28.07.2003.

Remote passive and verbal complex formation (I)

- Object of a verb embedded under a passive participle, becomes the subject of the sentence:

(216) a. weil er den Wagen oft zu reparieren versucht hat
because he.NOM the.ACC car often to repair tried has
'because he made many attempts to repair the car'

b. weil der Wagen oft zu reparieren versucht wurde
because the.NOM car often to repair tried was
'because many attempts were made to repair the car'

Remote passive and verbal complex formation (II)

- Remote passive only possible with verbal complexes:

(217) a. weil oft versucht wurde, den Wagen zu reparieren.
because often tried AUX the.ACC car to repair
'because many attempts were made to repair the car.'

b. * weil oft versucht wurde, der Wagen zu reparieren.
because often tried AUX the.NOM car to repair

c. Den Wagen zu reparieren wurde oft versucht
the.ACC car to repair AUX often tried

d. * Der Wagen zu reparieren wurde oft versucht
the.NOM car to repair AUX often tried

Fernpassiv und Verbalkomplexbildung (III)

- Explanation: Remote passive = passivization of the predicate complex

(218) weil der Wagen oft [[zu reparieren versucht] wurde]
because the.NOM car often to repair tried was

- There are no verbal complexes in (219a,c).

(219) a. weil oft versucht wurde, den Wagen zu reparieren
because often tried AUX the.ACC car to repair

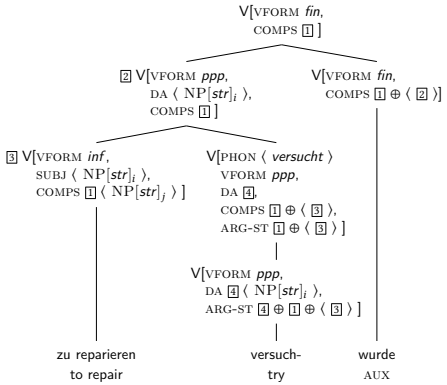
b. * weil oft versucht wurde, der Wagen zu reparieren.
because often tried AUX the.NOM car to repair

c. Den Wagen zu reparieren wurde oft versucht
the.ACC car to repair AUX often tried

d. * Der Wagen zu reparieren wurde oft versucht
the.NOM car to repair AUX often tried

Object of *to repair* is part of the VP → gets accusative
The passives in (219a,c) are impersonal passives.

Analysis of the remote passive



- *versuchen* embeds infinitive with *zu*.
- *versuchen* attracts arguments from *reparieren*: ARG-ST-Wert ⟨ NP[*str*]$_i$, NP[*str*]$_j$, V[*inf*] ⟩
- Passive LR suppresses first argument: *versucht* hat ARG-ST-Wert ⟨ NP[*str*]$_j$, V[*inf*] ⟩
- *zu reparieren versucht*: ARG-ST-Wert ⟨ NP[*str*]$_j$ ⟩ and *zu reparieren versucht wurde* also

Remote passive with object control verbs

- Remote passive also possible with object control verbs:

(220) a. Keine Zeitung wird ihr zu lesen erlaubt.[16]
no newspaper.NOM AUX her.DAT to read allowed
'She is not allowed to read any newspapers.'

b. Der Erfolg wurde uns nicht auszukosten erlaubt.[17]
the success.NOM AUX us.DAT not to.enjoy permitted
'We were not permitted to enjoy our success.'

- Passive of the construction without verbal complex is an impersonal passive:

(221) Uns wurde erlaubt, den Erfolg auszukosten.
us.DAT AUX allowed the.ACC success to.enjoy

- Generalization: In passive constructions in which a verbal complex is embedded under the passive auxiliary verb, the subject is suppressed and of the remaining arguments the first argument with structural case becomes the subject and receives nominative case.

[16] Stefan Zweig. *Marie Antoinette*. Leipzig: Insel-Verlag. 1932, S. 515, zitiert nach Bech (1955: S. 309). Siehe Askedal (1988: S. 13).
[17] Haider (1986b: S. 110).

Remote passive with object control verbs

(222) Keine Zeitung wird ihr zu lesen erlaubt.[18]
no newspaper.NOM AUX her.DAT to read allowed
'She is not allowed to read any newspapers.'

erlauben: ⟨ NP[*str*]$_i$, NP[*ldat*]$_j$ ⟩ ⊕ 1 ⊕ ⟨ V[COMPS 1] ⟩

zu lesen erlauben: ⟨ NP[*str*]$_i$, NP[*ldat*]$_j$, NP[*str*]$_k$, V[COMPS ⟨ NP[*str*]$_k$ ⟩] ⟩

zu lesen erlaubt wird: ⟨ NP[*ldat*]$_j$, NP[*str*]$_k$, V[COMPS ⟨ NP[*str*]$_k$ ⟩] ⟩

First NP with structural case is subject.

[18] Stefan Zweig. *Marie Antoinette*. Leipzig: Insel-Verlag. 1932, S. 515, zitiert nach Bech (1955: S. 309). Siehe Askedal (1988: S. 13).

Summary

- LRs for morphological and analytical passives
- The first element of the ARG-ST list is suppressed.
- *promote* promotes an NP with a structural case.
- Languages differ with regard to the cases and the lexical/structural distinction.
- Expletive is used for ARG-ST mapping in Danish.
- SVO languages require different lexicon elements for perfect/passive participles, but for German, analysis works with a participle form.

Exercises

1. Which of the NPs in the following sentences have structural and which have lexical cases?

   (223) a. Der Junge lacht.
   b. Mich friert.
   c. Er zerstört das Auto.
   d. Das dauert ein ganzes Jahr.
   e. Er hat nur einen Tag dafür gebraucht.
   f. Er denkt an den morgigen Tag.

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