S T R E S S E D O U T!  

M A R K U S E G G  
M A L T E Z I M M E R M A N N  
H u m b o l d t U n i v e r s i t y B e r l i n & P o t s d a m U n i v e r s i t y

1 Introduction

Unaccented German discourse particles have received detailed formal analyses in recent literature (e.g., Karagjosova, 2004, Kratzer and Matthewson, 2009, Zimmermann, 2008, 2011), but the formal semantic analysis of their accented counterparts is just starting; see e.g. Zimmermann (2011), Féry (2010), Egg (2010), Gutzmann (2010), Thurmair (1989), Abraham (1991) and Meibauer (1994) for more descriptive accounts. This article contributes to this body of work by providing a formal analysis of the distribution and interpretation of the accented contrastive discourse particle *doch* in German. By considering the relation of accented *doch* (*DOCH* for short) to its unaccented counterpart *doch* and the interaction of these particles with information structure, we argue for a unified analysis of *DOCH* and *doch*, which assigns them the same underlying semantics, and attributes the difference in accentuation to independent information-structural and prosodic factors. The present analysis thus contributes to our understanding of the interface between syntax and prosody on the one hand, and semantics and pragmatics on the other.

Section 1.1 introduces the core data and central research questions. Section 2 provides the background of the analysis and the meaning of unaccented *doch*. Section 3 expounds the analysis of accented *DOCH*. Following Gutzmann’s (2010) work on accented *JA*, the central hypothesis is that *doch* must be accented in verum focus environments. While this hypothesis accounts for the bulk of the data, we show in section 4 that accented *DOCH* can also occur in non-verum environments. This leads to a generalisation of the hypothesis stating that the particle *doch* must carry accent whenever pitch (focus) accent is blocked from being realised elsewhere in the clause.

1.1 The core data: Introducing *doch/DOCH*

As a first approximation, *doch* gives a contrastive flavour to the utterance it occurs in. Its presence indicates an incompatibility, apparent or real, of this utterance with some information in the

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context. This potentially conflicting information is often provided by an immediately preceding utterance, similar to what is found with the anaphoric additive particle auch ‘also’. Pointing out a conflict between different parts of information can serve various pragmatic goals, such as the refusal to accept a preceding utterance as true, the correction of a preceding utterance, the expression of amazement, or simply to facilitate the accommodation of information by explicitly acknowledging its co-occurrence with potentially incompatible information in a discourse.

(1) illustrates the simplest case of unaccented doch expressing a contrast between two adjacent declarative utterances. (2) shows that doch-utterances can also be used as reactions to non-declarative utterances. (3) illustrates the occurrence of doch in non-declarative sentences.

(1) A: Max kommt mit in die Disko. B: Er ist doch krank!
   ‘A: Max will come along to the disco. B: But he is ill!’

(2) A: Seit wann hast du den „Faust“? B: Den hast du mir doch neulich geschenkt!
   ‘A: Since when have you owned the “Faust”? B: But you gave it to me recently!’

(3) Verklag mich doch!
   ‘Go ahead and sue me!’

The following examples illustrate the main occurrences of accented DOCH in German: (4) is an inter-speaker correction and in (5), a single speaker expresses a polar contrast. (6) shows that accented DOCH is not restricted to declarative sentences either.

   ‘A: Malte didn’t go to Utrecht. B: He DID go to Utrecht.’

(5) [At first Malte refused to, . . . ]
   aber dann ist er DOCH nach Utrecht gefahren.
   ‘but then he DID go to Utrecht (after all).’

(6) Ist Malte DOCH nach Utrecht gefahren?
   ‘Has Malte gone to Utrecht after all?’

The parallel existence of unaccented and accented doch raises the following research questions, which will be addressed in the subsequent sections of this paper: (i.) What is the underlying meaning of unaccented doch and how can this meaning account for its distribution and uses? (ii.) Do accented and unaccented doch share the same underlying meaning? (iii.) How do discourse particles interact with information structure and its prosodic correlates?

There is another instance of accented DOCH, which can occur on its own in the prefield-position of declarative German clauses (before the finite verb/auxiliary in the second position) with the meaning and function of the concessive main clause conjunction trotzdem ‘in spite of, still’ (see Lerner, 1987):
2 The semantics of unaccented *doch* and CG-management

In line with much of the recent literature, we assume that discourse particles refer to the *common ground* (CG) in their semantics (König, 1997, Zeevat, 2004, Karagjosova, 2004, Zimmermann, 2011). Their central semantic function thus is CG management (Krifka, 2008). The CG consists of the set of publicly shared mutual beliefs about the world (Stalnaker, 2002), where belief is formalised as the set of propositions true in all possible worlds compatible with the believers’ beliefs. Reasoning on the contents of the CG often employs default *inference patterns*, which are likewise part of the CG. These patterns are modelled by *defeasible deduction* (Asher and Lascarides, 2003) in the form \( p > q \) (including defeasible Modus Ponens).

The utterance *doch* \( p \) as a reaction to a proposition \( q \) against the common ground CG indicates that, according to the CG, \( p \) constitutes a potential impediment for \( q \), because the default entailment \( p > \neg q \) is part of the CG. I.e., in the light of \( p \), \( q \) is unexpected due to this potential conflict between \( p \) and \( q \), which explains the use of *doch*-utterances to express amazement or doubt at \( q \).

Furthermore, the host proposition of *doch* itself receives a special status in that it is characterised as information that the speaker considers to be special in that it should be taken for granted by the speaker (the ‘privileged information’ of Grosz, 2010, drawing on analyses of Kratzer and Matthewson, 2009). It cannot be completely new (and, hence, debatable) information, which can be illustrated by the inacceptability of B’s response in (7), a variant of (1), in which Max’s illness is presented as new information:

\[
\begin{align*}
(7) & \quad \text{A: Max comes with to the disco. B: *Er ist *doch* krank, das wußte bislang aber keiner.} \\
     & \quad \text{Max } \text{he is } \text{doch } \text{ill } \text{this knew } \text{up.to.now but no.one} \\
     & \quad \text{‘A: Max will come along to the disco. B: But he is ill, but up to now no one knew.’}
\end{align*}
\]

The lexical entry for *doch* in (8) captures the privileged status of its host utterance and the basic semantic nature of *doch* as a contrastive element:

\[
(8) \quad [[\text{doch}] \!(p)\!(q) \iff p > \neg q \text{ is part of the CG and } p \text{ cannot be debated by the hearer}}
\]

The semantic representation in (8) takes up ideas in Abraham (1991), Lindner (1991), and Grosz (2010), who argue that *doch* introduces a presupposition, leading to the activation or accommodation of a contrast-inducing defeasible entailment in the common ground. We assume that this entailment links the *doch*-utterance to a suitable antecedent in the context of the utterance. This inherently contrastive and anaphoric nature of *doch* also accounts for its sensitivity to focus

\[
\begin{align*}
(i) & \quad \text{Es hat seit Monaten nicht geregnet und DOCH sind die Bäume ganz grün.} \\
    & \quad \text{it has since months not rained and DOCH are the trees completely green} \\
    & \quad \text{‘It has not rained for months and yet the trees are completely green.’}
\end{align*}
\]

As this conjunction DOCH has different syntactic and contextual licensing conditions, e.g., it cannot be used in reaction to non-declarative utterances (compare for instance (2) to (ii)), we set it aside in the present discussion.

\[
\begin{align*}
(ii) & \quad \text{A: Seit wann hast du den „Faust“? B: *DOCH hast du mir den neulich geschenkt!} \\
     & \quad \text{since when have you the ‘Faust’ DOCH have you me this recently given} \\
     & \quad \text{‘A: Since when have you owned the “Faust”? B: But you gave it to me recently!’}
\end{align*}
\]

\textsuperscript{2}Such examples suggest that the host utterance is not presupposed material. Otherwise, one would have to explain why it cannot be simply accommodated in case it is not yet part of the common ground.
alternatives as diagnosed in Grosz (2010). The position of focus helps to identify the two potentially conflicting propositions \( p \) and \( q \).

Second, the semantic analysis differs from the one of Grosz (2010), which assumes the reverse entailment \( q > \neg p \). However, this (non-equivalent\(^3\)) entailment would state something completely different, viz., that the \( doch \)-utterance (not the utterance it reacts to) is unexpected in the light of \( q \), since, given \( q \), one would expect \( \neg p \). This entailment does play an important role in CG management, but is introduced not by \( doch \) but by the discourse particle \textit{schen} (Egg, 2012).

From a discourse-semantic perspective, the defeasible entailment of \( doch \)-utterances blocks an automatic updating of the CG in terms of \( q \). By pointing to a potential incompatibility, they trigger a re-checking of the previously forwarded information, which may come in form of an assertion, like in (1), of a felicity condition of a preceding utterance or of the \( doch \)-utterance itself, as in (2) and (3), respectively, or of a presupposition, as in (9):

(9) [The king of France died yesterday].
   Warte mal, Frankreich ist \( doch \) keine Monarchie!
   ‘Wait a minute, but France is no monarchy.’

This flexibility is due to the fact that the semantic arguments of \( doch \) are anaphoric and must be identified with suitable propositions from the context. The literal interpretation of the host utterance and an utterance it reacts to are potential antecedents, but not the only feasible ones.

Third, following Egg (2010) we assume that discourse particles cannot only refer to the propositional content, but also to the felicity conditions (Searle, 1969) of a preceding utterance or of themselves. This flexibility in finding appropriate values for \( p \) and \( q \) explains the presence of \( doch \) in reaction to non-declarative utterances: In (2), the \( doch \)-utterance relates to the first preparatory condition of the preceding question, i.e., \( q = \) hearer does not know since when the speaker has owned the ‘Faust’, \( p = \) hearer has given the ‘Faust’ to the speaker and the defeasible CG-entailment \( p > \neg q \) (an instantiation of the general pattern \( X \) has given \( Z \) to \( Y \) > \( X \) knows since when \( Y \) has owned \( Z \)).

In (3), \( doch \) refers to the first preparatory condition of the request, that the speaker believes that the hearer is in a position to sue the speaker. In other words, using \( doch \) suggests to the hearer that the speaker does not believe that he is actually capable of suing the speaker, which explains the very provocative effect of \( doch \) in (3). Discourse particles relate to speech acts thus in a different way than assumed in earlier work, viz., as speech act modifiers, (Jacobs, 1991, Zeevat, 2004), or as operators on felicity conditions of speech acts, (Karagjosova, 2004).

Finally, our analysis generalises the standard assumption that the propositional content of the \( doch \)-utterance is grounded in the CG (e.g., Thurmair 1989 or König and Requardt 1991). While the special status of the host utterance can be due to its being part of the CG, as illustrated e.g. by (1) and (2), this utterance need not be part of the CG, because otherwise one could not use \( doch \) in utterances like (4). Such utterances directly contradict a preceding utterance, therefore, they cannot be part of the CG of the interlocutors of this discourse when they are produced.

This analysis is also corroborated by (10), in which \( doch \) is licensed by the explicit presence of (mutually incompatible) alternatives. Crucially, there are also matrix occurrences of \( doch \) that

\(^3\)Following Asher and Lascarides (2003), we define defeasible entailment \( \alpha > \beta \) as material implication \( \alpha \land \gamma \rightarrow \beta \), where \( \gamma \) describes conditions of being normal with respect to \( \alpha \). Equivalence between \( \alpha > \neg \beta \) and \( \beta > \neg \alpha \) would only hold if normality was defined independently of \( \alpha \), as e.g. in the ‘otherwise’ conditions of Hobbs et al. (1993).
do not require grounding, as illustrated by (11), in which doch occurs in a narrative report of new information and is licensed by the presence of focus alternatives:

(10) [Also, I am sure that the members of the Swedish academy, in their search for worthy candidates, have carefully considered the issue of . . . ]

ob nicht der Rhesusaffe oder der Hund, wenn nicht die Maus, dann doch das whether not the rhesus.monkey or the dog if not the mouse then doch the Meerschweinchen geehrt werden müßte. (Günter Grass, Die Rättin)

guinea.pig honoured be needed

‘whether not the rhesus monkey or the dog should be honoured, if not the mouse, then at least the guinea pig’

(11) „Sei be quiet, du dummer Räuber!“, schrieb der Räuberhauptmann. Aber ein kleines bisschen be quiet you stupid robber cried the robber.captain but a little bit erleichtert sah doch auch er aus. (Kirsten Boie, Der kleine Ritter Trenk)

relieved looked doch also he

“Be quiet, you stupid robber,” the robber captain cried. But he looked a little relieved, too.’

Since doch does not always ground its host utterance, as this effect typically only shows up with matrix-doch in inter-speaker exchanges, we conclude that it is not part of its lexical meaning.

It is the default case of special status of the host utterance, however. We assume that this interpretive effect arises pragmatically, because it is the most cooperative way of interpreting the utterance: By assigning as much information of the utterance as possible to presupposition, the assertion is minimised, which allows the hearer to make sense of the utterance in a wider range of contexts (the ‘principle of benevolence’ of van Eijck and Pinkal 1996). I.e., if information can be regarded as part of the CG, one should do this. But this implicature can be blocked in the case of examples like (10) and (11), in which the doch-utterance clearly introduces new information.

This strategy would also be followed if interpretation is regarded as abduction as in Hobbs et al. (1993): Here the hearer tries to identify as much of the content of an utterance as possible with material from his previous knowledge. But in a context in which he does this to information the speaker presented as not debatable, this amounts to identifying this content with knowledge shared by himself and the speaker, i.e., knowledge from the common ground.

Alternatively, one could put down this default interpretation to politeness reasoning: Presenting information as non-debatable is an imposition onto the hearer (a face-threatening act in the sense of Brown and Levinson, 1987), because it threatens to restrict his liberty to assess this information first and then decide whether he wants to accept it. However, if this information is non-debatable because it has CG status, there is no such threat, because then the hearer has already accepted it voluntarily. If now the hearer assumes that the speaker is as polite as possible, he will favour the non-threatening CG status interpretation unless this is clearly ruled out by the context.

But regardless of how this CG status of doch-utterances arises, analysing it in terms of such pragmatic reasoning predicts that it cannot show up in the case of accented DOCH, because these introduce actual (not only potential) contrasts between the doch-utterance and previous utterances. This difference can be explained in terms of our analysis of DOCH, to which we turn now.
3 Extending the analysis to **DOCH**

In this section, we extend the analysis of unaccented *doch* to its accented counterpart illustrated in (4)-(6) above, and once more in an example with VP-ellipsis:

(12) Context: [At first Malte didn’t want to go to Utrecht, ...]
    aber dann hat er es DOCH gemacht.
    but then has he it DOCH done
    ‘(At first, Malte didn’t want to go to Utrecht,) but then he DID (after all).’

A unified analysis is motivated by the fact that the two instances of the particle share two crucial properties: They express the notion of contrast, and they are discourse-anaphoric to a contextually salient proposition.

Based on this, and elaborating on earlier work by Gutzmann (2010) on accented *JA*, our first hypothesis summarised in (13) will be (i.) that unaccented *doch* and accented *DOCH* have the same semantic interpretation as described in (8), and (ii.) that accent on *DOCH* is due to the fact that it occurs in a verum focus environment, in which the *p*-proposition is given and backgrounded, for which reason the remainder of the clausal material must be de-accented.

(13) **DOCH** = *doch* + verum focus

This initial hypothesis (to be generalised in section 4) accounts for the bulk of the data with accented *DOCH*, and for the similarities and differences between unaccented and accented *DOCH*. Section 3.1 introduces verum focus, 3.2 shows how the verum focus hypothesis explains the central properties of *DOCH*, and 3.3 points out several correct predictions of the proposal.

3.1 Verum focus

The information-structural category of *focus* induces an the bi-partition of the content of a clause into *focus* and *background* (see e.g. Krifka, 2008), which can be conceived of as the two components of a structured proposition:

(14) <background, focus>

According to Höhle (1992), sentences with verum focus do not focus on the propositional content *p* of the clause, which is given and backgrounded in the sense that it has been introduced as a conceivable state of affairs in the preceding context, but not established as a true fact in the utterance world *w*. The element in focus is a zero truth value operator *verum*, i.e. *true* as opposed to *false*, which in German is located in the complementiser head C. As a result, verum focus is marked by focus accent on a complementiser or the finite verb in C:

(15) A: I wonder whether *Malte went to Utrecht.*
    B: Malte IST nach Utrecht gefahren.
    Malte is to Utrecht gone
    ‘Malte DID go to Utrecht.’

Höhle and Zimmermann (2007) advocate a more passive role for the semantics in accent placement. On this alternative view, there is no verum operator in the syntactic representation.
The verum focus effect with a focus on the truth value of the clause is simply the result of backgrounding the given proposition \( p \), which is presupposed in the sense above. Accent placement on C is then simply the result of deaccenting the presupposed propositional content of the clause.\(^4\) Formally, the two views on verum focus yield the same focus-background structure in (15):

\[
\langle \lambda Q_{(s,t)}.Q(\lambda w.\text{Malte went to Utrecht in } w), \lambda p_{(s,t)}.p \rangle
\]

There are several typical verum-focus inducing contexts in which a proposition \( p \) is given or entailed by the preceding discourse. Forward-looking (new information) verum focus shows up in answers to indirect yes/no-questions, as in (17), or the confirmation of a supposed or expected path of events, like (18):

(17) A: I wonder if/whether Peter will come. B: He WILL come (for sure)!
(18) He promised to write the paper and he DID write the paper.

Backward-looking (contrastive) verum focus appears in explicit contradictions, e.g., in (19) or the denial of a negative expectation as in (20). Contrastive verum focus is also found in conditional clauses, here it highlights the conditional possibility of \( p \) against a negative expectation, as in (21):

(19) A: Peter didn’t finish his term paper. B: (Of course), he DID finish it!
(20) A: I don’t think he finished the paper. B: (But), he DID finish it.
(21) I doubt that he’ll do it, but IF Peter finishes the paper, the teacher will be surprised.

Let us now consider what happens when the particle doch occurs in a verum focus environment.

3.2 Analyzing DOCH \( p \)

Repeating the central hypothesis, DOCH is an instance of doch with the basic meaning in (8) in a verum focus context. The unified analysis directly explains why the two instances of doch have the same contrastive meaning and anaphoric nature. Prosodically, the nuclear pitch accent must be realised on doch because the remainder of the clause, which expresses the core proposition, is given in verum focus contexts and hence must be deaccented. Since the nuclear pitch accent must be realised somewhere in the clause, and doch is the only new lexical element in the clause, the accent must be realised on DOCH because it cannot be realised elsewhere.

Moreover, the analysis derives all the specific properties of accented DOCH from the prosodic and contextual properties of verum focus: First, unlike doch, DOCH can occur with VP-ellipsis, as illustrated by (12), and even as the sole expression of the utterance under sentential ellipsis, as in (22), because it carries accent and because \( p \) is given and can be elided under verum focus:

(22) A: Peter ist nicht krank B: DOCH.
   ‘A: Peter is not ill. B: He IS ill.’

Second, the contextual licensing requirements are stricter for DOCH than for doch: Whereas doch only requires some contrasting discourse antecedent as its second argument, verum focus requires this antecedent to be identical to \( \neg p \). As expected, an utterance of DOCH \( p \) is infelicitous in (23), in which \( \neg p \) is not found expressed in the preceding context.

\(^4\)See also Romero and Han’s (2004) analysis of verum and the counterarguments in Gutzmann and Miró (2011).
A: I can’t stand St. Pauli. How about you?
B1: # Das ist DOCH eine gute Mannschaft.
that is DOCH a good team
B2: Das ist doch eine gute MANNschaft!
that is doch a good team
‘But they are a good team.’

In other words, DOCH introduces an actual (not only potential) contrast. Consequently, DOCH-utterances (as opposed to doch-utterances) are never part of the CG.

Third, the identity requirement on the antecedent proposition imposed by verum focus and the contrastive lexical meaning of doch conspire to restrict DOCH to negative contexts that express or entail the negative antecedent ¬p. This holds for DOCH-utterances as reactions to questions, too:

A: Hast du keinen Hunger? B: DOCH.
‘A: Aren’t you hungry? B: Well, in fact, I am.’

A: Hast du Hunger? B: #DOCH.
‘A: Are you hungry? B: Well, in fact, I am.’

Fourth, as verum focus is freely embeddable, and since unaccented doch is licit in embedded contexts in principle (see (10) and (11) above), the analysis correctly predicts that accented DOCH is frequently found in embedded sentences as well.

Es kamen nur wenige Gäste,
‘Only few guests showed up,...,’
aber die wenigen, die DOCH gekommen sind, bereuten es nicht
but the few that DOCH come are regretted it not
‘...but the few that DID come did not regret it.’

Ich glaube nicht, dass Pauli gegen Bayern gewinnt....
‘I don’t expect St. Pauli to win against FC Bayern’
aber wenn sie DOCH gewinnen, sind sie gerettet
but if they DOCH win are they safe
‘...but IF they win, they’ll be safe (from relegation).’

St. Pauli hat nicht gewonnen,...
‘St. Pauli didn’t win’
aber Peter glaubt immer noch, dass sie DOCH gewonnen haben.
but Peter believes always still that they DOCH won have
‘...but Peter still believes that they DID win after all.’

These data show that the presence of DOCH signals mere contrast between different parts of the discourse and is not contingent on an independent illocutionary force of the embedded clause (pace Coniglio, 2011).
Finally, and perhaps most importantly, we must explain why the general inference patterns from the non-linguistic context/world knowledge (e.g. if somebody is ill he won’t go the disco) that play such a prominent role in the semantics of unaccented *doch* are no longer relevant with accented *DOCH*. E.g., in (29), B merely refutes A’s preceding assertion to the effect that Peter is not ill by stating that he is in fact ill:

       Peter is not ill DOCH he is DOCH ill
       ‘A: Peter is not ill. B: Yes, he IS.’

In our analysis, this observation falls out directly and compositionally: The inference pattern is still in place, but gets trivialised so that it becomes irrelevant and its effect is no longer visible. This irrelevance arises through the interaction of verum focus with the lexical meaning of the particle. In particular, the defeasible entailment from $p$ to $\neg q$ is trivially satisfied in verum focus environments given that the *DOCH*-proposition $p$ and its negated antecedent $q$ are each other’s negation.

For (29), $p$ = ‘Peter is ill’ (the *doch*-proposition) and $q$ = ‘Peter is not ill’ (the antecedent proposition), so the defeasible entailment scheme $p > \neg q$ returns the following:

(30) $p > \neg q \iff$ Peter is ill $> \neg(\neg$Peter is ill) $\iff$ Peter is ill $> \neg$Peter is ill

In verum-focus environments that license *DOCH* $p$, the defeasible entailment condition of *doch* is thus always trivially satisfied in terms of $p > p$, which triggers the intuition that it is no longer there, when in fact it is only trivialised.

By contrast, the same defeasible entailment condition of *doch* is responsible for blocking the occurrence of *DOCH* $p$ in non-contrastive contexts. Consider e.g. the infelicitous example (31) in which the *DOCH*-proposition is identical to the antecedent proposition *St. Pauli won*, the default entailment leads to a contradiction of the type $p > \neg p$:

(31) A: St. Pauli hat gewonnen. (= q) B: #DOCH, sie haben gewonnen. (= p)
       St. Pauli has won DOCH they have won
       ‘A: St. Pauli won. # But they DID win.’
(32) $p > \neg q \iff$ St. Pauli won $> \neg$(St. Pauli won)

### 3.3 Further Predictions

Our analysis of *DOCH* as *doch* + verum makes further correct predictions: First, if all instances of *DOCH* $p$ involve verum focus, the deletion of *DOCH* should result in a shift of the focus accent to the complementiser or finite verb in C. What is more, all instances of accented *DOCH* should be replacable with plain verum focus, but not vice versa. This prediction is so far borne out (but see section 4 for further discussion). As an illustration, consider (33) and (34), the *DOCH*-less counterparts of (4) and (26), respectively. Such counterparts can be formed for the other examples (5)-(6) and (27)-(28) in an analogous fashion.

       M. is not to Utrecht gone he is to Utrecht gone
       ‘A: Malte didn’t go to Utrecht. B: He DID go to Utrecht.’
(34) Es kamen nur wenige Gäste,
it came only few guests
‘Only few guests showed up,...’
aber die wenigen, DIE gekommen sind, bereuten es nicht
but the few that come are regretted it not
‘...but the few that DID come did not regret it.’

Next, DOCH-utterances should only be found with some verum foci, viz., with contrastive or corrective instances of verum focus in negative-biased contexts (whose preceding context suggests that ¬p). This prediction is borne out. The following examples show that DOCH-utterances are licit with preceding negative verbs like verbieten ‘to forbid’, verweigern/ sich weigern ‘to refuse’, etc., but not with affirmative verbs, such as versprechen ‘to promise’ or erlauben ‘to allow’.

(35) Ich habe es Peter verboten, aber er HAT/ hat DOCH geraucht.
I have it Peter forbidden but he has has DOCH smoked
‘I told Peter not to, but he DID smoke (after all).’

(36) Ich habe es Peter erlaubt, und er HAT/ hat DOCH geraucht.
I have it Peter forbidden and he has does DOCH smoked
‘I allowed Peter to do it, and he DID smoke.’

Next, DOCH-utterances are correctly predicted to be illicit in contrastive corrections of affirmative antecedents, for in this case the accent is located on the negation nicht:

(37) A: Peter went away.
B1: Er ist doch NICHT weggegangen.
he is DOCH not gone.away
‘But he did NOT.’

B2: #Er ist DOCH nicht weggegangen.
he is DOCH not gone.away
‘But he did NOT.’

Finally, the analysis predicts that DOCH-utterances are licit in correcting responses to statements containing negative disjunctions:

(38) Neither Peter nor Mary nor John went away.
B: Maria ist DOCH weggegangen.
Mary is DOCH gone.away
‘But Mary DID go away!’

In sum, all these correct predictions corroborate our basic analysis of DOCH, which restrict it to contexts in which verum focus is licensed by a negative antecedent. In the last section, we will discuss cases without such a tight connection between DOCH and verum focus and their implications for the proposed analysis.

4 Modification of the analysis

So far we have argued for the strong claim that any instance of accented DOCH requires verum focus and that the co-occurrence of verum focus and doch automatically triggers accenting of the
particle. However, closer scrutiny shows that this picture is in need of refinement: There are instances of DOCH without verum focus as well as instances of verum focus with unaccented doch. We will argue that the tight relation of doch and DOCH can be maintained, because the accenting or non-accenting of doch follows from general phonological or information-structural factors in a principled manner.

We will generalise our hypothesis on the distribution of accented DOCH in the following way. The nuclear pitch accent is realised on DOCH whenever it cannot be realised elsewhere in the clause for general prosodic or information-structural reasons: (i.) When the rest of the clause is given and deaccented (verum focus) (ii.) When DOCH forms a prosodic unit with another (weaker) particle that would require accenting otherwise. (doch nur-cases) (iii.) In utterances with a topic-focus hat-contour when there is no other locus for the placement of the obligatory focus accent.

The remainder of this section will discuss DOCH outside verum focus environments, Section 4.1 presents the integration of DOCH into larger prosodic units, and section 4.2 is devoted to DOCH in utterances with a topic-focus hat-contour.

4.1 Accented DOCH in prosodic units

Contrary to our hypothesis on DOCH as developed so far, (39) with DOCH does not constitute an instance of verum focus, as the two related propositions differ in content: (p = she invited only Max, q = she invited Paul and Max). Optionally, the expected placement of accent on the (non-given) exclusive particle nur is also possible, as in (40). (41) shows that in the absence of DOCH, accent is realised not on the finite verb, but on the (new) exclusive particle nur:

(39) Sie wollte erst Paul und Max einladen, aber dann hat sie DOCH nur Max eingeladen.
    she wanted at.first Paul and Max invite but then has she DOCH only Max invited
    ‘At first, she wanted to invite Paul and Max, but eventually she only invited Max.’

(40) Sie wollte erst Paul und Max einladen, aber dann hat sie doch NUR Max eingeladen.
    she wanted at.first Paul and Max invite but then has she DOCH only Max invited
    ‘At first, she wanted to invite Paul and Max, but eventually she only invited Max.’

(41) *Sie wollte erst Paul und Max einladen, aber dann HAT sie nur Max eingeladen.
    she wanted at.first Paul and Max invite but then has she only Max invited
    ‘At first, she wanted to invite Paul and Max, but then she ONLY invited Max.’

The unexpected optional accenting of DOCH in (39), next to the expected accenting of nur in (40), is no counterexample to the analysis, but can be captured if sequences of (prosodically weak) particles are combined into a single prosodic domain (particle phrase) for purposes of accenting (cf. the clitic phrase of Nespor and Vogel, 1986): If so, accent is expected to shift optionally from weak-syllabic nur to heavy-syllabic doch as the more natural stress/accent bearer.

(42) x x
    (DOCH nur)PartP >> (doch NUR)PartP

This analysis predicts correctly that accent is on nur when additional material intervenes between the two particles, thus blocking optional accent shift:
(43) Sie wollte erst Paul und Max einladen, aber dann hat sie doch wohl/wie du
   she wanted at.first Paul and Max invite but then has she DOCH presumably as you
   know only Max invited
   ‘At first, she wanted to invite Paul and Max, but eventually she presumably/as you know
   only invited Max.’

We conclude that independent prosodic constraints on accent placement may have a
confounding effect on the distribution of accented DOCH, which provides evidence for the
interaction of independent grammatical modules (prosody, semantics), but no evidence for
postulating different lexical meanings for doch and DOCH.

4.2 Accented DOCH utterances with a topic-focus hat-contour

The second type of DOCH occurrences outside verum focus environments involves a topic-focus
hat contour as in (44) (the example is due to A. Haida, p.c.):

(44) Eigentlich wollte ich mir ein faules Wochenende machen, aber /DANN habe ich mir DOCH
   at.first would I me a lazy weekend make but then have I me DOCH
   (wieder) Akten mit nach Hause genommen.
   again files with to home taken
   ‘At first, I wanted to spend a lazy weekend, but then I took some files home after all.’

In (44), DOCH is accented even though the two propositions are not identical and the
corresponding sentence without doch has no verum focus accent on the finite verb in C:

(45) *Eigentlich wollte ich mir ein faules Wochenende machen, aber dann HABE ich mir
   at.first would I me a lazy weekend make but then have I me
   (wieder) Akten mit nach Hause genommen.
   again files with to home taken
   ‘At first, I wanted to spend a lazy weekend, but then I took some files home after all.’

The accenting of DOCH in (44) cannot be put down to de-accenting under givenness of p,
following the pattern of the verum focus examples in section 3. We assume that it is due to optional
de-accenting under predictability. E.g., Bolinger (1972) gives the example (46), in which the
expected focus-induced accenting on both the subject and the verb is not realised, because the verb
is predictable:

(46) Q: What happened? A: ROBBers have stolen from me!

   In the case of (44), the expectation that the speaker did take files home is supported by various
   elements in the linguistic context: the contrast between eigentlich ‘at first’ and dann ‘then’, the
   contrastive conjunction aber ‘but’, and the repetitive adverb adverb wieder ‘again’, which indicates
   that the event in question is stereotypical, or known from previous occurrences.

   I.e., once again DOCH is accented because the rest of the clause is deaccented, but, this time,
because of the predictability of the rest. Since this deaccentuation is optional, we predict that
ordinary sentence accent (and, hence, unaccented doch) is possible in (44) without a significant
change in the meaning of particle, which is borne out:
(47) Eigentlich wollte ich mir ein faules Wochenende machen, aber dann habe ich mir doch wieder PersoNALakten mitgenommen.

‘At first, I wanted to spend a lazy weekend, but then I took some personal files after all.’

5 Conclusion

To sum up, we have presented an analysis of accented DOCH that explains its distribution as the result of general prosodic or information-structural reasons. We showed that our initial analysis, in which the behaviour of DOCH was explained in terms of the occurrence of the unaccented particle in verum focus contexts, could be generalised to the more abstract insight that nuclear pitch accent is realised on DOCH when it cannot be realised elsewhere in the clause.

Assuming a looser connection between verum focus and accenting of DOCH is supported by the fact that doch can also remain unaccented in verum focus contexts, with a significant change in the discourse semantics. We postpone the analysis of these cases to another occasion, however:

(48) Peter hat DOCH gewonnen.

‘Peter has won after all, contrary to all expectations.’

(49) Peter HAT doch gewonnen.

‘Peter did win, contrary to what you are saying.’

References


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