Modal Particles between Syntax and Semantics

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Background

- Modal particles (MPs) are a characterstic feature of German.
- A small relatively closed class of expression of around 20 items.

Modal particles in German (Hartmann 1998: 660)

(1) aber, auch, bloß, denn, doch, eben, eigentlich, einfach, etwa, erst, halt, ja, nun, mal, nur, schon, sowieso, vielleicht, ruhig, überhaupt, wohl

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- MPs primraily occur in (conceptioneally) spoken language.
- For this and other reasons, they were primarily just an object of discourse-pragmatic investigations (see Helbig 1977; Weydt 1969 and many others).

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  Semantics: Döring 2013; Gutzmann 2015; Karagjosova 2004; McCready 2012; Zimmermann 2004b and many more
- The syntactic approaches mostly deal with the positioning of MPs in the middle field and how they relate to sentences types.
- The semantic approaches mostly deal with their meaning contribution and their with sentence mood and speech acts.

- There are at least two main theses that came out of these studies.

Thesis 1: Syntax

MPs are base-generated at the left-edge of the *v*P/IP.

Thesis 2: Semantics

There are at least two classes of MPs: mood modifiers (like *wohl*) and free, propositional modifiers (like *ja*).

- It is an implicit assumption in the majority of the literature on German modal particles (MPs) that they form a homogenous class of expressions.
- This is supported by a set of characteristic properties that MPs typically exhibit (cf. e.g. Autenrieth 2002; Meibauer 1994; Thurmair 1989).

Characteristic properties of MPs: MPs …

(2)

a. are not inflectable.
b. cannot receive main stress.
c. occur only in the so-called middle field (Germ. *Mittelfeld*).
d. occur commonly before the rheme.
e. can be combined with each other.
f. cannot be coordinated.
g. cannot be expanded.
h. are optional.
i. cannot be negated.
j. cannot be questioned.
k. have sentential scope.
l. are speaker-oriented.
m. modify the sentential mood.

- As many of these properties are very similar to the properties that are characteristic for *expressive meaning* (Kaplan 1999; Potts 2007), MPs have been analyzed as expressions that contribute such kind of meaning.
- In this talk, I will challenge the assumption, that all MPs actually behave the same.
- In order to do so, I concentrate on speaker orientation and interaction with sentence mood and show that there is some variation with respect to speaker-orientation and mood-modification.
- This seems to pose problems for a unified, use-conditional analysis.
- However, I will then show how the observed variation can nevertheless be implemented into the same basic expressive/use-conditional approach to MP-semantics.

An expressive approach to MPs

- Let us first check the prototypical properties of expressive meaning.

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- Independence corresponds to the use-conditional nature of MPs.
- Descriptive ineffability corresponds to the fact that MPs can hardly be paraphrased in descriptive terms (cf. all the work on the translation of MPs …)
- The alleged speaker orientation of MPs ties into the remaining two properties.
- Hence, besides independence, it is one of the main motivation to analyze MPs as expressive items.

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2 meaning dimensions

(3) Peter schläft ja. »Peter sleeps MP«

$$\rightsquigarrow \quad \langle \underbrace{\mathbf{sleep}(\mathbf{peter}) : t}_{\text{tc-content}}, \underbrace{\mathbf{ja}(\mathbf{sleep}(\mathbf{peter}) : u}_{\text{uc-content}} \rangle$$

- In Potts 2005, the independence of the two dimensions is achieved by
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Isolation and parsetree interpretation

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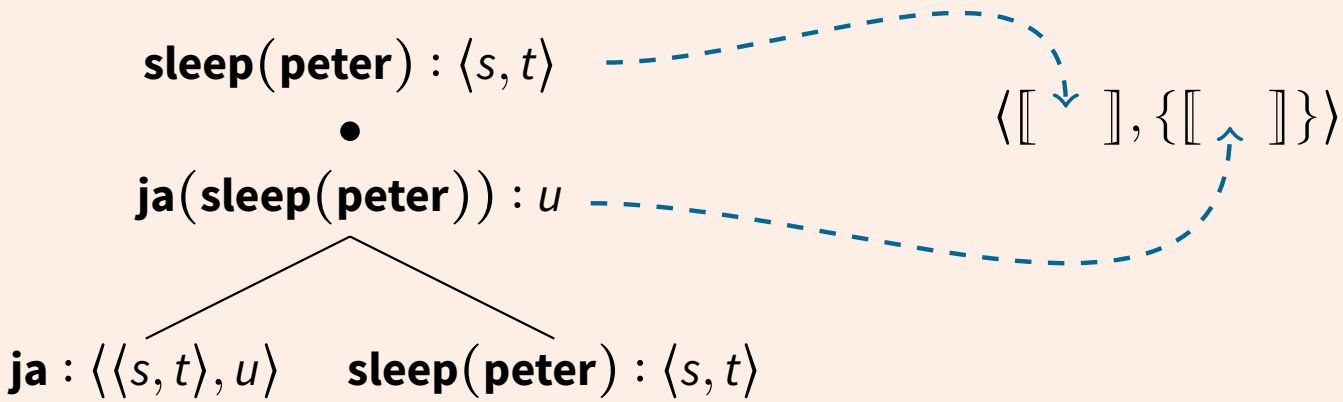

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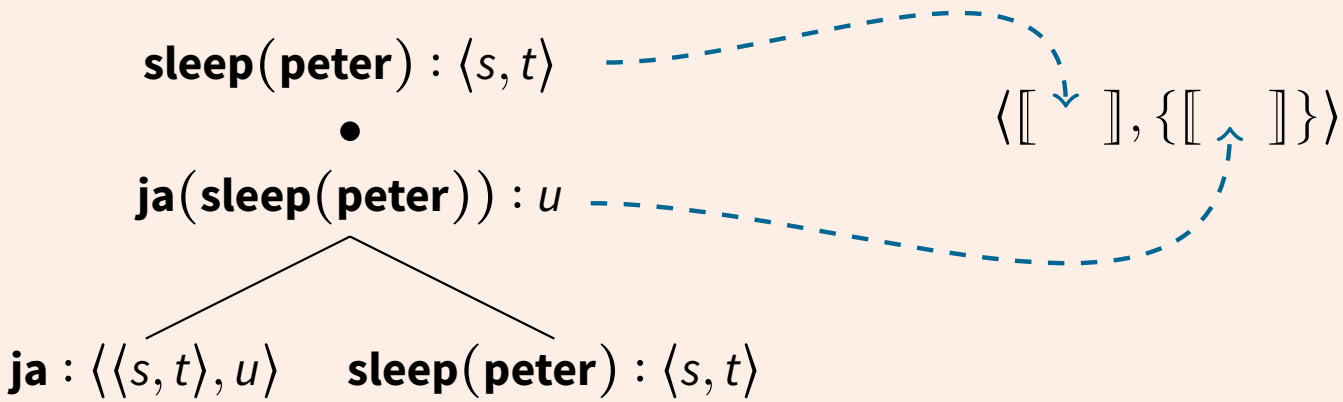

- This procedure ensure that use-conditional can never fall under the scope of higher operators.

- This directly account for speaker-orientation, as even embedding predicates are not able to find use-conditional content. Hence it always escapes to the matrix level.

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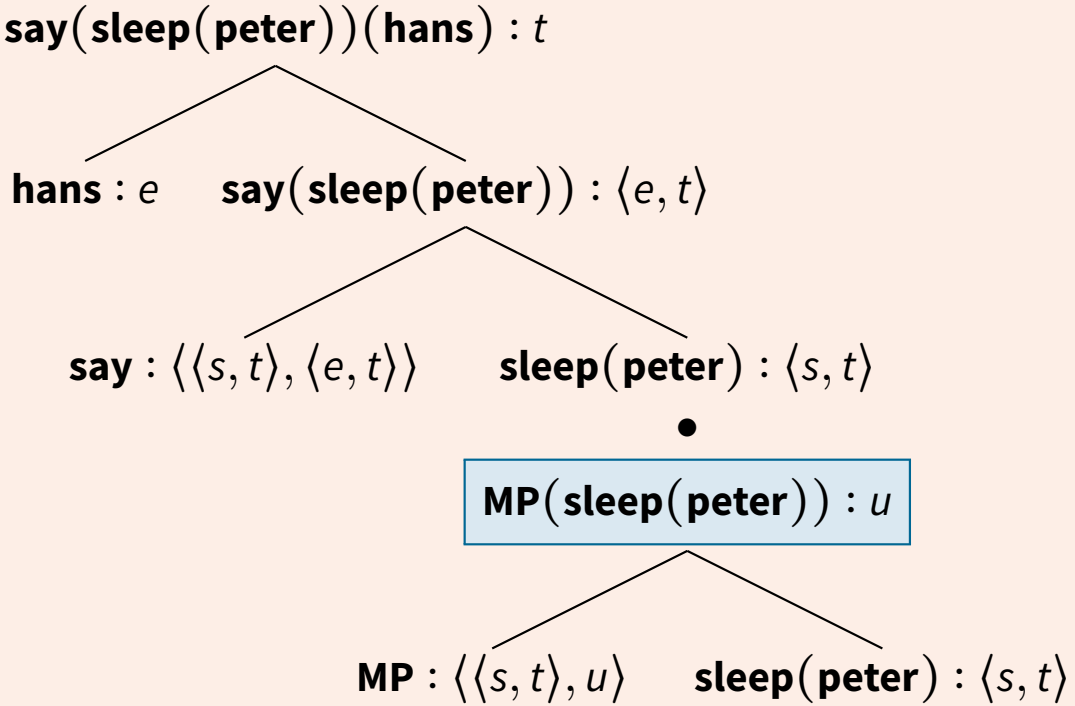

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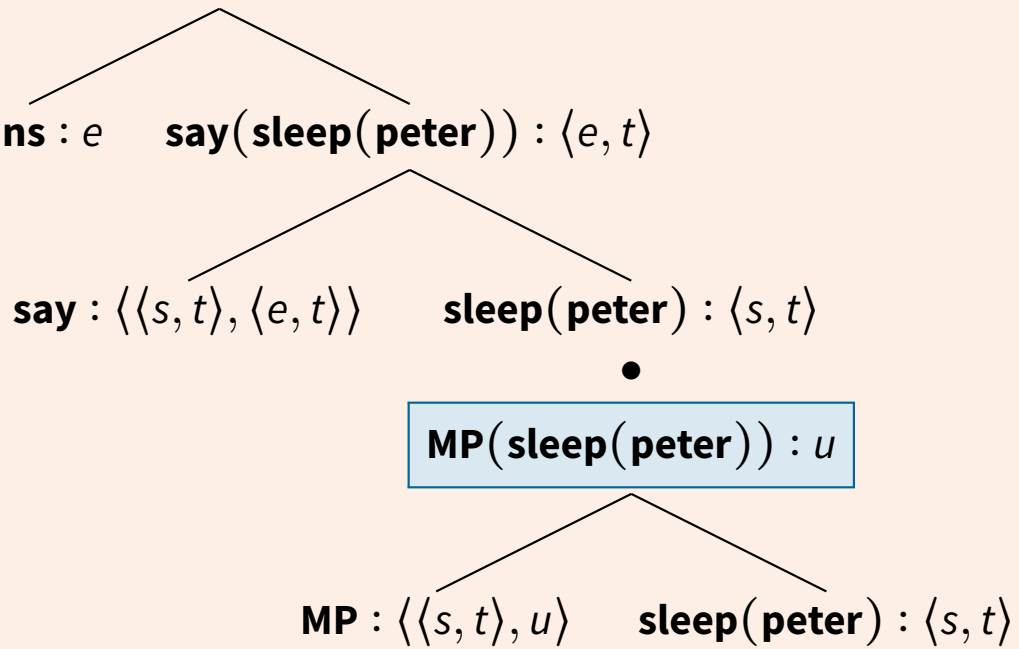
No embedding

(5) $\mathbf{say}(\mathbf{sleep}(\mathbf{peter}))(\mathbf{hans}) : t$



- What is important for this talk is that without further ado, this analysis will treat all MPs indifferently.
- So this is only justified if there is no variations. However there is …

Variation

Speaker orientation

- As it has recently been discussed, not all MPs behave the same regarding their speaker-orientation (e.g. Coniglio 2011; Döring 2013).
- For instance, *ja* can hardly be shifted to a non-speaker. This holds for (most) verba dicendi as well as for evidentials.

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not embeddable: *ja*

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Y says that L MP Z loves
#»Yoshi says, that (as we know) Luigi loves Zelda, but I don't believe that.«

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- As shown by the two infelicitous continuations, the knowledge ascription of *ja* seems to hold for the speaker.
- (In addition, even under the speaker-oriented reading, *ja* is odd in those sentences, due to pragmatic reasons.)

- In contrast, an MP like wohl can receive be attributed to another »speaker« when occurring in embedded contexts or the scope of evidential constructions.

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(10) a. … and that he is very sure about that.
b. … but I am very confident that he does.

- That is, a subset of MPs can receive a non-speaker-oriented interpretation.

Interaction with sentence mood

- The second way in which MPs can behave differently is with respect to how they interact with sentence mood, cf. (2m).
- As discussed, in different contexts, by Zimmermann (2004a) or Gutzmann (2008, 2012), MPs can be distinguished according to how they interact with sentence mood.

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- Again, *ja* and *wohl* will serve as examples for each category.

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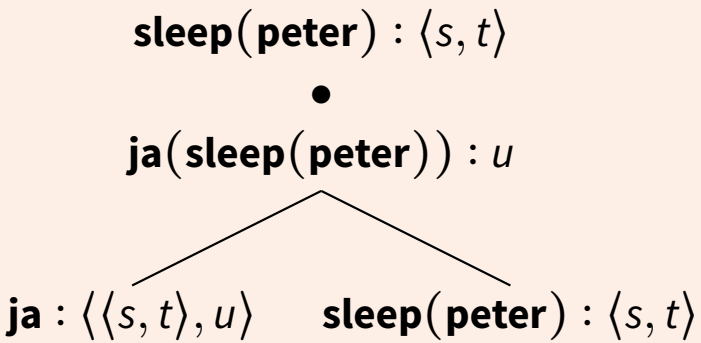
- We already saw that this is directly accounted for by expressive application plus parse tree interpretation.



- On contrast, *wohl* is a mood particle.
- It can be thought of as modifying the sentence mood by lowering the knowledge threshold required for
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(14) Ich bin mir nicht ganz sicher, aber Luigu liebt #(wohl) Zelda.
I am me not entirely sure but L loves MP Z
»I am not entirely sure, but Luigi presumably loves Zelda.«

(15) [I know you don't know Lothar that much,]
aber wird ihm diese Wildschweinskulptur #(wohl) gefallen?

- Mood particles are a problem for the standard expressive account.
- Of course, one can assume that mood particles just apply to sentence ASSERT.
- However, as expressive application works, this delivers utter nonsense, as the modified assert-operator will be isolated from the parsetree and will not be able to apply to the proposition.
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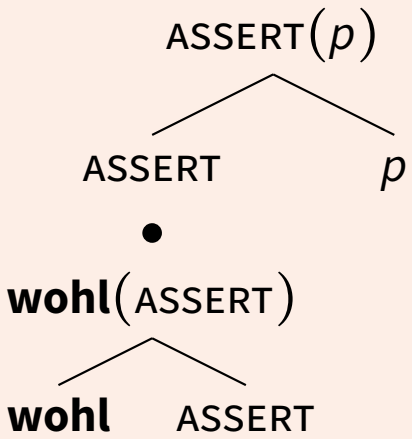

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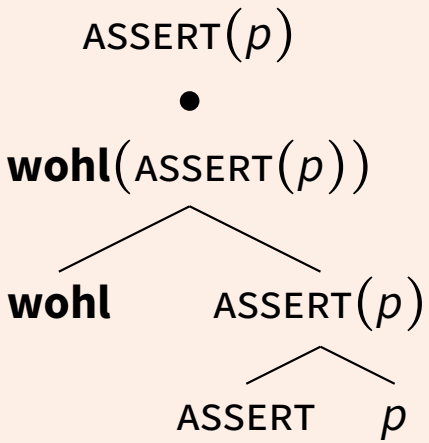

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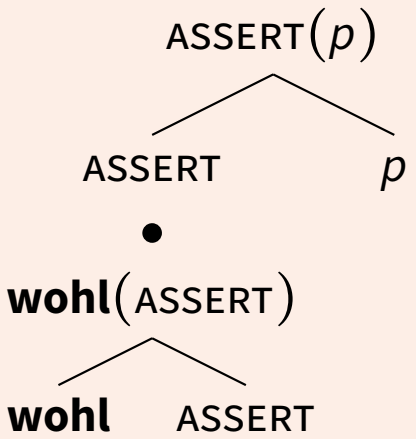

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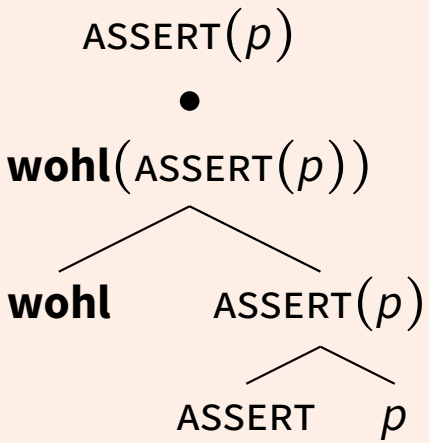

- The problem with the latter is that we still have an ordinary assertion in the truth-conditional dimension as well as the modified version in the use-conditional dimension.

Summary

- Prima facie, the attested variation poses problems for a expressive, multidimensional analysis.
- As those systems work, it is predicted that all MPs always have wide scope (more exactly: are »scopeless«).
- If some MPs can be embedded and do take scope under/on the mood level, how can a unified approach to MPs possible under a multidimensional perspective?
- Furthermore, the difference between propositional and mood particles poses a problem, as Potts's standard system can only account for the former.
- Does that mean that a multidimensional expressive approach is not viable?

Accounting for variation

- Quite the contrary: the tools offered by expressive approaches lend themselves to account for these variation without the need for the ad hoc introduction of new mechanisms.
- That is, they even let us expect such variation!
- To account for the two axes of variation, we need to have closer look on:

1. the lexical semantics of the MPs, and
2. recent extensions of the original system that allow for more application rules.

- In the following, I will show that focusing on these aspects leads us to a natural incorporation of the observed data into a multidimensional approach.

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Shifted expressives (Kratzer 1999)

(18) My **father** screamed that he would never allow me to marry that bastard Webster.

- However, instead of modifying the underlying combinatorics, **Harris/Potts2009a** suggest (and tested) that shifted expressives as in (18) are not actually shifted.
- Instead, they assume that such expressives do not express a speaker attitude, but the attitude of the so-called contextual judge (c_J) (Lasersohn 2005).
- In most cases, the judge is the speaker, so that we get speaker orientation as a default.

- However, the judge can be shifted to another discourse entity (like the subject of a speech report) if it is salient enough (and makes sense as the attitude holder).
- If this is the case, as in (18), we hence get an interpretation as if the expressive is embedded, while it still is interpreted at matrix level.

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(19) ⟨*My father screamed that he would never allow me to marry ___ Webster*, c_J [=the father] *has a negative attitude towards Webster*⟩

- This approach to the shiftability of expressives (which are not actually shifted) can account for the variation amongst MPs:

1. Unshiftable MPs refer to the speaker and hence are always speaker-oriented.
2. Shiftable MPs refer to the judge and hence can receive a non-speaker reading if $c_J \neq c_S$.

- To account for mood particles, we have to go beyond the basic apparatus offered by Potts (2005) and use an extension that allows for expressive modification.
- As argued in Gutzmann 2011, we probably need to allow for the modification of expressives to account for example like *that fucking bastard Burns* and others.
- Once we have this in place, we can use this to account for mood particles as well.
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ASSERT as a use-conditional item

(20) a. [ASSERT [*Peter sleeps*]]

b. ⟨ *Peter sleeps*, ASSERT(*Peter sleeps*) ⟩

- To account for mood particles, we have to go beyond the basic apparatus offered by Potts (2005) and use an extension that allows for expressive modification.
- As argued in Gutzmann 2011, we probably need to allow for the modification of expressives to account for example like *that fucking bastard Burns* and others.
- Once we have this in place, we can use this to account for mood particles as well.
- I assume that sentence mood operators actually are also expressive/uc items that combine via expressive application with their argument and end up in the use-conditional dimension (Gutzmann 2012).

ASSERT as a use-conditional item

(20) a. [ASSERT [*Peter sleeps*]]

b. ⟨ *Peter sleeps*, ASSERT(*Peter sleeps*) ⟩

- That is, sentence mood operators impose use-conditions on the felicitous use of a sentence instead of being part of its truth-condition content (which consists just of the proposition expressed).

- Together with expressive modification – which basically is functional application involving just use-conditional items – this can then account for mood particles.

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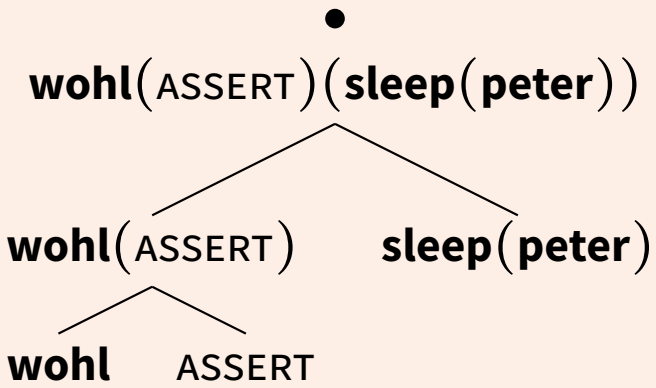
Semantic structure for mood particles

(21) **sleep**(**peter**) $\rightsquigarrow \langle$ **sleep**(**peter**), **wohl**(ASSERT)(**sleep**(**peter**))$\rangle$



Interim summary

- Modal particles are often viewed as a homogeneous class.
- Due to their features, they have been analyzed as expressives/use-conditional items.
- However, there is some variation between MPs that at first sight poses challenges to such approaches.
  1. Some MPs are shiftable, others are not.
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- This variation can, however, accounted for by multidimensional approaches,
  1. Shiftable MPs refer to the judge, unshiftable to the speaker.
  2. Expressive modification and a use-conditional view on sentence mood can account more mood particles.
- Topics for further research are the syntactic consequences of this semantic variations, like scoping behavior and conditions for shifted interpretation, as well as the syntactic mechanisms that connect MPs with their higher arguments.

Syntactic position of MPs

- MPs are base-generated at the left-edge of the *v*P/IP.
- Only topical elements precede MPs ➠ MPs are considered to be a border between a topic- and a comment-part. (Frey & Pittner 1998).

MPs in the middle field

(22) $[_{C^0}\ [_{(TopP)}\ \ldots\ [\ ^{?}(AdvP)^{*}\ [\ MP\ [\ ^{?}(AdvP)^{*}\ [_{vP}\ \ldots\ ]\ ]\ ]\ ]\ ]\ ]$

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  - MPs occur above all adverbial (Grosz 2005).
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  - MPs occur in an intermediate position below higher adverbials (Bayer & Obenauer 2011; Frey & Pittner 1998).
  - MPs have a variable position with respect to adverbials (Coniglio 2011).
- There are also different positions regarding the relation between MP and the Cinque hierarchy:
  - MPs have their own hierarchy (Coniglio 2011).
  - MPs relate to the same hierarchy (Grosz 2005).

Presenting authentic data of spoken language that may help to test these and other assumptions.

- Where are MPs located?
  - At what position?
  - Where with respect to pronouns and subjects?
  - Where with respect to adverbials?

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Presenting authentic data of spoken language that may help to test these and other assumptions.

- Where are MPs located?
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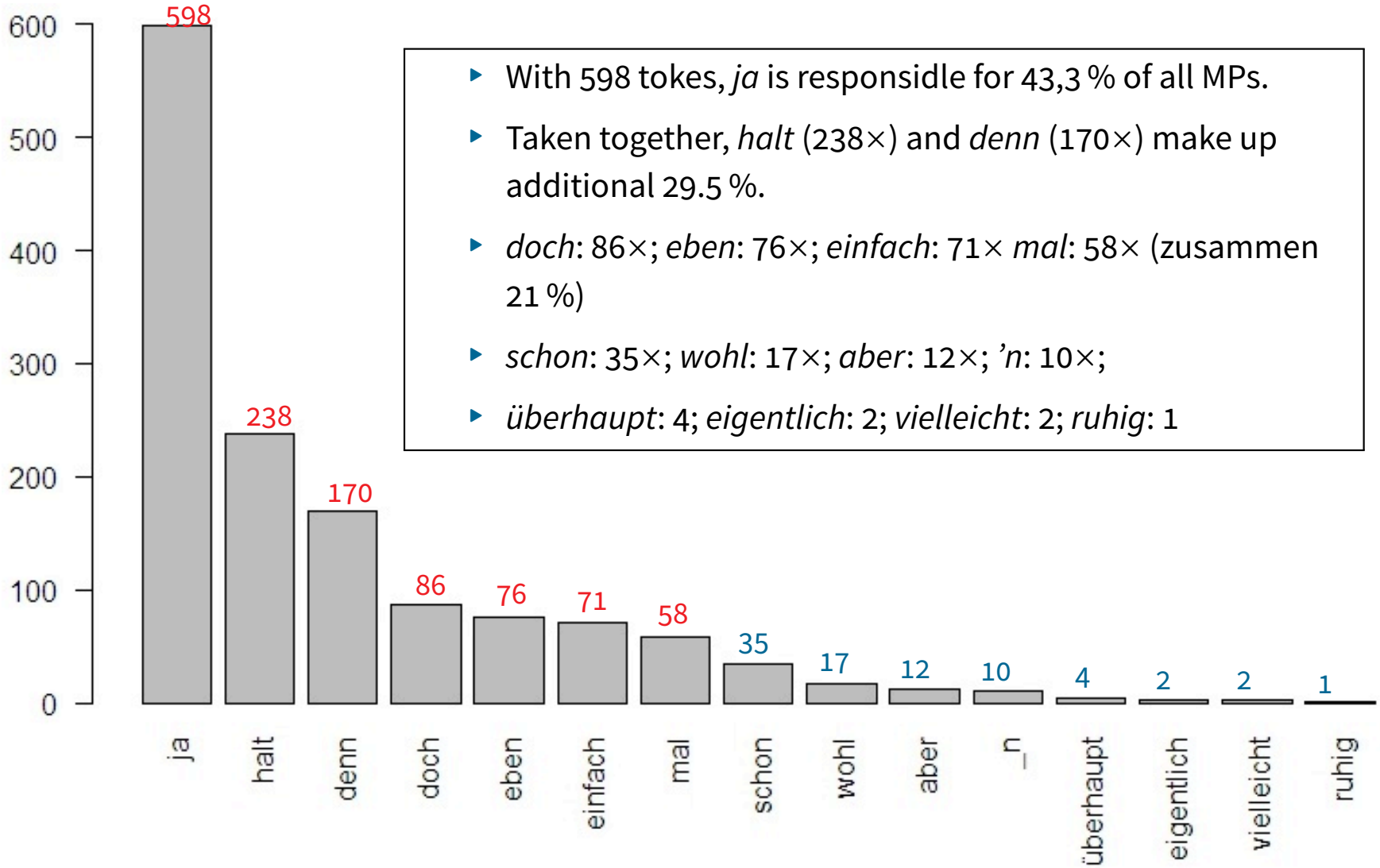
  - Where with respect to pronouns and subjects?
  - Where with respect to adverbials?
- Which MP combinations can be attested?
- Is there a linearization difference between the two classes of MPs?

Corpus study

- recorded classes room conversations
- 25 students + 1 teacher
- all German lessons from a 13th grade; 42 hours of material
- a total of 8.502 komplex middle fields
- from these a total of 1.380 sentence, that contain at least one MP and two other constituents in the middle field

Number of modal particles



- With 598 tokes, *ja* is responsidle for 43,3 % of all MPs.
- Taken together, *halt* (238×) and *denn* (170×) make up additional 29.5 %.
- *doch*: 86×; *eben*: 76×; *einfach*: 71× *mal*: 58× (zusammen 21 %)
- *schon*: 35×; *wohl*: 17×; *aber*: 12×; *'n*: 10×;
- *überhaupt*: 4; *eigentlich*: 2; *vielleicht*: 2; *ruhig*: 1

MPs and number of constituents Konstituentenanzahl

- Not surprisingly, MPs occur more other, the more (non-MP-)expressions occur in a sentence.

Number of constituenten	3	4	5	6	(7	8)
MP occurences (%)	21,69	41,44	48,80	54,54	83,33	100

(23) a. die Bürger hatten ja keine gute Stellung zu der zu der damaligen Zeit
the citizens have MP no good position at the at the former time
»The citizens didn't have a good time back then.«

b. dass er halt mit dem Publikum n bisschen interagiert
that he MP with the audience a bit.little interacts
»… that he interacts a little bit with the audience«

c. dass sie sich's zu nem gewissen Teil eigentlich schon selbst ähm zuzu äh
that she herself-it at a certain part actually MP self INT a-a INT
schreiben hat
ascribe has
»that she has to ascribe it to a certain extend to herself«

Position in the sentence

- MPs primarily occur in the second position of the middle field.

	position MP (%)								
Const.	1	2	3	4	5	6	7	8	n
3	22,2	64,2	13,6						706
4	16,7	54,6	26,8	1,9					515
5	4,7	44,5	39,1	11,7	–				128
6	12,5	29,2	29,2	16,7	8,3	4,2			24
7	20,0	60,0	20,0	–	–	–	–		5
8	–	100,0	–	–	–	–	–	–	2
∅	18,3	58,2	21,2	2,1	0,1	0,1	–	–	

(24) a. da ham doch alle noch aufmerksam zugehört
then have MP all attentively listened
»Then everyone was still listening attentively.«

b. dass sie wohl schwanger geworden is
that she MP pregnant got is
»… that she probably got pregnant«

- Especially subjects and pronouns precede MPs.
- This fits the assumption that mostly topical elements can be moved in front of MPs.

MPs und Subjekte

	Position subject					
MP	1	2	3	4	5	6
1		53	20	3	–	1
2	617		14	3	1	–
3	263	10		1	–	–
4	28	–	–		–	–
5	2	–	–	–		–
6	1	–	–	–	–	

➠ Sub < MP: 90.5 %

(25) dass die Katze einfach die Maus
that the cat MP the mouse
frisst
easts
that the cat eats the mouse

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(25) dass die Katze einfach die Maus
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MPs and pronouns

	Position 1st pronoun					
MP	1	2	3	4	5	6
1		10	5	3	–	1
2	416		1	–	–	–
3	184	22		–	–	–
4	21	3	–		–	–
5	2	–	–	–		–
6	1	–	–	–	–	

➠ Pro < MP: 97.0 %

(26) dass er sich wohl verrechnet hat
that he himself MP miscalculate has
»… that he miscalculated.«

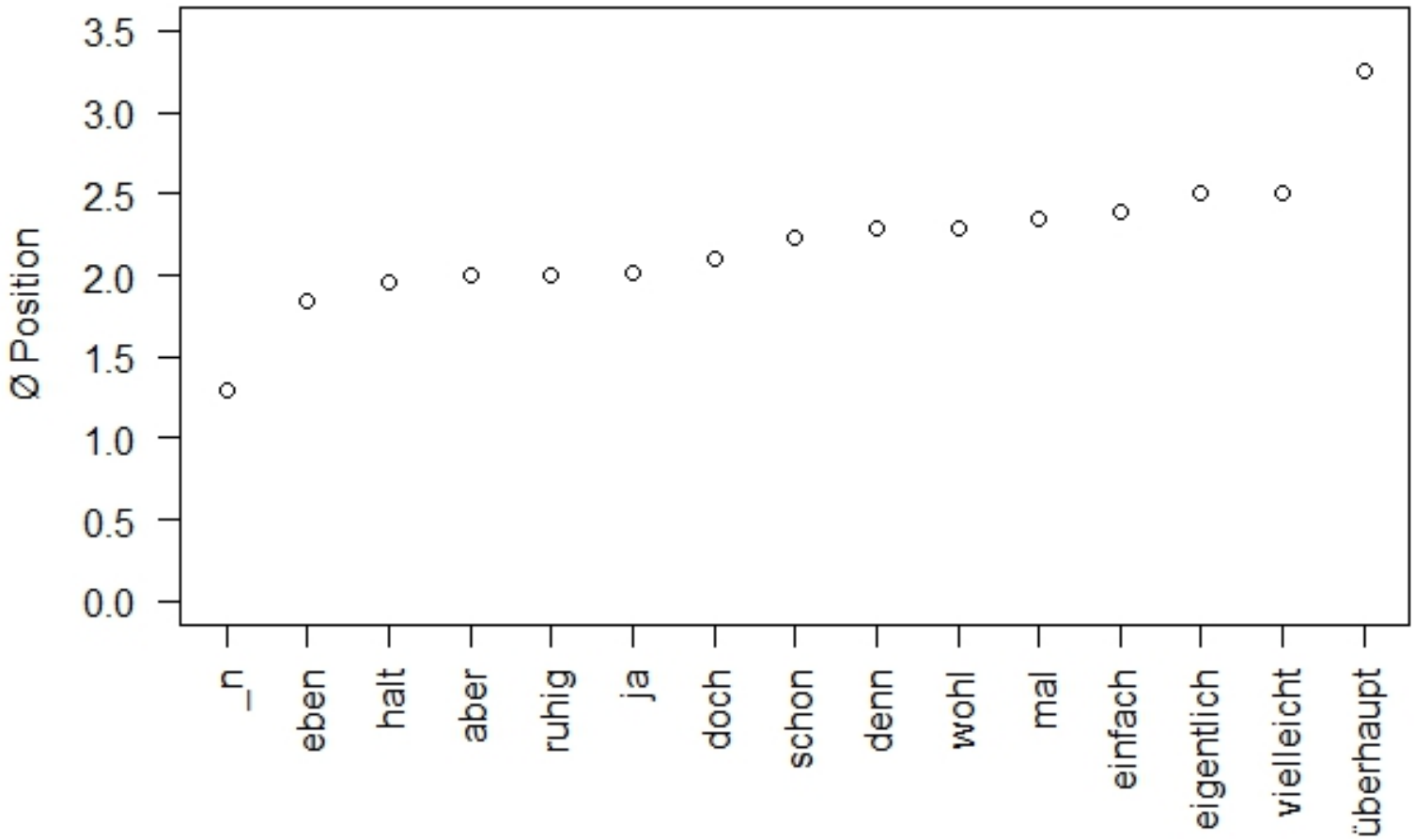
MPs and adverbials

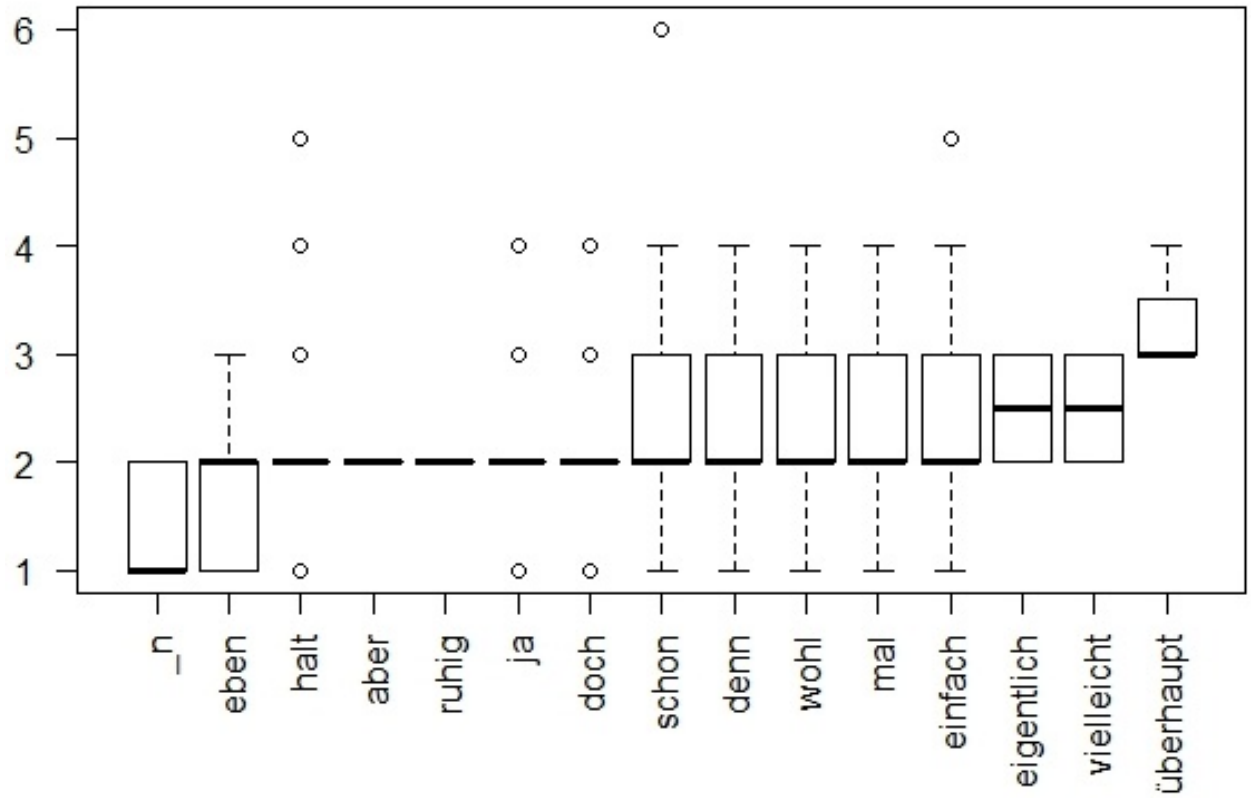
	MP ≺ Adv
Frame	90,6 %
propositional	87,6 %
event-related	86,6 %
event-internal	91,5 %
process-related	97,7 %

Examples MP ≺ Adv

(27)
a. weil se einfach bei den Männern begehrt is
b. ihr werdet sie ja hoffentlich noch haben
c. da hat sie ja grade aus der Flasche getrunken
d. dass ihr mal auf dem Blatt beschreibt
e. weil Kunst eben auch jeder anders versteht

Differences between MPs




6
5
4
3
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_n
eben
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denn
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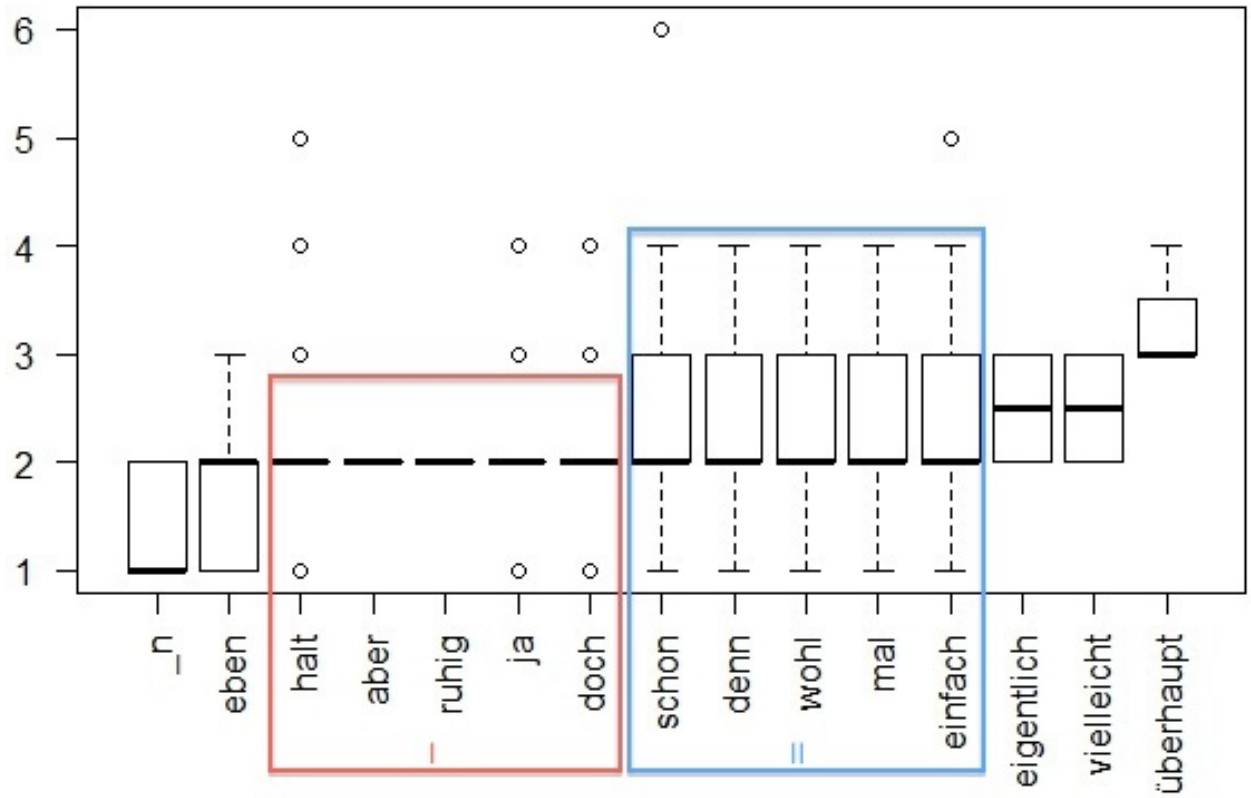
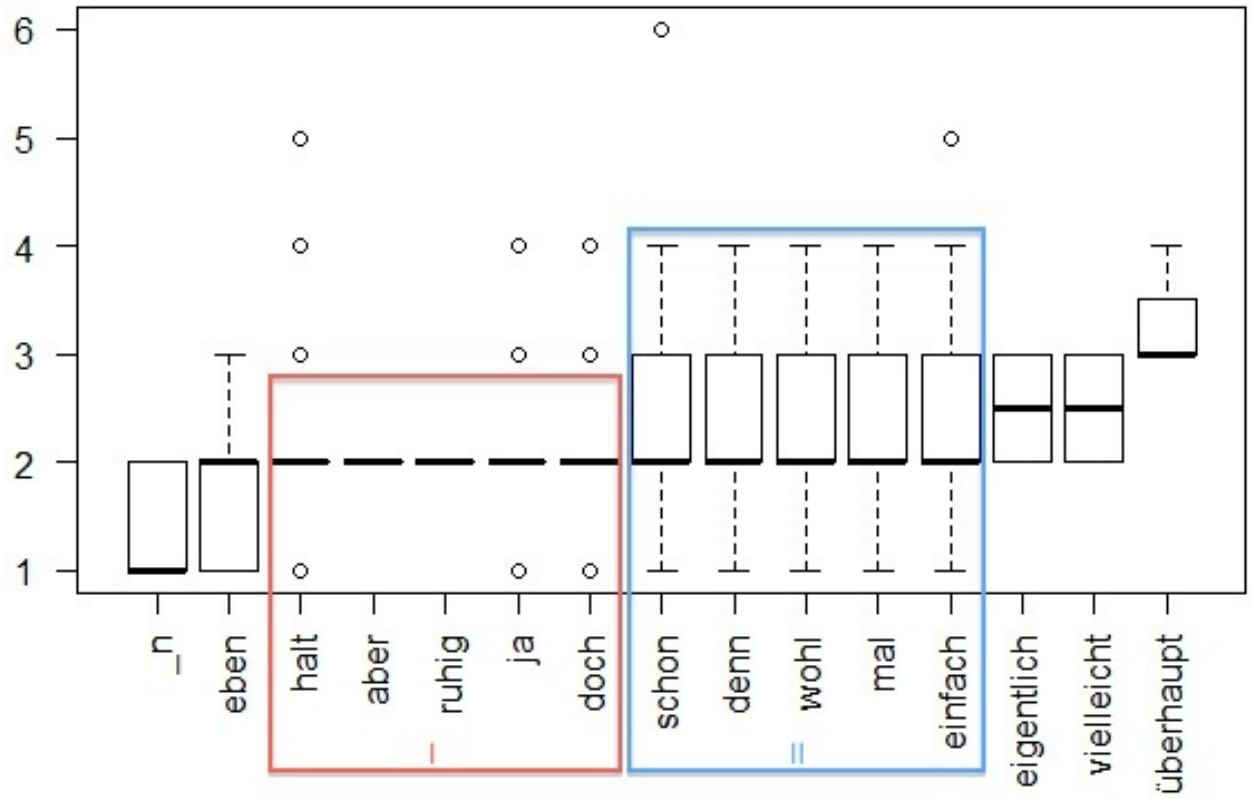


- MPs of group I occur on average on position 2,01.; MPs of group II occur on average on position 2,31 (significant)



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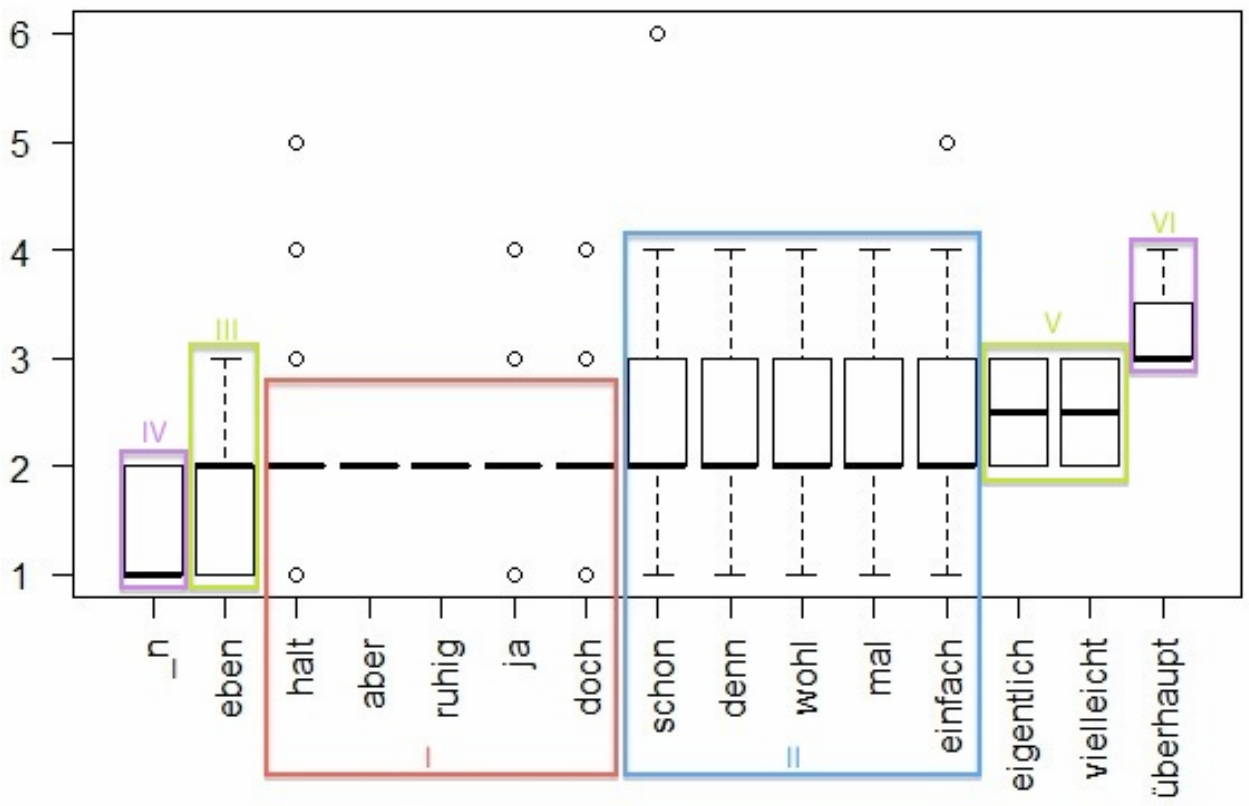

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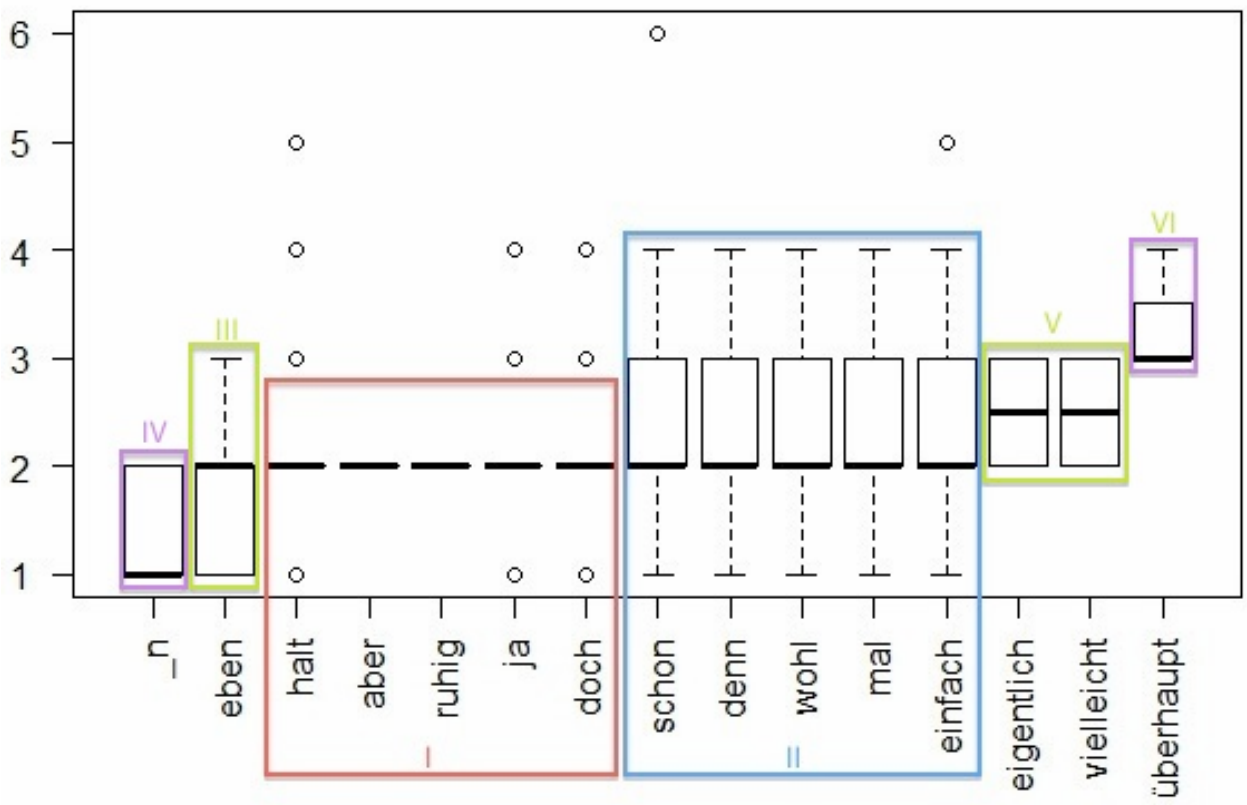
- more significant differences:
  - group I ~ group IV



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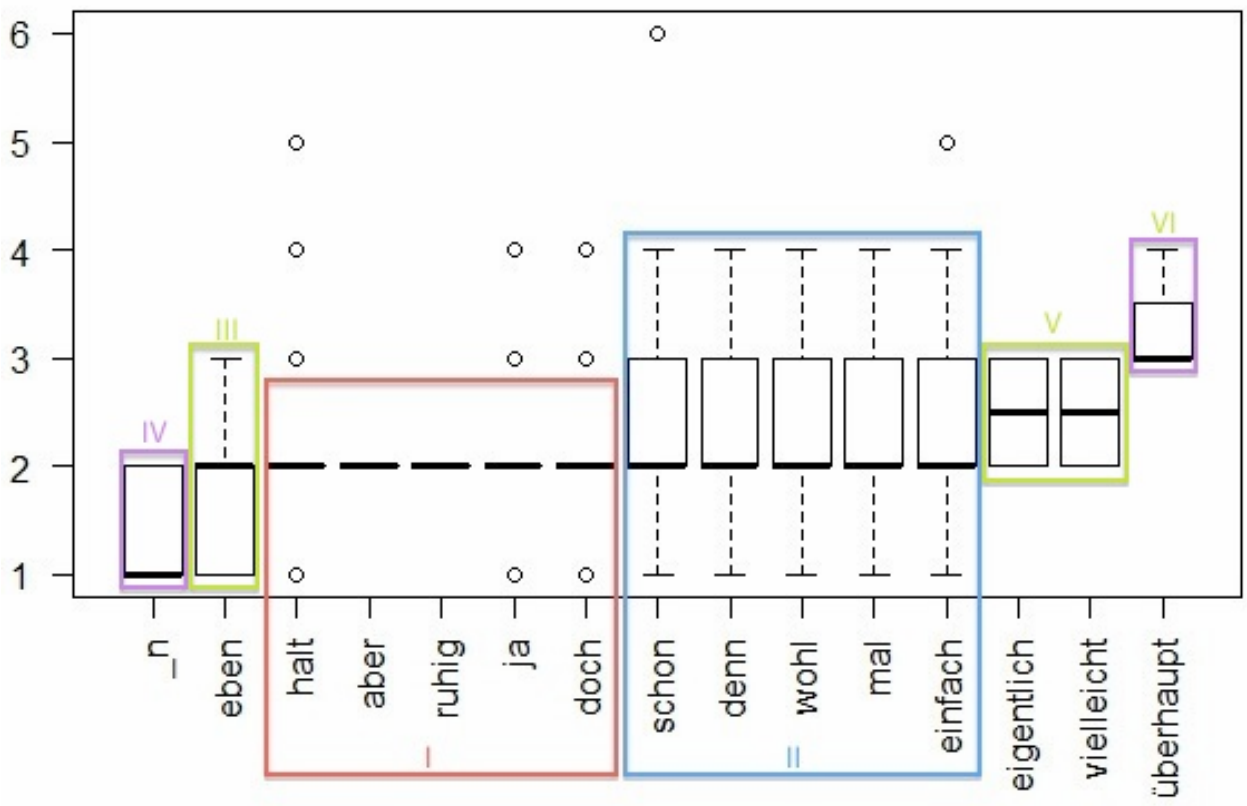
- more significant differences:
  - group I ~ group IV
  - group II ~ group III, IV



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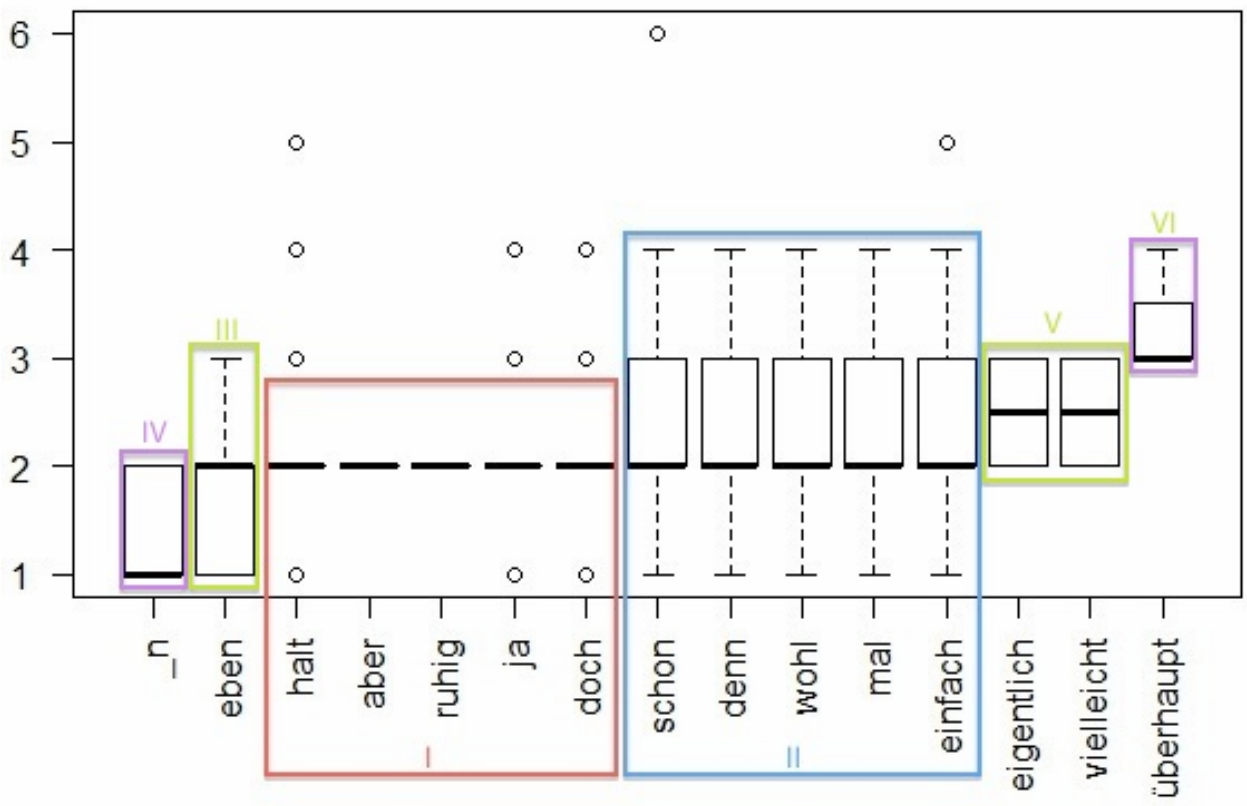
  - group II ~ group III, IV
  - group III,IV ~ group VI



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MP combinations

	ja	halt	denn	doch	eben	einf.	mal	schon	aber	überh.	Σ
ja	2	4	–	1	2	2	2	3	1	–	17
halt	1	2	–	1	2	3	2	1	–	–	12
denn	–	–		–	–	–	1	–	–	2	3
doch	–	–	–		–	3	2	–	–	–	5
eben	–	–	–	–		–	–	–	–	–	–
einf.	–	–	–	–	–		11	–	–	–	11
mal	–	–	–	–	–	–		–	–	–	–
schon	–	–	–	1	–	–	–		–	–	1
aber	–	1	–	1	–	–	–	–		–	2
überh.	–	–	–	–	–	–	–	–	–		–

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eben	–	–	–	–		–	–	–	–	–	–
einf.	–	–	–	–	–		11	–	–	–	11
mal	–	–	–	–	–	–		–	–	–	–
schon	–	–	–	1	–	–	–		–	–	1
aber	–	1	–	1	–	–	–	–		–	2
überh.	–	–	–	–	–	–	–	–	–		–

- totally 60 sentence with 2 MPs

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eben	–	–	–	–		–	–	–	–	–	–
einf.	–	–	–	–	–		11	–	–	–	11
mal	–	–	–	–	–	–		–	–	–	–
schon	–	–	–	1	–	–	–		–	–	1
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doch	–	–	–		–	3	2	–	–	–	5
eben	–	–	–	–		–	–	–	–	–	–
einf.	–	–	–	–	–		11	–	–	–	11
mal	–	–	–	–	–	–		–	–	–	–
schon	–	–	–	1	–	–	–		–	–	1
aber	–	1	–	1	–	–	–	–		–	2
überh.	–	–	–	–	–	–	–	–	–		–

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- 4× the same MP (2x ja, 2x halt)

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doch	–	–	–		–	3	2	–	–	–	5
eben	–	–	–	–		–	–	–	–	–	–
einf.	–	–	–	–	–		11	–	–	–	11
mal	–	–	–	–	–	–		–	–	–	–
schon	–	–	–	1	–	–	–		–	–	1
aber	–	1	–	1	–	–	–	–		–	2
überh.	–	–	–	–	–	–	–	–	–		–

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- 80 % of all 2nd MP directly follow the 1st MP

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doch	–	–	–		–	3	2	–	–	–	5
eben	–	–	–	–		–	–	–	–	–	–
einf.	–	–	–	–	–		11	–	–	–	11
mal	–	–	–	–	–	–		–	–	–	–
schon	–	–	–	1	–	–	–		–	–	1
aber	–	1	–	1	–	–	–	–		–	2
überh.	–	–	–	–	–	–	–	–	–		–

- totally 60 sentence with 2 MPs
- from these, 17× *ja MP*, 12× *halt MP* and 11× *einfach mal*.
- 4× the same MP (2x ja, 2x halt)
- 80 % of all 2nd MP directly follow the 1st MP
- if the same MP occurs again, at least one intervening constituent

MP combinations

	ja	halt	denn	doch	eben	einf.	mal	schon	aber	überh.	Σ
ja	2	4	–	1	2	2	2	3	1	–	17
halt	1	2	–	1	2	3	2	1	–	–	12
denn	–	–		–	–	–	1	–	–	2	3
doch	–	–	–		–	3	2	–	–	–	5
eben	–	–	–	–		–	–	–	–	–	–
einf.	–	–	–	–	–		11	–	–	–	11
mal	–	–	–	–	–	–		–	–	–	–
schon	–	–	–	1	–	–	–		–	–	1
aber	–	1	–	1	–	–	–	–		–	2
überh.	–	–	–	–	–	–	–	–	–		–

(28)
a. weil ja halt in der Industrialisierung die Menschen ersetzt werden
b. die könnt ihr euch einfach mal angucken
c. dass man halt nich mal am am sport beziehungsweise kartenspiel halt wirklich spaß finden kann irgendwie also

Frequency of MPs

The most frequent MP is *ja* (598×), followed by *halt* (238×) and *denn* (170×).

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MPs and adverbials

MPs precede most adverbials with high regularity (≈90 %).

MP groups

Regarding the position, three positions can be attested:

I halt, aber, ruhig, ja, doch

II schon, denn, wohl, mal, einfach

At first glance, this does not necessarily fit the semantic groups.

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II schon, denn, wohl, mal, einfach

At first glance, this does not necessarily fit the semantic groups.

MP combinations

- Combinations ar enot as frequent as expected (41×).
- The most frequent combination is *einfach mal* (11×).
- *eben, mal, überhaupt* never occur in first positions.