

## *Wh*-drop and recoverability

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### 1. Topic pronoun drop

One of the remarkable properties of Verb Second (V2) syntax is the fact that the constituent preceding the finite verb – let’s for simplicity call it ‘SpecCP’ – can under certain circumstances be dropped (cf. Ross 1982; Huang 1984; Fries 1988 for German, Ackema & Neeleman 2007 for Dutch). Pronoun drop is strictly confined to pronouns in SpecCP and can only occur in the root clause. In a context in which, say, Hans is the topic of conversation, a pronoun referring to Hans can be dropped from SpecCP as long as it is recoverable by virtue of linking to structural Case. In German, this restricts topic pronoun drop to nominatives and accusatives. Datives, genitives and pronominal PPs are out (cf. Bayer, Bader & Meng 2001).

- (1) {Der/~~der~~} ist im Büro (German)  
he:NOM is in-the office  
‘He is in the office.’
- (2) {Den/~~den~~} kenn ich auch  
him:ACC know I too  
‘I know him too.’
- (3) {Dem/\*~~dem~~} schadet das nicht  
him:DAT harms this not  
‘This doesn’t harm him.’
- (4) {Darüber/\*~~darüber~~} sollst du dich nicht aufregen  
there-about should you REFL not excite  
‘You shouldn’t get excited about it.’

It is important to notice that the deletion operation is not functionally grounded. The deleted material in (3) and (4) would be fully recoverable: *schaden* demands dative case, and whenever *sich aufregen* takes a PP argument, this PP will invariably be headed by the preposition *über*.

Without pronoun drop it would be hard to explain the example in (5) which I heard someone say.

- (5) Bier kann ich nichts mit anfangen (German)  
 beer can I nothing with begin  
 'As for beer, I don't like it.'

Extraction of *Bier* from PP would violate the ban on P-stranding. According to a well-known analysis that has been suggested in Koster (1978) for subject sentences, (5) receives a natural explanation which is in harmony with the fact that P can be stranded when its complement is an R-pronoun. According to this analysis, *Bier* is in a left-dislocated position and is resumed there by an R-pronoun that has been dropped:

- (6) [<sub>CP</sub> Bier [<sub>CP</sub> *da* kann ich nichts [<sub>PP</sub> *da*+ [mit *da*]] anfangen]]

Since according to standard assumptions *mit* assigns dative case, (6) should in connection with (3) raise suspicion. There is evidence, however, that V and P do not assign case uniformly. As Bayer, Bader & Meng (2001) and Bayer & Bader (2007) argue, (substructures of) functional prepositions are exponents rather than assigners of case. If this is right, the R-pronoun *da* does not actually bear dative (or another oblique) case and can therefore be dropped.

The reliability of the rule of topic pronoun drop sets the stage for taking a look at an aspect of this phenomenon which to my knowledge has largely remained unknown so far: *wh*-drop.

## 2. Wh-drop

Pronoun drop in SpecCP suggests that the pronoun to be dropped refers to a discourse topic. The following data from Bavarian show, however, that even *wh* can be dropped. Notice that the examples with *wh*-drop to follow occur only in casual speech and usually come across as unsophisticated or even rude. (PRT is short for 'discourse particle'.)

- (7) {Wos/wos} is-n do los? (Bavarian)  
 what is-PRT (t)here on  
 'What's going on (t)here?'  
 (8) {Wos/wos} dea-ts-n es do?  
 what do-2PL-PRT you (t)here  
 'What are you guys doing (t)here?'

As in the case of pronoun drop, the rule of *wh*-drop can only affect XPs in SpecCP, never *wh*-elements in situ as they may occur in multiple questions.

- (9) Wer hot -n {wos/\*wos} g'lesn?  
 who has-PRT what read  
 'Who read what?'

Reversal of the two *wh*-pronouns as in (10) improves the example significantly although there remains a certain degradation which may be due to an independent mismatch in register.

- (10) {Wos/<sup>(?)</sup>wos} hot -n wer g'lesn?  
 what has-PRT who read  
 'What did which person read?'

As in the case of topic pronoun drop, the rule of *wh*-drop can only affect *wh*-pronouns with the structural cases nominative and accusative. My research with native speaker informants allows the conclusion that *wh*-drop can in fact only affect *was*. Even nominatives and accusatives with a person restrictor ('who') are not allowed. A question like (11) is consistently interpreted with a missing 'what', never with a missing 'who'.

- (11) \_\_\_\_ is-n des?  
 is-PRT that  
 'What is that?'  
 (not: 'Who is that?')

The same is true for any other semantic restrictions no matter how predictable they may be from the propositional context. On the other hand, *was* does not need to correspond to an argument. Like various other languages, German allows a non-argumental use of *was/what* which gives rise to an interpretation that is close to 'why'. Therefore one may refer to it as 'why-like what' (cf. d'Avis, 1996; Bayer & Obenauer, in press, Munaro & Obenauer 1999). In Bavarian, *why*-like *was* can very naturally be dropped:

- (12) {Wos/wos} schau-st-n so deppert!?  
 what look-2SG-PRT so stupid  
 'Why are you looking so stupidly!?'

The same is true of the *was* that occurs in the familiar *was für* construction. As (13) shows, *was* can be dropped when it moves alone. (14) shows that *was* cannot be dropped once it has pied-piped the *für*-phrase to SpecCP.

- (13) {Wos/wos} git-s-n [was fiar-a G'mias]?  
 what exists-it-PRT for-a vegetable  
 'What kind of vegetables will we have?'
- (14) [{Wos/\*wos} fiar-a G'mias] git-s-n?  
 what for-a vegetable exists-it-PRT  
 'What kind of vegetables will we have?'

These data show that Bavarian *wh*-drop is entirely form-driven. (i) As in the case of topic pronoun drop, the process can only target SpecCP and delete the entire material in SpecCP. (ii) As in the case of topic pronoun drop, the process can only affect *wh*-pronouns with structural case, i.e. with nominative or accusative. These are the

two cases which are recoverable via the T-system and the *v*-system of the grammar respectively. (iii) Unlike in the case of topic pronoun drop, the dropped *wh*-pronoun must not be semantically restricted. This leaves only *was*, which is the maximally underspecified member of the *wh*-pronouns (cf. Jäger 2000).

### 3. The formal license of *wh*-drop

Given that Bavarian shares with Standard German the option of topic pronoun drop, we may at this point ask how under the drop condition declaratives can be distinguished from *wh*-interrogatives. A plausible answer may be that the interrogative status is recovered by means of rising intonation. Although intonation signals interrogative mood, we notice in all of the Bavarian examples in Section 2 the additional presence of a clitic element *-n*. This element is derived from an older Germanic ancestor that turned into English *then*, Dutch *dan*, Old High German *thanne*, and later modern German *dann* (temporal ‘then’) next to *denn*. (For the history of *denn* cf. Abraham 1991; Wegener 2002; for recent syntactic approaches that take grammaticalization and variation into account cf. Bayer, in press, Coniglio 2005 and Grosz 2005).

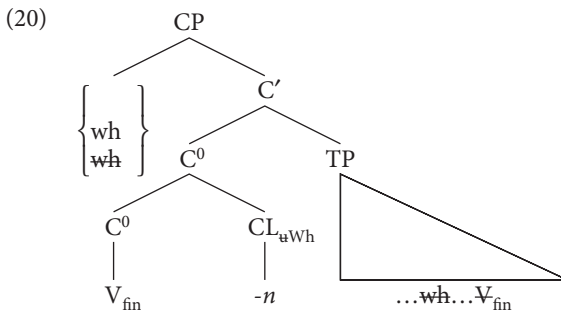
In modern German, *denn* is a discourse particle which appears in interrogatives and conveys the meaning that the speaker presupposes a common ground with the addressee and links his/her question to this common ground. Thus, *denn* means roughly “under these circumstances that are known by both speaker and hearer”. As a consequence, *denn* is felt to be odd in out-of-the-blue questions. *Denn* is only used when the speaker wants to make reference to the presupposed common ground. In this sense, *denn* is optional.

Notice now the interesting (and certainly interrelated) facts that in Bavarian the clitic *-n* (i) does not retain the semantics of German *denn*, and (ii) appears to be obligatory in *wh*-questions. Both of these properties suggest that the Bavarian version of *denn*, namely *-n*, has shifted to or is in the process of shifting toward a different category. Since it is obligatorily a clitic that attaches to the finite verb in  $C^0$ , the reanalysis that *-n* has undergone may well have resulted in an agreement morpheme that signals agreement with a *wh*-phrase in the associated SpecCP. Whatever the best analysis of the data is, suffixation of *-n* avoids an ambiguity between topic drop and *wh*-drop. Notice that the *wh*-drop version of (12), *Schau-st-n so deppert*, is identified as a question on the basis of the presence of *-n*. Without *-n*, *Schau-st so deppert* would be a declarative with the second person singular pronoun *du* dropped. Interrogative interpretation would be conveyed by intonation.

Nevertheless, ambiguity avoidance alone cannot explain the data. With *-n* missing, the drop versions of the examples in (7), (8), (11), (12) and (13) are consistently unacceptable as questions.

- (15) \* \_\_ is do los ? (Bavarian)  
 (16) \* \_\_ dea-ts es do ?  
 (17) \* \_\_ is des ?  
 (18) \* \_\_ schau-st so deppert ?  
 (19) \* \_\_ git-s fiar-a G'mias ?

Under the perspective that the clitic *-n* is a *wh*-agreement marker – perhaps reflecting the unvalued *wh*-feature of  $V_{fin}$  in  $C^0$  – the structure of a *wh*-question is preserved under *wh*-drop.



It is unclear whether Standard German allows *wh*-drop at all. According to my intuitions, examples like \_\_ *ist dort passiert?* ‘**What** has happened there?’ or \_\_ *suchst du dort?* ‘**What** are you looking for?’ are ungrammatical and could at best be rescued with the insertion of the particle *denn*: \_\_ *ist denn dort passiert?* \_\_ *suchst du denn dort?* This would not be too surprising given that the particle *denn* – although it is optional in Standard German – is dependent on questions. *Wh*-questions with a *wh*-adjunct could in principle yield ambiguity with a disjunctive question due to the fact that the initial finite verb’s position may be taken to be the left edge of the clause. Since we know that only *was* can be dropped, however, an ambiguity of this sort can hardly ever arise. Cases of potential ambiguity as between (21) and (22) are usually not an issue in German.

- (21) ~~Wann~~ kommst du (denn)? (German)  
 when come you DENN  
 ‘When will you come (after all)?’
- (22) Kommst du (denn)?  
 come you DENN  
 ‘Will you come (after all)?’

The reason is that (22) is unavailable with the representation (and semantic interpretation) of (21). An ambiguity could arise, though, in the case of *why*-like *what*. According to

my intuitions, the potential ambiguity seen in (23) bleeds the option of *was* drop (if it is an option at all).

- (23) {Was/?\*was} schreit er denn schon wieder?  
 what shouts he DENN already again  
 ‘Why the hell is he shouting again?’/‘Is he shouting again?’

#### 4. An impression from Dutch

Cursory research on comparable Dutch data (with the help of Janet Grijzenhout, Henk van Riemsdijk and Jan-Wouter Zwart) reveals – could it be otherwise? – some degree of variation.

Recall that we are again exclusively talking about spoken language. The first thing to notice is that as in German, only the most neutral *wh*-element can be dropped. In Dutch, this is *wat*. In spoken language, Dutch seems to allow for *wh*-drop as in (24).

- (24) {Wat/wat} zegt-ie? (Dutch)  
 what says-he  
 ‘What does he say?’

However, echoing (23), *wh*-drop is less of an option once *wh*-drop leads to ambiguity with a disjunctive question.

- (25) {Wat/?\*wat} is dit hier?  
 what is this here  
 ‘What is this here?’/‘Is this here?’

Unambiguous cases of *wat*-drop as in (26) are okay but there is a tendency to use the adverb/particle *nou* (literally ‘now’, but in *wh*-questions closely corresponding to German *denn*) as seen in (27) (judgments by Janet Grijzenhout, p.c.).

- (26) {Wat/?wat} doe je daar?  
 what do you there  
 ‘What are you doing there?’
- (27) {Wat/wat} doe je daar nou?  
 what do you there NOU  
 ‘What then are you doing there?’

The same is true for (28) and (29) (judgments by Jan-Wouter Zwart, p.c.).

- (28) {Wat/\*wat} doe jij?  
 what do you  
 ‘What are you doing?’

- (29) {Wat/wat} doe jij nou?  
 what do you NOU  
 ‘What then are you doing?’

These data suggest that *wh*-drop (i) is an option of the grammar of Dutch, (ii) is impossible if it provokes ambiguity with a disjunctive question, and (iii) improves in the presence of a discourse particle like *nou* which is an indicator of a constituent question.

## 5. Comparison with L1-acquisition

According to Yamakoshi (2002), *wh*-drop has been observed in child language in Dutch, English, French, German, Spanish and Swedish. Westergaard (2009) reports similar data from child Norwegian. *Wh*-drop has also been found in American Sign Language (cf. Yamakoshi’s report). Westergaard finds significantly more occurrences of *ka* (‘what’) drop in comparison with other *wh*-items in Norwegian. According to the sources that Yamakoshi quotes, correspondents of ‘how’, ‘why’, ‘where’, ‘who:NOM’, ‘whom:DAT’, can also be dropped. In her own data from English, chunks larger as well as smaller than the *wh*-phrase can be found: *Who is hiding in the bucket?* next to *Which dog is barking?* Santelmann (1995, 1997) and van Kampen (1997) find in Swedish and Dutch respectively *wh*-drop also in SpecCP of embedded CPs. Thus, *wh*-drop in child language is much more liberal than the *wh*-drop observed in adult language. Possibly adult-style *wh*-drop is a subset of child-style drop, the latter being a reflection of an immature system which does not yet allow the production of all the complexities of *wh*-syntax.

Nevertheless there is an interesting further aspect. Yamakoshi (2002) ran an elicitation task in order to find out about *wh*-drop in child Japanese. In addition, she explored natural speech data from Japanese children. Both investigations revealed that “*wh*-drop rarely occurs in child Japanese”. She explains this via the difference in operator structure. While in the Western languages under consideration the *wh*-operator cannot be separated from the actual *wh*-item, the *wh*-operator in Japanese is a zero element which is separated from the *wh*-item. The *wh*-item proper is not an operator. This amounts to saying that *wh*-drop is operator drop.

It cannot be overlooked, however, that there might be another strong factor involved, namely the position of the *wh*-element. The target grammar shows that both *wh*-drop and topic pronoun drop occur only in SpecCP of the root clause, i.e. in the functionally defined position [<sub>CP</sub> \_\_\_ V<sub>fin</sub> ...], and that the option of dropping is subject to rigid conditions of recoverability. It is controversial whether lower *wh*-phrases occur in a comparable position in *wh*-in-situ languages. Yamakoshi’s findings suggest that children who acquire a V2 language or a language with partial V2 (alias ‘T2’, cf. Koster 2003) have an early sensitivity to the functional architecture of the adult

grammar. As we have seen, *wh*-drop is a phenomenon that is well in the range of the adult target grammar.

## 6. Conclusion

Although there is far too little information about *wh*-drop so far, the data that have been compiled here suggest that *wh*-drop is closely related to the phenomenon of topic pronoun drop as familiar from the syntax of German and Dutch. Both processes target SpecCP. Both processes are subject to rigid requirements of recoverability. The case of the deleted element can only be one of the two structural cases. In the case of *wh*-drop the constraints on dropping are more severe. First, the *wh*-item to be dropped can only be the *wh*-item *par excellence*, namely ‘what’. Secondly, there must in all likelihood be extra features in the clause which guarantee interpretation of a *wh*-question once the primary morphosyntactic exponent of the question, the *wh*-item itself, is phonetically absent. In Bavarian this feature is provided by *-n*, an element that derives from the discourse particle *denn* and seems to have turned into a marker of *wh*-agreement in this dialect. In colloquial German and Dutch, question-sensitive particles appear to be more or less obligatorily involved in *wh*-drop. It is a matter of current research to determine how discourse particles contribute to the determination of the illocutionary force of an utterance. Although much work will be needed to close the various gaps that my preliminary investigation leaves, the impression is that *wh*-drop is under close control of structure preservation.

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