Stød-sandhi

Basbøll, Hans

Published in:
Sandhi Phenomena in the Languages of Europe

DOI:
10.1515/9783110858532.75

Publication date:
1986

Document version:
Final published version

Citation for published version (APA):
https://doi.org/10.1515/9783110858532.75

Go to publication entry in University of Southern Denmark's Research Portal

Terms of use
This work is brought to you by the University of Southern Denmark.
Unless otherwise specified it has been shared according to the terms for self-archiving.
If no other license is stated, these terms apply:

• You may download this work for personal use only.
• You may not further distribute the material or use it for any profit-making activity or commercial gain
• You may freely distribute the URL identifying this open access version

If you believe that this document breaches copyright please contact us providing details and we will investigate your claim.
Please direct all enquiries to puresupport@bib.sdu.dk

Download date: 15. Sep. 2023
For reasons of space, it is only possible here to discuss some main points. For further documentation and discussion, the reader is referred to Basbøll (1985). The language under consideration is Modern Danish.

I use the term stød-sandhi in a broad sense, referring to cases of stød-loss and stød-addition in a morpheme when it is combined with other morphemes, compared to the realization of the morpheme in question as an insolated word. It turns out that all such cases of stød-loss and stød-addition are instances of internal sandhi, i.e. they do not extend across boundaries between words (including clitics).

Before we enter the problems of stød-sandhi, a few remarks on stød in general will be necessary. Stød is a syllable prosody, or syllable accent, which characterizes certain syllables positively as having stød, as against other syllables, which may be segmentally identical, that have no stød. Only syllables which fulfill the following conditions can have stød: (i) they must be stressed, i.e. occur with primary or secondary stress (hence their syllable peak will always be a "full vowel", never schwa or a syllabic consonant); (ii) they must contain a long vowel, or a short vowel immediately followed by a sonorant consonant (hence syllable-final short vowels and syllables with a short vowel followed by an obstruent never have stød).

It follows that the notion of a "syllable that is able to receive stød", or has "stød-basis", is a purely phonetic/phonological notion. On the other hand, one must have access to morphosyntactical and lexical information when deciding which of the syllables with stød-basis actually do have stød.

Sometimes stød is lost in certain morphemic combinations under conditions that should not be considered instances of stød-sandhi. This is the case when a word loses its stress because it enters into a phrasal unit, and when a vowel before an obstruent is shortened, cf. (i) and (ii) above.

Two important initial observations on stød-sandhi have led to the structure I have given this paper. The first observation is the following: when a certain morpheme is combined with other morphemes, be it...
within a word or across word boundaries, the general case is that no stød-change occurs. Therefore it seems reasonable to consider stød-sandhi as the “marked” case and to try and give rules for stød-loss and stød-addition, but not for the “normal” case of no stød-change.

Secondly, it seems to be the case (Basbøll 1972: 14–15) that only adjacent morphemes may condition each other’s stød-change; i.e. when we consider a specific morpheme to see whether it will be subject to stød-addition or stød-loss or will remain unchanged as far as stød is concerned, only the morphemes to the immediate left and right need to be taken into account (this statement presupposes that ‘zero’ does not count as a morpheme).

Consequently, the types of stød-sandhi will here be classified according to two criteria: (i) whether it is a case of stød-loss or of stød-addition, and (ii) whether the following or the preceding morpheme is part of the conditioning.

I distinguish between stød-loss in a morpheme where the following morpheme is part of the conditioning (mainly what happens in inflection before certain syllabic morphemes, and in derivation and compounding under certain conditions), stød-addition in a morpheme where the following morpheme is part of the conditioning (mainly what happens in some inflections and derivations before certain endings (containing schwa and a sonorant consonant), as well as the so-called “enclitic stød”), and stød-addition in a morpheme where the preceding morpheme is part of the conditioning (mainly what happens to verbs and complex adjectives when they are preceded by either a prefix or some compound element). The fourth logical possibility within this classification, viz. “stød-loss in a morpheme where the preceding morpheme is part of the conditioning” seems to be non-existent as a regular phenomenon of stød-sandhi in Modern Danish.

2. Regarding stød-loss in a morpheme where the following morpheme is part of the conditioning, the first observation to make is that monosyllabic morphemes lose their stød before certain other morphemes, whereas polysyllabic morphemes have no stød-loss. Stød-loss occurs generally before any morpheme consisting simply of a /ə/, regardless of whether it is the definite or plural ending of an adjective (gul, gule [ˈguːl], gu:la) ‘yellow, common indef. sg., plural or def.’), the plural ending of a noun (cf. hus, huse [ˈhus, ˈhuːsə] ‘house’, ‘houses’), or the compound interfix /ə/ (cf. hund, hundehus [ˈhʊnd, ˈhʊndəhuːs] ‘dog’, ‘doghouse’). A couple of other syllabic flexives (all containing /ə/, which is the only
In the first part of compounds, just as before most heavy suffixes, there also seems to be a strong tendency for monosyllables to lose their stød. Spore (1965: 68) estimates that about 10% of the monosyllables which are made by "direct composition", i.e. without a linking interfix like /s/, /a/, /ar/, keep their stød. Examples are redvin, vinglas ['rædvin, 'vænglas] 'red wine', 'wine glass', composed of red, vin, glas [ræd, vi'n, glås] 'red', 'wine', 'glass'. When the first part of the compound ends in a vowel, both stød-retention and stød-loss occur frequently, but still a given morpheme generally either keeps or loses its stød whenever it occurs as the first element of a compound.

3. The typical case of stød-addition in a morpheme where the following morpheme is part of the conditioning, is the definite singular form of stød-less nouns ending in a short full vowel, or a short full vowel plus a sonorant consonant: vennen, guldet, nu'et, sofaen, maddingen [ven'nən, gul'dəd, nu'əd, so'fa'n, ma'dø, 'øn] 'the friend', 'the gold', 'the present moment (lit.: "the now")', 'the sofa', 'the bait', indefinite forms: [ven, gul, nu, so'fa, ma'dø]. Notice the change in vowel quantity in the words which end in a short vowel in the indefinite (nu, sofa), and the consequent change in vowel quality as well in sofa: those vowels have become phonemically (as well as phonetically) long in the definite form. This stød-addition is obligatory and diachronically stable. Stød-addition also occurs in the definite plural of nouns with the same phonological structure as above.

Before the enclitic variants /an, ao/ of the pronouns den, det (stressed: [dən, də] unstressed: [dən/ðən, de/də]), stød occurs in words of the same phonological structure as above (the orthography is not standard): ger'ed (imperative), på'en (ingen), (vide) a'fed [gær'əd, pø'ən, aː'əd] 'do it!', 'come on!', 'know about it'. This type of stød-addition was much more common a century ago (cf. Brink - Lund 1975: 511-513, 537-538) since many more morphemes could undergo it (e.g. fra mig 'from me' with stød on /m/., ved jer 'by you' with stød on /j/). Before enclitic /on, ao/ stød-addition is still obligatory, although the enclitic variants of the pronouns are themselves becoming rarer (in particular /an/).

4. In this paper, I follow the strategy that only endings which demonstrably change the stød or non-stød of the stem should be marked in this
respect in the lexicon, and that all other endings are assumed to be stød-neutral. According to this proposal, only a handful of the endings mentioned in this paper need be marked as 'stød-removing': /a, ta, øda, ra/ and some cases of /ar/ (cf. sum, summer [som, somme] 'sum', 'sums' (sb.)). Another handful must be marked as 'stød-adding': /an, øð/ (definite singular of nouns, and enclitic personal pronouns), /ana/ (definite plural of nouns), and certain cases of /ar/ (cf. han, hamner [han, hanær] 'male', 'males'). 'Stød neutral' - and therefore unmarked in the lexicon - are the other weak endings discussed here, including non-syllabic flexives, some syllabic flexives (e.g. /no/ (definite plural of nouns) and some instances of /ar/ (cf. hul, hulder, bal, baller [hol, høle, bal], balpe] 'hole', 'holes', 'ball', 'balls'), and the weak suffixes /da/, /isk/ (cf. hejde, hej [hejdø, ha?] 'height', 'high'). For relevant material, see Orešnik (1979).

5. I shall end this brief survey by mentioning the important last type of stød-sandhi, namely stød-addition in a morpheme where the preceding morpheme is part of the conditioning, i.e. mainly the stød-addition in verbs (and deverbal derivatives) and complex adjectives when the domain in question is the second part of a compound or is the root or stem of a derivative formed by prefixation (e.g. udtale(ise), hvidskægget [ˈuːtəla(ə), ˈhvidskæggət] 'pronounce(ment)', 'with a white beard', cf. tale, skægget [ˈtælə, ˈskægət] 'speak', 'with a beard', without stød). It should be added that this stød-rule is diachronically less stable than the others discussed so far, and that it is subject to a lot of regional variation.

The four columns of the table, numbered I-IV, represent the four main types of stød sandhi (I, the stød-loss in first part of compounds, and before heavy suffixes; II, the stød-loss before certain syllabic flexives, notably /ar/; III, the stød-addition before certain syllabic flexives; and IV, the stød-addition for verbs and complex adjectives in the second part of compounds).

The seven rows of the table, numbered 1-7, contain questions and answers which shed light on different aspects of stød-sandhi. I do not claim that these seven questions represent any inherent logic of a sandhi-typology or the like. I have simply tried to ask the questions which could bring out the differences between the types of stød-sandhi as clearly as possible.

Certain terms which are used in the formulation of the questions need to be defined: 'Domain' is the morpheme whose stød or non-stød we are determining. The questions and answers apply to the domain when it constitutes an isolated word (notice that I in this paper do not use the term 'domain' for the relevant prosodic unit in which the stød occurs, viz. the syllable).
<table>
<thead>
<tr>
<th>Type of restrictions</th>
<th>1. Are there phonological restrictions for the domain?</th>
<th>2. Are there concomitant phonological vowel shortening in the domain?</th>
<th>3. Are there phonological characteristics of the environment? (not restrictions)</th>
<th>4. Are there grammatical restrictions for the domain?</th>
<th>5. Same question (as 4) for the environment?</th>
<th>6. Must the identity of the particular morpheme be known for the domain?</th>
<th>7. Same question (as 6) for the environment?</th>
</tr>
</thead>
<tbody>
<tr>
<td>grammatical or lexical restrictions</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>phonological restrictions</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

Note: (1) Particularly before oral non-lateral sonorants.
(2) But in the same contexts, vowels are sometimes lengthened before oral non-lateral sonorants.
(3) But the relevant morphemes are not unrelated.
6. The different kinds of linguistic restrictions applying to the main types of stød-sandhi are summarized in the table on p. 79.

‘Environment’ (i.e. Relevant Environment) is the morpheme to the right and/or left of the domain which is relevant for the occurrence or non-occurrence of stød in the domain. Notice that the environment follows the domain in I–III, but precedes it in IV.

As has been said above, all cases of stød-sandhi are subject to two general restrictions, which have therefore not been included in the table: (i) only syllables with “stød-basis” can have stød; and (ii) the morphemes are relevant units in all cases, i.e. there are both phonological and morphological restrictions which apply to any type of stød-sandhi.

It is immediately clear from the table that IV is of quite a different nature than the other three types of stød-sandhi. The answer to questions 3 and 5 in column IV are similar, but unrelated to anything we have looked at so far. They can be paraphrased thus: “the lighter the first part of a compound (or a derivative), the more probable is stød-addition in the second part (or stem) if it is a verb, or a verbal derivative, or an adjective formed by suffixation”. “Light” both refers to “phonological weight”, cf. that unstressed first parts generally condition stød-addition (e.g. trolwe [tʁɔl've] ‘betroth’); and to “lexical weight” in the sense that so-called “small words” like prepositions, adverbs etc. also condition stød-addition (e.g. pasmøre [paa'smɔr'e] ‘smear on, apply’). If the first part is a stressed polysyllabic “lexical category”, stød-addition is rare (e.g. friturestege [fritˈjyːsdoːjɛ] ‘deep-fry’), whereas it is more of a possibility with a monosyllabic first part like tørkoge [tørkɔˈje] ‘cook dry’.

Whereas the stød sandhi types (just like rules of vowel quantity) are kinds of internal sandhi, whose relevant environment does not exceed the word, including clitics, other types of sandhi in Modern Danish typically extend across word-boundaries. The rule which assimilates the place of articulation of a nasal (which must be dental or unspecified with respect to place of articulation) to a following stop, for example, is obligatory within morphemes (e.g. banke [ˈbæŋkɛ] ‘bank’), whereas it can apply across grammatical boundaries to an increasing degree with decreasing formality or increasing speed, even across the strong word- and phrase-boundaries. Nothing like this pattern is found in the cases of stød-sandhi.
Let us now, finally, turn to what appears to be a crucial problem of the present paper, viz. the relation between stød-sandhi and other stød rules.

There are three main types of native monomorphemic words in Danish, viz. monosyllables, disyllables ending in /a/, and disyllables ending in /æ/ plus a sonorant consonant. The stød-rules which apply to these three types will be mentioned separately (cf. Hansen 1943: 23–42, Balsbøll 1972: 8–13 and Heger 1980).

The simplest case is that of disyllables ending in /æ/: they (practically) never have stød; cf. the fact that the ending /æ/ – in any of its grammatical functions – nearly always conditions stød-loss of a preceding monosyllable. Monomorphemic disyllables in /æ/ are thus stød-less just like bimorphemic ones, and in this case stød-sandhi has contributed to the phonological fading out of morpheme boundaries. The pattern is thus very strong here.

Monosyllables fall into several different types as far as stød is concerned: (i) if they contain a long vowel, or a short vowel followed by a sonorant consonant followed by at least one more consonant, they have stød (e.g. lds, folk [lɔːs, faɻɔɡ] 'lock', 'people'); (ii) if they end in a short vowel followed by just one sonorant consonant, they can either have stød or be stød-less (e.g. vend, ven [ven², ven] 'turn', 'friend'); and (iii) if they have a final short vowel, or contain a short vowel immediately followed by an obstruent, they are stød-less (e.g. nu, hest [nu, hɛsø] 'now', 'horse'). That such forms are stød-less is a simple consequence of the fact that they lack “stød-basis”.

What happens when monosyllables occur before the stød-adding endings? All those with “stød-basis” get stød. Group (iii) splits up, so that those with a final short vowel get vowel lengthening, and thus “stød-basis”, and stød, whereas the others (with short vowel plus an obstruent) remain stød-less. This difference in stød behavior is a consequence of the fact, I would say, that obstruents do not belong to the class of consonants which permit vowel lengthening (they have stable vowel quantity before them), whereas vowels before vowels occur in a position with no possible commutation of vowel quantity, and thus in a phonologically unstable quantity position.

Finally, monomorphemic words which are disyllables ending in /a/ plus a sonorant most often have stød, but a fair number are stød-less, and the picture is, as a whole, very complicated, just like the one for bimorphemic disyllables.
It should be emphasized that the general case, according to the present analysis, is that no stød-sandhi takes place, which helps to simplify the identification of the morphemes in a given phonological string. To end the paper, let me try, by means of a few examples, to show how the stød-sandhi-rules and other stød-rules may have an invaluable function in the perception and interpretation of speech, whereas they may appear rather arbitrary, and to a large extent non-functional or even dysfunctional, from the point of view of production.

1. [tals, hal?e]. The stød rules (cf. (i)) show unambiguously that /s/ must be a separate morpheme in the former case; it is part of the stem in the latter (tals, ‘of number’ (gen.), hals ‘neck’, /tal+s/, /hals/).

2. [tøgøn, tøn?gøn]. It could not be excluded a priori that both words are monomorphemic (but such words in /an/ are rare). If there is a morpheme boundary, however, the stød-rules unambiguously point towards the analyses tanke plus n and tank plus en, respectively. Furthermore, since tank ends in -nk, it must have stød when occurring in isolation (tanke[tøngø] ‘thought’ (sb.), tank[tøn?g] ‘tank’, both def. sg.).

3. [vænæn, væn?æn]. Same type as above, i.e. the possible morphological decomposition is [væna] plus [n] and [væn?] plus [en]. Here is a further ambiguity, however, since the “basic form” of the latter could be either with or without stød (venden ‘turning’, from vende[væna] ‘turn’, and vennen ‘the friend’ from ven[væn] ‘friend’). Note that this analysis correctly gives three possibilities on this level (cf. manden [man?æn] ‘the man’ from mand [man?]), and that stød-occurrence in the monomorphemic forms vend!, ven[væn?, vennen] is exactly the opposite of that found in vend-en, vennen.

4. [kure, ku?e]. The stød-rules point to a morphological decomposition into kue and e versus ku and er, which is correct (kuer ‘cows (vb.)’ from kue[kure], q’er, plural of q [ku?] (name of letter)). The stød-full form could also, phonologically speaking, have been derived from a stød-less “basic form” as in nuer[nu?e] (pl.) from nu[nu] ‘now’.

5. [kle?da, kle?da]. The first form could either be monomorphemic, or be decomposed into a stem plus a stød-removing ending. The second form must be polymorphemic because of the stød. Its stem is clearly something here manifested [k?e?], and the ending could either be the stød-neutral /da/ (cf. højde, høj [høy?da, høy?] ‘height’, ‘high’), or - as happens to be the case – a non-syllabic and hence stød-neutral flexive (/t/ plus /a/ which cannot remove the stød from the stem because another morpheme intervenes) (klaedte [kle?da] ‘dressed’ (past) /kla?+t+a/, klaedte [kle?da] ‘dressed’ (past participle, def. or plural form) /kla?+t +a/).
(6) [u̯u̯təu̯la], [u̯u̯tæu̯la]. The words are easily analysed as being composed from *ud* and *tæle*. [u̯u̯] is ambiguous as to whether its form will contain a stød vowel or not (cf. *ud*, bud[u̯u̯], bud[ŋ] 'out', 'command; messenger'). The stød-rules unambiguously tell us that [−tæu̯la] is a verb as opposed to [−tæe̯la].

Notice the diversity of the above examples with respect to the stød: in (1) and (2), only the stød-rules for monomorphemic words apply; in the rest of the examples, stød-sandhi is essential, but in several ways and in different degrees, for helping the hearer to detect the distinction in morphological analysis of the forms in question.

I conclude from such examples, which could be multiplied ad infinitum, that an important function of the whole complex of stød-rules in Modern Danish, including stød-sandhi as a crucial part, is to facilitate the morphological analysis of phonological strings, i.e. a perceptual function.

References

Basbøll, Hans

Brink, Lars – Jørn Lund
1975 Dansk rigskonst 1-2 (Copenhagen: Gyldendal).

Hansen, Aage
1943 Stødet i dansk (Det kgl. danske Videnskabernes Selskab, Historisk-filologiske Meddelelser 29, 5) (Copenhagen: Munksgaard).

Heger, Steffen

Orelšnik, Janez
1979 'Stødet i rigs dansk morfologi', Danske Studier (Copenhagen: Akademisk), 123-129.

Spore, Palle
1965 La langue danoise (Copenhagen: Akademisk).
Trends in Linguistics
Studies and Monographs 33

Editor
Werner Winter

Mouton de Gruyter
Berlin · New York · Amsterdam
Sandhi Phenomena
in the Languages of Europe

edited by
Henning Andersen

Mouton de Gruyter
Berlin · New York · Amsterdam