



From case to topology

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From case to topology

Changes in the Late Middle Danish case system and the reasons for them

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Middle Danish of the Scanian dialect underwent a range of changes and reductions in its case system. I argue that these changes were caused neither by sound laws nor by language contact as often assumed, but by multiple processes of grammaticalisation. The present paper focuses on one of these factors, viz., that the relatively predictable constituent order within the Middle Danish noun phrase made case marking redundant in its function of marking noun-phrase internal agreement between head and modifier(s). This redundancy caused the case system to undergo a regrammation where the indexical sign relations changed so that the expression of morphological case no longer indicated this noun-phrase-internal agreement, leaving only topology (as well as morphologically marked number and gender agreement) as markers of this type of agreement. This factor contributed to the subsequent degrammation of the entire case system (except for the genitive, which was regrammated into a noun-phrase-clitical marker).

1. Introduction

The Germanic languages have undergone an immense process of case-system reductions and changes, some languages more than others. Nowhere does the classical Proto-Indo-European system of eight cases (Fortson 2010: 113) remain intact, since all Germanic languages have lost the old locative as an independent paradigmatic case, and we have only very few remnants, if any, of a paradigmatic ablative, cf. Hansen (2016: 10–16). The vocative exists only in Gothic vocalic stems of masculine gender (Krause 1968: 147–162), and the instrumental only in early West Germanic vocalic stems of masculine or neuter gender (Braune 1886: 148–170, Boutkan 1995: 182). The ancient North Germanic languages (as also modern Icelandic and standard German) preserve only four of the original cases, viz. nominative, accusative, genitive and dative, having lost the remaining four (Andersen: 1962: 41–42).

Other modern Germanic languages have lost even more cases. For instance, Faroese and Elfdalian have (almost) lost their genitives (Lockwood 2002: 28, Åkerberg 2012: 119–120), and many German dialects display only three cases (e.g. Baechler & Pröll 2018: 16). The mainland Scandinavian standard languages (Norwegian, Swedish and Danish) have taken the process even further by losing all cases in the nominal system, keeping only the genitive as an enclitic particle to be attached to the entire noun phrase and a distinction between nominative and oblique in the system of the personal pronouns. We may report similar situations in modern English, Frisian and Dutch.

We have now established that the case system has indeed been reduced in the process of Germanic language development, but not how and why. In this paper, I intend to account for the change of one Germanic-language case system, viz. that of Middle Danish of the Scanian dialect, from having four fully functional cases to, virtually, none in the nominal paradigm and shed light on one among several factors causing this change. Since Jensen (2011) has already explained the regrammation and subsequent loss of the original nominative in thorough detail and with great success, I shall focus mainly on the changes that happened to the original genitive and dative.

2. The case system of Middle Danish (Scanian)

2.1 *Skånske Lov*

The earliest Middle Danish texts of the Scanian dialect, e.g., the 13th/14th-century Cod. Holm. B 69 or B 74 variants of *Skånske Lov* (SkL), resemble those of most other ancient Germanic languages in that they are characterised by a relatively stable use of case marking for indexing both noun-phrase external grammatical relations (government) and noun-phrase internal agreement, cf. also section 3.3.1. Examples abound:

- (1) *til annar-s thing-s*
to other-N.GEN.SG moot(N)-GEN.SG
'to the next/second moot' (SkL, Holm. B 74, 4^o: ch. 145)
- (2) *at andr-u thing-i*
to other-N.DAT.SG moot(N)-DAT.SG
'at the next/second moot' (SkL, Holm. B 74, 4^o: ch. 145)
- (3) *ofna vgild-um akr-i*
on illegal-M.DAT.SG field(M)-DAT.SG
'in unconsecrated ground' (SkL, Holm. B 74, 4^o: ch. 215)
- (4) *gifu-ær andr-um mann-j thiuf sac-Ø*
give-PRS.3SG other-M.DAT.SG man(M)-DAT.SG thief case(F)-ACC.SG
'[if he] accuses another man' (SkL, Holm. B 74, 4^o: ch. 158)

All of (1-3) consist of prepositional phrases with a preposition governing a specific case, and the elements of the proceeding noun phrases all display the case governed by the preposition, as we would expect from a traditional case-system language. In (4), the noun phrase *andrum manni* 'another man' functions as an indirect object, i.e., a grammatical function signalled by the dative in this grammatical system, and again, as to be expected, both the noun-phrase head (*manni* 'man') and the noun-phrase modifier (*andrum* 'other') appear in the dative.

A couple of centuries later, the system is in a process of change. Examples comparable to *at andru thingi* 'at the next/second moot' as in (2) still exist, cf. (5) from the 15th-century manuscript E cod. var. 136, 4^o that also contains a variant of *Skånske Lov*, but we now also come across noun phrases with no apparent case marking on the substantival noun-phrase head in the very same text as exemplified by (6). Please note that nouns still inflect for number, though; hence we still need to mark them for inflectional endings, cf., e.g., the Ø-ending in (6).

- (5) *a thredi-e thing-i*
on third-N.OBL.SG moot(N)-DAT.SG
'on the third moot' (SkL, E cod. var. 136, 4^o: 36v)
- (6) *at andr-u thing-Ø*
to other-N.DAT.SG moot(N)-SG
'at the next/second moot' (SkL, E cod. var. 136, 4^o: 44v)

Albeit rare, such noun phrases with no apparent case marking on nouns exist already in the older manuscripts of *Skånske Lov*, cf. (7) from Cod. Holm. B 74, 4^o (Bjerrum 1966: 39), but their frequency increases drastically in the course of the following couple of centuries.

- (7) *ofna brofial-Ø sinn-j*
 on plank(F)-(ACC.?)SG his-F.DAT.SG
 ‘in his house’ (SkL, Holm. B 74, 4^o: ch. 142)

At first sight, it seems that in (6–7), case marking has simply been abandoned at the substantival noun-phrase head. However, since we observe case-marking changes on both the head and the modifier in the contemporaneous 15th-century text of *Sjælens Trøst* (SjT) (see section 2.2), it may rather be the case (no pun intended) that accusative has simply taken over from the dative. The accusative may take over from not only the dative, but also from the genitive. In (8), for instance, the inflectional suffix on the noun-phrase modifier marks an unambiguous accusative in a prepositional phrase whose preposition *til* ‘to’ would have traditionally governed the genitive. For more on this process, see section 2.2.2. Whether (8) represents such an instance of the accusative taking over from the genitive or just the phenomenon of prepositions giving up their original genitive-only (or in other cases: dative-only) government is, however, impossible to decide.

- (8) *til en hælgh-an abod-a*
 to a-M.NOM/ACC.SG holy-M.ACC.SG abbot(M)-OBL.SG
 ‘to a holy abbot’ (SjT: 96¹⁸)

2.2 *Sjælens Trøst*

Sjælens Trøst (SjT), i.e., the Danish version of the Low German *Consolatio Animae* attested in the two manuscripts Cod. Holm. A 109 and Cod. Ups. C 529, is, in fact, a very remarkable text as concerns case marking in original genitive and dative contexts, since a multitude of different case marking systems seem to exist side by side.

2.2.1 The traditional system

First, we find several instances of the traditional system with consistent case marking on all noun-phrase members, mostly so with nouns and modifiers in the feminine singular or in the (mostly dative) plural, as in (9–11).

- (9) *buth-o sin-um thiænar-um at* [...]
 command-PST.3PL their-M.DAT.PL servant(M)-DAT.PL that [...]
 ‘they commanded their servants that [...]’ (SjT: 70²⁵)

- (10) *mæth sin-um ordh-om*
 with his-N.DAT.PL word(N)-DAT.PL
 ‘with his words’ (SjT: 61²²)

- (11) *mæth en-e long-e iærnlænki-o*
 with a-F.DAT.SG long-F.DAT.SG iron.chain(F)-DAT.SG
 ‘with a long iron chain’ (SjT: 128²⁷)

2.2.2 Case marking on adjectives and determiners only

Second, since we know that this text presents no examples of fluctuation between case marking and apparent non-case marking on nouns of the type we saw in (5–6), we may assume that case marking has ceased to be operative on nouns, apart from some residual case forms of the type seen in (9–11). Therefore, examples like (12–13) abound. In (12), the dative governed by the preposition *mæth* ‘with’ is only marked on the adjective *storum* ‘great’. In (13), the noun phrase *fatigo folk* ‘poor people’ functions as an indirect object, but with overt marking of dative only on the noun-phrase modifier (*fatigo* ‘poor’), in contrast to which the substantival head (*folk* ‘people’) appears without the historically expected dative suffix *-i*.

(12) *mæth stor-um kiærlikhet-Ø*
 with great-M.DAT.SG love(M)-SG
 ‘with great love’ (SjT: 29³²)

(13) *gifv-in th-øm fatig-o folk-Ø*
 give-IMP.2PL it-ACC.PL poor-N.DAT.SG people(N)-SG
 ‘give them to poor people’ (SjT: 75⁴)

Third, accusative participation, which we registered only on the substantival noun-phrase head in the older text version of *Skånske Lov*, cf. (6), now appears also with the modifiers (adjectives and determiners). We have already seen one potential example of this in (8), repeated as (14) below, and (15), where the preposition *pa* ‘on’ would have traditionally governed the dative in this context, may constitute yet another example unless, again, government of the dative is simply no longer mandatory with this preposition.

(14) *til en hælgh-an abod-a*
 to a-M.NOM/ACC.SG holy-M.ACC.SG abbot(M)-OBL.SG
 ‘to a holy abbot’ (SjT: 96¹⁸)

(15) *sit-Ø pa min-a siæng-Ø*
 sit-IMP.2SG on my-F.ACC.SG bed(F)-SG
 ‘sit on my bed’ (SjT: 46²⁴)

Participation, which Hjelmslev (1935–1937, 1970 [1939]: 87) was among the first to describe (cf. also Bjerrum 1966: 8–10, 38–40, Andersen 2001: 46, Heltoft 2010: 16–18, Jensen 2012, etc.), is a classic example of markedness relations. In an opposition between two members of a paradigm, one member is restricted in its functions, whereas the other member both covers its own restricted functions and may take over, i.e., participate in or include, the functions of the first member.

In our case, for instance, the accusative and the dative principally stand opposite of one another in the Middle Danish case paradigm. Whereas, within the nominal paradigms, the dative may appear only in historical dative contexts such as the marking of indirect objects or with dative-governing prepositions, the accusative may apply both to these historical dative contexts and to historical accusative contexts such as the marking of direct objects or with originally accusative-governing prepositions. The same type of relation exists between the

genitive and the accusative, again with the accusative as the unmarked member of the paradigm that may apply to both types of original functions, and, although in a slightly different manner, between the nominative and the accusative, cf. further section 3.2.3.

Quite often, however, it is practically impossible to distinguish between instances of true accusative participation where the accusative takes over the function of another case and instances of mere nominal stem without case marking, since, in most declensions, the bare stem is formally identical to the original accusative, cf. Norde (2001: 250–251) on similar problems in Old Swedish. The possibility of distinction exists only with those examples where the accusative is formally different from the bare stem, viz. when the noun phrase includes a strong adjective in the masculine accusative singular (accusative *-an* vs. bare stem *-Ø*) or feminine accusative singular (accusative *-a* vs. bare stem *-Ø*) or, alternatively, a noun with a postponed definite article in the feminine accusative singular (accusative *-ena* or *-ona* vs. bare stem *-in/-en* or *-an*). Even in such cases, the use of accusative is not necessarily always a consequence of accusative participation as described here, but may also result from a regrammation of prepositional government according to which prepositions that previously governed only the genitive or the dative may also govern the accusative in the new system.

With other examples, like (16) and (17) below, there is no formal difference between the accusative and, if not the bare stem, then the stem uninflected for case.

(16) *mæth edhar-t breef-Ø*
 with your.PL-N.(ACC.?)SG letter(N)-SG
 ‘with your letter’ (SjT: 67⁹)

(17) *til keysare-n*
 to emperor(M).SG-the.M.(ACC.?)SG
 ‘to the emperor’ (SjT: 65²⁷, 72²⁸, 73⁷)

In (16), the possessive pronoun *edhar* ‘your’ has a *-t* added, but although this *-t* originally marked nominative/accusative singular in the neuter of adjectives and determiners, it later develops into marking only neuter singular, as in modern Danish. In this specific case, however, a scrutiny of the entire text reveals a paradigmatic fact that renders impossible the analysis of *edhart* ‘your’ as a form uninflected for case, viz., the existence of inflected dative forms such as *edhro* in the singular (SjT: 51¹¹, 99¹⁸) and *edhrum* in the plural (SjT: 48¹⁶). These forms automatically call for an analysis of *edhart* as accusative rather than uninflected.

As for (17), the original nominative/accusative singular in the masculine of the definite article was marked by a postponed *-n* which, together with the original nominative singular in the feminine, has also developed into the modern Danish way of marking a case-systemless commune singular in the definite article. In contrast to this formally ambiguous definite article, the noun-stem part of *keysaren* ‘the emperor’ in (17), clearly represents an uninflected form. Because the original accusative (oblique) form would have been **keysara*, not *keysare*, we can easily distinguish the two forms from each other and state with certainty that this uninflected form, which is based on the original nominative, has replaced the original case-inflected form.

2.2.3 No case marking in nominal phrases

This brings us directly to the fourth and final main case-marking system existent in *Sjælens Trøst*, viz. no case marking. As we have already seen, however, this by no means implies a

total cessation of morphological marking on the nominal parts of speech. Nouns and determiners still inflect for number, and determiners also still for gender. Clear-cut examples of absence of case marking in *Sjælens Trøst*, neither on the noun-phrase head nor on the modifier, emerge from (18) and (19) below.

(18) *mæth en-Ø stor-Ø hær-Ø*
 with a-M.SG great-M.SG army(M)-SG
 ‘with a great army’ (SjT: 122⁹)

(19) *i læst-in*
 in selected.passage.for.reading(F)-the.F.SG
 ‘in the gospel’ (SjT: 123¹³)

That different systems of case marking exist within the same text becomes even more evident when we contrast (18) with (20), a representative of the stage described in section 2.2.2 with inflection for case on adjectives and determiners. *Sjælens Trøst* does not display the same type of earlier-stage variant for (19), i.e., we have no **i læstinne* ‘in the gospel’ with the definite article in the dative, but cf. *for syndinne* ‘against the sin’ (SjT: 107²³) or *ij læst-enne* ‘in the gospel’ in ex. (XX) from *Søndagsevangelier* (SdE) (see section 2.3).

(20) *mæth en-um stor-um hær-Ø*
 with a-M.DAT.SG great-M.DAT.SG army(M)-SG
 ‘with a great army’ (SjT: 122⁹)

The system of (18–19) is identical to what we come across in modern Danish nominal phrases, cf. (21) and (22) below.

(21) *til e-n ung-Ø dreng-Ø*
 to a-C.SG young-C.SG boy(C)-SG
 ‘to a young boy’

(22) *jeg giv-er e-t klog-t barn bog-Ø-en*
 I give-PRS a-N.SG wise-N.SG child(N)\SG book(C)-SG-the.C.SG
 ‘I give the book to a wise child’

We should also note that, although both modern Danish and this close to final-stage system in *Sjælens Trøst* display absence of case marking, the genitive marker *-s* still has a role to play. It no longer functions as a marker of case proper, i.e., it has lost its original functions of expressing semantic roles or valency as in (23) and of indexing prepositions governing the genitive as in (24), identical to (1), where the verb *mista* ‘lose’ governs the genitive. In addition, genitive marking no longer appears on each member of the noun phrase (as in the system described in section 2.2.1, cf. also ex. 24) or on all members of the noun phrase but the substantival head (as in the system described in section 2.2.2).

(23) *tha mist-ir han thæs*
 then lose-PRS.3SG he-NOM it.N.GEN.SG
 ‘then he loses it’ (SkL, Holm. B 74, 4^o: ch. 76)

(24) *til annar-s thing-s*
 to other-N.GEN.SG moot(N)-GEN.SG
 ‘to the next/second moot’ (SkL, Holm. B 74, 4^o: ch. 145)

Rather, in this close to final-stage system represented by (25), the genitive marker *-s* attaches as a clitic only once to the entire noun phrase regardless of the gender, number and inflectional class of the noun-phrase head. The only remaining function of this clitic is transforming a noun phrase from an argument to an attributive determiner or a predicative, cf. also Knudsen (1967: 11), Heltoft (1996: 480–482, 2010: 18–19, 21), Herslund (2001, esp. 14–17) and Norde (1997, 2001: 248–249, 2006).

(25) *for [mi-n fathir-Ø]-s død*
 for [my-M.SG father(M)\SG-SG]-GEN death(M)-SG
 ‘[guilty] in the death of my father’ (SjT: 50^{31–32})

2.2.4 Mixed systems

Finally, in a small set of examples, not only a single but at least two of the different systems described in the previous three subsections seem to exert equal influence on the way in which case is used in a noun phrase, yielding hybrids such as (26).

(26) *sin-s brodhir-s keysare-n-s hustru-Ø*
 his-M.GEN.SG brother(M)-M.GEN.SG emperor(M)-the.M.SG-M.GEN.SG wife(F)-SG
 ‘the wife of his brother, the emperor’ (SjT: 72^{34–73}¹)

Here we see on the one side that each member of the noun phrase, i.e., both the possessive pronoun, the noun and its apposition, take on the genitive case marker *-s*. Assignment of case marking in this noun phrase therefore seems, at first hand, to follow the traditional system as described in section 2.2.1.

On the other side, case marking of the traditional kind seems to be absent on the bare noun. In *brodhirs*, the original genitive form *brothor* (vel sim.), which we meet several times in *Skånske Lov* (e.g. Cod. Holm. B 74, 4^o, ch. 36), is replaced with the uninflected form *brodhir*, to which has been added the genitive singular marker *-s* originally belonging only to the masculine and neuter *a*-stem inflection (e.g. Andersen 1962: 42, 50). Similarly *keysarens*, i.e., a definite noun uninflected for case (*keysaren*) with the addition of the very same marker *-s*, has replaced the theoretically original form **keysarans*, segmentable as the masculine *n*-stem noun *keysara* (gen.sg.) followed by the definite article *-(i)ns* (gen.sg.) in the same way as *lifsins* in (27) below consists of the noun *lifs* (gen.sg.) plus the definite article *-ins* (gen.sg.). This situation thus somewhat resembles the stage described in section 2.2.2 with omission of case marking on nouns, though not on modifiers such as *sins* where it is still preserved.

- (27) *i* *lif-s-in-s* *bok-Ø*
 in life(N)-GEN.SG-the-N.GEN.SG book(F)-(ACC.?)SG
 ‘in the book of life’ (SjT: 46²⁰⁻²¹)

2.3 *Søndagsevangelier*

The East Danish book of sermon known by its Danish name *Søndagsevangelier* (SdE) is roughly simultaneous with *Sjælens Trøst*, yet appears to display a less variegated system of unstressed vowels according to which the reduced vowel [ə], normally written <æ> or <e>, appears more frequently, though not exclusively, in contexts where *Sjælens Trøst* would display the fuller vowels *a* or *o/u*.

This text, too, operates with competing systems of case marking. First, as evidenced by (28), we find the traditional system of case marking on all noun-phrase members, again mostly with nouns and modifiers in the feminine singular or in the genitive or dative plural. This also encompasses the marking of case both on the bare noun and on the postponed definite article as in (29–30).

- (28) *fran* *wærlidzligh-e* *lust-æ* *ok* *folkx*
 from wordly-F.DAT.SG lust(F)-DAT.SG and people(N)-GEN.SG
omgangs-om
 intercourse(F)-DAT.PL
 ‘from mundane lust and intercourses with people’ (SdE: 28²⁹⁻³⁰)

- (29) *then* *righ-e* *frazar-a-ns*
 the.M.NOM.SG rich-DEF.M.NOM.SG gorger(M)-OBL.SG-the.M.GEN.SG
kænnեսuen-æ
 apprentice(M)-NOM.PL
 ‘the apprentices of the rich gorger’ (SdE: 99⁷⁻⁸)

- (30) *ij* *læst-enne*
 in selected.passage.for.reading(F)-the.F.DAT.SG
 ‘in the gospel’ (SdE: 40²⁸)

This second system, i.e., uninflected noun stem plus case-inflected modifier or determiner, seems to be present in (31) where we admittedly cannot tell if *renlik* ‘cleanliness’ is just the bare stem uninflected for case or the zero-marker accusative, cf. the adjective *langen* ‘long’ in the accusative, which replaces the originally expected dative. *Fasta* ‘fasting’, the second member of this prepositional phrase, however, clearly represents the form uninflected for case, since the accusative would have been expressed by the oblique form **fastæ*, **fasto* (either with or without unstressed-vowel neutralisation) vel sim.

- (31) *met* *lang-en* *renlik-Ø* *ok* *fasta*
 with long-M.ACC.SG cleanliness(M)-(ACC.?)SG and fasting(F).SG
 ‘with long cleanliness and fasting’ (SdE: 42²⁷)

Third, (32–34) reveal that the close to final-stage system of not inflecting for case at all but only for number and gender is relatively widespread in this text.

(32) *til ee-n siæl-Ø*
 to a-F.SG soul(F)-SG
 ‘to a soul’ (SdE: 103¹⁸)

(33) *fran all-Ø køtlik-Ø lust-Ø*
 from all-F.SG corporeal-F.SG lust(F)-SG
 ‘from all pleasures of the flesh’ (SdE: 28³⁴)

(34) *fran vmild-æ mænnisk-æ som ær-e høghfærdugh-e*
 from unmild-F.PL man(F)-PL who be-PRS.3PL haughty-F.PL
 ‘from undevout people who are haughty’ (SdE: 17⁸⁻⁹)

The absence of case inflection is most unambiguous in (32) and (33) in whose inflectional endings we may by the way also register formal coalescence between the masculine and the feminine. In (32), the same prepositional phrase with case marking would have been something along the lines of **til ena siæla* (or with reduction of unstressed vowels: **til enæ siæla*) in the original genitive or **til ena siæl* (or with reduction of unstressed vowels: **til enæ siæl*) in the participated accusative. Similarly, in (33), we would have seen **fran alle køtlike lust* in the original dative or **fran alla køtlika lust* (or with reduction of unstressed vowels: **fran allæ køtlikæ lust*) in the participated accusative with case marking preserve.

The forms in *-æ* in (34), however, resemble indeed uninflected forms, but we cannot know with certainty if we are, in fact, facing an instance of true accusative forms. The uninflected adjective ending *-æ* in the plural would be identical to the original ending in the feminine accusative plural: originally *-a*, but *-æ* with neutralisation of unstressed vowels.

3. Reasons for the systemic changes

After having described in section 2 the synchronic case-marking systems of Middle Danish, we must turn now to establishing the reasons for the change from

- 1) the traditional system with case inflection on all noun-phrase members (first without, since with an option for accusative participation)

via

- 2) case marking on adjectives, articles and pronouns only (again with or without accusative participation), but not on nouns

to

- 3) a close to final-stage system almost identical to that of modern Danish with no inflection for case in any type of nominal except for personal pronouns, which I have deliberately left out of consideration for this study.

3.1 Traditional explanations

Traditionally, two views have prevailed on how the changes in the Middle Danish case system came about, the former generally more accepted than the latter.

3.1.1 Reductive sound laws

Viewing the reductions and changes in the Danish case system as a result of sound laws, above all the Danish unstressed-vowel-neutralising sound law *e/a/o* > [ə], has long been the prevalent position among historical linguists (Falk & Torp 1900: XIV–XV, 16–17, Meillet 1922: 71, 95–100, 113, Skautrup 1944: 266, etc.). According to this explanation, the coalescence of unstressed vowels, which are present in the vast majority of the Middle Danish inflectional endings, automatically led to homophony and subsequent coalescence of many inflectional endings. Since, for instance, both the vowels *-a* of the feminine accusative singular ending and *-i/-e* of the dative accusative singular ending in the strong adjectives would be neutralised to *-æ* [ə], the language would become increasingly unable to uphold a formal distinction between them. This process, runs the argument, would subsequently lead to the elimination of not only this formal distinction but virtually all formal distinctions in the (case) paradigms.

Linguists concentrating on other Germanic languages that also display both neutralisation of unstressed vowels and reductions and changes in the case system express similar views. Barber, Beal & Shaw 2009: 167–168 constitutes one such example:

“[...] the loss and weakening of unstressed syllables [...] at the ends of words destroyed many of the distinctive inflections of Old English. [...] These changes had significant effects on the inflectional system, since many endings now became identical. [...] As a result, the whole inflectional system became simplified. Among nouns, for example, the two declensions with the most distinctive of the remaining inflections tended to attract all the other nouns to themselves. At the same time, the number of different cases was reduced, especially in the declension of the adjective and of the definite article.”

Appealing as this explanation may seem, it suffers from at least two major deficiencies. First, if a sound law like that of neutralising unstressed vowels were indeed responsible for the reductions and changes in the Middle Danish case system, we would *a priori* expect to see this sound law effective in texts where the case system is in the process of changing. As most of exx. (9–20, 25–27) reveal, this is certainly not the case in a text like *Sjælens Trøst* (see section 2.2). For instance, ex. (14), repeated as (35) below, shows an instance of accusative participation even though both *helgan* ‘holy’ and *aboda* ‘abbot’ clearly preserve the unstressed *-a*, and in ex. (13), repeated as (36) below, *fatigo* ‘poor’ keeps its unstressed *-o* in spite of the absence of the original dative singular ending **-i/*-e* on the neuter noun *folk* ‘people’.

(35) *til* *en* *hælg-h-an* *abod-a*
to a-M.NOM/ACC.SG holy-M.ACC.SG abbot(M)-OBL.SG
'to a holy abbot' (SjT: 96¹⁸)

(36) *gifv-in* *th-øm* *fatig-o* *folk-Ø*
give-IMP.2PL it-ACC.PL poor-N.DAT.SG people(N)-SG
'give them to poor people' (SjT: 75⁴)

Second, and reversely, nor would we expect to find a fairly well-preserved case system in texts with an advanced level of neutralisation of unstressed vowels. Even so, that situation is exactly what we may register in *Søndagsevangelier*. As evidenced by ex. (34), repeated as (37) below, the original unstressed *-a* of the inflectional ending has been neutralised to *-æ* or *-e* in *vmildæ* ‘unmild’, *mænniskæ* ‘man’ and *ære* ‘are’. This text does not neutralise all unstressed vowels, though, cf. *fasta* ‘fasting’ in (31), repeated as (38) below, but the neutralisation process is indeed far advanced.

(37) *fran vmild-æ mænnisk-æ som ær-e høghfærdugh-e*
 from unmild-F.PL man(F)-PL who be\IPV-PRS.3PL haughty-F.PL
 ‘from undevout people who are haughty’ (SdE: 17⁸⁻⁹)

(38) *met lang-en renlik-Ø ok fasta*
 with long-M.ACC.SG cleanliness(M)-(ACC.?)SG and fasting(F).SG
 ‘with long cleanliness and fasting’ (SdE: 42²⁷)

Despite this advanced level of unstressed-vowel neutralisation, we may still record a case system that manages to uphold many distinctions that were given up at a later stage, cf. again ex. (31/38) above where the ending *-en* (equalling pre-unstressed-vowel-neutralised *-an*) in the masculine accusative singular of strong adjectives. The comparison of examples like (19) from *Sjælens Trøst* and (30) from *Søndagsevangelier*, repeated below as (39) and (40), further stresses this point. In both examples, the preposition *in* ‘in’ should traditionally govern the dative, but only in (30/40) do we find *-enne*, the feminine dative singular ending of the postponed definite article, kept intact.

(39) *i læst-in*
 in selected.passage.for.reading(F)-the.F.SG
 ‘in the gospel’ (SjT: 85⁶)

(40) *ij læst-enne*
 in selected.passage.for.reading(F)-the.F.DAT.SG
 ‘in the gospel’ (SdE: 40²⁸)

To these two counterarguments, Jensen (2011: 18) correctly adds a number of further criticisms of which I shall mention two. First, a parallel process of case-system reduction has taken place in Swedish despite the absence of unstressed-vowel neutralisation in that language. In other words, such a neutralisation cannot be responsible for this development in Swedish, which parallels exactly the development in Danish.

Second, even if a neutralisation of unstressed vowels might, in principle, affect the vowels of the inflectional endings and thus cause a dismissal of distinctions in endings consisting only of vowels, it may under no circumstance cause the loss of consonants. Admittedly, other sound laws might have coexisted with this law and caused such a loss, but even so, no sound law will be able to account for the continuous presence of the masculine nominative singular ending *-ær* in the paradigm of the strong adjectives throughout the entire Middle Danish period vs. the very early loss of the phonologically identical ending in the paradigms of nouns. The only way to explain such a difference is through grammatical, not

phonological changes, cf. also Enger (2013: 7–8). Broadening our view a little, Enger (2013: 6–7) points to the Faroese and dialectal Norwegian and Swedish loss of the genitive despite the absence of a final-*s*-deleting sound law as yet another indicator that sound laws can be neither solely nor primarily responsible for the reductions and changes in the Scandinavian case systems.

Returning to Jensen’s first point of criticism, we may reversely ask how a language like standard German, in which the process of unstressed-vowel neutralisation is just as advanced as in modern Danish, has managed to keep a functional distinction between all four cases: nominative, accusative, genitive and dative. Baechler & Pröll (2018: 4–5), who also criticises the traditional reductionist view, even sets up a list of tables that illustrate how the effects of the sound laws that turned Old High German (OHG) into modern standard High German (SHG) have not resulted in coalescence of the case forms altogether and how the projections, i.e., the forms expected to be yielded by the sound laws, do not always equal the actual attested forms. One of these tables is rendered here as Table 1 (copied from Baechler & Pröll (2018: 4).

Table 1. Linear phonological processing of strong *a*-stem masculine nouns from OHG to SHG

		OHG		projection	SHG
singular	NOM	<i>tag</i>	stressed (open syllable): lengthening	/tak/	[ta:k] <i>Tag</i>
	ACC	<i>tag</i>		/tak/	[ta:k] <i>Tag</i>
	DAT	<i>tag-e</i>		/ta:gə/	[ta:k] <i>Tag-(e)</i> ⁶
	GEN	<i>tag-es</i>		/ta:gəs/	[ta:ks] <i>Tag-(e)s</i>
	INST	<i>tag-u</i>		/ta:gə/	→ PP
plural	NOM	<i>tag-a</i>	unstressed: reduction (or loss) <i>-m > -n</i>	/ta:gə/	[ta:gə] <i>Tag-e</i>
	ACC	<i>tag-a</i>		/ta:gə/	[ta:gə] <i>Tag-e</i>
	DAT	<i>tag-um</i>		/ta:gən/	[ta:gŋ] <i>Tag-en</i>
	GEN	<i>tag-o</i>		/ta:gə/	[ta:gə] <i>Tag-e</i>

The list of possible points of criticism to be held up against the reductionist view could continue, cf., e.g., Enger (2013: 8–12). However, despite its obvious deficiencies, this notion of phonetically driven morphological change – the phonology-first notion – still seems to serve, either explicitly or implicitly, as the main explanatory model for morphological change in many modern handbooks and similar presentations of Germanic linguistics; e.g., Roelcke (1998: 1005), von Polenz (2000: 23, 87–88), Stedje (2007: 59–61), Roberge (2010: 410) or König (2015: 45).

3.1.2 Influence from Low German

Wessén (1954: 27) offers a different explanation of the changes in the case system. By stating that

“[v]i har stor anledning att tro, att det främmande inflytandet har sträckt sig jämväl till ordens böjning och till uttalet. Då fornspråkets rika formsystem mot medeltidens slut upplöses och förenklas, har man med skäl sökt en av orsakerna därtill i att de inflyttade

tyskarna aldrig kunde lära sig att rätt bruka de gamla kasusformerna och ändelserna; deras förenklade ordböjning smittade efterhand av på landets egna barn.”

he postulates that the simplifications in the mainland Scandinavian inflectional paradigms, i.e., including case paradigms, is due to influence from Middle Low German. Haugen (1976: 65) follows this line of thought. Although he admits that it is difficult to establish the extent to which Middle Low German has exerted influence on the Scandinavian inflectional system, he adds that

“it is conspicuous that English and Scandinavian both changed in this direction while they were dominated by other languages; and Low German has a structure very much like that which the continental Scandinavian languages adopted, contrary for example to High German or Icelandic.”

Several scholars still attach explanatory value to this specific influence or similar types of language contact as one of several causes of case-system change, e.g. Norde (2001: 243) on the developments in Swedish.

Ringgaard (1986: 177–182), followed by Askedal (2005: 2–3) and Enger (2013: 13–14), holds against this view that the Middle Low German influence on Danish and the remaining mainland Scandinavian languages happens too late, viz. in the 14th century, for it to constitute a factor in the case-system changes in the Danish regional laws. The language of these texts may have been settled as early as the end of the 12th century, and already this early do we record an approximate completion of the case-system simplifications in Jutlandish (West Danish), and even if we may date the language of the laws as late as to the end of the 13th and beginning of the 14th century, i.e., the age of the preserved manuscripts, the large-scale Low German immigration and influence did not happen until some decades later. Consequently, there seems to be a chronological mismatch between the case-system reductions in Scandinavian and the influence from Middle Low German.

If anything, the influence may rather have happened in the opposite direction, i.e., from the Scandinavian languages to Low German, or as noticed by Askedal (2005: 13–14), it is the processes leading to the modern Low German case system that are in need of an explanation, not those leading to the Scandinavian one.

3.2 Grammaticalisation

Recent decades have witnessed a new way of explaining the case-system reductions and changes in Danish and the other Scandinavian and Germanic languages. Operating within a structural-functional framework, scholars like Andersen (e.g. 2010: 143–144), Heltoft (e.g. 2010), Jensen (e.g. 2011) and Petersen (2018) regard the case-system changes as results of processes of grammaticalisation, i.e., as results of processes of change in the function and contents of the grammatical signs and in the paradigmatic oppositions between them, cf. also Nørgård-Sørensen & Heltoft (2015). For this definition of grammaticalisation that entails both grammation, regrammation and degrammation and thus goes beyond the mainstream unidirectionality hypothesis advanced by, e.g., Hopper & Traugott (1993: 7), cf. Andersen (2006, 2010: 123) and Nørgård-Sørensen, Heltoft & Schøsler (2011: 7–8, 11–17).

Even if these scholars all stress the importance of viewing grammaticalisation as the primary catalyst for the case-system reductions and changes, we cannot rule out completely

that phonological reductions, language contact or both (see section 3.1) play a secondary role. After all, homophony between two or more forms in a paradigm, whether original or caused by sound changes, may contribute to the weakening of earlier grammatical oppositions. For instance, we cannot rule out that the formal identity of feminine and neuter nouns in the nominative and accusative has contributed to the spread of the accusative that plays a major role in most stages of the Middle Danish case-system changes, cf. also Allen (2006: 202) on the effect of similar syncretisms in the history of English or Baechler & Pröll's (2018: 30) model of interdependencies.

3.2.1 Horn & Lehnert (1954) on the functional insufficiency of schwa (ə) in English

The idea of grammaticalisation is not entirely novel, however. Horn & Lehnert (1954: 591–592) has suggested that the loss of schwa (ə) in English should not be attributed only to a sound law, but also to its “Funktionsarmut”, i.e., its functional insufficiency.

They still claim (1954: 592), however, that a particularly heavy stress on the radical syllable conditions the loss of vowels in post-tonic syllables, cf. also Minkova (1991: 24, 33). In other words, although they stress function as a decisive factor, they cannot escape the notion of sound laws as the main factor for morphological change, and they thus still subscribe to the notion of “phonology-first”, as Enger (2013: 3) puts it. This focus is not surprising, though, since their aim is to describe the loss of schwa, not the loss of case.

3.2.2 Heltoft (2010) on the rise of the determiner phrase in Danish

Loss of or changes in the case system is, by contrast, what preoccupies Heltoft, Jensen and Petersen. Heltoft (2010: 13–22), for instance, describes the changes in the case system as part of a larger process that turns the Old Scandinavian noun phrase into a determine phrase in the modern mainland Scandinavian languages. At every stage and every step of these changes, reinterpretations of paradigmatic oppositions are pivotal, e.g., of the opposition between strong and weak adjectives, of the classification and paradigmatic membership of genitives and possessive pronouns (cf. also Nørgård-Sørensen & Heltoft 2015: 282–283), or of the obligatoriness of definite and indefinite articles, including the very rise of the indefinite article.

The gradual loss of case distinctions, including the change of markedness relations in the case paradigm (in terms of the rise of accusative participation; see also section 2.2.2 with references), thus only counts as one of several processes that all have their own role to play in the main reanalysis of noun-phrase definiteness as determiner-phrase definiteness.

3.2.3 Jensen (2011) on the role of the old nominative in Middle Danish

Jensen (2011: 201–232, 283–311) focuses specifically on one process of case-distinction reanalysis, viz., that of the relationship between the nominative and the accusative.

She regards the decrease in number of nominative forms with traditional “nominative” functions, i.e., forms functioning as subject or subjective complement, as a result of a combination of a restriction in functions of the old nominative and accusative participation. After the reanalysis, nominatives no longer mark all instances of subjects and subjective complements, but may mark only such subjects and subjective complements that also provide foreground information, i.e., focus information, introduction of a new discourse referent, or resumption of a previously established discourse referent. Subjects and subjective complements providing background information always take the accusative, as may also those providing foreground information do, since the accusative is generally participative. This

opposition, including the asymmetry in markedness relations (accusative participation), is illustrated in the paradigm of table 2, which is built on the paradigmatic criteria listed in Nørgård-Sørensen & Heltoft (2015: 262–263).

Table 2. Case oppositions related to textual pragmatics in subjects and subjective complements

Domain	Subjects and subjective complements	
Frame	Textual pragmatics	
Content	Foreground information	Background information
Expression	NOM-ending	ACC-ending

Later, the system of definite and indefinite articles may have taken over this new role of the old nominative form that therefore became obsolete, but before this happened, the old nominative form with its new function of marking foreground information may have spread outside its original syntagmatic context (domain). This spread of the old nominative is what happens in (41) where we would otherwise have expected the original neuter form **fuld-t*, cf. also Jensen (2011: 264).

- (41) *saa at de-t vaar-Ø nu fuld-er met [...]*
 so that it-N.SG be\PFV.SG-PST.3SG now full-M."NOM".SG with [...]
 'so that it was now full of [...]

3.2.4 Petersen (2018) on incorporation in Danish

Several other scholars have conducted similar studies on grammaticalisation in the Danish nominal system and thus seen the case-system changes and reductions as part of a greater picture. For instance, Petersen (2018: e.g. 63–89) connects these changes to the rise of definite and indefinite articles and the subsequent shift in markedness between inflected nouns with and bare nouns without an article as well as the rise of unity stress. All these changes form part of the process that gives rise to the concept of incorporation in Danish, i.e., the construction of complex predicates in which a bare noun has fused with a verb.

Consequently, Petersen, too, regards the Middle Danish case-system reductions and changes as functionally and not phonologically motivated.

3.2.5 Norde (1997, 2001, 2006) on the principles behind the case-system changes in Swedish

This way of explaining case-system reductions and changes also fits other languages than Danish. For instance, Norde (1997, 2001, 2006, etc.) applies similar views to the developments in Swedish. In Norde (2001: 255–261), she regards the changes as caused by the interoperability (and competition) of three principles.

First, due to the economy principle, a speaker might omit, e.g., case endings on prepositional complements, seeing that the prepositions will express the grammatical relations in and by themselves.

Second, the competing principle of formally marked grammatical relations is accountable for a tendency in the opposite direction of maintaining case even when it does not add anything to the meaning of the construction in question. As an example, she mentions the tendency in a language like German to keep inflecting noun phrases for case even though they form part of a prepositional phrase where the preposition alone may establish the meaning. Also, due to this principle, speakers preferred the more distinctively marked definite forms of nouns to the

indefinite ones in situations where the nouns themselves did not distinguish much for case, e.g. the weak *n*-stem nouns.

Third, and most importantly, the principle of single encoding more or less combines the former two principles to the benefit of both the speaker and the hearer. According to this principle, noun phrases, for instance, only inflect for case once and not on every single member, cf. the well-known way of marking case in German noun phrases where case is only distinguished fully on one noun-phrase member and the remaining case markers are underspecified. When contrasting (42) and (43), for instance, we witness how, in (42), case is expressed explicitly only on the adjective *guter* ‘good’, leaving *ein* ‘a’ underspecified for case. Conversely, in (43), case is expressed explicitly only on the definite article *der* ‘the’, leaving the adjective *gute* ‘good’ underspecified.

(42)	<i>ein-Ø</i>	<i>gut-er</i>	<i>Mann</i>
	a-M.NOM.SG	good-M.NOM.SG	man(M)-SG
	‘a good man’		

(43)	<i>de-r</i>	<i>gut-e</i>	<i>Mann</i>
	the-M.NOM.SG	good-M.NOM.SG	man(M)-SG
	‘the good man’		

The situation described in section 2.2.2 where Middle Danish noun phrases are marked for case only on the modifiers (adjectives, determiners etc.) and not on the head (nouns) constitutes another example. The preference for inflection on adjectives and determiners over inflection on nouns may be attributable to the circumstance that the adjectival and pronominal paradigms contain more distinctions than the nominal paradigm.

According to such a principle of single encoding, we might have expected that in noun phrases consisting only of a single bare noun without modifiers, the noun would be marked instead. This is, however, not the case in Middle Danish. Apparently, the principle of marking only on modifiers outweighs the principle of single encoding in its purest sense, maybe because the rise of definite (and later indefinite) articles resulted in a process of regrammation according to which the articleless bare nouns became subject of incorporation, cf. Petersen (2018: 135–154).

3.3 Redundancy in noun-phrase-internal agreement

Even though I by no means question the validity of the other grammaticalisation-based suggestions presented in sections 3.2.2–3.2.5, I suggest that we must consider adding at least one more factor to our model(s) of explaining the Middle Danish case-system changes.

3.3.1 Noun-phrase-internal agreement

With the exception of Norde’s (2001: 258–261) principle of single encoding, the suggestions presented in sections 3.2.2–3.2.5 all concentrate on noun-phrase external relations. Admittedly, there is ample reason for such a focus. The primary functions of grammatical or syntactic cases (nominative, accusative, dative and genitive) are to refer indexically to the valency of a predicate (i.e., to reveal the argument status of the noun phrase in question) or to the government of an adposition. In addition to this, semantic or concrete cases (locative, allative, ablative, instrumental, etc.) may refer symbolically to location, direction, means, etc. (Blake

2004: 1080–1086, Andersen [s.a.]: 2, Heltoft 2019: 154–155). For the distinctions between symbolic and indexical sign relations, see also Andersen (1980: 4–5, 27–30, 2010: 119–121, [s.a.]) with further reference to Peircean sign theory.

We must not forget, however, that case may come with one additional function, viz., that of pointing indexically within the noun-phrase (noun-phrase-internal or endophoric agreement, cf. also Andersen [s.a.]: 2, Haspelmath 1996: 52, Nielsen 2010: 82). Thus, in an example like (44), systemically similar to exx. (1–5, 9–11, 27–29) above, we register both noun-phrase-external relations, because the noun phrase *ondom quinnom* ‘evil women’ in the dative points indexically to the dative-governing preposition *for* ‘against’, and noun-phrase-internal or endophoric agreement, because the dative ending *-om* of *ondom* ‘evil’ and *quinnom* ‘women’ point indexically to each other, signalling that they belong together as members of the same noun phrase.

- (44) *for ond-om quinn-om*
 for evil-F.DAT.PL woman(F)-DAT.PL
 ‘against evil women’ (SjT: 52²⁸)

In languages with a relatively free topology, noun-phrase-internal or endophoric agreement plays a decisive role in establishing which words belong together, cf., e.g., the Latin sentence in (43) where both of the noun phrases *contiguās domōs* ‘neighbouring houses’ and *altam urbem* ‘upper city’ are separated by other constituents (Andersen [s.a.]: 2, Nielsen 2010: 89–93).

- (43) *contigu-ās tenuere dom-ōs, ubi dīcitur*
 neighbouring-F.ACC.PL they lived house(F)-ACC.PL where is said
alt-am coctil-ibus mūr-is cinxisse
 high-F.ACC.SG bricked-M.ABL.PL wall(M)-ABL.PL to have surrounded
Semīram-is urb-em
 Semiramis(F?)-NOM.SG city(F)-ACC.SG
 ‘they lived in neighbouring houses where Semiramis is said to have surrounded the upper city with brick walls’

3.3.2 Noun-phrase internal topology

Middle Danish, however, is not a language with a relatively free topology in this regard. As Diderichsen (1941: 93–107) has demonstrated, at least the topology internally within the noun phrase was relatively fixed already in the earliest period represented by *Skånske Lov* (Cod. Holm. B 74, 4^o). Roughly speaking, preponed modifiers are either determiners (numerals, quantitative adjectives and indefinite pronouns) or characterising or emphatically used adjectives, whereas postponed modifiers dominate most other contexts, e.g., with adjectival appositions, with participles equivalent of subordinate clauses, or with simple descriptive adjectives (in contrast to emphatically used or characterising adjectives). In cases with multiple modifiers of comparable types, e.g., two adjectives, one is typically placed before the head, whereas the other, typically the heaviest of them, is placed after.

Only in such instances where the modifier of a noun phrase consists of a genitive phrase or a possessive pronoun do we find significant fluctuation between modifier-head and head-modifier order. With possessive pronouns like *sin* ‘his/her’, postposition is standard when the

pronoun is “superfluous”, e.g., in combination with kinship terms such as *faþær sin* ‘his father’, *kunu sin* ‘his wife’ or *barn sit* ‘his child’ and generally when a noun phrase including a possessive pronoun forms part of a prepositional phrase or a preposed genitive phrase like *kunu sina iorth* ‘his wife’s land’. Conversely, we find preposition when the possessive pronouns are individually identifying (i.e., not more or less superfluous) or emphatically used. Similar conditionings prevail with genitive phrase where, however, we may add that partitive genitives and genitives of species are generally postponed.

Finally, and most importantly, noun-phrase modifiers almost never separate from their heads, which renders sentences like the Latin one in (42) above quite exceptional in Middle Danish. The Middle Danish language users would thus always be able to identify the members of a noun phrase by means of their juxtaposition.

3.3.3 Grammatical sign relations and redundancy

With juxtaposition and such a fixed topology noun-phrase-internally, morphologically based case distinctions becomes dispensable in one of their two functions, viz., as markers of agreement, cf. also Nielsen (2010: 86–89) on the general principle of what he labels conditioned agreement. Noun-phrase internal agreement thus goes from being marked in three ways (juxtaposition or noun-phrase-internal topology, morphological case marking, and morphological marking of gender and number) – i.e., double redundancy, as it were – to being marked in only two ways, viz., by juxtaposition or noun-phrase-internal topology and by morphological marking of gender and number.

If we are to express this loss of case marking as a way of marking noun-phrase-internal agreement in terms of grammatical sign relations and changes in these relations, we may set up tables of sign relations as the ones below (table 3–8), which all build on the prepositional phrase *for ondom quinnom* ‘against evil women’ in ex. (41) above. Table 3 illustrates the traditional representation of the original situation with morphologically marked case on every member of the noun phrase.

Table 3. Symbolic sign relations morphologically expressed (case focus only)

Content:	‘for’	+	‘evil’	+	DAT	+	‘woman’	+	DAT
	↑		↑		↑		↑		↑
Expres.:	for	+	ond-	+	-om	+	quinn-	+	-om

As we have already seen, however, topology also plays a decisive role in the marking of internal agreement, to which we may add that the order of constituents within a prepositional phrase like *for ondom quinnom* ‘against evil women’ is also fixed: preposition first, noun phrase second (Diderichsen 1941: 109). In order to understand in further detail the grammatical relations, we therefore need to add an additional topological layer to the presentation of table 3, for which see table 4, where thicker arrows represent topologically marked relations, thinner arrows those that are morphologically marked.

Table 4. Symbolic sign relations morphologically and topologically expressed (case focus only)

	P		NP-MOD		NP-HEAD				
Content:	'for'	+	'evil'	+	DAT	+	'woman'	+	DAT
	↑		↑		↑		↑		↑
Expres.:	for	+	ond-	+	-om	+	quinn-	+	-om
	Pos. 1		Pos. 2/3 (no coi.)				Pos. 2/3 (no coi.)		

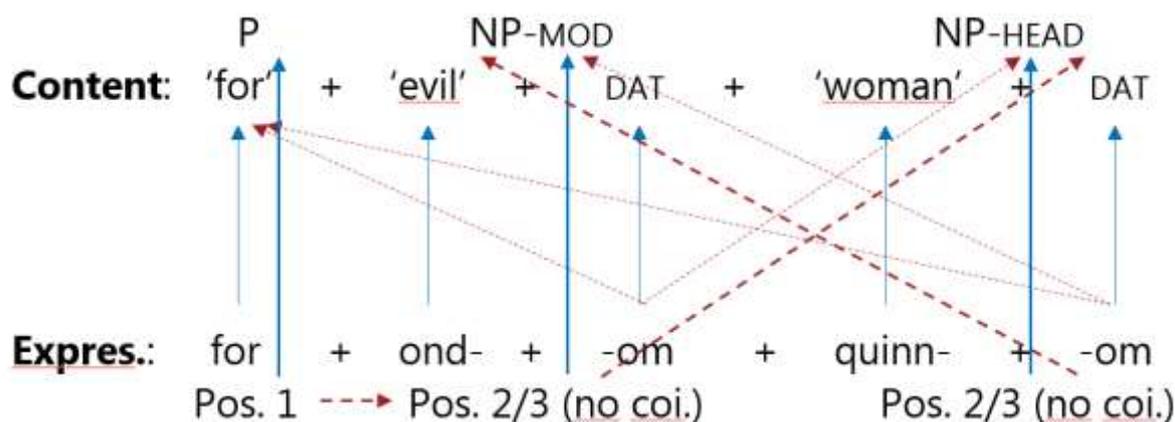
Here we may record that the first position in the prepositional phrase marks the preposition, and the second position (here labelled position 2/3) the noun phrase. Within the noun phrase, modifier and head are signalled by specific positions, too. These positions are here both labelled 2/3, seeing that heads and modifiers may both occupy both positions, but it is never coincidental which position they take, cf. also the outline of noun-phrase-internal topology in section 3.3.2.

However, as long as our models still illustrate the symbolic relations only, we do not obtain the full picture of expressional redundancy. Table 5 adds morphologically marked indexical relations, including such that represent noun-phrase-internal agreement, and table 6 is even further augmented with those indexical relations that are topologically marked. Full lines in blue colour represent symbolic relations (as in tables 3–4 above), whereas dotted lines in red represent indexical relations.

Table 5. Symbolic and indexical sign relations morphologically expressed (case focus only)

	P		NP-MOD		NP-HEAD				
Content:	'for'	+	'evil'	+	DAT	+	'woman'	+	DAT
	↑		↑		↑		↑		↑
Expres.:	for	+	ond-	+	-om	+	quinn-	+	-om
	Pos. 1		Pos. 2/3 (no coi.)				Pos. 2/3 (no coi.)		

Table 6. Symbolic and indexical sign relations morphologically and topologically expressed (case focus only)

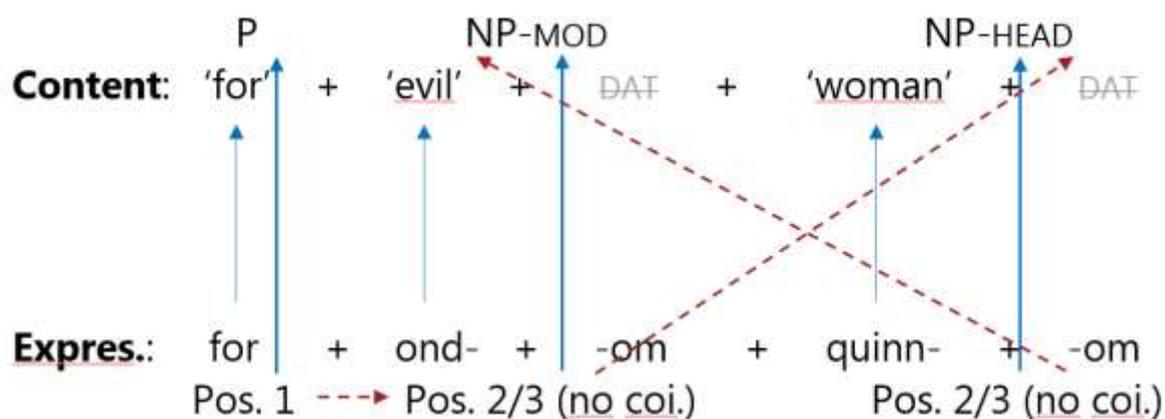


As illustrated especially in table 6, which does not even include the layers of gender and number, both the noun-phrase-internal agreement and the noun-phrase external relations within the prepositional phrase are doubly marked, viz., both morphologically and topologically. In general accordance with Norde's (2001: 256–257) first principle of economy (see section 3.2.5), one of these layers, the morphological one, is therefore dispensable and subject of gradual phase-out by the language users. When it comes to noun-phrase-internal topology, I therefore find myself in agreement with Allen (2006) and Fischer (2010: 1). Although with respect to an unrelated process of change, the latter scholar states that

“the loss of morphology is triggered by the change in word-order. First word-order changes, and only afterwards do we lose morphology because it becomes superfluous.”

Table 7 below illustrates the grammatical relations with the morphological level (i.e., marking by means of case) phased out. As is evident from this, the topological level is fully capable of marking both the noun-phrase-internal agreement and the noun-phrase external relations within the prepositional phrase.

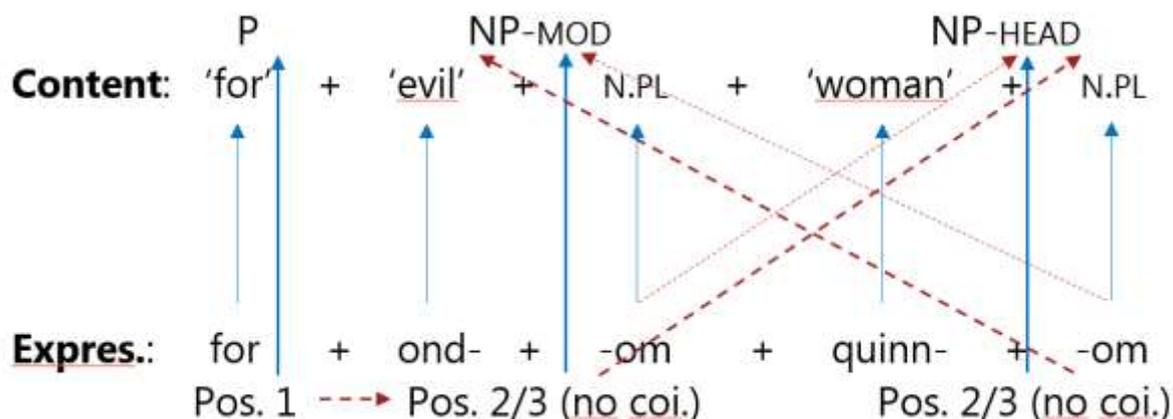
Table 7. Symbolic and indexical sign relations morphologically and topologically expressed after the removal of case inflection (case focus only)



Even so, we must not forget that morphological marking remains a factor. Besides expressing symbolically the number and gender of the elements of a noun phrase, number and gender

marking also express indexical relations within the noun phrase, i.e., noun-phrase-internal or endophoric agreement, cf. table 8 below.

Table 8. Symbolic and indexical sign relations morphologically and topologically expressed (gender and number focus)



3.4 Principle of markedness agreement

It may seem striking that the language users simply did not remove such redundancy at once, but did it gradually, abandoning case inflections on nouns before on typical modifiers (adjectives and determiners; see section 2.2.2) and in the masculine and neuter singular before in the feminine singular and in the plural (see section 2.2.1).

Andersen (2001: 27–37) has introduced a concept that may explain this asymmetry, viz., the principle of markedness agreement, according to which elements that are marked similarly, i.e., either as marked or unmarked, behave identically. This principle expands on the observations by Mareš (1969 [1952]) that in all allophonic change, phonemes develop marked allophones in marked environments. In a similar manner, Andersen (2001: 36) has noticed for all aspects of language that we expect

“[...] the innovation to occur earliest in environments with equivalent markedness value and to subsequently gain ascendancy first in such contexts and then, as it loses its novelty, in the complementary contexts with opposite markedness value.”

In a Middle Danish context, we observe that the case-stem innovations occur first in the unmarked environment, i.e., in nouns (cf. Andersen 1980: 44, who regards noun as the least limited, i.e., least marked part of speech) and in the masculine and neuter singular, cf. also Andersen (2001: 33). Only later do we lose case in the marked environments, i.e., in non-substantival nominal parts of speech and in the feminine singular and the plural.

4. Conclusion

This article has demonstrated why we cannot explain the changes in the Danish case system from the traditional Old Scandinavian system with full inflection on each noun-phrase member (with or without accusative participation) via a system of inflection on typical modifiers only (adjectives and determiners, etc.) to the modern Danish system of no inflection as a result of reductive sound laws. Nor can we explain them as a result of contact with Middle Low German.

Rather, we need to consider processes of grammaticalisation, i.e., processes of change in the function and contents of the grammatical signs and in the paradigmatic oppositions between them. One factor to be added to the already existing and fully satisfactory explanatory models of scholars like Andersen (e.g. 2010: 143–144), Heltoft (e.g. 2010), Jensen (e.g. 2011), Petersen (2018), Norde (1997, 2001, 2006) and others is the change from double to single redundancy in noun-phrase-internal agreement. With the fixation of noun-phrase-internal topology even prior to our earliest Middle Danish attestations (together with the already existing morphological marking of gender and number), the endophoric use of case for expressing agreement noun-phrase-internally simply became dispensable and was phased out gradually in accordance with Andersen's (2001: 27–37) principle of markedness agreement.

Thus, the title of this article may be a trifle misleading, seeing that we do not go from case to topology but, in actual fact, from case *and* topology to topology only when concerning the marking of noun-phrase-internal agreement. Even this is not entirely true, however, since it is only the morphological marking of case that is abandoned, not that of gender and number.

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