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Topics in German Syntax

A new Diagnostic for cyclic Wh-Movement: Discourse Particles in German Questions

1 Introduction

<u>Main claim</u>: Q(uestion)-sensitive discourse particle *denn* is licit in a dependent clause only when *wh*-movement has taken place out of this clause. It can be used as a diagnostic for cyclic *wh*-movement.

(1) a. *Wen   meinest du, dass wir denn   zu der Tagung   einladen sollten?*
    who.ACC thought you that we DENN to the conference invite   should

    'Who did you think that we should invite to the conference?'

 b. **Wer meinte, dass wir denn   einen Gastredner   einladen sollten?*
    who   thought that we DENN a   guest.speaker invite   should

    'Who thought that we should invite a guest speaker?'

1.1 Discourse Particels (DiPs) in *wh*-Questions

(2) a. *Wo   wohnst du?*
    where live   you

    'Where do you live?'

 b. *Wo   wohnst du denn?*
    where live   you DENN

    'Where do you live?(I'm wondering)'

Comment: denn makes reference to some common ground between speaker and hearer beyong the presupposition

(3) a. *In welcher Weise meinen Sie, dass er denn   Ihrer Region besser helfen würde?*
    in which   way   think   you that he DENN your region better help   would

    'In which way do you think that he would help your region in a better way?'

 b. *Ich meine, dass er (*denn) ihrer Region besser helfen würde.*
    I   think   that he DENN   your region better help   would

    'I think that he would help your region in a better way.'

1.1.1 Some Properties of DiPs

Comment: relevant for the issue under investigation

(4) a. lack any overt grammatical reflexes such as morphological agreement or relation to argument structure

     b. are heads rather than phrases

     c. are sensitive to clause type, eg.: *denn* occurs still in interrogatives

1.1.2 DiPs and Illocutionary Force

Force specifies the clause type (according to Rizzi's(1997) proposal of a split CP) and is present of the top of main clause

1.2 Successive Cyclic Wh-Movement

Various languages employ strategies by which the moved element or part of the moved element appears overtly on the clausal edges of the CPs involved. These constructions have become known as *partial wh-movement*

(5) *Was glaubst du, was Gerda meint, wem   wir vertrauen können?*
     what believe you what Gerda thinks who.DAT we trust   can

     'Who do you believe Gerda thinks we can trust?'

and as *copy wh-movement*

(6) *Wem   glaubst du, wem   Gerda meint, wem   wir vertrauen können?*
     who.DAT believe you who.DAT Gerda thinks who.DAT we trust   can

     'Who do you believe Gerda thinks we can trust?'

2 Experimental Investigations

2.1 Experement 1

Experiment 1 investigates the acceptability of *denn* in main and embedded clauses, depending on whether a sentence-initial *wh*-word originated in the main clause ("short *wh*-movement") or in the embedded clause ("long *wh*-movement").

<u>Materials</u> had a tree-factor design:

- the between-items factor Movement (short vs. long *wh*-movement)

- the two factors Particle (*denn* vs. *damals*)

- the Particle Position (main clause vs. embededded clause)

Short wh-movement

(7) *Wer$_i$ berichtete t$_i$ ihr (denn), dass die Einbrecher (denn) gefasst wurden?*
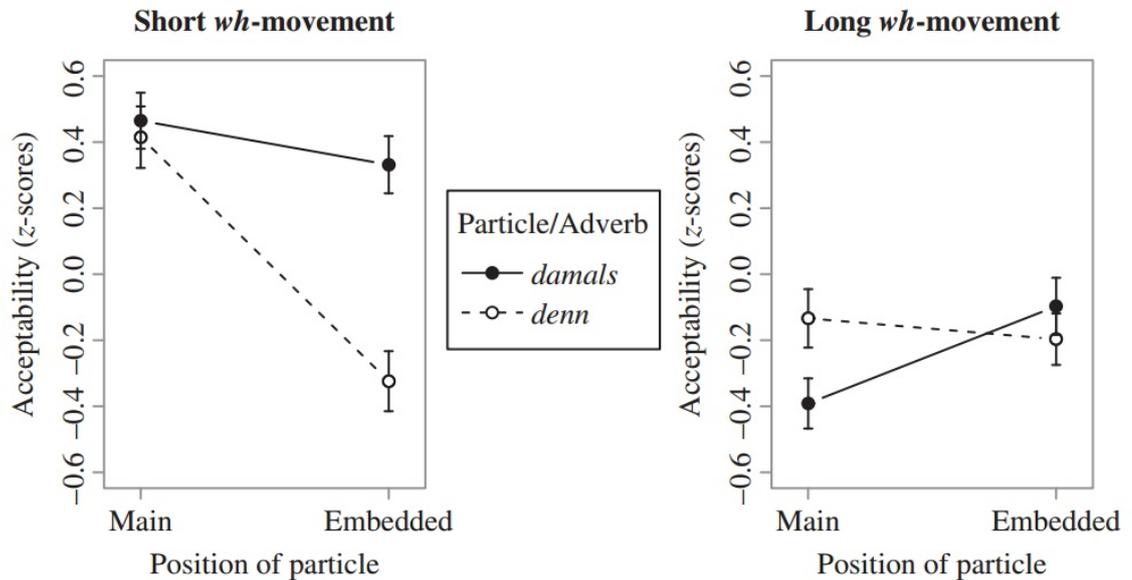who   told   her DENN   that the burglars   DENN caught were

'Who told her DENN/back then that the burglars were caught?'

Long wh-movement

(8) *Wen$_i$ vermutete er (denn), t$_i$ dass die Polizei (denn) t$_i$ festgenommen hat?*
who.ACC suspected he DENN   that the police DENN   arrested   has

'Who did he suspect that the police arrested?'

Results:

Figure 1: Acceptability ratings in Experement 1 (z-scores)

Generally long *wh*-movement sentences are judged as less acceptable than short *wh*-movement sentences, with one exeption: when they contain *denn* in the embedded clause, short *wh*-movement sentences are less acceptable than long *wh*-movement sentences.

Comment: The acceptability of long *wh*- extraction was relativly low, because of the well-known problematic status of long extraction for (some) speakers of German (Kvam 1983, Paul 1919).
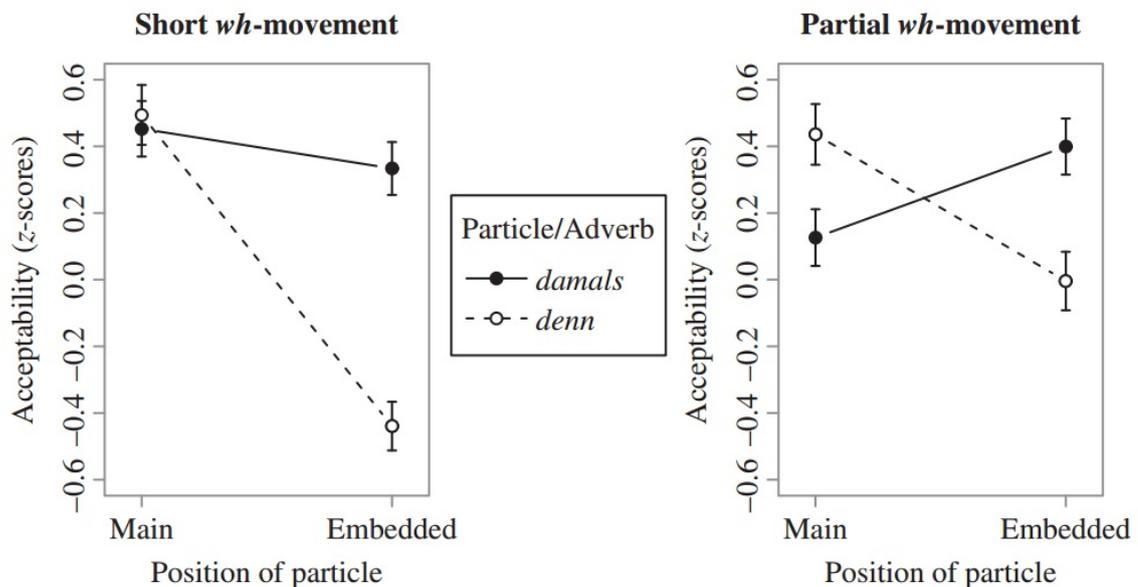
2.2   Experiment 2

Experiment 2 replaces long *wh*-extraction from Experiment 1 by partial movement, as shown

(9) *Was vermutete er denn, wen$_i$ die Polizei t$_i$ festgenommen hat?*
what suspected he DENN who.ACC the police   arrested   has

'Who did he suspect that the police arrested?'

3

(10) *Was vermutete er, wen$_i$ die Polizei denn   t$_i$ festgenommen hat?*
     what suspected he who.ACC the police DENN   arrested   has

     'Who did he suspect the police arrested?'

Results: In summary, the results of Experiment 2 confirm the results of Experiment 1. Overall, *denn* is less acceptable in embedded clauses, but acceptability increases strongly when the left perephery of the embedded clause contains a *wh*-element whose scope is linked to the root clause.

Figure 2: Acceptability ratings in Experement 2 (z-scores)

3   Licensing DiPs in *Wh*-Questions

Fundamental to the syntactic explanation is the assumption of feature-sharing between a clause-type-specific Force head and a matching DiP.

3.1   Local Licensing

(11) **Agree (Assigment version following Chomsky 2000:2001)**

   a.   An unvalued feature F (a probe) an a Head H scans ist c-command domain for another instance of F (a goal) with wich agree

   b.   If the goal has a value, its value is assigned as the value of the probe

(12) **Valuation / Interpretibility Biconditional (Chomsky 2001:5)**
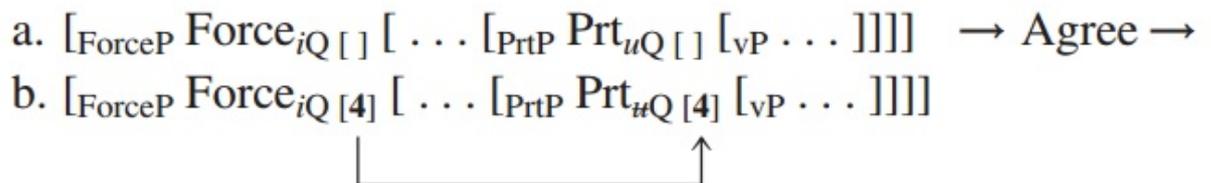   A feature F is unterpretable iif F is unvalued

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(13) **Deletion of uninterpretable features**
Once an uninterpretable feature is valued, it can and must delete

The feature-sharing theory (by Pesetsky and Torrego (2007)
 uF val uninterpretable valued   iF val interpretable valued
 iF [ ] interpretable unvalued   iF [ ] interpretable uvvalued

Comment: the autors adopt a feature-sharing theory

a. $[_{\text{ForceP}} \text{Force}_{iQ\,[\,]}\, [\, \ldots\, [_{\text{PrtP}} \text{Prt}_{uQ\,[\,]}\, [_{vP} \ldots\,]]]]$ $\rightarrow \text{Agree} \rightarrow$

b. $[_{\text{ForceP}} \text{Force}_{iQ\,[4]}\, [\, \ldots\, [_{\text{PrtP}} \text{Prt}_{uQ\,[4]}\, [_{vP} \ldots\,]]]]$

3.jpg

Figure 3: Local licensing

Comment:

- The featural agreement requires the same features to be present in both locations.

- The particle remains exactly where it is merged.

- The particle gains access to Force at a distance and can give a rise to the fine-tuning of Force without becoming a phrase-structural subconstituent of Force. NB! Force is prima facie neutral with respect to these shades of meaning

3.2 Local Licensing in Embedded Clause
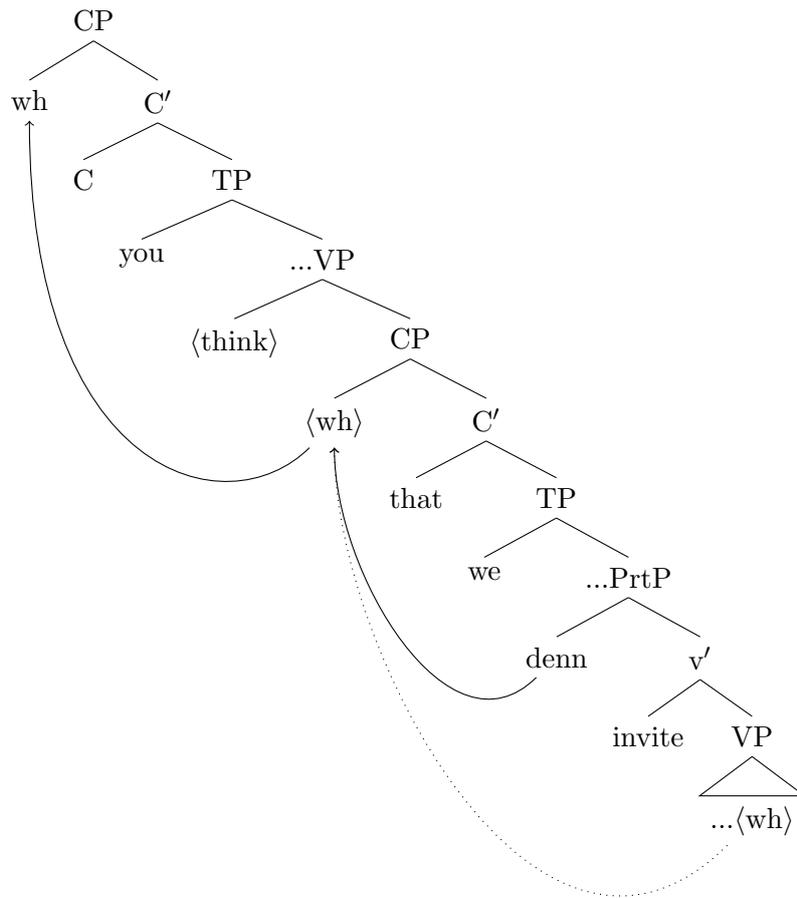
3.3 Summary

In *wh*-questions in which *wh* and the particle occur in different clauses, the (uQ)-feature on the particle cannot value (iQ)-features on the Force head <u>unless</u> *wh*-movement has taken place from the embedded clause. The long *wh*-movement via Spec,CP leaves a pepresentation of Q-Force in the intermediate Spec,CP that can be valued by the coresponding Q-feature an the particle without violation of the Phrase Impenetrability Condition.[1]

4 References

Bayer, Josef, Hussler, Jana, and Bader, Markus. 2016. A New Diagnostic for Cyclic WhMovement: Discourse Particles in German Questions. Linguistic Inquiry 47:591-629

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[1]Phase Impenetrability Condition: If X is dominated by a complement of a phase YP, X cannot move out of YP.

4.1 Appendix

Sample stimuli from Experiment 1

Short wh-*movement, particle/adverb in main clause*
Wer berichtete ihr denn/damals,   dass die Einbrecher gefasst wurden?
who told   her DENN/back.then that the burglars   caught were
'Who told her DENN/back then that the burglars were caught?'

Short wh-*movement, particle/adverb in dependent clause*
Wer berichtete ihr, dass die Einbrecher denn/damals   gefasst wurden?
who told   her that the burglars   DENN/back.then caught were
'Who told her that the burglars were caught DENN/back then?'

Long wh-*movement, particle/adverb in main clause*
Wen   vermutete er denn/damals,   dass die Polizei festgenommen hat?
who.ACC suspected he DENN/back.then that the police   arrested   has
'Who did he suspect DENN/back then that the police arrested?'

Long wh-*movement, particle/adverb in dependent clause*
Wen   vermutete er, dass die Polizei denn/damals   festgenommen hat?
who.ACC suspected he that the police   DENN/back.then arrested   has
'Who did he suspect that the police arrested DENN/back then?'

1.jpg

Figure 4: Sample stimuli from Experement 1

Sample stimuli from Experiment 2

Short wh-movement, particle/adverb in main clause

Wer berichtete ihr damals/denn, dass die Einbrecher gefasst wurden?
who told   her back.then/DENN that the burglars   caught were
'Who told her back then/DENN that the burglars were caught?'

Short wh-movement, particle/adverb in embedded clause

Wer berichtete ihr, dass die Einbrecher damals/denn   gefasst wurden?
who told   her that the burglars   back.then/DENN caught were
'Who told her that the burglars were caught back then/DENN?'

Partial wh-movement, particle/adverb in main clause

Was vermutete er damals/denn,   wen   die Polizei festgenommen hat?
what suspected he back.then/DENN who.ACC the police arrested   has
'Who did he suspect back then/DENN that the police arrested?'

Partial wh-movement, particle/adverb in embedded clause

Was vermutete er, wen   die Polizei damals/denn   festgenommen hat?
what suspected he who.ACC the police back.then/DENN arrested   has
'Who did he suspect that the police arrested back then/DENN?'

5.jpg

Figure 5: Sample stimuli from Experement 2