1. Background

Discourse particles (alias modal particles) ...

i. mostly have counterpart to which they are historically related
ii. are the result of grammaticalization
iii. are adverbiaal in nature but are distinct from adverbs
iv. are immobile
v. can usually not bear stress
vi. cannot be coordinated
vii. cannot be used in isolation, e.g. as answers
viii. are in their typical occurrences mono-syllabic
ix. are modificational, i.e. are mostly optional
x. can to a certain extent appear simultaneously in the clause
xi. appear in fixed order (comparable to the order of adverbs)
xii. are sensitive to sentences types (assertive, ±wh interrogative, imperative etc.)
xiii. belong to „expressive“ rather than „descriptive“ meaning
xiv. appear – due to xiii – generally in root-clauses
xv. can arise in non-root clauses only under special conditions

Here we will concentrate on German and consider four particles which appear in wh-questions: denn ("then"), nur ("only") – and its near-equivalent bloß ("barely") – and schon ("already").

2. Discourse particles in German questions

Pertinent questions: (i) What is the function of discourse particles in clause structure? (ii) How can their role in the shaping of illocutionary force be accounted for?

2.1 Semantic contribution

In each case, the particle adds a certain so-called “expressive” meaning to the question. Researchers of all kinds of persuasions agree that these particles affect the level of utterance (illoc. force) rather than the propositional level. Semantic features have been proposed by Thurmair (1989), most of which induce a special context dependence (to previous discourse or to the state of knowledge of the interlocutors). In (1)-(3) the contribution of the particle is indicated in brackets:

(1) Wo habe ich denn meine Schlüssel hingelegt?
    where have I DENN my keys put-down
    “Where did I put my keys (I’m wondering)?”

(2) Wo habe ich nur / bloß meine Schlüssel hingelegt?
    where have I NUR / BLOSS my keys put-down
    “Where did I put my keys (I have already looked everywhere)?”
(3) Wo ist er schon gewesen?
   where is he SCHON been
   „Where has he been?” (meaning: He hasn’t been in important or desirable places)

In each case, deletion of the particle would turn the utterance into a straight information seeking question without the implicatures indicated in braces.

2.2 Position

Discourse particles occupy a high position below the landing site of the finite verb Fin° (related to C° in comp-clauses) and the higher (speech act, evaluative, evidential, epistemic etc.) adverbs. Although they are “utterance/force oriented” they are positioned as low as at the left edge of VP/vP. They are obligatorily preceded by weak and clitic pronouns (cf. (4),(5)), and optionally preceded by topical elements (definite DPs, generic indefinites, stage setting adverbs and PPs etc.; cf. ((5) – (11)). These topical elements can also include contrastive topics.¹

(4) Hat {mich/MICH} denn {*mich/MICH} jemand sprechen wollen?
   has me DENN me someone speak wanted
   "Did someone want to talk to me?"

(5) Hat {es / ‘s } denn {*es / *’s } jemanden interessiert?
   has it DENN it someone interested
   "Did someone take an interest in it?"

(6) Wann könnte nur Otto den Brief ins Büro mitgenommen haben?
   when could NUR Otto the letter to office along-taken have
   “When could Otto have taken the letter to the office?”

(7) Wann könnte Otto nur Otto den Brief ins Büro mitgenommen haben?

(8) Wann könnte Otto den Brief nur Otto den Brief ins Büro mitgenommen haben?

(9) ??Wann könnte Otto den Brief ins Büro nur Otto den Brief ins Büro mitgenommen haben?

(10) Wo kann ich nur einen Kaugummi kaufen?
    where can I NUR a chewing-gum buy
    Where can I buy chewing gum?

(11) *Wo kann ich einen Kaugummi nur einen Kaugummi kaufen?

2.3 Stacking

Discourse particles can be stacked in fixed order. In wh-questions, denn – being the highest particle - precedes nur/bloß or schon.

(12) Wo bist du denn nur / bloß den ganzen Tag gewesen?
    where are you DENN NUR / BLOSS the whole day been
    “Where on earth have you been the entire day (I am wondering)??”

¹ The data do not satisfactorily discriminate between aboutness topics in the sense of Reinhart (1981) and general discourse-introduced thematic elements.
(13) Wo wird er denn schon gewesen sein?

*where will he DENN SCHON been be*

"Where will he have been?

(meaning: He can’t have been in important or desirable places”

*Denn+nur, denn+bloß, denn+sichon cannot be a reanalyzed “super particle”. They can be non-adjacent, cf. the variant of (12) in (14):

(14) Wo bist du **denn** den ganzen Tag **nur/bloß** den ganzen Tag gewesen?

2.4 Phrase structure and feature valuation

- A fair number of properties suggest that in German discourse particles are functional heads which precede VP/vP.
- They can be to a certain extent be stacked.
- Topics may move to a designated topic field to the left of the particle(s).
- Since denn, nur, bloß, schon arise in questions, they must be in the scope of an interrogative (Q- or wh-) feature in Fin°.

We assume here that in the German root clause Fin° hosts the finite verb, and that in doing so it activates force. Thus, V2-FinP = ForceP.

(15) [FinP (Wh) Fin° [TopP ... [PrtP1 Prt1° [PrtP2 Prt2° ... [PrtPn Prtn° [ADV* [VP/vP ... ]]]]] ... ]]

Assuming a probe/goal relation between the Q/wh feature and the question-sensitive particle, Prt has an unvalued feature <uInterr> (with the subtypes <uQ> and <uWh>) which deletes under closest c-command by <Interr> (with the subtypes <Q>, <wh>) in Fin°.

(16) [FinP (Wh) Fin° <Interr> [TopP ... [PrtP1 Prt1° <uInterr> [PrtP2 Prt2° <uInterr> ... [PrtPn Prtn° <uInterr> [ADV* [VP/vP ... ]]]]] ... ]]

Since Prt makes a semantic contribution which is prima facie not present in Fin° but ultimately shapes the force of the utterance, the interpretable feature of Prt <X> should be seen as being visible at Fin°/Force° and delete at the foot of the agreement chain. The process is known as “feature maximalization”, alias “Free Ride” (Chomsky, 1995) and is a consequence of agreement.

(17) a. [FinP (Wh) Fin° <Interr> [TopP ... [PrtP1 Prt1° <uInterr,X1> [PrtP2 Prt2° <uInterr,X2> ... [PrtPn Prtn° <uInterr,Xn> [ADV* [VP/vP ... ]]]]] ... ]] ⇒

b. [FinP (Wh) Fin° <Interr, X1, X2, Xn> [TopP ... [PrtP1 Prt1° <uInterr, X1> [PrtP2 Prt2° <uInterr, X2> ... [PrtPn Prtn° <uInterr, Xn> [ADV* [VP/vP ... ]]] ... ]]]

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2 NegP has been omitted here. Where it occurs it is in the scope of PrtP.
2.5 Particles in dependent clauses

From constructions with Prt in dependent non-interrogative clauses we infer that the semantic contribution of Prt can be transferred to the matrix as an automatic consequence of wh-movement.

(18) Wie denkst du, dass es denn weitergehen soll mit euch? [datum from internet]  
how think you that it DENN go-on should with you  
“How do you think that the two of you should carry on?”

(19) Wie denkst du [CP wie dass es [PrtP denn wie weitergehen soll mit euch]]?

(20) Wie denkst du dass seine Mutter denn meint, dass es weitergehen soll mit euch?  
how think you that his mother DENN thinks that it go-on should with you

(21) Wie denkst du [CP wie dass seine Mutter [PrtP denn meint [CP wie dass es wie weitergehen soll mit euch]]]?

If wh does not pass the particle, the particle is not licensed in the embedded clause:

(22) *Wem hast du erzählt dass Karl denn recht hat?  
whom have you told that Karl DENN right has  
“Who did you tell that Karl was right?”

(23) *Wem hast du *em erzählt [CP dass Karl [PrtP denn recht hat]]?

Thus, even if one can argue that PrtP belongs to the “left periphery” of a split CP in the sense of Rizzi (1997), PrtP can be at an arbitrary distance from the root’s force projection with which it must make contact via derivation in phases.

3. Particles in special questions

Discourse particles in questions regularly (and sometimes more or less obligatorily) appear in what Obenauer (2004) calls “Surprise-Disapproval Questions” (SDQs), “Can’t-Find-the-Value Questions” (CFVs), and rhetorical questions (RQs).

(24) Wie siehst du denn aus?! SDQ  
how look you DENN out  
“You look strange / weird / ...“

(25) Was lachst du denn so dumm?! SDQ (“why-like” what)  
what laugh you DENN so stupidly  
“Why do you laugh so stupidly?!?”

(26) Wo liegt nur meine Brille? CFV  
where lies NUR my glasses  
“Where on earth did I put my glasses? (I have looked everywhere)“
(27) Wo wird Klaus schon sein?  
where will Klaus SCHON be
“Where will Klaus be? (There is no doubt that he is in ...)”

With the exception of “why-like what” in (25) where the use of non-argumental was signals a special question, (24), (26) and (27) are in the absence of the particle flat information seeking questions. There are certain other devices by which they can acquire the status of special questions, but discourse particles are certainly among the top devices. Here are some informal characterizations.

- **Denn** is most general. In an information seeking question it demands that the expected true answer p updates the common knowledge of speaker and addressee in such a way that p is relevant to the knowledge of the speaker. In an SDQ an answer may not even be expected. Thus *denn* may simply add a contextualization by which the question is linked to the actual speech situation, e.g. “Why do you laugh so stupidly [under the actual circumstances]!?”

- **Nur/bloß** are more special. They function as eliminative operators like in their function as focus particles. They yield a CFV question due to exclusion of all constants (considered in the actual speech situation) as being able to replace the wh-bound variable.

- **Schon** (“already”) seems to be less obvious. Its temporal use requires a scale on which *already* p denotes a state after ¬p (not-yet p / still ¬p). In RQs schon may induce a similar scale by which the entities e that can replace the variable are ranked according to their plausibility of yielding a true answer, the implicature being that there are few or no e which are high enough on the scale to make the answer true.

- **Nur/bloß** as well as schon are compatible with denn. Being more special than denn they must occur in its scope: denn < nur, denn < bloß, denn < schon, but not *nur < denn, *bloß < denn, *schon < denn.

### 4. Discourse particles and constituency

Before we proceed with special questions, let us return to phrase structure for a moment. iv. in § 1 says that discourse particles are immobile. While this is true, an important qualification must be added: Various particles can appear as a co-constituent with wh and then move together with it, cf. (28) or the sluicing case in (29), – all observed data from the internet.

(28) [Warum bloß] ist ein Rauschenberg so teuer?  
why BLOSS is a Rauschenberg so expensive
“Why the hell is a Rauschenberg so expensive?”

(29) Fran ist lustig und erfolgreich ... und schwanger, aber [von wem bloß]!!  
Fran is humorous and successful and pregnant but from who BLOSS
“Fran is nice and successful .. and pregnant. But from who?”

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4 Was lachst du denn so dumm!? – Verschwinde! („Why do you laugh so stupidly?! – Get lost!”)


6 Since native speakers, including linguists, occasionally reject such sentences in grammaticality judgments attested examples are being used here. These exaples are somehow marked but appear frequently, also in written German.
Given the architecture in (15), how can we account for these cases? We exclude the possibility that wh moves and on its way “decapitates” the PrtP taking its head along. There is no independently motivated process such as cliticization to the wh-phrase etc.

We assume that wh can be merged with Prt and project a “Small PrtPs”. The wh-phrase which must be moved to the left of Prt carries extra strong accent which signals emphasis.

Proposal: The relevant feature being “emphasis”, an unvalued feature for emphasis (Emp) on the particle attracts wh for valuation.7

(30) \( \text{Prt}^{\circ}<\text{uEmp}> \text{wh}<\text{Emp}> \Rightarrow \)

(31) \([\text{wh}<\text{Emp}>[\text{Prt}^{\circ}<\text{uEmp}>\text{wh}<\text{Emp}>]] \) “Small PrtP”

Small PrtPs like [warum bloß] have a feature for emphasis but are in addition also +Prt and +wh.

Notice next that particles can be stacked in small PrtPs, in which case the particles retain the same order as in VP/vP. Examples from internet sources:

(32) [Warum denn nur] kann AMD ihre CPUs billiger anbieten als Intel???

why DENN NUR can AMB its CPUs cheaper offer than Intel

„Why on earth can AMD offer their CPUs cheaper than Intel (I am wondering)“?

(33) [Wie denn bloß] kann ich sie fangen

how DENN BLOSS can I her catch

„How on earth can I catch her (I am wondering)“?

(34) [Wer denn schon] würde es der Meinung eines Dritten verbieten wollen

who DENN SCHON would it the opiniondat a thirdgen prohibit want
die deine zu meiner zu machen?

the your to mine to make

„Who would deny the opinion of a third person to make your opinion mine?“

Proposal

Emp-valuation is recursive, i.e. a single wh can value more than one Emp-feature.

(35) \( \text{Prt}^{1\circ}<\text{uEmp}> \text{wh}<\text{Emp}> \Rightarrow \text{Move wh} \)

(36) \([\text{wh}<\text{Emp}>[\text{Prt}^{1\circ}<\text{uEmp}>\text{wh}<\text{Emp}>]] \) \( \Rightarrow \text{Merge Prt2} \)

(37) \( \text{Prt}^{2\circ}<\text{uEmp}>[\text{wh}<\text{Emp}>[\text{Prt}^{1\circ}<\text{uEmp}>\text{wh}<\text{Emp}>]] \) \( \Rightarrow \text{Move wh} \)

(38) \( [\text{wh}<\text{Emp}>[\text{Prt}^{2\circ}<\text{uEmp}>[\text{wh}<\text{Emp}>[\text{Prt}^{1\circ}<\text{uEmp}>\text{wh}<\text{Emp}>]]]] \) “Recursive Small PrtP”

How can Prt get scope if it is part of a small PrtP?

Proposal

The small PrtP moves cyclically via the left edge of VP/vP (and perhaps via SpecCP) to SpecFinP/SpecForceP.

(39) merge [wh Prt] in VP/vP: [VP/vP ... [wh Prt] ...] \( \Rightarrow \text{Merge a silent Prt} \)

(40) \([\text{Prt}^{\circ}\text{Prt}^{\circ}<\text{uPrt}>[\text{VP/vP} ... [\text{wh Prt}] ...]] \) \( \Rightarrow \text{Move [wh Prt]} \)

7 There is independent evidence from other constructions that emphasis is a concept in syntax, and that it is in all likelihood a root phenomenon. Small PrtPs must appear in the highest position. They cannot remain “in-situ”:

5. Mixed constituency

We have seen so far the standard case in which Prt° is (perhaps recursively) directly merged with VP/vP, and the marked case in which Prt has an Emp-feature and is is merged with a strongly accented wh-phrase. The structure thus created must move in order to gain scope over VP/vP.

We expect that the two processes can combine: While one Prt has been merged to VP/vP, another one may be merged to wh creating a small PrtP. The data verify this expectation.

(43) [Warum denn] hätte er das [warum denn sagen sollen]]?

“Why on earth should he have said that (I am wondering)?“

The small PrtP warum denn will activate a PrtP above the PrtP headed by nur. This guarantees the attested ordering denn < nur:

(44) [Warum denn] hätte er das [PrtP1 warum denn [PrtP2 nur [warum denn sagen sollen]]]?

Wh-movement may also lead to linear reversal of the ordering which discourse particles strictly follow. (45) is fully grammatical although the surface order is now nur < denn.

(45) [Warum nur] hätte er das [denn sagen sollen]]?

“Why on earth should he have said that (I am wondering)?“

(for me semantically indistinguishable from (34))

While this may be a puzzling problem for alternative accounts, it is explained in our account due to reconstruction. In (46), the small PrtP warum nur has a copy in PrtP2 which is properly ordered below PrtP1:

(46) [Warum nur] hätte er das [PrtP1 denn [PrtP2 warum nur [vP warum nur sagen sollen]]]?

6. Small PrtP in special questions

As shown in section 3, discourse particles play an important role in the fine-tuning of questions, thus yielding SDQ, CFV, RQ and perhaps additional types. Questions with small PrtPs allow emphatically marked CFV and RQ interpretations:

(47) [Wo nur] ist der Stolz geblieben?

“Where on earth has pride remained?

http://debatte.welt.de/kommentare/90018/wo+nur+ist+der+stolz+geblieden
(48) [Für wen nur] hat Holland dieses Stück Kitsch gemacht?

"Who on earth did Agnieszka Holland make this piece of kitsch for?"

http://www.taz.de/index.php?id=archivseite&dig=2007/04/05/a0213

(49) [Wen schon] kann man nachts um drei nach dem Weg fragen? RQ

"Who can you ask directions at 3 o’clock in the night? (Nobody!)"

www.onlinechronik.de/aktuell/chron_april_2001.htm

(50) [Wann schon] hat man zuletzt deutsche Sportler so selbstbewußt aufspielen sehen?

"When have German sportsmen recently be seen playing with such self-confidence? (Never!)

www.spiegel.de/sport/fussball/0,1518,269742,00.html

Notice now that SDQs reject the small PrtP construction:

(51) a. *[Wie denn] siehst du aus? SDQ

"You look strange / weird / ..."

b. *[Was denn] lachst du so dumm?! SDQ

("why-like" what)

"Why do you laugh so stupidly?"

D’Avis (1996) and Munaro & Obenauer (1999) have pointed out that “why-like” what does not behave like a normal wh-operator in many ways. All the evidence suggests that was is unfocused and does not invoke semantic alternatives. Given that small PrtP is built on the basis of emphasis, i.e. emphatic focus, we explain why why-like was is incompatible with the SDQ-interpretation although the particle denn is perfectly suitable.

What excludes wie (“how”) in (51a)? Unlike why-like was, wie as such can bear focal accent and can be used in any type of wh-construction. Nevertheless, wie in (51a) is clearly like why-like was in being incompatible with focus and semantic alternatives. This suggests that German employs different landing sites for wh-phrases. Due to its uniform V2 organization, the assumed difference in position can hardly be seen in German. However, a number of Northern Italian dialects display distinct syntactic strategies across question types. Most tellingly, Bellunese shows that the wh-phrase moves to a position different from (and higher than) that in straight information seeking questions:

(52) A’ -tu invidà chi? “Who have you invited?” (simple question)

have-you invited who

[Wh-Cl Ø ] à-tu invidà chi?

8 Cf. appendix.
9 Cf. [Wie denn] ist es zu erklären, dass Mathematik zumindest in NRW das häufigste (...) Abiturfach ist?

"How can it be explained that mathematics is at least in NRW the mostly chosen subject for the school final exam?" http://www.stauff.de/matgesch/dateien/unbeliebt.htm
10 Cf. Frey (2004), who argues for a weakly split CP in German which involves a distinction between a Fin-head with a pure EPP-feature that attracts unfocused material and a Kontr-head – the head of a contrastive phrase – with an EPP-feature which is associated with a feature for contrastivity.
Taking seriously the idea of (a) a different position, and (b) of its incompatibility with focal stress (as manifested in German), notice now that both properties are realized overtly in Bangla where in addition a discourse particle (-\textit{Ta}) comes into play.\textsuperscript{11}

(54) \textit{tumi kolkata -Y ki kor-cho?} "What are you doing in Calcutta?" (simple qu.)

(55) \textit{tumi kolkata -Y kor-cho-Ta ki?} "What the hell are you doing in Calcutta?" (SDQ)

(56) *\textit{tumi kolkata -Y ki kor-cho-Ta?}

Bangla being SOV, the wh-item \textit{ki} is in (54) in its standard focus position preceding V. In (55) the the particle -\textit{Ta} is suffixed to V, and \textit{ki} must \textbf{FOLLOW} V+\textit{Ta}, (56) being ungrammatical. The post-verbal position is an anti-focus position. Obviously, -\textit{Ta} signals SDQ-interpretation. This prevents the wh-element from moving to its regular pre-verbal scopal position.

7. Summary

Discourse particle are an important source of information about the relation between clause structure, its functional organization and semantic/pragmatic interpretation. Information has been provided about the form and function of German particles in wh-questions. A proposal was made as to how particles contribute to the determination of illocutionary force via diverse phrase structural configurations ("big PrtP", "small PrtP"). A variety of non-standard interpretations of questions correlates with the choice of certain particles and has clear reflexes in syntactic structure. Some of the findings about German receive cross-linguistic support from Northern Italian and Indo-Aryan.

References


\textsuperscript{11} Data from Bayer (1996:ch.7).


Appendix

Why-like what

Data in (57)–(60) from Munaro & Obenauer (1999).

(57) Coordination
  a. Wann und warum hast du mit Max gesprochen?
     “When and why did you talk to Max?”
  b. *Was und seit wann schreit der denn so?
     “Why and since when does he shout like this?”

(58) Contrastive focus
     “I did not say, WHEN did you talk to him, but: WHY did you talk to him.”
  b. *Ich habe nicht gesagt: Seit WANN schreit der denn so, sondern: WAS schreit der denn so.
     “I did not say, since WHEN has he been shouting like this, but: WHY has he been shouting like this.”

(59) Constituent answers
  a. Sie schreiben also? Was?
     “You are a writer, then? What do you write?”
  b. Jetzt lachst du wieder so blöd. Warum (denn) / *Was (denn)?
     “Now you are again laughing so stupidly. Why?”

(60) Wh-in-situ
    Wer hat denn warum / *was so blöd gelacht?
    “Who laughed why so stupidly”

There is evidence that long (trans-CP) movement requires a phrase which is contrastive with respect to a set of alternatives. Again, warum succeeds but why-like was does not.

(61) Long-wh-extraction
    Warum / *was denkst du, dass er warum / was so blöd gelacht hat?
    “Why do you think that he laughed so stupidly”