

ON THE SYNTACTIC STATUS OF ‘*N* IN BAVARIAN *WH*-QUESTIONS*

Josef Bayer

1 INTRODUCTION

Bavarian shows a clitic-like morpheme ‘*n* in questions that appears especially in *wh*-questions with such a regularity that it can be considered quasi obligatory. ‘*N* derives from the question-sensitive (Q-sensitive) discourse particle (modal particle) *denn* or one of its historical predecessors. It occurs in other varieties of spoken German as well but then appears to be optional, on a par with the full form *denn*. The present article sets out to explore the reason for this development. BAYER (2012, 2013b) argues that the development of Bavarian has seen an extra step in grammaticalization that is so far missing in other varieties. The speculation has been that in Bavarian ‘*n* has developed from the clitic version of the discourse particle *denn* to an agreement marker for *wh*-agreement. This would explain why ‘*n* is quasi obligatory in *wh*-questions, and why it has stopped making a semantic/pragmatic contribution to the sentence meaning. Desemanticization is a direct consequence of obligatoriness: if ‘*n* is invariably in the structure, it cannot make a distinctive contribution to the sentence meaning.

The article is organized as follows: Section 2 gives a brief background on the role of discourse particles (henceforth DiPs) in questions and in particular on the role of *denn*. Section 3 turns to the phonologically reduced or clitic form ‘*n* that occurs across different varieties of casual spoken German. This sets the stage for the central part in section 4, on the fate of ‘*n* in Bavarian. The sub-sections of 4 present results from a questionnaire study with 14 speakers of different middle Bavarian regions. 4.1 explores to what extent ‘*n* is really obligatory in *wh*-questions. 4.2 takes a look at the (non-) occurrence of ‘*n* in embedded clauses from which *wh*-movement has taken place. Section 4.3 takes a look at verb-second clauses from which either a *wh*-element has been moved into the matrix sentence, or in which – according to a different theory/strategy – only clause-internal *wh*-movement has applied while the apparent structure of the matrix clause is in fact parenthetical that has been inserted into the *wh*-sentence. In Section 5, the attention

* Thanks to – in alphabetical order – HANS ALTMANN, ANNA CZYPIONKA, JENNIFER GONCALVES, FRANZISKA HACK, RÜDIGER HARNISCH, BRUNO JONAS, FRANS PLANK, ULI ROIDER, PETER SUCHSLAND, ROSEMARIE SPANNBAUER-POLLMANN, SUSANNE TRISSLER, YVONNE VIESEL, MILAN VOCÍLKA, HELMUT WEISS, and LUDWIG ZEHETNER for various forms of support. Special thanks to an anonymous reviewer for bringing up pertinent questions.

is drawn to the alternative Q-sensitive DiP *nacha* (lit. ‘afterwards’, ‘hereafter’, ‘subsequently’) and the role of DiPs and the agreement marker ‘*n* in *wh*-questions showing the phenomenon of *wh*-drop. The *wh*-word disappears while the residual structure is still interpreted as a *wh*-question. The empirical results show that the possibility of *wh*-drop is due to ‘*n* and not due to *nacha*. Section 6 offers some conclusions.

2 SOME BACKGROUND ON DISCOURSE PARTICLES IN QUESTIONS

German DiPs like *aber*, *bloß*, *denn*, *doch*, *eben*, *halt*, *ja*, *nur*, *schon*, *vielleicht*, *wohl* are important parts of speech whose syntactic and semantic role has received substantial clarification over the last decade. DiPs re-shape the speech act by conveying “information concerning the epistemic states of discourse participants” (ZIMMERMANN 2011) rather than so-called at-issue meaning. In *wh*-questions, we find mainly *denn*, *nur/bloß*, *schon*, *wohl*. *Denn* invokes a common ground (CG) between speaker and hearer that contextualizes the question with respect to aspect of the CG as hypothesized by the speaker. Given a question like (1), the DiP *denn* in (2) adds the meaning that the speaker refers to some aspect of the CG that makes the question relevant for him in a particular but *prima facie* undetermined way.

- (1) *Wo wohnt er?*
 where lives he
 ‘Where does he live?’
- (2) *Wo wohnt er denn?*
 ‘Where does he live (given circumstances x)?’

In (2), the speaker is wondering in a particular way about the answer as this answer is expected to be linked by *denn* to circumstances *x* that are known by the CG.¹ DiPs depend on the illocutionary force of an utterance. *Denn* depends on interrogativity. It is excluded in declaratives (**Er wohnte denn in München*, ‘He lives DENN in Munich’) or in imperatives (**Nehmen Sie denn bitte Platz!* ‘Please have DENN a seat!’). Being under the control of the force layer of the clause, DiP occur naturally in the root clause (a speech act) or in quoted speech (an embedded speech act). Nevertheless, there seem to be exceptions.

1 Note that the CG does not even have to be introduced by explicit discourse. In a city of a certain size, one can ask an unknown passenger out of the blue *Wo ist denn hier der Bahnhof?* ‘Where is the station here?’ because one can assume that the passenger knows that the city has a station.

- (3) *Welches Bild glaubst du dass er denn von mir haben könnte?*²
 which picture believe you that he DENN of me have could
 ‘Which picture/impression do you believe he could have of me?’

The minimal clause that contains *denn* is neither a root clause nor is it interrogative. In comparison with (3), (4) appears to be degraded.

- (4) *?* Wer glaubt, dass Hannah denn ein schlechtes Bild von mir
 haben könnte?*
 who believes that Hannah DENN a bad picture of me
 have could
 ‘Who believes that Hannah might have a bad image of me?’

BAYER / OBENAUER (2011), BAYER / HÄUSSLER / BADER (2016), BAYER (2017), CZYPIONKA / ROMERO / BAYER (2021) explain this contrast via *wh*-movement as follows: In (4), the *wh*-operator moves from the root-clause; the embedded clause is not in the span of this movement. *Denn* is in an island as it is too far from the force of the matrix clause. In (3), however, the *wh*-operator moves from the embedded clause via SpecCP to its final position in the root clause. It is established generative wisdom that trans-clausal movement proceeds in cycles or phases whereby the CP-phase can be crossed when movement leaves a trace or more precisely a phonetically empty copy in SpecCP.

- (5) [_{CP} *Welches Bild* [_{glaubst} [_{du} [_{CP} ~~*welches Bild*~~ [_{dass} [_{er denn} ~~*welches Bild*~~ [_{von mir haben könnte}]]]]]]]]?

In this structure, the medial copy of the *wh*-phrase is in the specifier of the embedded CP and is thus “close” enough to the DiP to connect it up to the interrogative force of the root clause.³

3 DENN AND CLITIC 'N

Many varieties of spoken German show a reduced version of *denn* which is realized as /d'n/ or simply as /n/. While *d'n* may be an allegro form, 'n may be on its way to become a genuine clitic.⁴

2 http://www.marsvenus.de/search.php?search_author=Lola&sid=0fe369faf60ccfd8c76eee167-638b51f (17.11.2011).

3 There is an explicit theory behind the licensing of DiPs that is not relevant to the goals of the present study. Interested readers may consult the references mentioned above.

4 PLANK (2014) provides material from published sources in which 'n can follow all kinds of phrases in the German middle field. The examples are said to be from speakers in Berlin.

In certain varieties, there are occurrences of *denn* in non-interrogatives as in (6a). In this case, *denn* is roughly synonymous with the temporal adverb *dann* ‘then’; as BAYER (2017) shows, this adverbial use of *denn* cannot be reduced. (6b) is ungrammatical.

- (6) a. *als er denn endlich Kenntnis erlangte.*⁵
 once he DENN finally knowledge obtained
 ‘when he was finally informed.’
 b. **als er’n endlich Kenntnis erlangte.*

The clitic version of the DiP *denn* that occurs in questions in casual German does not differ from the full form. As shown in BAYER (2017), the distribution in embedded clauses is as expected.⁶

- (7) a. *Wo meinst du, dass’n dein Nachbar so viel Geld herhat?*
 where believe you that-N your neighbor so much money from.has
 ‘Where do you think that your neighbor has so much money from?’
 b. **Wer meint, dass’n dein Nachbar so viel Geld hat?*
 who believes that-N your neighbor so much money has
 ‘Who thinks that your neighbor has so much money?’

We know that *denn* is historically derived from Old High German *thanne*, a process at the end of which the element is grammaticalized to a function word. The *denn* in (6a) is an adverb and counts as such as the potentially phrasal constituent [_{AdvP} [_{Adv} *denn*]]. The homophonous Q-sensitive element *denn* is a particle [_{Prt} *denn*]; as such

- (i) *Wie soll das Opfer’n heißen?*
 how should the victim-N be.called
 ‘What should be the victim’s name?’
 (ii) *Warum sollen wir euerm Staat’n das schenken ...?*
 why should we your government-N this donate
 ‘Why should we donate this to your government?’
 (iii) *Warum sollen wir euerm Staat das’n schenken ...?*
 why should we your government this-N donate

The landing site of ‘n is a phrase and not a functional head. I take all these to be allegro form that must be distinguished from true clitics. I know of no Bavarian sub-dialect in which middle-field ‘n would be acceptable.

5 <https://www.welt.de/politik/deutschland/article118444403/Projekt-Ruecktritt-Wann-muss-ein-Minister-gehen.html> (05.11.2021).

6 The reviewer of this article doubts that (7a) is grammatical. But what do we mean by “grammatical”? The difference between (7a) and (7b) rests on the judgement of 50 native speakers 88% of who judged (7a) better than (7b) while only 10% could not find a difference. Since quantitative data are relational and never absolute, (7a) is the clear winner.

it is an X^0 category that may head a particle phrase *PrtP*.⁷ Being a head, it may be subject to a weakening that turns it into a clitic.⁸ Its homophonous counterpart with the adverbial interpretation is quite obviously prevented from undergoing cliticization.

In spoken German, the clitic 'n appears to have largely retained the semantics of the full form *denn*. This is an expectable but nevertheless non-trivial fact as we shall see immediately when we turn to the homophonous morpheme 'n that appears in Bavarian *wh*-questions.

4 THE FATE OF 'N IN BAVARIAN

In Bavarian, the Q-sensitive *denn* appears in the form of the clitic 'n as expected.

- (8) a. *Wo wohnst 'n du?*
 where live-N you
 b. *Wo host 'n du damals g'wohnt?*
 where have-N you then lived
 c. **Wo host du 'n damals g'wohnt?*
 d. **Wo host du damals 'n g'wohnt?*

The use of *denn* is also possible but seems to be less popular in Bavarian than in Standard German. In fact, Bavarian favors the alternative form *nacha* 'nachher', to which we will turn in Section 5.

Bavarian has a fully developed system of clitic pronouns in which 'n joins the clitic complex perfectly naturally. When 'n appears, it always follows the pronominal clitics. Alternative orderings are excluded.

- (9) a. *Wo host-ma-s-n hĩ:g'legt?*
 where have.you-me-it-N put.down
 'Where have you put it down form me?'
 b. **Wo host-n ma-s hĩ:g'legt?*
 c. **Wo host-ma-n-s hĩ:g'legt?*

As has been observed by WEISS (2002), who refers to communications with HANS ALTMANN, and by BAYER (2012), the phonological reduction of *denn* to 'n is neither an isolated nor an accidental issue. Most significantly, (10) seems to hold:

7 See BAYER (2018) and references given therein.

8 ZWICKY (1985: 296) argues that German DiPs are simply adverbs but notices that *denn* must be an exception. A potential XPs cannot skip reduction to an X^0 before it becomes a clitic. Another exception would be *mal* (lit. 'once'). In imperatives and in questions, it mutates to the clitic 'ma, e.g. *Komm 'ma her!* 'Come here!', *Haste 'ma Feuer?* 'Got a light?'.

- (10) a. Unlike *denn*, ‘*n* is (more or less) OBLIGATORY in *wh*-questions (obligatorification).
 b. Unlike *denn*, ‘*n* does NOT YIELD A SEMANTIC INTERPRETATION (semantic attrition).⁹

In addition, by its nature as a clitic, ‘*n* has a fixed syntactic position, namely at the right edge of the Wackernagel clitic complex that is bound to the C-position. As a clitic, it is naturally phonologically weak. These properties are prototypical for elements that have been subject to final stages of grammaticalization, see LEHMANN (2002).

A good indication of the relative obligatoriness of ‘*n* appears in maps 328.05 and 422.01.¹⁰ The rural areas show a predominant appearance of ‘*n*.

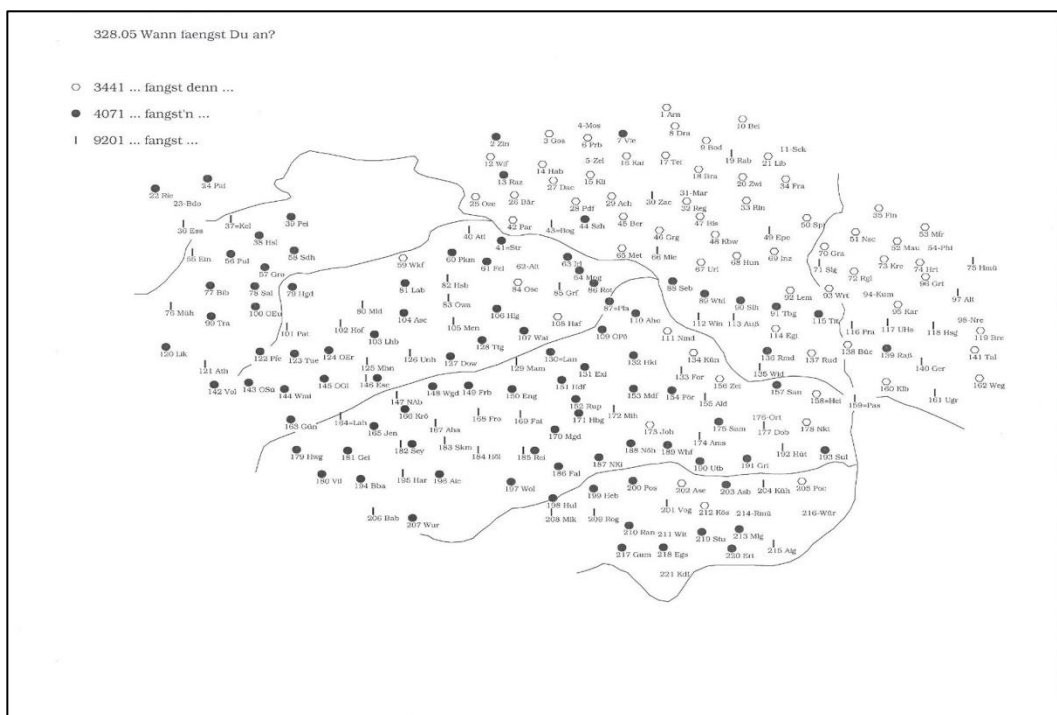


Figure 1: Map 328.05 – Wann faengst Du an? ‘When will you start?’

- 9 Interestingly, HACK (2014) finds the same changes in certain dialects of Dolomite Ladino. The Q-sensitive particle *po* appears obligatorily in *wh*-questions of Badiot/Marè and Gherdëina.
 10 These maps are unpublished materials of the *Sprachatlas von Niederbayern* (EROMS / SPANNBAUER-POLLMANN 2006) which ROSEMARIE SPANNBAUER-POLLMANN was kind enough to give me access to.

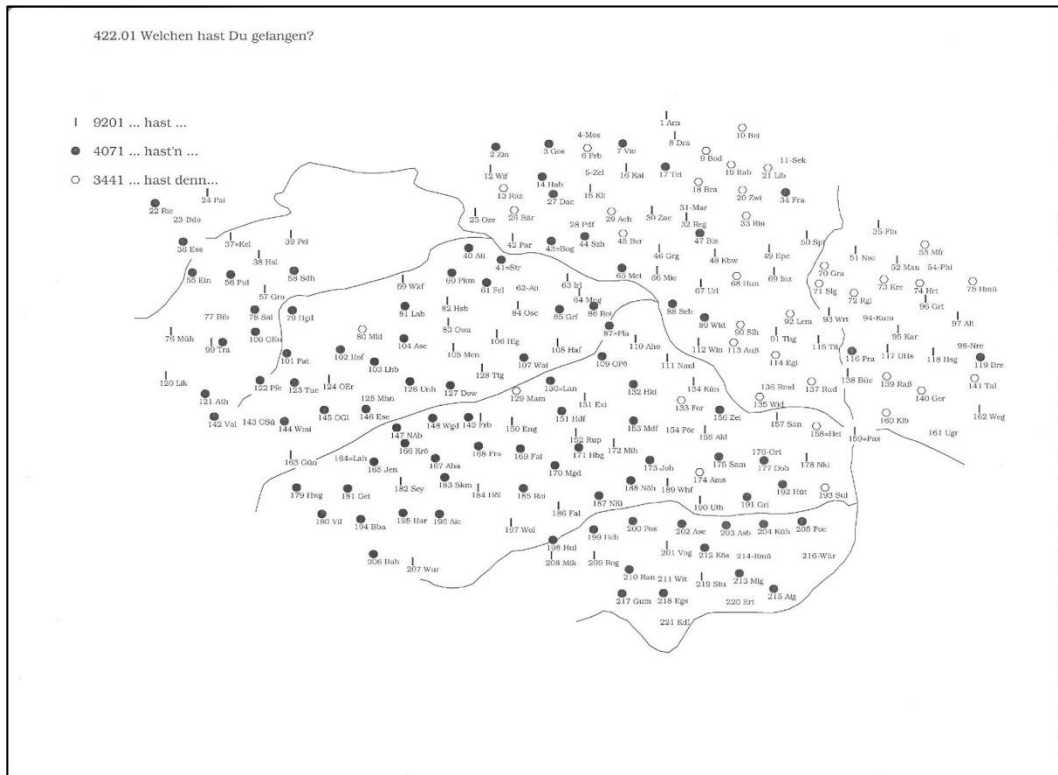


Figure 2: Map 422.01 – *Welchen hast Du gefangen?* ‘Which one did you catch?’

4.1 How obligatory is ‘n’?¹¹

Wh-questions without the decoration with ‘n can be expected to be acceptable by Bavarian native speakers because they are grammatical in Standard German, the language that every speaker is familiar with by virtue of social contacts, education, the media, by reading and writing at work etc. This does not mean though that this

11 As a caveat, there are *wh*-questions in which neither *denn* nor ‘n are ever possible. These are echo type reassurance questions, primarily used to seek confirmation or repetition of some antecedent information. The *wh*-phrase is obligatorily stressed, and movement is optional.

- (i) *Wos machst'n mid deim Bier?* – *I wärm's'ma.*
 what make.(you)-N with your beer I warm-it-me(DAT)
 ‘What do you do with your beer? – I warm it up.’

- (ii) a. *WOS machst(*'n)?* b. *Du machst(*'n) WOS?*
 ‘WHAT do you do?’ ‘You do WHAT?’

(PLANK 2014)

The syntactic form of (iib) is not interrogative; thus, *wh*-agreement cannot apply to begin with. For (iia), it may be argued that *wh* is either insulated by an additional shell that blocks agreement or lands in a position outside SpecCP.

form is the preferred one. 14 native speakers volunteered to grade examples in a handout. The speakers came from different Middle Bavarian dialect regions: Bodenmais, Dietfurt/Altmühl, Freising, Landshut, Passau, Regen and Zwiesel.¹² They were asked to assign the values √ (optimal, perfect), ? (uncertain, not really good but not impossible either), * (bad, clearly impossible).

- (11) Without 'n
- a. *Wos duast do?*
what do.(you) there
'What are you doing there?'
 - b. *Wann kimmt der?*
when comes he
'When will he come?'

- (12) With 'n
- a. *Wos duast'n do?*
 - b. *Wann kimmt'n der?*

(11) received 75% √, 21% ? and 3,5% *, whereas (12) received 96,5 % √ and only 3,5% ?. This result shows a very clear preference for *wh*-questions with 'n.

The result seen here could be replicated in a series of more complex *wh*-questions in which the first block came without 'n. These sentences involved long *wh*-movement from finite CPs and from V2-complements or parenthetical insertion of "do you think" as seen in (15) and (16).

- (13) Without 'n (*dass*-complement)
- a. *Wo moanst, dass der Brandl Rudi im Urlaub g'ween is?*
where think.(you) that the B.R. in vacation been has
'Where do you think that B.R. was for his vacation?'
 - b. *Wer hot g'moant, dass der Brandl Rudi im Urlaub g'ween is?*
who has thought that the B.R. in vacation been has
'Who thought that B.R. was away for his vacation?'

- (14) With 'n (*dass*-complement)
- a. *Wo moanst'n, dass der Brandl Rudi im Urlaub g'ween is?*
 - b. *Wer hot'n g'moant, dass der Brandl Rudi im Urlaub g'ween is?*

Undecorated sentences like those in (13) yielded 71% √ and 29% ?, whereas sentences with 'n as shown in (14) yielded higher ok-rates, namely 93% √ and 7% ?. Again, we see a clear preference for *wh*-sentences with 'n.

12 For the speakers from Dietfurt, the handout was minimally adjusted in order to match the morphophonology of their Upper Palatinate variety of Bavarian.

(15) Without 'n (V2-complement)

- a. *Wia moanst is da Wally sei Radl af'n Bene sei Hausdooch*
 how think.(you) is the W. her bike on-N B. his roof.top
affi kemma?
 up come
 'How do you think Walburga's bike ended up on Benedikt's roof-top?'
- b. *Wia is da Wally sei Radl moanst af'n Bene sei Hausdooch affi kemma?*

(16) With 'n (V2-complement)

- a. *Wia moanst'n is da Wally sei Radl af'n Bene sei*
 how think.(you)-N is the W. her bike on-N B. his
Hausdooch affi kemma?
 roof.top up come
- b. *Wia is 'n da Wally sei Radl moanst af'n Bene sei Hausdooch affi kemma?*

Undecorated sentences like those in (15) yielded 48% ✓, 45% ? and 4% *, whereas sentences with 'n as shown in (16) yielded clearly higher ok-rates, namely 77% ✓, 16% ? and 4% *.¹³ Also here, the examples with 'n received the highest rates.

Thus, despite the ever-present influence of the standard language one can see a clear preference of the forms with 'n. Given that in all the materials to be judged, no context was provided that could favor or disfavor the use of the DiP *denn*, the conclusion must be that 'n plays a role that should not be identified with the role of the DiP *denn*. According to general wisdom, *denn* makes a semantic contribution (see Section 2). The effect of such a contribution is not visible here because the sentences without 'n should be at least as acceptable as those with 'n. Therefore, the earlier suspicion seems to be supported that the role of 'n has silently been changed into the function as a *wh*-agreement marker.

The grammaticalization of OHG *thanne* must have made a further move in the Bavarian varieties under discussion in the sense that the process has not stopped at *denn* or its reduced version 'n that we see in many varieties of spoken German. In Bavarian, 'n seems to have become obligatory and, as a consequence, also semantically empty (assuming that Bavarian speakers do not obligatorily refer to the addressee's contextual knowledge). Under these circumstances, there seems to have been a reanalysis of the clitic 'n as an agreement marker.¹⁴

This conclusion has been challenged by PANKAU (2020) on the basis of a comparison with the related Thuringian element *enn*. The author observes on the basis of limited corpus data that *enn* is highly frequent but not generally required

13 The numbers come from four different sentences of the same type.

14 There is a widely known example of a similar process in the grammar of Bavarian. This is the grammaticalization of the 2nd person pronouns *du* and *es*, which appear on the complementizer or on the finite verb in C and may coalesce with the full form of the corresponding pronoun. See BAYER (1984, 2013b). We will return to this in the conclusions.

or even obligatory. In particular, it is said to be incompatible with so-called ‘special questions’, i.e. questions that are not directly information-seeking. His examples include rhetorical questions¹⁵, attentive questions, guess and exam questions, expository questions and self-directed questions. Whatever the status of this conclusion is, it would imply that *enn* makes a semantic contribution, not identical but comparable to the semantic contribution of *denn*. Here, the comparison with Bavarian breaks down. The Bavarian dialects make no distinction between information-seeking questions and special questions, ignoring the irrelevant example of echo-questions (see note 11). The right conclusion must be that Bavarian *-n* shows more advanced grammaticalization than Thuringian *enn*, but see below.

4.2 ‘N in long *wh*-extraction

If so, a look at long distance *wh*-movement may be rewarding. The standard analysis in Generative Grammar is that there is no direct or single step trans-clausal long distance movement. Movement proceeds in smaller steps, in so-called *cycles*, or in minimalist terminology, in *phases*. So, what looks on the surface like unbounded movement is in fact the composition of smaller steps of local movement. Simplifying somewhat, the assumption is that a *wh*-element moves in a first step to the specifier of its minimal CP, and then may continue to move from there to higher destinations, either to a terminal *wh*-operator position or to a further intermediate landing site.

If so, one might expect that ‘*n* undergoes *wh*-agreement with a *wh*-phrase in SpecCP before it moves on into the next phase, leaving a trace – a phonetically *silent copy* – in SpecCP. Agreement in the transient position would then constitute novel evidence for an intermediate landing of the *wh*-phrase.

Recall here that we have already evidence for an intermediate copy of *wh*: Both *denn* and its reduced (or clitic) version ‘*n* are licensed in a dependent CP from which a *wh*-XP has been extracted. Within minimalist syntax, the natural conclusion is that *denn*/‘*n* is a so-called “goal” that is locally licensed by a c-commanding *wh*-“probe” albeit a silent one that has made an intermediate landing in SpecCP.¹⁶

15 Informal checking with a Thuringian native speaker’s judgements could not confirm this finding, at least not for rhetorical questions. The problem may be that PANKAU relies on published data, excluding native speakers’ judgements.

16 The relevant examples are repeated here for convenience:

- (i) *Welches Bild glaubst du dass er denn von mir haben könnte?* [= (3)]
 which picture believe you that he DENN of me have could
 ‘Which impression do you believe he could have of me?’
- (ii) *Wo meinst du, dass’n dein Nachbar so viel Geld herhat?* [= (7a)]
 where think you that-N your neighbor so much money from.has
 ‘Where do you think that your neighbor has so much money from?’

Agreement between an intermediate copy of *wh* and the agreement marker in the Bavarian C-position may be a different issue though. In order to approach this question, the speakers were asked to rate sentences with trans-clausal *wh*-extraction as well as *wh*-sentences that do not involve trans-clausal movement. Notice that in the latter there cannot be any activation of agreement between SpecCP and 'n because *wh* has not passed through SpecCP. However, one cannot exclude the possibility that agreement applies more than once. Therefore, the speakers were also asked to rate the sentences in (17b) and in (18b).

(17) Trans-clausal movement

- a. *Wo moanst, dass 'n der Brandl Rudi im Urlaub g'ween is?*
 where think.(you) that-N the B.R. in vacation been has
- b. *Wo moanst 'n, dass 'n der Brandl Rudi im Urlaub g'ween is?*

(18) No trans-clausal movement

- a. *Wer hot g'moant, dass 'n der Brandl Rudi im Urlaub g'ween is?*
 who has thought that-N the B.R. in vacation been has
- b. *Wer hot 'n g'moant, dass 'n der Brandl Rudi im Urlaub g'ween is?*

These four types of sentences received ratings that differ only minimally. The acceptance rate was between 0 and 3,5%; 14% were rated ?, and rejection rate was between 82,5 and 86%.

Thus, one can be sure that 'n does not undergo agreement with an empty *wh*-copy in SpecCP. If it would, there should at least be a difference between (17a) and (18a). Potential recursive agreement as in (17b) can be excluded either. With 14% ?, mid-range acceptance was uniform across the different types of examples. This suggests that no structural factor of long versus short movement was involved. Rather, the subjects may have been slightly confused.

We can conclude that 'n signals spec-head agreement where the *wh*-operator stops. Why is this an important result? Recall that the form 'n that can be observed in colloquial German, e.g.

- (19) *Wo meinst du, dass 'n dein Nachbar so viel Geld herhat?* [= (7a)]

can show up in the embedded CP. This 'n is obviously a weak form of *denn*. Apart from its clitic status that requires integration into the Wackernagel-complex, it is fully on a par with *denn*. As such it does not undergo spec-head agreement but rather probe-goal agreement as shown in (20).

- (20) *Wo meinst du, [CP ~~wh~~ dass 'n dein Nachbar ~~wh~~ so viel Geld her hat]?*
 probe goal
 [AGREE]

As is predicted by this analysis, ‘*n* contributes the semantics of *denn*, whereas the Bavarian *wh*-agreement-marker ‘*n* does not.¹⁷

If this difference holds water – and it will be shown shortly that it does – it would constitute independent evidence for the claim that in Bavarian *denn*/‘*n* has made a move in grammaticalization from a DiP to a *wh*-agreement-marker.

4.3 Extraction from V2-clauses or integrated parentheticals?

Let us now take a look at the role of ‘*n* in V2-complements of the type *Wer glaubst du hat recht?* ‘Who do you believe is right?’. Long *wh*-movement theories argue for an intermediate trace as in *Wer glaubst du ~~wer~~ hat recht?* This view is argued for by THIERSCH (1978), TAPPE (1981), GREWENDORF (1988), STAUDACHER (1990) and many others. The alternative is a theory that allows so-called *integrated parentheticals*. Under the latter, the proper analysis is one in which there is *wh*-movement from a simplex clause albeit one in which the inverted string *glaubst du* has been inserted as a parenthetical: *Wer – glaubst du – hat recht?*¹⁸ This view has been argued for – at least as a strong option – by REIS (1995, 2002) and by KIZIAK (2007). A comparative discussion by PANKAU / THIERSCH / WÜRZNER (2020) leads to the conclusion that in the absence of constraint violations (bridge verbs, negation, modal particles, *wh*-in-situ etc.) both analyses are possible, leading to what the authors call ‘spurious ambiguities’.¹⁹

Applied to the occurrence of ‘*n*, these two theories make different predictions, namely

17 As the reviewer of this article points out, in the Berlin dialect copy movement as in (i) is grammatical.

(i) *Wo gloobst ‘n, wo’r’n jewesen is?*
 where believe (you)-N where-he-N been has

This confirms the data reported in note 4, namely that this *-n* has not lost its semantics although it may cooccur with *denn*. Importantly, an embedded ‘*n* as in (i) would be sharply ungrammatical in Bavarian although the dialect allows copy movement.

18 Notice that this must be an option in grammar because the parenthetical can be shown to “float” through the clause up to the final position. (iii) is a case of so-called *Slifting* (ROSS 1973).

(i) *Wer hat – glaubst du – damals recht gehabt?*
 who has believe you then right had
 ‘Who was – do you believe – right at that time?’
 (ii) *Wer hat damals – glaubst du – recht gehabt?*
 (iii) *Wer hat damals recht gehabt – glaubst du?*

19 Thanks to the reviewer of this article for clarification of this important point. Evidence will follow immediately.

[A] Long *Wh*-movement

To the extent that 'n is obligatory in Bavarian, 'n will invariably appear right after the attitude verb in the matrix clause because this is where it agrees with the *wh*-phrase that has been moved to SpecCP.

[B] Short *Wh*-movement plus parenthesis

To the extent that 'n is obligatory in Bavarian, 'n will invariably appear right after the finite verb of the simplex clause from which movement has been launched; 'n will not appear in the parenthesis because the parenthesis is not touched by *wh*-movement.²⁰

- (21) a. *Wia moanst 'n is da Wally sei Radl af'n Bene sei*
 how think.(you)-N is the W. her bike on-N B. his
Hausdooch affi kemma?
 roof.top up come
 'How do you think Walburga's bike ended up on Benedikt's roof-top?'
 b. *Wia moanst is 'n da Wally sei Radl af'n Bene sei Hausdooch affi*
kemma?

(21a) is a case of trans-clausal movement with the structure in (22).

- (22) [_{CP} *Wia moanst 'n* [_{CP} ~~*wia*~~ *is da Wally sei Radl* ~~*wia*~~ *af'n ... affi kemma*]]?

The sentence was rated √ 79%, ? 14% and * 7%.

(21b) is a case of mono-clausal movement with an inserted parenthetical; its structure is given in (23).

- (23) [_{CP} *Wia – moanst – is 'n da Wally sei Radl* ~~*wia*~~ *af'n ... affi kemma*]]?

This sentence was rated √ 50%, ? 21% and * 29%.

The difference is clear enough. The long movement structure is the preferred one. Nevertheless, the short movement plus parenthetical structure cannot be discarded either. Given the availability of three grades for the evaluation, an acceptance rate of 50% is too high to count as chance-level.

As already said in note 18, parentheticals can also be inserted in lower positions. In these positions, they are necessarily free of interaction with *wh*-movement. Since Bavarian 'n is a marker for agreement with *wh*, it should be banned from insertions that can only be parentheticals. The speakers were offered three sentence with parentheses inserted in two clause-internal and in one clause-final position; the parentheses came with and without 'n. A selection of test sentences is given in (24) and in (25).

20 One of the subjects rejected all sentences of this type. For her, *wh*-extraction is only possible from *dass*-clauses. Another subject indicated that he would have preferred extraction from a *dass*-clause.

- (24) a. *Wia is 'n da Wally sei Radl af'n Bene sei Hausdooch moanst affi kemma?*
 b. *Wia is 'n da Wally sei Radl af'n Bene sei Hausdooch affi kemma moanst?*
- (25) a. *Wia is da Wally sei Radl af'n Bene sei Hausdooch moanst 'n affi kemma?*
 b. *Wia is da Wally sei Radl af'n Bene sei Hausdooch affi kemma moanst 'n?*

Sentences of type (24) yielded \surd 76,3%, ? 16,3% and * 7%. Sentences of type (25) yielded \surd 4,7%, ? 31% and * 64,3%. These results show that the speakers are highly aware of the structural conditions under which integrated parentheticals are admissible or not. Coming back to (21b) – repeated here for convenience:

- (26) *Wia moanst is 'n da Wally sei Radl af'n Bene sei Hausdooch affi kemma?*

We can now explain its rather high acceptance rate: Although word order in general suggests an analysis by which the *wh*-operator agrees with the linearly closest 'n, the parenthetical analysis is still available. As the response rates – \surd 50%, ? 21% and * 29% – show, this analysis was not consistently discarded by the subjects of this study, a result that conforms to a similar study by VIESEL (2011).

5 DENN, 'N, NACHA AND WH-DROP

At this stage, we know what the DiP *denn* is, and that it has a reduced form 'n which works semantically more or less like the full form. In Bavarian, however, 'n has made progress in moving toward a semantics-free form that appears obligatorily in the Wackernagel complex of *wh*-questions. Interestingly, Bavarian has yet another relevant element that has the characteristics of a DiP. This element is *nachher* 'afterwards', 'hereafter', 'subsequently', pronounced as *nacha*, *nachad* or as the reduced forms *na*, *no* or *nou*. Otto BEHAGHEL was one of the few to observe this.²¹

Das Fragepronomen *wer-waz* wird – wie auch die Frageadverbia (*wann denn*, *wie denn* usw.) – durch das Adverbium *denn* verstärkt. Die ursprüngliche Bedeutung ist die aus der Bedeutung *sodann* hervorgegangene ‚unter diesen Umständen‘ [...] Ein Seitenstück zu dieser Entwicklung bietet das bayerische *nachher*: *wo fehlt's nachher = wo fehlt's denn?* (BEHAGHEL 1923: 365)

21 The interrogative pronoun *wer-waz* and also the interrogative adverbials *wann denn*, *wie denn* etc. are strengthened by the adverb *denn*. The original meaning *sodann* derives from 'under these circumstances' [...] A sidetrack of this development is offered by Bavarian *nachher*: *wo fehlt's nachher = wo fehlt's denn?* 'What is wrong?'

Consider the question in (27):

- (27) *Wos duast nacha nexts Joah?*
 what do.(you) NACHA next year

Nacha is not a competitor of the temporal adverbial 'next year'. (27) does not show oddity due to redundancy. If *denn* is a DiP, and if BEHAGHEL's equation is correct, *nacha* may also be a DiP. Its primary meaning as a temporal adverb has been reduced to a more abstract meaning close to *denn*.²² One suspicion could be that *nacha* is a competitor of 'n. This was the assumption in BAYER (2012: 24). The present study shows that this assumption was on the wrong track; 'n and *nacha* (or *na*, *no*, *nou*) may well co-occur.

- (28) a. *Wos duast nacha do?*
 what do.(you) NACHA there
 b. *Wann kimmt nacha der?*
 when comes NACHA he
- (29) a. *Wos duast 'n nacha do?*
 b. *Wann kimmt 'n nacha der?*

The results for (28) are 38% √, 23% ? and 38,5% *. The results for (29) are 36% √, 53,5% ? and 10,5% *. These results are rather similar. Most importantly, one cannot say that the co-occurrence of 'n and *nacha* does extra harm. Thus, whatever this says about the status of *nacha* and its stage of grammaticalization, *nacha* is not a competitor of 'n. Neither *nacha* nor its reduced forms *no/nou* have clitic status. Unlike 'n, they are not part of the clitic complex following the finite verb in C as shown in (30), where the pronoun *eana* ('them') is strong and separates it from the complex in the C-position.

- (30) *Wos host('n) eana {nacha / no / nou } geem?*
 what have.(you)-N them NACHA NO NOU given

Having said this, we can now turn to another striking phenomenon, namely the possibility of *wh*-drop. As shown in BAYER (2010, 2013a), Bavarian – and most

- 22 (i) ??*Wos fäit da denn nacha?*
 what lacks you DENN NACHA
 'Why do you feel miserable?'

feels redundant. The two DiPs are obviously in semantic competition. If *nacha* can be interpreted as a semantically transparent temporal adverb, the redundancy is gone:

- (ii) *Wo gehst denn nacha hi?*
 where go.(you) DENN afterwards to
 'Where will you go afterwards?'

likely other spoken varieties too – shows the marked option of *wh*-drop: a normal *wh*-question with a deleted *wh*-constituent. The deleted element can only be *was*. Other *wh*-items cannot undergo deletion.²³ Questions of this type are usually brief, are uttered with excitement and mainly carry a critical or even angry undertone. Often, they are perceived as rude. They are proto-types of what OBENAUER (2006) identified as *disapproval questions*.

The native speakers in the study were asked to judge such questions under the presence or absence of *'n* or *nacha*. A context was suggested in which a child is busy building an object or manipulating an electrical outlet (instead of doing his/her homework). Dad detects this and says to the child:

- (31) a. *Was wead 'n des?*
 what becomes-N that
 b. *Was duast 'n do?*
 what do.(you)-N there

The rating is clear: \surd 100%, ? 0%, * 0%.

(32) shows the same examples with the *wh*-pronoun dropped.

- (32) a. ___ *wead 'n des?*
 b. ___ *duast 'n do?*

Here, the ratings become more diverse: \surd 23%, ? 62%, * 15%. The low acceptance rate may be a reflex of the marked character and the sub-standard nature of *wh*-drop; nevertheless, 62% of the ratings see *wh*-drop as marginally possible. With 15%, the rate of flat rejection is rather low.

Let us next consider *wh*-drop in examples without *'n*.

- (33) a. *Was wead des?*
 b. *Was duast do?*

The ratings are almost as good as those for (31): \surd 96%, ? 4%, * 0%.

- (34) a. ___ *wead des?*
 b. ___ *duast do?*

With *'n* missing, *wh*-drop breaks down dramatically: \surd 0%, ? 8%, * 92%. Here, rejection is almost complete. Thus, the somewhat mixed result of *wh*-drop under the presence of *'n* that is observed in (32) must be due to *'n*. Obviously, the presence of *'n* enables the speaker to grasp the fact that the clause type is interrogative. Without *'n*, the clause can obviously not even be identified as an interrogative.

23 The reason is roughly that *was* is maximally underspecified and can be recovered whereas other *wh*-pronouns can not. The actual conditions are more intricate. Interested readers may want to consult BAYER (2010, 2013a).

Given that *nacha* is a DiP that occurs frequently in Bavarian *wh*-clauses, an important question is whether the presence of *nacha* enables *wh*-drop in analogy to the presence of 'n. Here are the results.

- (35) a. *Wos wead nacha des?*
 what becomes NACHA that
 b. *Wos duast nacha do?*
 what do.(you) NACHA there

√ 92%, ? 0%, * 8%.

- (36) a. ___ *wead nacha des?*
 b. ___ *duast nacha do?*

√ 0%, ? 23%, * 77%. This result is remarkable. In comparison with *wh*-drop under the presence of 'n, acceptance sinks down to zero, and the rejection rate climbs from 15% to 77%. The middle confidence sinks from 62% to 23%.

I take these results as highly revealing for the syntax of 'n in Bavarian *wh*-questions. Although *nacha* may be able to identify the clause as a *wh*-question – and it does so to some limited extent – the formal licensing of *wh*-drop appears to be different. Under the theoretically inspired and empirically supported view that Bavarian 'n has developed into an agreement morpheme, we conclude that *wh* can be dropped because it is in a spec-head agreement relation in which the relevant Q-feature is shared by the two agreeing parts. No such relation holds between *wh* and *nacha* or its phonetic associates.

PANKAU (2020) challenges predecessors of the present analysis on the basis of data from the middle German dialect spoken in Thuringia. In Thuringian, dropping of *was* requires the presence of the lexical element *enn* although – and this is of central importance in his argumentation – *enn* is usually not obligatory in the dialect. PANKAU infers from this that *enn* cannot be an agreement morpheme, and that by analogy Bavarian *-n* cannot be an agreement morpheme either. He takes *enn* to be a “question particle” that differs from the DiP *denn* by unambiguously identifying a clause as a question.²⁴ The following example that he provides is taken from Cramer (1998).

²⁴ According to my native speaker intuitions, Bavarian *denn* is absent from conditionals as described in Häussler (2015) as well as from declaratives. In the latter, Bavarian would at best allow *dann*. I am almost sure that in Bavarian *denn* can occur only in questions. According to PANKAU's (2020) reasoning, the presence of *denn* should therefore license *wh*-drop. I doubt that it ever does. *Denn* was not included in the present study because, as mentioned in section 4, it is not too popular in Bavarian. As BAYER (2013b: §8) points out, it is not a clitic and therefore stays outside the Wackernagel-complex. Contrary to PANKAU's expectations, it does not license *wh*-drop, similarly to *nacha* and its PF-incarnations.

- (37) ~~Was~~ *issänn jetzt schonn widder?*
 what is.ENN now already again
 ‘What’s going on now again?’

Since *enn* is a unique identifier of the clause as a question, *was* can be dropped. In this analysis, *enn* is not in an agree relation with the constituent in SpecCP. It is like a DiP, but since it is weak, it gravitates to the Wackernagel position where it adjoins to the C-complex. Apart from this, its position in the clause is accidental. Had *enn* been a strong form, it could have also been in a lower position.

As we have said at the end of section 4.1, PANKAU argues at length that *enn* is confined to “true” questions, essentially excluding special questions. This implies that it retains pragmatically relevant features. It has been observed repeatedly, however, that this not the case in Bavarian. Recall that Bavarian ‘*n* emerges freely and obligatorily in all types of *wh*-questions. Thus, the identification of Bavarian ‘*n* with Thuringian *enn* that is suggested in PANKAU (2020: §5) is unjustified. One can argue that in the course of grammaticalization Bavarian ‘*n* has lost the pragmatic features that PANKAU attributes to Thuringian *enn*. This would salvage the present analysis of Bavarian.

There could be an even better solution though. Witness that PANKAU’s own example (37) is an unquestionable counterexample to his claim about special questions.²⁵ (37) does not ask for a true answer but rather expresses the speaker’s irritation about some ongoing event. It is a natural reaction to someone getting on the speaker’s nerves, e.g. by repeatedly trampling into his study. In Obenauer’s (2006) account and terminology, it is a model case of a ‘surprise-disapproval’ question. Thus, Thuringian *enn* seems to be happy after all in more than just information-seeking (“true”) questions. This makes it likely that Thuringian *enn* does resemble Bavarian ‘*n* but not in the direction that PANKAU has in mind but rather in the direction that I have suggested for Bavarian; *enn* may not be as advanced in grammaticalization as Bavarian ‘*n* but its uniqueness in *wh*-questions in combination with the phonologically weak status that drives it into the Wackernagel complex makes it a likely candidate for turning into a *wh*-agreement marker.

6 CONCLUSIONS

The present investigation of the clitic ‘*n* in Bavarian *wh*-questions goes beyond previous results by WEISS (2002) and BAYER (2012). Their results rest on introspection and impressionistic data according to which ‘*n* is obligatory and deprived of the usual meaning of the discourse particle *denn*. Although the native speakers who participated in the present study, due to their knowledge of Standard German, accept also *wh*-questions without ‘*n*, they could be shown to consistently

25 See also note 15 where another counter-example had been identified.

prefer *wh*-questions with 'n. Two other parts of the study explored the role of 'n in clausal complements from which a *wh*-phrase has been moved into the main clause. It has been established by various investigations that both *denn* and its reduced partner (*d*)n or clitic 'n are licensed in such complements although *denn* is by and large a root phenomenon. The mechanism is agreement between *wh* or its silent copy in SpecCP (intermediate trace) and the particle. This process is agreement at a distance, the so-called *probe-goal* agreement relation of minimalist syntax.²⁶ In Bavarian, the pervasive element 'n must have undergone a significant shift by which it has been reanalyzed as a *wh*-agreement morpheme. In this new function, it can only be licensed in a typically local spec-head configuration, not at long distance. Spec-head agreement is widely familiar from the work of RIZZI on *wh*-agreement and from the work of HAEGEMAN on negation.²⁷ In a clitic-language like Bavarian, this can be expected because 'n is invariably part of the clitic complex related to the finite verb in the C-position. In the present study, the position of 'n was also explored in cases of *wh*-movement from V2-complements. We could show that the preferred form is one in which a *wh*-phrase is moved from the clausal complement to SpecCP of the main clause. Nevertheless, the grammar of Bavarian seems to also permit a mono-clausal analysis with the insertion of a so-called integrated parenthetical like *meinst du*. A parenthetical of this kind is accepted in middle-field or final position but to a more limited extent also in the high position in which it competes with the matrix clause structure in trans-clausal *wh*-movement. Finally, the analysis of 'n as an agreement marker is supported by the stylistically limited phenomenon of *wh*-drop. *Wh*-drop is impossible in the absence of 'n. Interrogativity would not be recovered without it. But recoverability cannot be the whole explanation. Bavarian can also use the non-clitic discourse particle *nacha* 'nachher' by which interrogativity could be semantically recovered. Nevertheless, *wh*-drop in sentences with *nacha* but without 'n is consistently rejected. This suggests that *wh*-drop is only possible if its target is in a spec-head agreement relation with 'n.

The generalization that results from the present study falls rather neatly into the grammaticalization scenario that has been proposed by ABRAHAM's (1991) grammaticalization path and the extension proposed in BAYER (2012, 2013a). The discourse particle *denn* shrank to the clitic 'n and was then further grammaticalized to an asemanic agreement marker that agrees with the *wh*-phrase in SpecCP. Obligatorization and desemanticization are two sides of the same coin. This is precisely what is found in the grammar of Bavarian.²⁸

26 CHOMSKY (2000) and subsequent work on agreement.

27 RIZZI (1996) and HAEGEMAN (1995). For negation in Bavarian see especially WEISS (1998, 2002).

As pointed out in BAYER (2013b), there is a parallel with so-called complementizer inflection that must not be overlooked here. The 2nd person pronouns have started out as clitics but have then been reanalyzed in a way that obliterates their original representation. They appear to the learner as inflections, parallel to the verbal inflections. This must be the reason why these elements, *-st* (singular) and *-ts* (plural), can appear simultaneously with their corresponding strong pronouns without any flavor of redundancy.^{29 30}

The model of language change that conforms to both of these developments is highly plausible because it is highly conservative. One and the same frequent linear PF-structure is being processed across different stages of time while a structural reanalysis takes place in the background, unnoticed by the language users. To me, this conforms to an ideal scenario of change.

28 The phenomenon that this article tried to trace down may not be as exotic as it looks at first sight. MILAN VOCÍLKA (p.c.) drew my attention to the Czech dialect spoken in the region called Chodsko, Chodenland in German, in southwestern Bohemia, around the town of Domažlice. In this dialect, one finds *wh*-words to which very frequently (if not obligatorily) the particle *pa* is added. Instead of standard *Co tam píšeš?* ‘What are you writing there?’ or *Co tady děláš?* ‘What are you doing here?’, the Chodský dialect would use *Copa tam píšeš?* and *Copa tam děláš?*. Unsurprisingly, the literal meaning of *copa* appears to be ‘What then?’ or German ‘Was denn?’. It goes without saying that one would like to explore the exact conditions under which this particle comes into play, and how it emerged in this dialect.

29 (i) *Wenn-st du des ned mach-st*
 when-2SG you_{2SG} this not make-2SG
 ‘If you (singular) don’t do this’
 (ii) *Wenn-ts ihr/es des ned mach-ts*
 when-2PL you_{2PL} this not make-2PL
 ‘If you (plural) don’t do this’

30 The present analysis of ‘*n* as an agreement marker is supported by MUNARO / POLETTO’s (2005) investigation of what they call “sentence particles” in North-Eastern Italian dialects. In their § 3.1, the authors discuss reanalysis of the Lombard clitic personal pronoun *te* or *ti* (2ndSG) in the function of DiPs to the inflectional element *-t*. The clitic and the newly developed inflectional element can be present in the very same sentence.

REFERENCES

- ABRAHAM, WERNER (1991): The grammaticization of German modal particles. In: TRAUGOTT, ELIZABETH CLOSS / BERND HEINE (Hg.): *Approaches to grammaticalization*, vol. II. Amsterdam: Benjamins, 331–380.
- BAYER, JOSEF (1984): COMP in Bavarian syntax. In: *The Linguistic Review* 3, 209–274.
- BAYER, JOSEF (2010): *Wh*-drop and recoverability. In: ZWART, C. JAN-WOUTER / MARC DE VRIES (Hg.): *Structure preserved: Studies in syntax for Jan Koster*. Amsterdam: Benjamins, 31–39.
- BAYER, JOSEF (2012): From modal particle to interrogative marker: A study of German *denn*. In: BRUGÈ, LAURA / ANNA CARDINALETTI / GIULIANA GIUSTI / NICOLA MUNARO / CECILIA POLETTI (Hg.): *Functional heads: The cartography of syntactic structures*, vol. 7. Oxford: Oxford University Press, 13–28.
- BAYER, JOSEF (2013a): W-Frage, Fragepartikel und W-drop im Bairischen. In: HARNISCH, RÜDIGER (Hg.): *Strömungen in der Entwicklung der Dialekte und ihrer Erforschung: Beiträge zur 11. Bayrisch-Österreichischen Dialektologen Tagung in Passau, September 2010*. Regensburg: Edition Vulpes (Regensburger Dialektforum 19), 188–207.
- BAYER, JOSEF (2013b): Reanalyse und die Lizenzierung von Nullformen: zwei Beispiele aus dem Bairischen. In: ABRAHAM, WERNER / ELISABETH LEISS (Hg.): *Dialektologie in neuem Gewand. Zu Mikro-/Varietätenlinguistik, Sprachenvergleich und Universalgrammatik*. Hamburg: Buske (Linguistische Berichte, Sonderheft 19), 29–46.
- BAYER, JOSEF (2017): Clitic *denn* and *wh*-movement. In: MAYR, CLEMENS / EDWIN WILLIAMS (Hg.): *Festschrift für Martin Prinzhorn*. Wien: Universität Wien, Institut für Sprachwissenschaft (Wiener Linguistische Gazette 82. Themenheft 11-11-17), 1–11.
- BAYER, JOSEF (2018): Criterial freezing in the syntax of particles. In: HARTMANN, JUTTA / MARION JÄGER / ANDREAS KONIETZKO / SUSANNE WINKLER (Hg.): *Freezing: Theoretical approaches and empirical domains*. Berlin/Boston: De Gruyter Mouton, 225–263.
- BAYER, JOSEF / HANS-GEORG OBENAUER (2011): Discourse particle, clause structure, and question types. In: *The Linguistic Review* 28, 449–491.
- BAYER, JOSEF / JANA HÄUSSLER / MARKUS BADER (2016): A new diagnostic for cyclic *wh*-movement: Discourse particles in German questions. In: *Linguistic Inquiry* 47 (4), 591–629.
- BEHAGHEL, OTTO (1923): *Deutsche Syntax. Eine geschichtliche Darstellung*. Vol. 1: Die Wortklassen und Wortformen. Heidelberg: C. Winter.
- CHOMSKY, NOAM (2000): Minimalist inquiries: The framework. In: MARTIN, ROGER / DAVID MICHAELS / JUAN URIAGEREKA (Hg.): *Step by step: Essays on Minimalist syntax in honor of Howard Lasnik*. Cambridge, MA: MIT Press, 89–155.
- CRAMER, ANDREAS M. (1998): *Kleines Wörterbuch Goth'sch*. Gotha: Selbstverlag.
- CZYPIONKA, ANNA / MARIBEL ROMERO / JOSEF BAYER (2021): Question-sensitive discourse particles at the interfaces of syntax, semantics and pragmatics – an experimental approach. In: *Glossa: A Journal of General Linguistics* 5 (1), 24. 1–34.
- EROMS, HANS-WERNER / ROSEMARIE SPANNBAUER POLLMANN (Hg.) (2006): *Bayerischer Sprachatlas / Regionaltel V: Sprachatlas von Niederbayern (SNiB) / Band 1: Einführung mit Syntaxauswertung*. Heidelberg: Universitätsverlag Winter.
- GREWENDORF, GÜNTHER (1988): *Aspekte der deutschen Syntax: eine Rektions-Bindungs-Analyse*. Tübingen: Gunter Narr Verlag.
- HACK, FRANZISKA MARIA (2014): The particle *po* in the varieties of Dolomitic Ladin – Grammaticalisation from a temporal adverb to an interrogative marker. In: *Studia Linguistica* 68 (1), 49–76.
- HAEGEMAN, LILIANE (1995): *The syntax of negation*. Cambridge: Cambridge University Press.
- HÄUSSLER, JANA (2015): Wenn *denn* denn lizenziert ist: The German discourse particle *denn* in conditionals. In: BRANDNER, ELLEN / ANNA CZYPIONKA / CONSTANTIN FREITAG / ANDREAS TROTZKE (eds.): *Webschrift for Josef Bayer*, 83–88. [available under: http://ling.unikonstanz.de/pages/WebschriftBayer/2015/contents_files/Häussler.pdf]

- KIZIAK, TANJA (2007): Long extraction or parenthetical insertion? Evidence from judgement studies. In: DEHÉ, NICOLE / YORDANKE KAVALOVA (Hg.): *Parentheticals*. Amsterdam: Benjamins, 121–144.
- LEHMANN, CHRISTIAN (2015): *Thoughts on grammaticalization*. 3rd edition. Berlin: Language Science Press (Classics in Linguistics 1).
- MUNARO, NICOLA / CECILIA POLETTI (2005): On the diachronic origin of sentential particles in North-Eastern Italian dialects. In: *Nordic Journal of Linguistics* 28 (2). 247–267.
- OBENAUER, HANS-GEORG (2006): Special interrogatives – left periphery, *wh*-doubling, and (apparently) optional elements. In: DOETJES, JENNY / PAZ GONZALVES (Hg.): *Romance languages and linguistic theory 2004. Selected papers from ‘Going Romance 2004’*. Amsterdam: Benjamins, 247–273.
- PANKAU, ANDREAS (2020): The question particle *enn* in Thuringian and its implications for the analysis of *wh*.drop. In: Speyer, Augustin / Julia Hertel (Hg.): *Syntax aus Saarbrückener Sicht 3. Beiträge der SaRDiS-Tagung zur Dialeksyntax*. ZDL-Beihefte 180. Wiesbaden/Stuttgart Fraz Steiner Verlag, 255–280.
- PANKAU, ANDREAS / CRAIG THIERSCH / KAY-MICHAEL WÜRZNER (2020): Spurious ambiguities and the parenthetical debate. In: HANNEFORTH, THOMAS / GISBERT FANSELOW (Hg.): *Language and Logos*. Berlin: Akademie-Verlag, 129–146.
- PLANK, FRANS (2014): *Was machst du so? Manuskript*, Universität Konstanz.
- REIS, MARGA (1995): Extractions from verb-second clauses in German? In: LUTZ, ULI / JÜRGEN PAFEL (Hg.): *On extraction and extraposition in German*. Amsterdam: Benjamins, 45–88.
- REIS, MARGA (2002): *Wh*-Movement and integrated parenthetical constructions. In: ZWART, C. JAN-WOUTER / WERNER ABRAHAM (Hg.): *Studies in comparative Germanic syntax*. Amsterdam: Benjamins, 3–40.
- RIZZI, LUIGI (1996): Residual verb second and the *wh*-criterion. In: BELLETTI, ADRIANA / LUIGI RIZZI (Hg.): *Parameters and functional heads. Essays in comparative syntax*. New York/Oxford: Oxford University Press, 63–90.
- ROSS, JOHN R. (1973): Slifting. In: GROSS, MAURICE / MARCEL SCHÜTZENBERGER (Hg.): *The formal analysis of natural languages*. The Hague: Mouton, 133–172.
- STAUDACHER, PETER (1990): Long movement from verb-second-complements in German. In: GREWENDORF, GÜNTHER / WOLFGANG STERNEFELD (Hg.): *Scrambling and barriers*. Amsterdam: Benjamins, 319–340.
- TAPPE, HANS THILO (1981): *Wer glaubst du hat recht? Einige Bemerkungen zur COMP-COMP-Bewegung im Deutschen*. In: KOHRT, MANFRED / JÜRGEN LENERZ (Hg.): *Sprache. Formen und Strukturen*. Tübingen: Niemeyer, 203–212.
- THIERSCH, CRAIG (1978): *Topics in German Syntax*. Ph.D. thesis. MIT.
- VIESEL, YVONNE (2011): *glaubt er, glaub ich, glaub*. Integrierte V1-Parentesen, Extraktion aus V2-Komplementen, Grammatikalisierung. In: *Linguistische Berichte* 226, 129–169.
- WEISS, HELMUT (1998): *Syntax des Bairischen*. Studien zur Grammatik einer natürlichen Sprache. Tübingen: Niemeyer.
- WEISS, HELMUT (2002): Three types of negation: A case study in Bavarian. In: BARBIES, SJEFF / LEONIE CORNIPS / SUSANNE VAN DER KLEIJ (Hg.): *Syntactic microvariation*. Amsterdam: Meertens Institute (Meertens Institute Electronic Publications in Linguistics 2), 305–332.
- ZIMMERMANN, MALTE (2011): Discourse particles. In: VON HEUSINGER, KLAUS / CLAUDIA MAIENBORN / PAUL PORTNER (Hg.): *Semantics. An international handbook of natural language meaning*. Berlin/New York: De Gruyter Mouton (Handbücher zur Sprach- und Kommunikationswissenschaft [HSK] 33.2), 2011–2038.