

# History and Grammaticalisation of ”Doch” /”Toch”

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## 1 Introduction

Dutch *toch* or German *doch* give rise to an almost paradoxical question, first noted by [Doherty(1985)]. If the sentence is presented with stress on *toch/doch* the conditions of use become the opposite from the same sentences with the stress removed.

- (1) Hij komt TOCH.  
Er kommt DOCH.  
*He is coming, although we believed he was not.*
- (2) Hij komt toch.  
Er kommt doch.  
*You know he's coming.*

The first speech act (1) is a correction, normally of the common ground between speaker and hearer and the second speech act (2) is a reminder of some common ground fact. The problem is how to derive these two different uses from the same conceptual source (the meaning of *doch/toch*) and a general account of the import of accent in interpretation. It is not an easy problem, since in Rooth's account of accent ([Rooth(1992)]) all that accent contributes is the salience of an alternative to the accented part, here the particle. That works fine in (1), since the interlocutors believed (3), a clear

alternative in the sense of Rooth. It can therefore be explained why accent appears on the particle in (1), but the explanation fails completely to predict why a quite distinct speech act results when the accent is omitted. One should be back at the core meaning without a salient alternative. But what is a correction of the common ground without a salient element of the common ground to be corrected? And what would it mean to remind somebody of a known fact while making its negation salient?

- (3)       Hij komt NIET.  
          Er kommt NICHT.  
          *He is NOT coming.*

Notice that in (2) other alternatives can be salient.

- (4)       PETER war doch in Frankfurt.  
          You know it was Peter who was in Frankfurt

(4) will have a salient alternative, say *You know it was John who was in Frankfurt*, so the problem is not that reminders cannot have salient alternatives. The problem is that (3) is the only good alternative to (2) and assuming it is salient seems to destroy the point of the reminder and moreover does not lead to the meaning of (1). It would appear that the particle with accent and the particle without accent have acquired independent meanings and that —contrary to what is generally assumed— Dutch and German are distinguishing words by means of word intonation alone.

In this paper, we explore the history of the particle in order to solve this problem, largely in order to see whether progress can be made by applying the ideas in [Zeevat(2007)] about *spread* in language evolution. Our claim is that in its original meaning the intonational contrast is as expected. Spread of uses of both the accented and unaccented *toch/doch* has resulted in a set of new uses, related to but distinct from the original use. Certain of those uses cause accent to appear because there is a contrasting and activated alternative, while other uses rule out accent. This results in accent (with the syntactic position of the particle) being one of the factors that disambiguates between the different uses of *doch/toch*. Accent in this view does not have its own meaning, but it has a triggering condition. The triggering condition is compatible with only some of the possible uses. There could be no compositional theory that takes the meaning of *doch* and the meaning of accent and combines them into the meaning of accented *doch*.

In section 2, an overview is presented of the different German and Dutch uses. Section 3 is about the view that words like *toch/doch* can be described

by means of a core meaning. Section 4 discusses the alternative model of spread in the evolution of languages. Section 5 provides a possible historical explanation.

## 2 Overview of the uses of *doch* and *toch*

This section is an overview of the uses of *doch* and *toch* in German and Dutch. While there is a large overlap, there are also differences. Labels are introduced for the uses and these labels are used later on in the text. The overview is close to [Foolen(2003)], but adds some differences between Dutch and German.

### Questions with assertion syntax

Asking for confirmation of something the other speaker said, prompted by having the opposite information (**correction confirmation question**):

- (5) Hij komt TOCH ?  
Er kommt DOCH?  
*Is he coming after all?*

Confirmation of old common ground information, to make sure, or because the other seems to have forgotten (**reminder question**):

- (6) Hij komt toch?  
Er kommt doch?  
*You know he's coming, isn't he?*

- (7) Ik ga toch 2 weken weg?  
Ich bin doch weg die nächste zwei Wochen?  
*You know I am away the next two weeks?*

It is one of the most remarkable properties of *doch/toch* that it can make assertive sentences into questions. Unaccented *doch/toch* cannot be used with inversion, at least in polar questions.

### Questions with question syntax

Asking for confirmation of correction of common ground: you were not coming but now you seem to be. They are not different from the corresponding question without inversion:

- (8) Kom je TOCH ?  
Kommst du (also) DOCH ?  
*So you are coming after all?*

Inversion is not possible with unaccented *toch/doch*:

- (9) \*Kom je toch?  
Kommst du (also) doch?

### Assertions

**Correction** of common ground:

- (10) Hij komt TOCH.  
Er kommt DOCH.  
*He is coming after all.*

### correction particle

(TOCH WEL and DOCH: correction of negation):

- (11) TOCH (WEL/NIET)!  
DOCH (NICHT)!  
*No!*

### proconcessive use:

The previous context contains a reason for thinking otherwise, which must be identified in a proper interpretation. The accent is weaker than in the correction cases.

- (12) En TOCH kwàm hij.  
Und DOCH kám er.  
*He came though.*

**Reiteration** of old common ground information:

- (13) Hij komt toch.  
Er kommt doch.  
*He's coming, you know he is.*

**Common ground marker:**

- (14) Als je toch hierheen komt, neem het boek dan mee.  
Falls du sowieso hierher kommst, nimm das Buch dann mit. (not with *doch*).  
*If you are coming here anyway, bring along the book.*

### Reminding causal:

- (15) Ik ben immers rijk. (not with *toch*)  
Bin ich doch reich. (with obligatory inversion)  
*Because, as you know, I am rich.*

### Imperatives

Idiomatic: refusal to believe the other is sincere in what he is saying:

- (16) Kom toch!  
Not in German.  
*Come on.*

Non-idiomatic: exhortation to come, mitigating the imperative by presuming a common ground that this is the correct thing to do (?):

- (17) Kom toch!  
Komm doch!  
*Do come!*

Request for coming, while it was clear the interlocutor would not do that.

- (18) Kom TOCH!  
Komm DOCH!  
*Change your mind and come!*

### Wh-questions

Reasking an already answered direct question when one has forgotten the answer:

- (19) Wie heeft er toch dat artikel over contrast geschreven?  
Wer hat doch dieses Papier über Kontrast geschrieben?  
*Who was it that wrote this paper about contrast?*
- (20) Wat was dat toch voor voetbalwedstrijd?  
Was war das doch für ein Fussballspiel?  
*What soccer game was that?*
- (21) Wie heeft er toch de cake opgegeten?  
Wer hat denn den Kuchen aufgegessen? (not with *doch*)  
*Who ate the cake?*

The meaning of *doch/toch* is not clear in the last two cases. They are only available with the unaccented *doch* and *toch*. It seems the *wh*-question must be related to a common ground fact.

## Exclamations

Exclamation of criticism of addressee:

- (22) Peter *toch*!  
Aber Peter! (not with *doch*)  
*But Peter!*

Exclamatives (surprise over CG fact?):

- (23) Wat is hij *toch* slim!  
Wie klug er *doch* ist!  
*How clever he is!*

Wishes (their fulfilment is already in the CG?):

- (24) Als hij *toch* zou komen!  
Wenn er *doch* käme!  
*If he would come!*

## Conjunction

**Adversative conjunction:**

- (25) Die Lage ist ernst, *doch* nicht hoffnungslos.  
Not in modern Dutch.  
*The situation is serious but not hopeless.*

The same root in other languages

### English

**Proconcessive:**

- (26) He is coming *though*.  
Doch kommt er.  
Toch komt hij.

**Concessive conjunction:**

- (27) *Though* he is ill, he is still coming.  
Not with *toch* or *doch*.

### Swedish

*dokh*, apparently taken from German. Mostly concessive.

### spoken Russian

The reminder particle *–to* ([McCoy(2003)]).

### Gothic

Will be discussed in section 5.

### Sanskrit

*tu* as the contrastive conjunction ([Sturtevant(1928)]).

## 3 Core meanings

As stated in the introduction, the main two assertion uses are distinguished by intonation. Without accent *toch/doch* is a modal particle for common ground status and with accent, it becomes a correction particle. These are near opposites and it seems hard to connect the two uses from a core meaning and intonation.

(28) Peter kommt DOCH.  
*Peter is coming and we thought he was not.*

(29) Peter kommt doch.  
*Peter is coming as we always thought.*

How to do this with intonation theories? Following [Rooth(1992)], the accent relates to a set of alternatives that can be obtained by replacing elements of the same category for the accented item. For Rooth, it only depends on the context which substitution instances are in the set. [Zeevat(2004)] argued that proper alternatives to *x* must be distinct from *x* and that distinctness requires that it is incompatible with the common ground that the two items could still be identical. For the category of particles to which *toch/doch* belongs this would work out as conceptual incompatibility. That condition is only fulfilled by full negation, so that *Peter kommt NICHT* is the only alternative.

In the correction use, the correct alternative is given by the common ground knowledge that is to be corrected. It is of the form *p* if the utterance is DOCH NICHT *p* and of the form NICHT *p* if the utterance is DOCH *p*. But taking the meaning of the unaccented *doch* (*p* is common ground) and adding to that the salience of the negation of *p* does not give us a correction. *p* is precisely not common ground if the correction *p* makes any sense and it is

not possible to assume that not- $p$  is common ground if  $p$  is also common ground. Correction with unaccented *doch* is possible when the other speaker seems to have withdrawn his earlier commitment to  $p$ . *Doch* is used in this case to remind the other speaker that  $p$  really is common ground.

One strategy that one can follow to solve this puzzle is to assume a core meaning for *toch/doch* that underlies both the accented and the unaccented *toch/doch* which derive their meaning in a given context from the core meaning and pragmatically based reasoning about the content in the context.

One of the most worked out approaches on this line is [Karagjosova(2003)] that proposes a core meaning of *denial of earlier expectation*, following earlier work of [Weydt(1969)]. In the case of correction, the earlier expectation can be equated with whatever is corrected.

- (30) Peter ist also DOCH verreist.  
*Although I had reasons to believe that Peter would not leave, he has left.*

In the non-accented case it is denial of the speaker's expectation about what the hearer believes. In the example below, B expects A to believe that Peter is away on a journey, but A's contribution can only be taken as indicating that A has forgotten all about it.

- (31) A. Peter kommt also mit.  
B. Er ist doch verreist.  
A. *Peter is coming along then.*  
B. *But he has left, hasn't he?*

In the case of the accented DOCH, one can take the salient negative alternative presupposed by the accent on DOCH as a way of indicating which expectation is violated: the expectation that Peter would not have left on a journey. And in fact one can show that there is a whole range of possible sources for the violated expectation with the common ground only being one of them: the speaker only, the hearer only, third party opinions, the linguistic context, a plausible inference from what has just been said. For the unaccented *doch*, the speaker's expectation that the hearer believes  $p$  is a plausible basis for assuming that  $p$  is common ground between the speaker and the hearer. If the speaker expects the hearer to believe  $p$  but does not in fact believe  $p$  herself, presumably she should indicate her dissent.

What are the problems with this account? First of all, while denial of expectation is a common ingredient of both denial of an expectation about the



hearer's belief that *p* and denial of expectation that *p*, it is not clear that an intonational account on the lines of [Rooth(1992)] is able to relate the two expectations. Why should accent lead to denial of expectation with respect to *p*, when it is just the denial of the expectation that the hearer believes *p* in the unaccented case? This would not be a straightforward application of what is understood about accent.

The second problem is that there are subtle differences between Dutch and German: combining unaccented *doch* with questions is more frequently out, and there are cases like (32) that are not in German.

- (32) Als je toch hierheen komt, neem het boek dan mee.  
*If you are coming here anyway, bring along the book.*  
*Falls du sowieso hierher kommst, nimm das Buch mit.*

Now if the core meaning is the same in both languages (and there is a very large overlap) the same pragmatical reasoning should apply and there should be no such distinctions. In addition, the proposed core meaning seems to be absent in (32): it is common ground between speaker and hearer that the hearer will come to the location of the speaker and that common ground knowledge is just mobilised for planning the return of the book: there is no suggestion at all that the hearer has forgotten about his plan to come over. A similar case is the following example.

- (33) Ik ga toch 2 weken weg?  
Ich bin doch weg für 2 Wochen?  
*You know I am away for two weeks?*

There is no indication in this example that the hearer does not know anymore about the speaker's travelling plans: the purpose of the speaker is just to bring it up again so that she can now ask the hearer to water her plants while she is away. (The absence in Dutch of the particle *ja* may explain why Dutch has a wider range of uses here: *ja* is a less ambiguous common ground marker). The reminding causal uses in German (*Bin ich doch reich.* are however another case in point.

So while we accept in principle the possibility of a core meaning approach, we have doubts in this particular case with respect to the possibility of a core meaning theory that meets the two demands: (a) the core meaning is present in all uses and (b) each use can be fully explained using the core meaning and pragmatic reasoning only. There seems to be no proposal that fully does the job.

It is a point in favour of core meaning theories that they do justice to the intuition of a conceptual unity behind a rich variety of uses. But it does not seem that the alternative theory of a historical process in which the different uses are formed is unable to account for this intuition. A historical account has the advantage that differences between languages are not problematical and that the pragmatic reasoning becomes superfluous, or gets a different role. This is the road that we will pursue in the next section and beyond.

## 4 Spread in Grammaticalisation

[Zeevat(2007)] investigates the possibilities of simulating one central step in the grammaticalisation process in a probabilistic model: the *recruitment* of a word for a new use. In recruitment, an existing word acquires a new use, often described as weaker, more pragmatical and grammatical. Recruitment is the standard process assumed for the origin of the functional inventory of languages: all grammatical morphemes, auxiliaries, articles, prepositions, pronouns and particles, with the possible exception of demonstratives ultimately derive from lexical words by recruitment.

In the model<sup>1</sup> recruitment happens under three conditions:

- a. the source use weakly entails the target use (if the source use obtains, the target use holds more often than not) ( **push**)
- b. non-recognition of the target use leads to "serious" communicative failure
- c. non-expression of the target meaning is overwhelmingly interpreted as excluding the target use (with b together: **pull**) and the target meaning lacks an alternative expression device.

Without push, the use of the word is not able to evoke the new meaning, without pull there is no reason for the new formation.

Depending on the relative natural frequencies of the old use versus the new use, the new use can either end up coexisting with the old use (**spread**) or take over the word entirely (**usurpation**).

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<sup>1</sup>The model makes reproduction of a use dependent on its communicative success, i.e. on whether the hearer correctly identifies the speaker's intention with his expression. Communicative error is also relativised to the importance of the error: important errors lead to less reproduction. On this basis, historical events like spread and usurpation can be simulated by the change of probabilities guiding the use and interpretation of linguistic expressions for certain meanings.

Usurpation is also prevented if the new use and the old use are protected from each other, i.e. there are features of both uses such that confusion of an old use for a new use or vice versa is unlikely. The attested grammaticalisation of words for “head” to become the local preposition corresponding to English *on* is a case in point, since the prepositional and noun uses cannot be confused for each other in this case.

As an example consider spread as an account for the proconcessive use of *toch/doch* as derived from its correction use:

- a: the fact that the common ground contains an opposite opinion of the speaker, the hearer or somebody else weakly entails that the common ground contains recent information from which one may infer the opposite of what is said –People’s opinions are reasons for thinking that what they say is true
- b: non-recognition leads to the availability of  $p$  in memory as a reason for thinking that not- $q$  — while  $q$  is the case.

(34)      It rains. Peter is going for a walk.  
            If it rains, people normally do not go for walks.

Marking Peter’s walking by a proconcessive is effective in removing the inference that Peter is not going for a walk.

- c: A plain assertion is an answer to a fully open issue.  
–Compare Stalnaker’s assertion conditions ([Stalnaker(1979)] that  $p$  is both new and consistent information, but the assumption used here is stronger: the common ground should not already contain reasons for inferring that  $p$  is true or false.

Further notice that in conversation the proconcessive use does not seem more frequent than correction and that it is hard to confuse one for the other: if there is no CG element that is corrected by the statement, the correction interpretation is out. If there is nothing in the context that normally causes the statement to be false, the proconcessive interpretation is impossible.

So spread of a correction marker to become both a correction and a proconcessive marker is possible and will happen in due time in the model unless there are other candidates for recruitment or other good ways of expressing the new meaning. It follows that it must be assumed that the other German proconcessives, e.g. *trotzdem* must have evolved as proconcessives after *doch* became one.

It is not necessary to think of spread as creating two different words just because there are two different meanings. In a study of the use of *already* as a perfective aspectual marker in Singapore English (next to its standard English use), [Fong(2003)] proposes the mechanism of semantic epenthesis. In this mechanism, the word projects a set of semantic features and the context can switch some of them off. Applied to this case, one could think of the correction marker spread to proconcession as projecting the combination of *proconcessive(X)* and *correction(X)*, with *X* standing for the antecedent, so that the existence of a proconcessive antecedent switches of the correction reading or vice versa. (Notice that it is impossible to be both the negation of *p* and a reason for *p* being false, i.e. to be both the corrected item and the proconcessive antecedent). Along these lines, a conceptual unity of the word can be maintained, even after spread.

What can spread do for *toch/doch*? Can one relate the different uses by postulating recruitment or other processes?

It is important below that the arrows are monodirectional: it should not be possible for the inverted process to happen.

It seems the uses in section 2 can be derived from each other partly by spread in the following way. This was already demonstrated for (b.) and it is plausible for (e.) as well.

- a. correction confirmation question  $\Rightarrow$  correction marking on anything
- b. correction marking  $\Rightarrow$  proconcessive
- c. proconcessive  $\Rightarrow$  contrastive conjunction
- d. reminder question  $\Rightarrow$  CG marker
- e. CG marker  $\Rightarrow$  mitigator (Abtönungspartikel) of imperatives, wishes, questions, exclamations, etc.
- f. correction marker  $\Rightarrow$  correction particles (DOCH (TOCH and *toch wel*), and DOCH *nicht* (TOCH NIET))

(c.) is a different case. The proconcessive *doch* occurs clause-initially and the process underlying the formation would be a reanalysis of the antecedent and the *doch*-clause as a single sentence and of *doch* as a conjunction. (a.) and (d.) can be analysed as spread by assuming that intonation separates their use as a marker of correcting questions or reminding questions from their use as correcting or reminding assertions. The assertive force is then intonationally expressed (which epenthesises the question feature) and leaves the

correcting or reminding feature. This would be a case of semantic epenthesis: the correcting confirmation question marker used on an assertion cannot mark "confirmation question" but still projects "correction". Similarly, a reminder question marker on an assertion, cannot mark "question" but "reminder" can still be projected.

This spread would result in accented *toch/doch* becoming a marker of correction and unaccented *toch/doch* in a marker of common ground.

A marker of common ground (e.) can likewise easily spread into being a mitigator. Asking somebody to do what they want to do anyway preserves face. Once mitigation has been established, it can further spread to wishes and questions.

Finally (f.) would come out of a process of ellipsis.

It is hard to see however that there is spread that connects the accented with the unaccented *dochs*. There are just two families of uses. A curious exception is the conjunction *doch* that is unaccented and so seems to fall outside the family of accented *dochs* to which it semantically belongs. It must be a property of conjunctions that they lose accent.

There are versions of *toch/doch* in other languages that seem to have the same origin. English has *though* as a concessive conjunction and as a pro-concessive, Swedish has *dokh* (adversative and concessive meaning), Russian *-to* (a reminder postclitic). These seem to be only fragments of the Dutch and German use and are not divided by accent. Gothic has a very wide range of otherwise unattested uses of *thau*, in addition to uses like the Dutch and German use.

The conclusion should be that while spread helps in accounting for the many uses (and liberates us from the task of accounting for the different uses by pragmatic reasoning from a core meaning), it still is unable to deal with the paradox with which this paper opened.

## 5 A Historical Explanation

In this section, we give a historical explanation of the paradox.

The particles *toch* and *doch* are derived from an Indogermanic origin *to + u + h* composed of the demonstrative *to*, the question marker *-u* and an emphatic marker *h* [Hentschel(1986)]. Given the nature of Indogermanic question marker in which the marker *-u* can be attached to anything that is questioned, a gloss may be *That?* or *Is that so?*

It should have a role in the sentence and the most reasonable role would seem

that of a question tag on an assertion: S, is that so?

There are three kinds of confirmation question. One can try to confirm one's own opinion, the opinion of a third party and one can confirm the opinions of the interlocutor. For the first kind, there are the so-called biased questions:

- (35) He is guilty, isn't he?  
He is guilty, yes?  
He is guilty, right?

For confirming the opinion of a third party, an open question that quotes the opinion seems the most appropriate.

- (36) Is it true/correct that he is guilty?

The hearer's opinion is checked with rising intonation questions.

- (37) He is guilty?  
He isn't guilty?  
Is he guilty?  
Isn't he guilty?

The Dutch and German questions in (38) have one property in addition to such rising intonation questions. They also presuppose the negation to have been common ground. The surprise and the bias in (37) can also be due to the speaker's private opinion. (37) and (38) however both seek confirmation of what the hearer just said.

- (38) Hij is TOCH schuldig?  
Er ist DOCH schuldig?  
Is he guilty after all?

How about the unaccented versions?

- (39) Hij is toch schuldig?  
Hij is toch niet schuldig?  
Er is doch schuldig?  
Er is doch nicht schuldig?

Here an old hearer/CG opinion is checked, quite possibly in reaction to some opinion of the hearer that casts doubt upon it. If so, it follows that the English question with reversed polarity is the adequate translation. But those can also be used if the speaker does not take his opinion to be common ground.

- (40) Hij is toch schuldig?: Isn't he guilty?  
 Hij is toch niet schuldig?: Is he guilty?

This relation with a claim of the hearer disappears when the reminder question has other reasons than seeking for confirmation as in (41).

- (41) Ik ga toch volgende week naar Spanje? Kan jij dan voor de planten  
 zorgen?  
 Ich bin doch nächste Woche in Spanien? Kannst du für meine  
 Pflanzen sorgen?  
*When I am in Spain next week, can you water my plants?*

In both cases *to + u + h* would get tagged onto a hearer opinion and thereby the hearer would be asked to confirm it. In both cases the hearer has committed herself to *p* in the past. The speaker wants to confirm whether the commitment is valid or still valid.

In Dutch and German these uses are still there and they are the only two uses where the same pragmatic meaning (please confirm that you believe *p*) is invoked with accent (indicating an activated contrasting  $\neg p$ ) and without. In section 4, it was shown how spread can account for the other Dutch and German uses.

There has been little development in the development of *doch* and *toch* in the recent history of German or Dutch. In fact, the very similarity between the Dutch and the German particle indicates that nearly all of the uses were in place when the languages separated and that the formation of the particle is very old. If moreover the Russian *-to* really has the origin postulated, *toch* etc. predates the split between Germanic and Slavic. If Sanskrit *tu* is indeed *to + u + h* the formation must be put back all the way to Indogermanic.

The arguments that can be given for the original meaning are the etymology and especially the presence of the question marker  $-u$  in it. The *to* picks up the preceding sentence and the  $-u$  questions it. That the sentence should be a repetition of something the hearer has said or confirmed before does not follow in the same way. But it is clear that *is that so?* on its own would be just a challenge to the hearer.

Further, among the uses in German and Dutch, it appears to be the only two that can both serve as a source for all the other uses by spread and the only two that can be semantically related to each other by having or lacking contrastive stress.

It should further be noted that with the exception of Gothic none of the other languages have uses of their descendent of *to + u + h* that are not part

of the Dutch/German array of uses and Gothic has a large overlap. These are the cases we found:

1. English: *Though* is concessive conjunction and proconcessive. It can be derived from Gothic/Dutch/German uses by assuming an incorporation process of the proconcessive to become the conjunction and by assuming that other uses have died out.
2. Swedish: *dokh* as English (but not a concessive conjunction). Adversative uses occur and even —rarely and only in a literary context— the strengthened question use. Again, the uses can be described as a part of the Dutch/German usage.
3. Russian: *-to* as a reminder clitic,
4. Sanskrit: *tu* is used as a contrastive maker like *but* i.e. one of the uses of *doch*.

A weak spot is that there is no older German, older Dutch or Gothic evidence for these two original uses. This may be due to the fact that no real conversations are available for those language and language phases. Confirmation questions typically slow down a story and the typical uncertainty about hearing it right in conversation is not part of the writing medium.

The argument requires the explanation of the Gothic uses that are not in Dutch or German.

The Gothic uses of *thau* can be resumed from the dictionary [Streitberg(1910)]:

- a. comparative conjunction: *than* after comparative
- b. in disjunctive questions (also elliptic ones): *or*
- c. adversative conjunction: *jedoch*
- d. introducing the consequent of a conditional sentence: translation of Greek *an*
- e. pragmatic (“metacommunicative”) function: in proper direct and indirect (wh-)questions, rhetorical (wh-)questions and assertions
- f. *though* as in English

Uses (c.) and (f.) are familiar from German, English and Dutch.

Comparative conjunction may be related to a different use of *to* as in English:



(42) Is he that strong?

In the equivalent of *John is stronger than Bill*, the combination of *to* with *-u* would then be asking the hearer to answer the question how strong Bill is and uses that answer to make a statement about how strong John is. (Degrees to which *x* has the property *P* are often used in semantics for comparatives). The marker of disjunctive questions can be related to examples like:

(43) skuld-u ist unsis kaisara gild giban thau ni-u?  
is it right to give the emperor taxes or not?

It would seem that *thau niu* is a question tag like the Chinese *X bu X* as in (44) and that *thau* has been reanalysed as a disjunctive question marker in this tag.

(44) Ni hao bu hao?  
You good not good?  
Are you doing well?

The uses in (d.) and (e.) are markers of non-veridicality and the recruitment of a question tag for this purpose seems natural. The somewhat mysterious modern uses of *toch* and *doch* in questions may perhaps be related to these Gothic uses. For our point, it is important that there is still a strong association with the marking of questions and non-veridicality. This makes an origin of *toch* and *doch* as question tags more plausible.

If we are right, this solves the paradox. The original use is not paradoxical, but both uses have spread a good deal. The accented *toch/doch* has become a correction and a concession marker and lost its association with questions. The unaccented *toch/doch* has become a marker for common ground information, again without an inherent relation with questions. But the new uses in the two groups cannot be related with uses in the other group as their contrastive or non-contrastive counterpart.

This merely points to the fact that accent is always assigned to a word in a particular use. Contrastive accent merely means that a contrasting element has been activated, as [Rooth(1992)] has it. Accent therefore plays a disambiguating role, but it does not do that as part of the inventory of sound distinctions that keep words apart in Dutch and German. It is merely a question of expressing the presence of a contrastor, which accidentally helps to keep various uses of *toch* and *doch* apart.

Apart from contrastive accent, uses are also kept apart by the rising intonation typical of questions and by sentential position and inversion.

The solution to the paradox starts from a shared origin of the accented and the unaccented *doch*. We postulate that this is as a marker of questions with which the speaker seeks a reconfirmation of a hearer opinion. The accented *doch* indicates that, in the context, the opposite opinion is also around, often as an element of the common ground that speaker and hearer share. The absence of accent indicates that the opposite opinion is not activated. Spread created a considerable ambiguity and accent (together with syntactic factors and rising and falling intonation) helps to keep the different uses apart.

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