

Wenn {aber} der Topf {aber} nun ein Loch hat ... Adversative *aber* in adverbial clauses in (historical) German

Anne Breitbarth
Ghent University

Abstract

While the literature on adversative *aber* in German to date has almost exclusively focused on independent clauses, and at best treated its occurrence in adverbial clauses in passing as a variant of postinitial *aber* in independent clauses (Métrich and Courdier 1995, Pasch et al. 2003), the current paper focuses on the distribution and interpretation of adversative *aber* in adverbial clauses. It is shown that *aber* can have two different scopes, either contrasting two clauses, or two smaller constituents. These scopes are shown to have different prosodic correlates. It is argued that *aber* occupies the specifier of a functional projection in the upper middle field, and that it interacts with the mapping from syntax to prosody. Some displacements are argued to be interface-driven, to enable constituents to reach or avoid positions where they can be assigned a (contrastive) pitch accent. The diachronic development of adversative *aber* is shown to interact with the diachronic development of the Wackernagel position for unstressed pronouns.

Keywords: *adversative connector, adverbial clauses, syntax-prosody interface, German*

1. Introduction

Adversative *aber* ‘but, however’ can occur in different syntactic positions in German (e.g. Pasch et al. 2003, Sæbø 2003). As can be seen in (1), in independent declarative clauses, it can occupy (i) the pre-clausal coordinator position,¹ (ii) the so-called postinitial position (after the first constituent), (iii) the beginning of the middle field, and, possibly, (iv) a further position in the middle field, although it is superficially not clear whether this arises through displacement of *der Mining-Prozess* in (1).

- (1) {aber} noch {aber} verschlingt {aber} der Mining-Prozess {aber} enorme Energiemengen
PRT still PRT devours PRT the mining process PRT enormous energy amounts
(i) (ii) (iii) (iv)

‘At the moment, however, the mining process still devours an enormous amount of energy.’

(adapted from <https://www.deutschlandfunk.de>)

According to Büring and Hartmann (2015), adversative *aber* is both a syntactic coordinator and a(n adverbial) particle that functions as a semantic coordinator when it is not in position (i) (cf. also Pasch et al. 2003, Ferraresi 2018). However, unlike other adversative particles that Büring and Hartmann analyse as semantic coordinators such as *jedoch* or *allerdings* ‘however’, *aber* cannot occupy the initial position in a V2-clause leading to inversion, but it shares with them the ability to occur in postinitial position (ii), which, as variously noted in the literature (Pasch et al. 2003, Volodina and Weiß 2010, Breindl 2011, Catasso 2015, Speyer and Weiß 2018), appears to violate the V2-constraint that normally holds in German.

The literature to date has exclusively focused on *aber* in independent clauses.² The present paper will show that interesting insights about the syntax of *aber* can be gained from looking at its distribution in dependent, particularly adverbial, clauses. In such clauses, only the pre-clausal coordinator position and

¹Pasch et al. (2003) call this the null position (*Nullposition*).

²Almost exclusively. Breindl (2011:28–29) briefly touches upon the question of whether adverbial connectors that can occur in the postinitial position in main clauses, including *aber*, in fact occupy the Wackernagel position; for this she looks at their position w.r.t. weak pronouns in the middle field of adverbial clauses. There is no further discussion of the data, nor an analysis.



the two middle field positions are regularly available, as illustrated in (3b) using an attested example (3a).³ Weak pronouns can only occur before *aber* in the middle field in present-day German, in the so-called Wackernagel position immediately following the complementizer (3c).

(3) *Present-day German*

- a. Wenn **aber** Flüchtlinge keine Sicherheit und Lebensperspektive in Afrika finden, sind
if however refugees no security and life.perspective in Africa find are
 sie gezwungen, ihren Weg Richtung Europa fortzusetzen.
they forced their way direction Europe to.continue
 ‘If, however, refugees do not find security and perspectives in Africa, they are forced to continue their way towards Europe.’
 (<http://www.europe-infos.eu/europa-verraet-seine-christlichen-werte>)
- b. {**aber**} wenn {**aber**} Flüchtlinge {**aber**} keine Sicherheit und Lebensperspektive in Afrika finden
- c. {**aber**} wenn {***aber**} sie {**aber**} keine Sicherheit und Lebensperspektive in Afrika finden

It can be observed that *aber* can have two different scopes: it either scopes over the entire adverbial clause, that is, it contrasts two propositions, or the XP preceding or following *aber* (*Flüchtlinge* in (3b)) will receive a contrastive interpretation, that is, as contrasted with another XP in the context. However, if a pronoun instead of a full DP is used, as in (3c), it can only precede *aber* in present-day German, not follow it, though without receiving the contrastive interpretation. In (3c), only the wide scope interpretation of adversative *aber* is available. Yet, historically, as we will see in section 4, pronouns could also follow *aber* in adverbial clauses, (4), both asyndetic V1-conditionals (4a) and syndetic ones (4b).

(4) *Middle High German*

- a. wil **aber** er sin niht tvn / . so so mag in der vogt niht genoeten
wants PRT he it.GEN NEG do so so may him the reeve NEG force
 ‘If, however, he does not want to do it, the reeve may not force him.’
 (Augsburg, *Stadtbuch* 70rb,21, 1276-81)
- b. ob **aber** er ir niht vollichlichen mach begern so beger er doch mit dem wissagen
if PRT he her.GEN NEG fully may desire so desire he still with the prophet
 daz er begerende werde
that he desiring become
 ‘If, however, he cannot desire her fully, he may still desire with the prophet that he become desiring.’
 (*Baumgarten geistlicher Herzen* 103va,15, 1270-1290)

In the current paper, I argue that the two scopes of *aber* —contrast between two clauses or between two subclausal XPs— are a consequence of *aber*’s interaction with the syntax-prosody interface. Furthermore, I will argue, based on historical corpus data, that the loss of the order $C^{\circ} > aber > \text{weak pronoun}$ is the

³An anonymous reviewer remarks that in spontaneous speech, post-clausal positioning of *aber* is also marginally possible, giving the example in (2). I will not consider this use here.

- (2) Es kann sein **aber**, dass ich mich täusche.
it can be PRT that I REFL mistake
 ‘It is possible, however, that I am mistaken.’
 (http://www.perfektibilistenorden.de/archiv/topic_2572_18.html)

consequence of a diachronic change in the position of *aber* on the one hand, and a diachronic change in the kinds of positions weak pronouns can target on the other. In the present paper, I focus on *aber*, and disregard other particles that behave similarly to *aber* in the postinitial and middle field positions such as *allerdings*, *hingegen*, *immerhin*, *indessen*, *jedoch*, *nämlich*, *nun*, *schließlich*, or *übrigens*, because unlike *aber*, they are only semantic coordinators, not also syntactic ones.

2. Intonation and the scope of adversative *aber* in adverbial clauses

Pasch et al. (2003:498) observe for independent clauses with “postinitial” adversative *aber* and other elements they call connective adverbs⁴ that they show two intonation contour peaks (see also Breindl 2011). The information focus of the clause receives the nuclear pitch accent, while the topic preceding *aber* receives secondary pitch accent, and appears to be contrasted (Pasch et al. 2003:498).

- (5) Die ParTEI **aber** hat gute JuRISTen.
the party PRT has good lawyers
 ‘The party, however, has good lawyers.’

(after Catasso 2015; Die Zeit 2000)

According to Breindl (2011), the specific information-structural function of postinitial adverbial connectors like *aber* is the signalling of a topic shift. Lenker (2014:32) also provides evidence for this (6), showing that familiar topics are excluded. Middle field *aber* is not restricted in this way (cf. also Büring and Hartmann 2015:56), which leads Catasso (2015:335) to differentiate between connector *aber* and postinitial ‘particle’ *aber*.⁵

- (6) Der Dieb wollte schnell fliehen.
the thief wanted quickly escape
- a. Das Tor **aber** war gut bewacht. b. Er (***aber**) schaffte es (**aber**) nicht.
the gate PRT was well guarded he PRT made it PRT NEG

(adapted from Lenker 2014:32)

Turning to adverbial clauses with *aber*, it can be observed that two scopal interpretations of *aber* are possible in principle, and they correlate with different intonational contours. In the first, the information focus bears the nuclear pitch accent, and there is potentially a secondary stress on the element in C^o, that is, the complementizer, or, in case of asyndetic (V1) conditional clauses, the finite verb. In this case, *aber* has to immediately follow C^o, (7a). In the second, the XP adjacent to *aber* (typically the subject) is contrastively stressed, similarly to *aber* in postinitial position in independent clauses. The XP can either precede or follow *aber* in this case, (7b).⁶

- (7) a. wenn/WENN **aber** der Topf nun ein LOCH hat...
if PRT the pot PRT a hole has
- b. wenn {**aber**} der TOPF {**aber**} nun ein Loch hat...
if PRT the pot PRT PRT a hole has

⁴Besides *aber*, Pasch et al. (2003) enumerate *allerdings*, *also*, *dagegen*, *indes(sen)*, *nämlich*, *schließlich*, *übrigens* and *vielmehr*.

⁵Catasso would probably only call pre-clausal (i) *aber* a connector; for Büring and Hartmann (2015), also *aber* in position (iii) in (1) above would be a connector.

⁶From a German folk song, “Wenn der TOPF aber nun ein Loch hat...” ‘But (what) if the pot has a hole?’; cf. <https://www.youtube.com/watch?v=BtuRHDIG8vY>.

These possibilities are evident in spontaneously spoken language.⁷ The most frequently attested contour in the FOLK corpus has the nuclear stress on the information focus, as in main clauses, (8).⁸

- (8) a. wenn du **aber** zuRÜCKdenkst merkst du das bei dir dass du zu wenig liebe
 if you PRT back.think realise you that with you that you too little love
 gekriegt hast
 received have
 ‘If you think back, however, you realise it with yourself that you have received too little love.’
 (FOLK_E.00286_SE.01_T.01)
- b. und da **aber** die meisten grade DRIN saßen von unsern [freu]nden dann sind die halt
 and as PRT the most just inside sat of our friends then are they MP
 raus
 out
 ‘... and as most of our friends were sitting inside, however, they went outside then.’
 (FOLK_E.00286_SE.01_T.01)

A secondary pitch accent on C° is possible; in four out of nineteen cases of *wenn X aber*, in one case of *wenn aber X*, and in the only case of *weil X aber*, *wenn/weil* receives secondary stress (9).⁹

- (9) a. WENN er **aber** so sicher ist (.) dass es ein IRRtum sein muss, warum geht er
 if he PRT so sure is that it a misunderstanding be must why goes he
 dann nicht einfach
 then NEG simply
 ‘If, however, he is so sure that it must be a misunderstanding, why doesn’t he leave?’
 (FOLK_E.00120_SE.01_T.01)
- b. WEIL nun **aber** christus durch die unvergleichlich herrliche macht des vaters von
 because now PRT Christ by the incomparably magnificent power of.the father from
 den toten AUferstanden ist °h ist auch unser leben neu geworden
 the dead risen is is also our life new become
 ‘Because now, however, Christ has risen from the dead by the incomparably magnificent power
 of the father, our life, too, has become renewed.’
 (FOLK_E.00193_SE.01_T.02)

All apart from one case, to which we turn presently, have neutral sentence stress, whether or not *wenn* (or *weil*) receives secondary pitch accent, that is, the nuclear pitch accent falls on the information focus, either the verbal predicate as in (8), or on the constituent immediately preceding it, (10) (cf. also Cinque 1993).

⁷The following data come from the FOLK corpus of spoken German (<http://agd.ids-mannheim.de/folk.shtml>, access via the *Datenbank Gesprochenes Deutsch*, https://dgd.ids-mannheim.de/dgd/pragdb.dgd_extern.welco.me). The corpus contains both audio recordings of spoken conversations and transcripts of these. I searched for strings like "wenn % aber" (with an arbitrary string % between the complementizer and *aber*) and "wenn aber", not only for *wenn* ‘if’ but also *während* ‘while’ (both temporal and concessive), *als* ‘when’, *nachdem* ‘after’, *bis* ‘until’, *weil* ‘because’, *da* ‘as (causal)’, and *obwohl* ‘although’. The search resulted in nineteen relevant cases of the string *wenn X aber*, one of *weil X aber*, eight of the string *wenn aber X*, two of the string *da aber X*, one of the string *obwohl X aber*, and one of the string *weil X aber*. False starts and other irrelevant cases (e.g. complementizer and *aber* belonging to utterances of separate speakers) were removed from the data. In addition, there were five cases of *aber wenn X*, which we disregard for the moment. The spelling in the examples follows the FOLK transcriptions, except for the capitalization of stressed syllables.

⁸There is an extraposed PP (*von unsern freunden*) in (8b), which is deaccented.

⁹Clearly, (9b) is read speech, and therefore conceptually written, not oral, contrary to the otherwise spontaneous conversational speech in the FOLK corpus.

- (10) a. wenn dann **aber** zum beispiel zehn LEUTE komm un mir jeder zwei cent schenkt
if then PRT for example ten people come and me each two cents gives
 dann bin ich ja wieder im plus
then am I PRT again in.the plus
 ‘If, however, for instance ten people come and each gives me two cents, I’m in credit again.’
 (FOLK_E.00291_SE.01_T.01)
- b. wenn **aber** einer das (.) genau in der MITte haben will (.) danne machst du diese
if PRT one that exactly in the middle have wants then make you this
 konst äh diese (.) konstellation noch mal so wie ich (.) un dann passt das
const this constellation yet again so like I and=then fits it
 ‘If, however, someone wants to have this exactly in the middle, you can make this constellation
 one more time like me, and then it fits.’
 (FOLK_E.00169_SE.01_T.02)

The second pattern, more marked, places contrastive stress on a non-pronominal XP that is not the informational focus of the clause. In the FOLK corpus, there is only one example of this kind, and the contrastively stressed XP follows *aber* (11), with the adverb *plötzlich* ‘suddenly’ intervening.

- (11) wenn **aber** [plötzlich] [die bundes (.) BILdungsministerin] ins visier der plagiatsjäger
if PRT suddenly the federal education minister in.the focus of.the plagiarism.hunters
 gelangt °h wird_s aber doch wieder interessant
gets becomes=it PRT yet again interesting
 ‘If however the federal minister of education gets into the focus of the the plagiarism hunters, it
 becomes much more interesting again.’
 (FOLK_E.00163_SE.01_T.01)

A pattern that is not attested in the FOLK, but is easily elicitable (cf. (7b)), is one where the contrastively stressed XP precedes *aber* (12), both in syndetic (*wenn...*) and asyndetic (V1) conditional protases.

- (12) a. wenn [die bundes (.) BILdungsministerin] **aber** [plötzlich] ins visier der
if the federal education minister PRT suddenly in.the focus of.the
 plagiatsjäger gelangt °h wird_s aber doch wieder interessant
plagiarism.hunters gets becomes=it PRT yet again interesting
- b. Gelangt [die bundes (.) BILdungsministerin] **aber** [plötzlich] ins visier der
get the federal education minister PRT suddenly in.the focus of.the
 plagiatsjäger °h wird_s aber doch wieder interessant
plagiarism.hunters becomes=it PRT yet again interesting

Summing up, in terms of linear order, there are two possibilities attested, with adversative *aber* preceding full XPs, but following pronouns. In terms of intonation, the neutral pattern places nuclear pitch accent on the focus of the sentence, and possibly a secondary pitch accent on the complementizer *wenn*. Another intonational pattern, whereby a contrastive pitch accent falls on a full (non-pronominal) XP that is not the information focus of the clause, appears to be marked. In the FOLK corpus, this intonational pattern was found only once in all syndetic conditional clauses containing *aber*.

In what follows, I will show that these two contours are associated with two different scopal interpretations of *aber*: sentential scope of *aber* in the former case, and narrow, contrastive scope over the XP in the latter. In both cases, *aber* marks a contrastive topic (Sæbø 2003), for which the context supplies a potential alternative (which can be implicit), the insertability of which into the *aber*-clause is denied. What

is different in each case is the size of the contrastive topic: in case of the sentential scope, it is the entire adverbial clause;¹⁰ in case of contrastive XPs, it is only the XP in question. If we assume Sæbø's (2003:264) semantics of *aber* (13), we can analyse sentential-scope *aber* in (14) from the FOLK corpus as in (15).¹¹

(13) The Semantics of *aber*

$\sigma \models \phi \text{ aber } \tau$ iff $\sigma \models \neg\phi [\mathcal{T}(\phi) / \alpha]$ for some alternative α and $\sigma \models \phi \tau$ (Sæbø 2003:264)

(14) also normalerweise geht dann da so das wasser halt so durch °h (.) [...] wenn grad
so normally passes then there so the water PRT so through [...] if just
 kein wellenbad angesagt is °h und wenn **aber** wellen produZIERT werden sollen dann
no wave pool happening is and if PRT waves produced be shall then
 wird das statisch °h und es drückt einfach nur das wasser so weg
is that static and it presses simply only the water so away

‘So, normally, the water passes through there like this if no [artificial] waves are to be generated. If, however, waves are to be generated, then it becomes static and simply presses the water away.’

(FOLK_E_00220_SE_01_T_03)

(15) $\mathcal{T}(\phi) = (\iota w. \text{waves are to be generated in } w)$
 $\alpha = (\iota w. \text{no waves are to be generated in } w)$

$\sigma \models \neg\phi [\mathcal{T}(\phi) / \alpha]$ iff

$\sigma \models \neg(\text{it becomes static}) [\iota w. \text{waves are to be generated in } w / \iota w. \text{no waves are to be generated in } w]$ iff

$\sigma \models \neg(\iota w. \text{no waves are to be generated in } w \rightarrow \text{it becomes static})$

In a similar fashion, this can be applied to contrastive narrow-scope *aber*, (17). Example (11) is repeated in (16) including its context.¹² The context conversationally implicates various alternative perpetrators of scientific misconduct, which are contrasted with the federal minister of education.

(16) neue (.) plagiatsaffären (.) erpfuschte dokortitel und sonstige wissenschaftliche
new plagiarism affairs fraudulently acquired Ph.D. titles and other scientific
 unsauberkeiten empören seit guttenberg schon lange nicht mehr so (0.21) wenn
misconducts scandalize since Guttenberg already long NEG anymore PRT if

aber [plötzlich] [die bundes (.) BILDungsinisterin] ins visier der plagiatsjäger
 PRT *suddenly the federal.education.minister in.the focus of.the plagiarism.hunters*

gelangt °h wird_s aber doch wieder interessant
gets becomes=it PRT yet again interesting

‘New plagiarism affairs, fraudulently acquired Ph.D. titles, and other cases of scientific misconduct no longer scandalize [the public] since the Guttenberg affair. If however the federal minister of education gets into the focus of the the plagiarism hunters, it becomes much more interesting again.’

(FOLK_E_00163_SE_01_T_01)

¹⁰Cf. Ebert et al. (2014) for an analysis of at least conditionals as topics.

¹¹I assume a semantic analysis of conditional clauses following Bhatt and Pancheva (2006), who treat conditionals as relative clauses over the world variable *w*. Worlds can be topics to be contrasted with contextual alternatives (Sæbø 2003:264).

¹²We neglect here the second *aber*, in the matrix clause of the conditional protasis *wird's aber doch wieder interessant* ‘(then) it becomes much more interesting again’. It would be a sort of copying.

According to Ferraresi, *aber* reaches the postinitial position by moving together with the initial XP from its middle field position. The ultimate position in the left periphery depends on the features of the XP: Ferraresi argues that postinitial *aber* is compatible not only with contrastive topics (like *die Kaffeetassen* in (19)), but also frame adverbials (like *nächstes Jahr* in (18)), which she analyses as occupying SpecFinP. However, from the context it appears that *länger gedauert* ‘took longer’ is contrasted with *nächstes Jahr* ‘next year’ (i.e., an unexpectedly soon date), regardless of the position of *aber* (middle field as in (18) or postinitial), which is why the analysis as the frame adverbial occupying SpecFinP is not quite convincing here.

- (19) [CP [ContrP die Kaffeetassen_i [ContrP **aber** denke ich, dass Otto t_i gespült hat.]]]
 the coffee cups PRT *think I that Otto washed has*
 ‘The coffee cups however, I think Otto washed them.’

(Ferraresi 2018:100)

Besides the assumption of adjunction to TopP below the specifier, there are two problems with Ferraresi’s proposal. First, according to Frey (2005), whose TopP at the left edge of the middle field Ferraresi identifies as the position of middle field *aber*, only familiar topics and light adverbs pass through this TopP to the left periphery, by formal movement. Contrastive topics undergo long movement from their base position under Frey’s analysis, as is also evident from (19), and do not pass through SpecTopP. Assuming, as Ferraresi does, that *aber* is adjoined below the XP to be fronted and fronts together with it, this would require that *aber* would have to adjoin to different positions in the middle field, depending on the ultimate target of XP-*aber* in the left periphery (ContrP or FinP). In the case of contrastive topics, this may be lower than what Ferraresi’s diachronic analysis of *aber* undergoing upwards reanalysis from lower aspectual projections (see section 4 below) would suggest. Also, it would be surprising if *aber* were adjoined to TopP below the background/familiar topic in (18) when in the equivalent clause with postinitial *aber* (*Nächstes Jahr aber wird den Karl eine polnische Gräfin heiraten*), it should have been adjoined to the base position of *nächstes Jahr* ‘next year’. Second, the semantics of *aber* introduces a presupposition that a topic is contrasted with some (rejected) alternative (Sæbø 2003). This means that speakers/hearers automatically try to identify the topic and its alternative. In case of *aber* in postinitial position, where *aber* can signal resumption or turning point, besides contrast (cf. Métrich and Courdier 1995), the initial XP is first construed as a contrastive topic. Also shifting topics in this position can be construed as “(p-)kontrast” in the sense of Speyer (2007). If this is contextually excluded, as with *leider* in Ferraresi’s example (20), another topic to be replaced by an alternative from the context is construed pragmatically, in this case (given Ferraresi’s context —*unter der Leitung von erfahrenen Skilehrern üben*) ‘(practice) under the guidance of experienced ski instructors’) probably *das Schülerskirennen* ‘the learners’ ski race’.

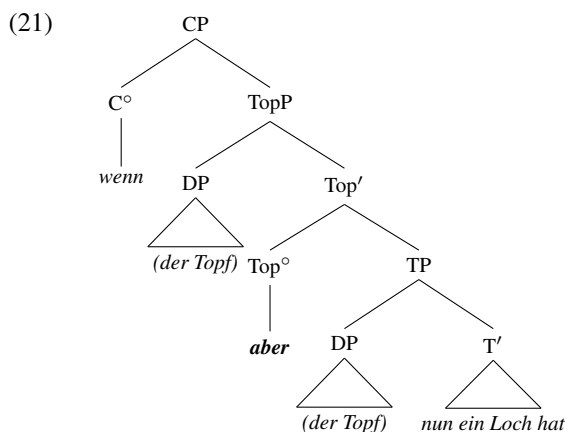
- (20) [CP [ContrP [FinP leider [FinP **aber** konnte das Schülerskirennen nicht durchgeführt
 unfortunately PRT *could the learners’ ski race* NEG *undertaken*
 werden.]]]]
 be

‘Unfortunately, however, the learners’ ski race could not take place.’

(Ferraresi 2018:100)

While adversative *aber* could in principle still be adjoined to a suitable high projection in the middle field (though rejecting the particulars of Ferraresi’s proposal), there is a large body of literature arguing against adjunction both on theoretical and empirical grounds (for adverbs specifically, see Cinque 1999), leaving the possibility that *aber* is the specifier of a designated functional projection. In this case, however, it is not clear how *aber* connects syntactically to the concrete topic affected by the contrast presupposition it triggers, particularly in the case when it is not the entire clause that is in the scope of *aber*, but a sub-clausal constituent. We return to this below.

The third possibility, viz. taking adversative *aber* to be a functional head, has not been proposed for adversative *aber* in the middle field, but is assumed for postinitial *aber* by Catasso (2015) and Speyer and Weiß (2018). Taken together with Ferraresi's (2018) arguments for *aber* being associated with Frey's TopP high in the middle field, one might consider whether Catasso's analysis can be extended to the middle field, with *aber* occupying the head of a high functional projection in the middle field, for instance a TopP, (21).



If *aber* occupied a functional head position not only in the left periphery (and in the pre-clausal coordinator position, as already proposed by Ferraresi 2018), but also in the middle field, its behaviour would be syntactically much more uniform, and it would not sometimes be a phrasal element (whether adjunct or specifier) and sometimes a head. However, one important difference between postinitial and middle field *aber* is that postinitial *aber* cannot combine with given phrases in initial position (Breindl 2011, Lenker 2014), as it always identifies the initial phrase as either contrast, resumption, or turning point (Métrich and Courdier 1995). In the middle field, on the other hand, *aber* typically contrasts entire clauses.¹⁴ Besides, it is not universally accepted that information structural functions such as topic, focus or contrast should be encoded as formal features in syntax.¹⁵ Furthermore, as shown in section 2, a pre-*aber* XP in the middle field that is not a weak pronoun, but the carrier of the contrast, and could therefore be analysed as occupying the specifier of a head *aber*, is not frequently found in spontaneous speech in the FOLK corpus.¹⁶ It is therefore not so clear whether an analysis of *aber* as a functional head would be best suited to account for the data. Before presenting a proposal in section 5, I present diachronic evidence for the upwards reanalysis of *aber* in section 4.

¹⁴This also seems to hold for main clauses, as shown by (6).

¹⁵See e.g. Neeleman and Koot (2008) or Horvath (2010) and literature cited therein for arguments against this, and for interface-based approaches.

¹⁶As one anonymous reviewer notes, examples of adverbial clauses with the order C–XP–*aber* can easily be found using Google. The reviewer quotes two examples with concessive *während*, one of them (22):

- (22) Während Merkel **aber** noch 10 Jahre brauchte, um sich zu desavouieren, könnte May bereits nach zwei Jahren durch sein.
while Merkel PRT still 10 years needed in.order REFL to disavow could May already after two years through be

‘While Merkel, however, still needed 10 years in order to disavow herself, May could be through after two years already.’

(<http://mannikosblog.blogspot.com/2018/07/ende-der-weiberwirtschaft-nicht-nur.html>)

I thank the reviewer for the examples.

purposes of the current paper, the *Referenzkorpus Mittelhochdeutsch* (ReM) was searched for both syndetic and asyndetic adverbial clauses containing *aber* (causal, conditional, final, modal and temporal).¹⁸ In total 375 clauses were found. In 333 of these, *aber* has an adversative meaning; in the other 42, it has its older repetitive ('again') or restitutive ('back') meaning (cf. Ferraresi 2018) or the meaning is unclear. The assumption that non-adversative *aber* is in a hierarchically lower position than adversative *aber* is supported by the fact that both nouns and pronouns precede non-adversative *aber* in all 42 cases of non-adversative *aber* in the ReM, as exemplified in (25).

- (25) niwan ob ez der abte **aber** schaffet
except if it the abbot again decrees
 'unless the abbot decrees it (to be allowed) again'
 (*Admonter Benediktinerregel*, second half 13th century)

As noted e.g. by Ferraresi (2018:97), weak/non-stressed pronouns must precede adversative *aber* when it occurs in the middle field in present-day German (cf. also Breindl 2011), an observation that is confirmed by the data from the FOLK corpus. In eighteen out of twenty cases of *wenn X aber* in the FOLK data, X is a weak or clitic pronoun (26); in two cases, it is a light adverb (*dann* 'then', *nun* 'now'). In six cases out of eight of *wenn aber X*, X is a full DP, in one case it is an adverb (*plötzlich* 'suddenly') followed by a full DP (example (11) above), and once, it is an indefinite pronoun (*einer* 'someone').

- (26) wenn wir **aber** des projekt stuttgart einundzwanzig dann tatsächlich SO optiMIERen wollen
if we PRT the project Stuttgart 21 then indeed so optimise want
 äh (.) dann sind noch mal erhebliche nachbesserungen [...] notwendig
uhm then are again significant remediations necessary
 'However, if we indeed want to optimise the project Stuttgart 21 like this, more significant remediations are necessary.'
 (FOLK_E_00070_SE_01_T_03)

In dependent clauses, we can observe the diachronic loss of the post-*aber* placement for pronouns and the diachronic decrease of the pre-*aber* placement for full DPs, though the latter, as seen in section 2, unlike the former, is still acceptable today. As the data from the ReM show, the position of pronouns with respect to adversative *aber* was much more flexible in Middle High German. The examples in (27) and (28) illustrate the ordering options for temporal and conditional clauses, respectively. The pronoun precedes *aber* in (27a) and follows it in (27b). (28a) and (28b) are syndetic conditional clauses introduced by the complementizer *ob* 'if', (28c) and (28d) are asyndetic conditional clauses with V1 order. Again, in (28a) and (28c), the pronoun precedes *aber*; in (28b) and (28d), it follows the particle. For reasons of space, examples for other types of adverbial clauses will not be given here.

(27) Temporal clauses

- a. Nv wir **auer** uon got haben di lere . vnd uns des niht irret . niwan
now we PRT from God have the teaching and us this.GEN NEG distracts except
 menschlich brode ...
human brood
 'Now, however, that we we have the teaching from God, and nothing distracts us from it except human flesh ...'

(*Prager Predigtentwürfe*, first half of 13th c.)

¹⁸The ReM (<https://www.linguistics.rub.de/rem/>) has ca. 2 million tokens in total. For syndetic adverbial clauses, the query `pos="KOUS" & lemma="aber" & #1 .1,5 #2` was used; for asyndetic (V1) conditional clauses, the query `punc="SE" & pos="/V*FIN/" & lemma="/aber/" & #1 . #2 & #2 .1,5 #3`. Causal clauses were not found to contain adversative *aber*.

ADVERSATIVE *aber* IN ADVERBIAL CLAUSES IN (HISTORICAL) GERMAN

- b. swaz du ovf der erde gebivtest . daz ist getan . nu **auer** du min helfe der
whatever you on the earth command that is done now PRT you my help there
 zu wellest han . nim disen sluzel in dine hant ...
to would have take this key in your hand ...
 ‘Whatever you command on earth is done. However, now that you want my help with it, take
 this key in your hand...’

(Kaiserchronik, 1140/50)

(28) Conditional clauses

- a. Ob er sterben scol . so cheret sich der caradrius uon ime . Ob er **ae** gnesen
if he die shall so turns REFL the Caradrius from him if he PRT heal
 scol . so cheret sich der uogel zuo deme manne unt tuot sinen snabel uber des
shall so turns REFL the bird to the man and does its beak above the
 mannes munt
man.GEN mouth
 ‘If he (the sick man) is to die, the Caradrius turns away from him; if, however, he is to heal, the
 bird turns to the man and puts its beak over the mouth of the man.’

(Wiener Physiologus, ca. 1120)

- b. disiv ist div e . vnder der du ritterscheften wilt . Ob dv si behalten maht so
this is the law under which you knightship want if you it keep may so
 vaR in . ob **aber** du des niht maht . so schaide vreyer hin .
go in if PRT you it.GEN NEG may so depart free PRT
 ‘This is the law according to which you get knightship. If you are allowed to keep it, go in. If,
 however, you are not allowed, then leave as a free man.’

(Admonter Benediktinerregel, 38r:19–20, late 13th c.)

- c. Bringet ein burger haeringe her die verkauffet er wol bi funfzigen vnd dr uber
brings a citizen herrings here those sells he well for fifty and there over
 in sime huse vnd niht minner . Bringet si **aber** ein gast her . der sol si
in his house and NEG less brings them PRT a guest here he shall them
 niht anders verkauffen wan bi gan=zer meise
NEG differently sell than by whole basket
 ‘If a citizen brings herring, he sells them for fifty and more in his house, and not less. If, however,
 a guest brings them here, he shall not sell them in any other way than by the whole basket.’

(Augsburg, Stadtbuch, 109rb,26–109va,1, 1276-81)

- d. virgebint ir den . die an ivh svndint . so virgi=bit ivch got . waz ir wider
forgive you them who on you sin so forgives you God what you against
 ime tvt . virgebit **aber** ir niet . so virgibit ivch got niet . vnd dane flvchint ir
him do forgive PRT you NEG so forgives you God NEG and then curse you
 ivch selben . bit disen worte .
your selves with this word
 ‘If you forgive those who trespass against you, God will forgive you whatever you do against
 him. If, however, you do not forgive, then God will not forgive you, and then you will curse
 yourselves with this word.’

(Salomons Haus, before ca. 1278)

		x = full DP			x = pronoun		
		<i>aber</i> > x	x > <i>aber</i>	% <i>aber</i> > x	<i>aber</i> > x	x > <i>aber</i>	% <i>aber</i> > x
11th c.	V1	0	0	0	0	0	0
	Ve	0	0	0	2	11	20
12th c.	V1	0	1	0	6	7	46.2
	Ve	15	0	100	5	17	33.3
13th c.	V1	78	1	98.7	43	30	58.9
	Ve	20	8	74.1	13	39	25
14th c.	V1	21	0	100	10	0	100
	Ve	8	3	88.9	4	14	22.2
Σ		142	13	91.6	83	118	41.3

Table 1: Position of adversative *aber* in adverbial clauses in the ReM

As can be seen in table 1, the position of pronouns is very variable throughout the Middle High German period, while full DPs hardly precede adversative *aber* in adverbial clauses. Pronouns follow *aber* in roughly 40% of the cases over the whole Middle High German period, and the frequency peaks at almost 60% in the 13th c.

The positioning of pronouns with respect to adversative *aber* changes during the Early New High German period. In the *Bonner Frühneuhochdeutschkorpus*,¹⁹ 86 adverbial clauses containing adversative *aber* were found. Full DPs exclusively follow *aber*; pronouns now only precede *aber* in c. 14% over the whole period. In the oldest texts from the 14th c., they still precede it in 42.9% of the cases, but as the absolute numbers are very low as seen in table 2, due to the small size of the Bonn corpus, this is not reliable. Thirteen of the 42 pronouns preceding *aber* are expletive *es* (29a), reflexive *sich*, or impersonal *man*; the others are regular personal pronouns (29b).

- (29) a. Sind es **aber** deß knechts wort . so ist=s der sin
are it PRT the.GEN servant.GEN words so is=it the meaning
 ‘If, however, it is the words of the servant, it is the meaning.’
 (Neidhart, *Der Eunuchus des Terenz*, 1486)
- b. Wenn wir **aber** eigentlich vnd gar deutlich dauon reden sollen vnd wollen / so ist dis
if we PRT properly and very clearly of.it speak shall and will so is this
 Capitel eine Weissagung
chapter a prophecy
 ‘If, however, we are to speak of it properly and very clearly, this chapter is a prophecy.’
 (Johannes Tauler, *Sermon*, 1498)

Figure 1 sums up the diachronic development of pronoun placement relative to *aber* in adverbial clauses between the 11th and 17th centuries.

The Middle High German and Early New High German data lend empirical support to the hypothesis of Weiß (2018) that weak pronouns do not yet regularly target the Wackernagel position in Middle High German, and that this development is still in progress in Early New High German. As the Middle High German evidence showed, unstressed pronouns appear in a higher position than the older aspectual adverbial uses of *afur/aber*. The diachronic change in the placement of unstressed pronouns to appear left of the position of adversative *aber* in the middle field indicates that stressability comes to play a role for nominal elements near *aber*.

¹⁹The Bonn corpus of Early New High German (599,695 tokens; <https://korpora.zim.uni-duisburg-essen.de/annis/>) was used because the new Referenzkorpus (<https://www.ruhr-uni-bochum.de/wegera/ref/>) was not yet available in Annis at the time the data were collected (Spring 2019).

ADVERSATIVE *aber* IN ADVERBIAL CLAUSES IN (HISTORICAL) GERMAN

	x = full DP			x = pronoun		
	<i>aber</i> > x	x > <i>aber</i>	% <i>aber</i> > x	<i>aber</i> > x	x > <i>aber</i>	% <i>aber</i> > x
14th c.	2	0	100	3	4	42.9
15th c.	2	0	100	0	5	0
16th c.	19	0	100	4	22	15.4
17th c.	14	0	100	0	11	0
Σ	37	0	100	7	42	14.3

Table 2: Position of adversative *aber* in adverbial clauses in the Bonn corpus of Early New High German

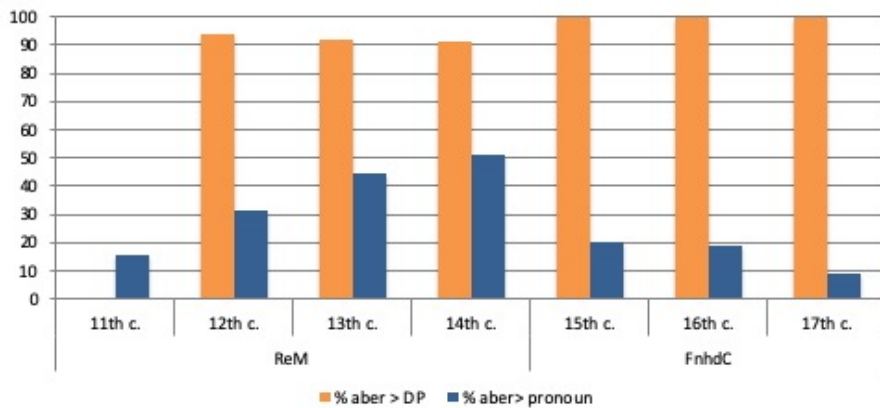


Figure 1: Diachronic development of pronoun placement relative to adversative *aber*

5. Proposal

Having considered the most likely syntactic position of adversative *aber* in the middle field in section 3 and its diachronic development in section 4, we now return to the two different intonational contours and the scopal differences in the interpretation of *aber* observed in section 2. As seen in section 2, clause-internal *aber* in adverbial clauses serves as a contrast marker similar to its use in postinitial position in matrix clauses. Unlike in postinitial position, however, the contrastive topic is not the phrase immediately preceding *aber*. Instead, *aber* can have varying scope, depending on the extent of the topic that is contrasted with a rejected alternative. In the neutral case, it is the entire proposition of the context clause; in the marked case, it is a constituent of the context clause. Each scope is associated with a different intonational contour: in the neutral case, the information focus of the clause, and possibly additionally the complementizer (or the finite verb in C in case of V1-clauses) receive a pitch accent; in the marked case, the contrasted constituent does. From a compositional perspective, the two different scopes of *aber* lead one to expect that *aber* is associated with different syntactic positions. However, I propose that *aber* occupies the same functional projection in the middle field in both cases, but that this projection can take different types of complement, depending on the target of the contrast. Let us first return to the question which projection this may be and then turn to the question how it interacts with the intonation and interpretation of the clause.

As indicated at the end of section 3, an analysis as a functional head, while attractive for reasons of uniformity with the postinitial and pre-clausal positions of *aber*, while possible, is not evident. While shifting or contrastive topics consistently occupy a high position in the clausal left periphery, cross-linguistically, and can in German be followed by postinitial *aber*, there is no clearly delimited position for such topics in the middle field. Even though pre-*aber* positioning of a contrastively interpreted DP is possible,²⁰

²⁰See footnote 16 above.

it is not compulsory.²¹ In other words, there is no clear evidence for a specifier of *aber* as there is for postinitial *aber* in the left periphery. This rather points in the direction of an analysis in terms of *aber* being the specifier of a (high) adverbial projection in the middle field. Contra Ferraresi (2018), I argue that this cannot be Frey's (2005) TopP at the left edge of the middle field. While familiar topics (such as *den Karl* in (18)) may, under the right circumstances, precede *aber* in the middle field, this does not mean that they stand in a syntactic relation to it, such as suggested by Ferraresi (2018), who derives from this that *aber* in the middle field is located at the boundary between the background and the focus domain. As the discussion in section 2 (and 4) has shown, full DPs do not occur in the spontaneous FOLK data before adversative *aber* in adverbial clauses, though such examples can be constructed, or found on the internet. Both familiar topics and (narrow) contrastive topics are possible before *aber*. For an example with a contrastive subject see (12a), but also objects and adverbial phrases can be contrasted, (30).²²

- (30) a. Wenn die Karla endlich ein Graf heiraten würde, wäre ihre Oma sicher froh,
if the Karla at last a count marry would were her granny certainly relieved
 wenn {**aber**} den KARL {**aber**} ein Graf heiraten würde, dann wäre das natürlich
if PRT the Karl PRT a count marry would then were that of course
 ein Skandal.
a scandal
 'If Karla were at last married by a count, her granny would certainly be relieved; if, however, KARL were married by a count, it would of course be a scandal.'
- b. Wenn Belgien dieses Jahr noch eine neue Regierung bekäme, würde mich das
if Belgium this year still a new government got would me that
 sehr wundern, wenn {**aber**} NÄCHStes Jahr um die Zeit {**aber**} noch nichts
much surprise if PRT next year around this time PRT still nothing
 passiert ist, dann wäre das langsam bedenklich.
happened is then were that slowly worrying
 'If Belgium got a new government this year still, I would be very surprised; if, however, still nothing has happened around this time NEXT year, that would be somewhat worrying.'

I therefore propose that *aber* occupies a different projection than the one hosting familiar topics and other material available for undergoing Frey's formal movement.

- (31) [CP [C° *wenn*] [TopP [Top° ∅] [FP *aber* F° [...]]]]

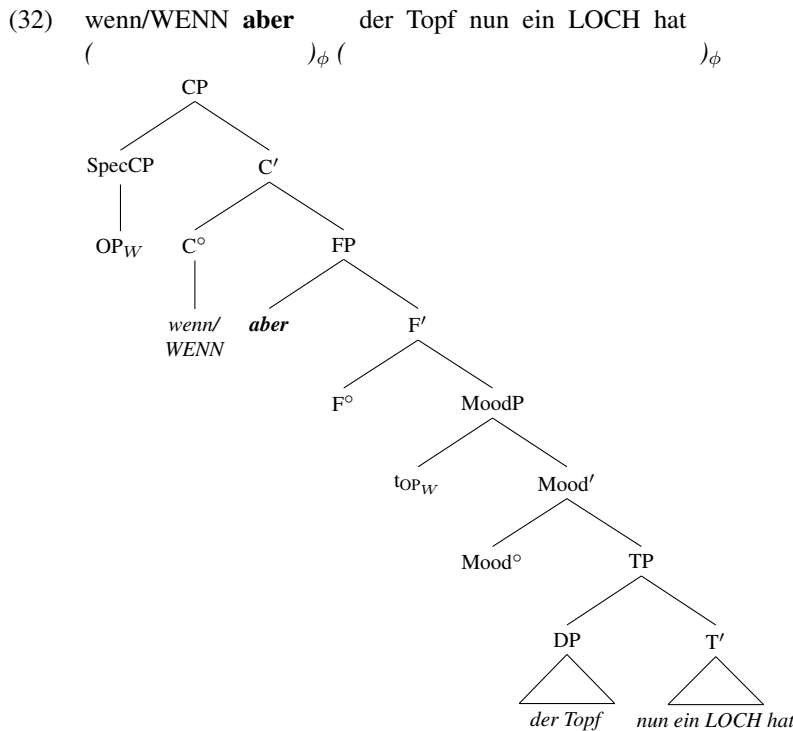
We now turn to the two different scopes of and intonational patterns associated with *aber* in adverbial clauses. I propose that *aber* syntactically scopes over a domain in which the element to be contrasted is situated. Which element exactly receives the contrast interpretation is pragmatically determined based on the context. The syntax-prosody interface then determines the distribution of pitch accents, and potential interface-driven reordering takes place in order to achieve the right accentuation.

Regarding the syntactic analysis, I follow Haegeman (2009) and literature cited therein in assuming that (central) adverbial clauses are derived by movement of a silent operator, a temporal one in case of temporal clauses and the world operator OP_W (Bhatt and Pancheva 2006, Haegeman 2009; 2010) in conditional clauses. However, I propose to generalise this movement account to peripheral clauses, as proposed by Bhatt and Pancheva (2006) for conditionals, assuming that central and peripheral adverbial clauses differ (a) in their external syntax (as widely assumed in the literature) and (b) that internally, they

²¹We address a possible prosodic trigger presently.

²²For an example of a familiar topic object preceding *aber* while the contrast is marked on the subject immediately following *aber*, consider this variation on (30a): *Wenn den Karl eine Gräfin heiraten würde, wäre seine Oma sicher froh, wenn den Karl {aber} ein GRAF heiraten würde, dann wäre das natürlich ein Skandal.* 'If Karl were married by a countess, his granny would certainly be relieved; if, however, Karl were married by a COUNT, it would of course be a scandal.'

differ in the position of the launch site of the operator in the clausal hierarchy.²³ For the sake of simplicity, I will assume that the launch site of the operator in conditional/causal/concessive/... clauses is a Mood projection in the Cinque hierarchy (see (24) above) below Mood_{speech act}, without being more specific (a higher one for peripheral, a lower one for central adverbial clauses), while a temporal adverbial projection would be the launch site of the temporal operator. I propose that in the neutral case discussed above, in which the proposition of the entire adverbial clause is contrasted, and which is characterised by a nuclear pitch accent on the information focus of the clause, and possibly a secondary pitch accent on the element in C°, the complement of FP is the launch site of this operator, which is thus immediately in the scope of *aber*. In case of conditional clauses, this results in the structure in (32).



I assume that the operator, though moving to the left periphery, reconstructs into its base position and is therefore interpreted in the scope of *aber*, deriving the wide scope of *aber*. Being silent, it cannot be contrastively accented. Instead, nuclear stress on the information focus indicates that the entire clause is in the scope of *aber*. Additionally, as the only overtly realized head within a prosodic phrase left of *aber*, the element in C°, which lexicalises the clause type (and hence the features of the operator in its final position), can be stressed, but need not, according to default accenting rules (Büring 2013:868).

In the more marked case of a contrastively interpreted XP in the middle field, a contrastive pitch accent is assigned to the pragmatically identified contrastive XP. In the case in which this would result in a pitch accent assigned to a phrase within the prosodic phrase bearing the nuclear pitch accent, scrambling driven by the syntax-prosody interface brings the XP into a position where it can be mapped onto a separate prosodic phrase. Deaccenting of the material following the contrast phrase is possible. While subjects or adverbs can easily be mapped onto their own prosodic phrases by assigning contrastive pitch accent to

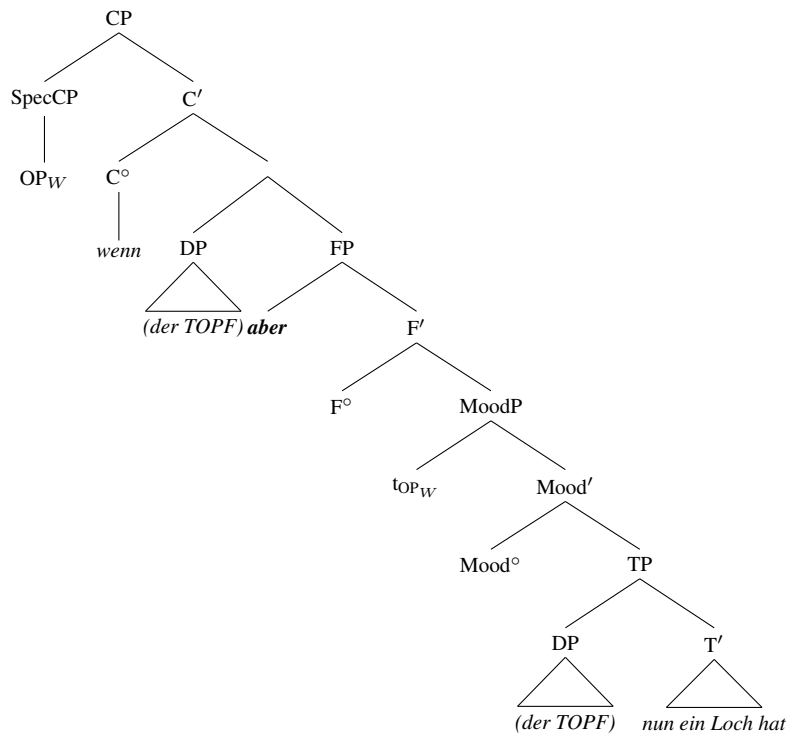
²³I am aware that, depending on the details of the implementation of this proposal (particularly the exact structural position of the launch site of the operator) may have repercussions for an account of the differences between central and peripheral adverbial clauses regarding the possibility of root phenomena. Such details are beyond the scope of the current paper. Note though, that the once clear-cut distinction between the two types of adverbial clauses is no longer considered to be quite as clear-cut in the more recent literature (Frey and Meinunger 2019, Badan and Haegeman 2020).

them, object DPs may need to scramble to a higher position first in order to avoid being mapped to the nuclear stress of the sentence and be confused with a wide scope interpretation of *aber*. Not all constituents receiving a contrastive interpretation actually can scramble. Low (e.g. manner) adverbs are available for contrast, but cannot scramble, cf. (33).

- (33) a. *wenn **aber** VORSichtig der Karl um die Gräfin wirbt, dann kann es mit der
if PRT carefully the Karl for the countess woos then can it with the
 Hochzeit noch lange dauern.
wedding still long take
- b. wenn **aber** der Karl VORSichtig um die Gräfin wirbt, dann kann es mit der Hochzeit
if PRT the Karl carefully for the countess woos then can it with the wedding
 noch lange dauern.
still long take
 ‘If, however, Karl CAREfully woos the countess, it will still take a long time until the wedding.’

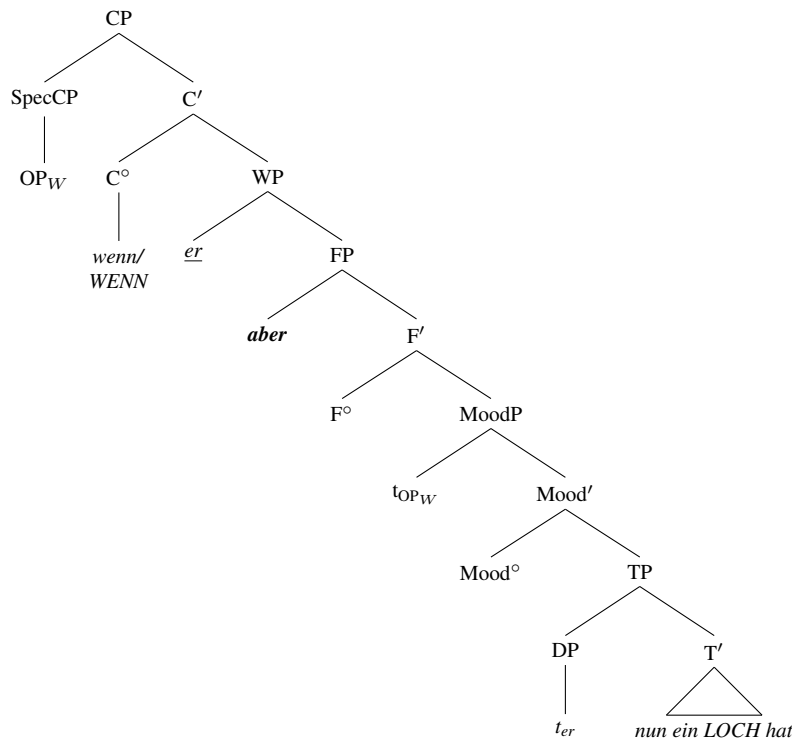
Elements that are able to scramble may scramble into a position preceding *aber*, but, as seen in the corpus data, they often don’t, as the right syntax-prosody mapping can also be achieved without such movement. As can be seen in table 2, full DPs are already no longer found preceding *aber* in the Bonn corpus of Early New High German, just as in the FOLK corpus of present-day spoken German.

- (34) wenn der TOPF **aber** der TOPF nun ein LOCH hat
 ()_ϕ ()_ϕ ()_ϕ



In present-day German, stressability is a prerequisite for narrowly contrasted XPs associated with adversative *aber* in adverbial clauses. Diachronically, pronouns become increasingly unstressable, and therefore need to vacate any position in which they will receive a pitch accent. As a consequence, they come to target the Wackernagel position preceding adversative *aber*, (35).

- (35) wenn/WENN er **aber** nun ein LOCH hat
 ()_φ ()_φ



The proposed interplay of syntax, pragmatics, information structure, and the requirements of the syntax-prosody interface can also account for the fact, noted in relation to (6a), that given constituents can occur in the prefield of V2 clauses containing middle field *aber*, in contrast to postinitial *aber*. Postinitial *aber* requires a contrastive pitch accent on the phrase in its specifier (Pasch et al. 2003), while middle field *aber* delimits a prosodic phrase to its left, and the main pitch accent will be on the element in C°, (36).

- (36) a. Das TOR **aber** war gut beWACHT.
 ()_φ ()_φ
 b. Er SCHAFFte es **aber** NICHT.
 ()_φ ()_φ

6. Conclusion

The current paper took a closer look at clause-internal adversative *aber* in adverbial clauses in (historical) German. It was observed that this middle field *aber*, which is also available in main clauses, serves to identify a contrastive topic by presupposing the denial of an expectation that an alternative can be substituted for the topic. This topic can span the entire adverbial clause, or a sub-clausal constituent thereof. I proposed to analyse *aber* as the specifier of a high adverbial projection in the middle field, which takes the launch site of the operator as its complement whose movement derives the adverbial clause. *Aber* introduces a prosodic phrase boundary. In the neutral case of clausal scope of *aber*, the clause can be mapped directly to prosody, as the information focus of the clause also receives the nuclear pitch accent. A secondary pitch accent can be assigned to the lexical element in C°, which is mapped to a separate prosodic phrase containing *aber*. In the

marked case, the sub-clausal constituent must be placed in such a position that it can receive a contrastive pitch accent and head its own prosodic phrase. If this is not possible, interface-driven scrambling applies.

Synchronically, full DPs strongly tend to follow adversative *aber*, while unstressed pronouns must precede it. Diachronically, I have adduced evidence for the upward reanalysis of *aber* proposed by Ferraresi (2018): non-adversative *aber*, which is still found in Middle High German, follows both pronouns and full DPs; adversative *aber* precedes full DPs, as well as a —diachronically decreasing— portion of pronouns. The diachronic data confirm Weiß's (2018) hypothesis that weak pronouns did not yet regularly target the Wackernagel position in Middle High German. I proposed that weak pronouns lost the ability to bear stress during the transition from Middle to Early New High German (14th c.) and became confined to the Wackernagel position. No longer stressable, they need to occur in a position where they are prosodically integrated, which excludes them from occurring to the right of *aber*.

References

- Badan, Linda and Liliane Haegeman, 2020. The syntax of peripheral adverbial clauses. Ms., Ghent University.
- Bhatt, Rajesh and Roumyana Pancheva, 2006. Conditionals. In *The Blackwell Companion to Syntax, volume 1*, edited by Martin Everaert and Henk van Riemsdijk, pp. 638–687. Blackwell, Oxford. URL <http://dx.doi.org/10.1002/9781118358733.wbsyncom119>.
- Breindl, Eva, 2011. *Nach Rom freilich führen viele Wege*. Zur Interaktion von Informationsstruktur, Diskursstruktur und Prosodie bei der Besetzung der Nacherstposition. In *Konnektoren im Deutschen und im Sprachvergleich. Beschreibung und grammatische Analyse*, edited by Gisella Ferraresi, pp. 17–56. Narr, Tübingen.
- Büring, Daniel, 2013. Syntax, Information Structure and Prosody. In *The Cambridge Handbook of Generative Syntax*, edited by Marcel Den Dikken, pp. 860–896. Cambridge University Press, Cambridge. URL <http://dx.doi.org/10.1017/CBO9780511804571.029>.
- Büring, Daniel and Katharina Hartmann, 2015. Semantic Coordination without Syntactic Coordinators. In *Structures in the mind. Essays on language, music, and cognition in honor of Ray Jackendoff*, edited by Ida Toivonen, Piroska Csúri, and Emile Van Der Zee, pp. 41–61. MIT Press, Cambridge/Mass. URL <http://dx.doi.org/10.7551/mitpress/10044.003.0006>.
- Catasso, Nicholas, 2015. On postinitial *aber* and other syntactic transgressions. *Journal of Germanic Linguistics* 27 (4): 317–365. URL <http://dx.doi.org/10.1017/S1470542715000124>.
- Cinque, Guglielmo, 1993. A null theory of phrase and compound stress. *Linguistic Inquiry* 24: 239–297.
- Cinque, Guglielmo, 1999. *Adverbs and Functional Heads*. Oxford University Press. URL <http://dx.doi.org/10.1017/S0022226705243396>.
- Ebert, Christian, Cornelia Ebert, and Stefan Hinterwimmer, 2014. A unified analysis of conditionals as topics. *Linguistics and Philosophy* 37: 353–408. URL <http://dx.doi.org/10.1007/s10988-014-9158-4>.
- Ferraresi, Gisella, 2018. Adverbial connectives. In *Clause Structure and Word Order in the History of German*, edited by Agnes Jäger, Gisella Ferraresi, and Helmut Weiß, pp. 82–121. Oxford University Press, Oxford. URL <http://dx.doi.org/10.1093/oso/9780198813545.003.0006>.
- Frey, Werner, 2005. Zur Syntax der linken Peripherie im Deutschen. In *Deutsche Syntax: Empirie und Theorie*, edited by Franz d'Avis, pp. 147–171. Acta Universitatis Gothoborgensis, Göteborg.
- Frey, Werner and André Meinunger, 2019. Topic Marking and Illocutionary Force. In *Architecture of Topics*, edited by Valéria Molnár, Verner Egerland, and Susanne Winkler, pp. 95–138. de Gruyter, Berlin. URL <http://dx.doi.org/10.1515/9781501504488-004>.
- van Gelderen, Elly, 2004. Economy, Innovation, and Prescriptivism: From Spec to Head and Head to Head. *Journal of Comparative Germanic Linguistics* 7: 59–98. URL <http://dx.doi.org/10.1023/B:JCOM.0000003601.53603.b2>.

- Haegeman, Liliane, 2009. The internal syntax of adverbial clauses. *Lingua* 120: 628–648. URL <http://dx.doi.org/10.1016/j.lingua.2008.07.007>.
- Haegeman, Liliane, 2010. The movement derivation of conditional clauses. *Linguistic Inquiry* 41: 595–621. URL http://dx.doi.org/10.1162/LING{_}a{_}00014.
- Horvath, Julia, 2010. “Discourse features”, syntactic displacement and the status of contrast. *Lingua* 120: 1346–1369. URL <http://dx.doi.org/10.1016/j.lingua.2008.07.011>.
- Lenker, Ursula, 2014. Knitting and splitting information. Medial placement of linking adverbials in the history of English. In *Contact, Variation, and Change in the History of English*, edited by Simone E. Pfenninger, Olga Timofeeva, Anne-Christine Gardner, Alpo Honkapohja, Marianne Hundt, and Daniel Schreier, pp. 11–37. John Benjamins, Amsterdam. URL <http://dx.doi.org/10.1075/slcs.159.02len>.
- Métrich, René and Gilbert Courdier, 1995. Die Zukunft des Menschen aber ist immer so lang wie seine Vergangenheit. In *Rand und Band. Abgrenzung und Verknüpfung als Grundtendenzen des Deutschen. Festschrift für Eugene Faucher zum 60. Geburtstag*, edited by René Métrich and Marcel Vuillaume, pp. 29–38. Narr, Tübingen.
- Neeleman, Ad and Hans van de Koot, 2008. Dutch scrambling and the nature of discourse templates. *Journal of Comparative Germanic Linguistics* 11: 137–189. URL <http://dx.doi.org/10.1007/s10828-008-9018-0>.
- Pasch, Renate, Ursula Brauße, Eva Breindl, and Ulrich Hermann Waßner, 2003. *Handbuch der deutschen Konnektoren*. de Gruyter, Berlin. URL <http://dx.doi.org/10.1515/9783110201666>.
- Roberts, Ian and Anna Roussou, 2003. *Syntactic change: A minimalist approach to grammaticalization*. Cambridge University Press, Cambridge. URL <http://dx.doi.org/10.1017/CBO9780511486326>.
- Sæbø, Kjell Johan, 2003. Presupposition and Contrast: German *aber* as a Topic Particle. In *Proceedings of Sinn und Bedeutung 7*, edited by Matthias Weisgerber, pp. 257–271. Universität Konstanz, Konstanz. URL <http://dx.doi.org/10.18148/sub/2003.v7i0.807>.
- Speyer, Augustin, 2007. Die Bedeutung der Centering Theory für Fragen der Vorfeldbesetzung im Deutschen. *Zeitschrift für Sprachwissenschaft* 26: 269–290. URL <http://dx.doi.org/10.1515/ZFS.2007.011>.
- Speyer, Augustin and Helmut Weiß, 2018. The prefield after the Old High German period. In *Clause Structure and Word Order in the History of German*, edited by Agnes Jäger, Gisella Ferraresi, and Helmut Weiß, pp. 64–81. Oxford University Press, Oxford. URL <http://dx.doi.org/10.1093/oso/9780198813545.003.0005>.
- Thurmair, Maria, 1989. *Modalpartikeln und ihre Kombinationen*. Niemeyer, Tübingen. URL <http://dx.doi.org/10.1515/9783111354569>.
- Volodina, Anna and Helmut Weiß, 2010. Wie einfach ist das deutsche Vorfeld? Paper presented at GGS 2010, FU Berlin. IDS Mannheim/Goethe-Universität Frankfurt a.M. Available at http://www.anavolodina.de/dokumente/Vortrag_GGS_naemlich_7-05__lit.pdf, accessed on 29 November 2019.
- Weiß, Helmut, 2018. The Wackernagel complex and pronoun raising. In *Clause Structure and Word Order in the History of German*, edited by Agnes Jäger, Gisella Ferraresi, and Helmut Weiß, pp. 132–154. Oxford University Press, Oxford. URL <http://dx.doi.org/10.1093/oso/9780198813545.003.0008>.