

# Development of Sentential Negation in the History of German

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This paper proposes an analysis of the diachrony of negation in German. We suggest that despite the changes in the negation particle and the availability of negative concord (NC), there is a large amount of diachronic continuity both with respect to the syntax of negation in terms of NegP as well as to the semantic status and licensing requirements of the neg-markers. Notably, negative indefinites are licensed throughout the history of German by a covert negation operator in a one-to-one relation. The apparent diachronic continuity in the availability of NC in certain German dialects by contrast is argued to be only of a superficial nature: It is in fact due to diachronic change, as NC is not a homogeneous phenomenon.

## 1. Introduction: ways of marking sentential negation

Languages make use of different strategies to express sentential negation. One of the most common ways is the use of a negative particle. This can either be a free morpheme (such as English *not*), or a verbal clitic (such as English *n't*).

- (1) a. *I'm **not** joking.*
- b. *I **didn't** see anyone.*

Some languages also have a bipartite negative particle, consisting both of a clitic and a free morpheme. One example is *ne ... pas* in Standard French.

- (2) *Je **n'** ai **pas** faim.* (Standard French)
- I NEG have NEG hunger
- 'I am not hungry.'

An additional way of marking negation is found in clauses in which an indefinite expression occurs in the scope of negation. In addition to the combination of a negative particle and a positive or negative polarity indefinite as in (1b), negation can also be marked by realizing the indefinite as a negative indefinite (NI), such as English *nobody* and *nothing*.

- (3) a. ***Nobody** is safe from spy cameras.*
- b. *He has **nothing** to lose.*

In many languages (in fact the majority of the world's languages, cf. Haspelmath 2005), negation is marked on several elements in one clause simultaneously. The phenomenon that multiple markers of negation contribute only one semantic negation is known as negative concord (NC). It is illustrated in example (4) from Polish, where although there are two morpho-syntactically negative elements, viz. the NI *nikt* and the negative particle *nie*, the interpretation contains one negation only.

- (4) *Nikt nie przyszedł.* (Polish)  
 n-person NEG came  
 ‘Nobody came.’  
 \*‘Nobody didn’t come.’ (= ‘Everybody came.’)

There are different forms in which NC occurs. In one form, negation is marked both by a negative particle and an NI. This pattern is referred to as Negative Doubling, following den Besten (1986). The Polish example just given is a case in point. Negative Doubling is also found in Italian, e.g.:

- (5) *Non ho visto nessuno.* (Italian)  
 NEG have seen n-person  
 ‘I haven’t seen anyone’

Italian also exhibits another form of NC, called Negative Spread. Here several NIs co-occur without a negative particle.

- (6) *Nessuno ha visto niente.* (Italian)  
 n-person has seen n-thing  
 ‘Nobody has seen anything.’

It is a well-known fact that languages do not only differ synchronically in the way sentential negation is marked, but that there is also change during diachronic development. For the form and position of negative particles, this development is described in the well-known Jespersen Cycle (Jespersen 1917).

- (7) Jespersen's Cycle:  
 stage I: clitic negative particle  
 stage II: two negative particles: verbal clitic + free morpheme  
 stage III: free morpheme sole negative particle

Diachronically, there is not only variation regarding the negative particles per se, but also regarding the interaction between negative particles and NIs with respect to the allowed patterns of NC.

This paper investigates the diachronic development of the way sentential negation is marked in one particular language, namely German. German is a particularly interesting test case, as it has changed from a language exhibiting NC to a non-NC language. In the first part of the paper, we investigate which patterns of marking negation are attested in German throughout its history. The second part presents an analysis of these patterns in terms of recent analyses and explains the changes taking place during the diachronic development. The analysis we propose assumes a large amount of underlying continuity, syntactically as well as semantically. The changes in the negation system that took place in the history of German are concluded to be of a rather minor nature.

## 2. Data

While Modern German is a non-NC language with attestations of NC only in certain dialects, the historical stages of German were NC languages. Our investigation is based on a corpus from four Old High German (OHG) texts, viz. the OHG Isidor translation (around 800), the OHG Tatian translation (around 830), Otfrid's gospel book (863-871), and Notker's

translation and commentary of the Psalter (before 1020), and three Middle High German (MHG) texts, viz. Nibelungenlied (1190–1200), Prose-Lancelot (before 1250) and the sermons by Berthold von Regensburg (around 1275). The first 100 negated clauses from each of the texts were included in the database; in the case of Isidor and Tatian, the entire texts were analyzed.

## 2.1. Old High German

In OHG, sentential negation is virtually always marked by the preverbal clitic negative particle *ni*: Around 92% of all negated clauses in the corpus from Isidor, Tatian, Otfrid, and Notker contain this preverbal particle. In most cases, it is the only marker of negation in the respective clause (cf. Jäger 2008), as illustrated in (8):

- (8) *si ni mohta inbéran sin*  
 she NEG could do-without him  
 'She could not do without him'  
 (Otfrid I. 8, 3)

In negated clauses that contain an indefinite expression in the scope of negation, additional neg-marking by an NI is possible. Thus OHG can be characterized as an NC language. Indeed, NC is the most common pattern in negated clauses with an indefinite in the scope of negation: In the OHG corpus, on average 56% of the relevant clauses display NC, in Tatian and Notker the ratio is even at 85% and above. This observation clearly proves Admoni's (1990: 46f.) statement wrong that OHG was predominantly 'mononegative' and that NC only arose in Late OHG.

Unlike for instance in Italian and other Romance languages, NC in the form of Neg-Doubling between an NI and the preverbal neg-particle occurs both with post- and preverbal indefinites in OHG, compare (9) and (10). Our data thus also contradict Lehmann (1978) who claims that for indefinites preceding *ni+V*, neg-marking is optional whereas NIs supposedly never occur following *ni+V* in OHG. Note that in example (10), the postverbal NI is even used against the Latin original, which constitutes compelling evidence that this is a genuine OHG pattern.<sup>1</sup>

- (9) NC with preverbal NI:  
 (uide nemini dixeris.)  
*thaz thu iz niomanne ni-quedes*  
 that you it n-person NEG-tell  
 'that you do not tell it to anyone'  
 (Tatian 82, 30)
- (10) NC with postverbal NI:  
 (& non respondit ei/ ad ullum uerbum)

<sup>1</sup> In OHG as in Modern German, the finite verb itself may vary in its position between a clause-final and a left-peripheral position, the former being instantiated in (9), the latter in (8). An anonymous reviewer points out that the opposition of pre- and postverbal position might rather correspond to a hierarchical difference between subject and non-subject position in an OV-language like German. Note however that NC is preferred to roughly the same degree for NIs in both kinds of position: Virtually all subject - as well as non-subject NIs - co-occur with the preverbal neg-particle. In Tatian, NC vs. lack of NC is at 24:1 for subject-NIs, 28:0 for object-NIs and 4:1 for temporal NIs. The absolute numbers in the corpus from Notker are lower and therefore somewhat less conclusive (NC vs. lack of NC is at 5:0 for subject-NIs, 1:1 for object-NIs and 5:0 for temporal NIs). In Isidor and Otfrid, all NIs invariably co-occur with the verbal clitic neg-particle, independently of their position relative to the verb or their syntactic function.

*Inti niantligita imo / zi noheinigemo uuorte*  
 and NEG-answered him to n-Det word  
 ‘And did not answer to a single word’  
 (Tatian 310, 16f.)

While most common, NC is not the only syntactic pattern found in constructions with indefinites in the scope of negation. In the corpus, there is evidence for two alternative strategies (cf. Jäger 2008): Negation may be marked on the verb only, but not on the indefinite, cf. (11). That is, instead of an NI an NPI-indefinite occurs in the scope of negation - a pattern that is also found in Modern English, for instance, but generally ungrammatical in Modern German. This first alternative strategy is quite common in OHG, especially in earlier OHG: On average 40% of the relevant clauses in the OHG corpus contain this type of construction.

- (11) *ni* on V, no neg-marking on the indefinite:  
 (& sine Ipso/ factum est nihil)  
*Inti ûzzan sín/ ni uuas uuíht gitanes*  
 and without him NEG was (any)thing made  
 ‘And without him, nothing was made’  
 (Tatian 25, 21f.)

The second alternative strategy that is attested consists in marking negation only by means of an NI, but not on the verb, cf. (12). However, this pattern is very rare with 3% on average in the OHG corpus. It is even entirely unattested in Isidor and Otfrid, suggesting that it may at least partly be due to influence from the Latin original text.

- (12) NI, no *ni* on V:  
 (In quo nondum quisquam/ positus fuerat.)  
*Inthemo noh nu nioman/ Ingisezzit uuas.*  
 in-which still now n-person put was  
 ‘in which nobody had been put yet’  
 (Tatian 322, 5f.)

When several indefinites occur within the scope of negation, negation is generally not marked on all but only on one, mostly the first indefinite.<sup>2</sup> The other indefinites are realized as NPI-indefinites, for instance as *io* (‘ever’) in the following examples:

- (13) (Deum nemo uidit umquam.)  
*got nioman nigisah io in altere*  
 God n-person NEG-saw ever in ages  
 ‘Nobody has ever seen god’  
 (Tatian 45, 21)
- (14) *mih íó gómmann nihein in min múat ni biréin*  
 me ever man n-Det in my mind NEG touched  
 ‘No man ever crossed my mind’  
 (Otfrid I. 5, 38)

<sup>2</sup> There is one exceptional example with Negative Spread in our corpus: (cui nemo unquam/ hominum sedit) *in theme neoman neo in aldere/ manno saz* ‘in which no man ever sat’ (Tatian 189, 6f.).

OHG thus shows NC in the form of Neg-Doubling between an NI and the preverbal clitic negative particle, but generally not in the form of Neg-Spread between several NIs, i.e. co-occurrence of several neg-marked XPs. This sets OHG apart from other NC-languages described in the literature so far (a.o. Haegeman 1995; Zeijlstra 2004), which if they show Neg-Doubling (especially with a preverbal negative particle) tend to allow Neg-Spread too (e.g. West Flemish, various Slavic and Romance languages).

## 2.2. Middle High German

In MHG, sentential negation is marked by the preverbal clitic *ne* or *en*, which developed from OHG *ni*, and/or the verb-independent negative particle *niht* which was grammaticalized from the OHG NI *niowiht* 'nothing' in its adverbial use meaning 'not at all/(in) nothing'. German thus underwent Jespersen's Cycle. An example for the bipartite negative particle, instantiating stage II of Jespersen's Cycle, is given in (15):

- (15) *er en-kvnd-ez niht verenden*  
 he NEG-could-it NEG accomplish  
 'He could not accomplish it'  
 (Nibelungenlied (A) III 96, 4)

Yet, only a minority of negated clauses in the corpus contain this bipartite negative particle. The ratio is at 13% in Nibelungenlied, 27% in Lancelot, and only 4% in Berthold. Most cases already exemplify the next stage of Jespersen's Cycle, where the verb-independent negative particle *niht* appears without the preverbal negation clitic, as in (16). This type of construction is found in 48% of the negated clauses from Nibelungenlied, 56% of those from Lancelot, and 50% of those from Berthold.

- (16) *"Des ist mir niht ze mvote", sprach aber Sifrit*  
 that is me NEG to mind, said but Siegfried  
 'That is not on my mind, said Siegfried'  
 (Nibelungenlied III, 61, 1)

In negated clauses with indefinite expressions in the scope of negation, negation may again be additionally marked by a pre- or postverbal NI, resulting in Neg-Doubling. Accordingly, MHG is also still an NC language. However, this pattern is decidedly rarer than in OHG with an average of 21% of clauses with an indefinite in the scope of negation in the MHG corpus. Interestingly, NIs co-occur in NC constructions with the preverbal clitic *ne/en* but generally not with the verb-independent neg-particle *niht* in our corpus, cf. (17) and (18) for post- as well as preverbal placement of the NI.<sup>3</sup>

- (17) *des enchunde im gevolgen nieman, so michel was sin kraft*  
 that NEG-could him follow n-person so big was his power  
 'Nobody could follow him in that, so great was his power.'  
 (Nibelungenlied III, 134, 3)
- (18) *als er nichts darumb enwüst*  
 as he n-thing there-about NEG-knew

<sup>3</sup> Paul (2007) and Behaghel (1918), however, mention examples of original NIs co-occurring with the particle *niht*. Behaghel (1918: 241) mentions the following cases: *niemen niht* (Nib 370,4; 801, 4; 1786, 2; 1863, 1), *nie niht* (Nib 1418, 2; 1713, 4), *nimmer niht* (Nib 1258, 3; 2283, 4).

‘as though he did not know anything about it’  
(Lancelot 30, 129)

The only noteworthy exception to this restriction is the indefinite determiner *dehein/kein* ‘any/no’ cf. (19), which can, however, be shown to be in transition from original NPI to NI status (cf. Jäger 2007): Whereas this item occurred mostly in non-negative downward entailing (DE) contexts such as conditionals, the standard of comparison etc. in OHG, it underwent a distributional shift in MHG towards mostly negative contexts. During that period, it could already occur as the only neg-marker in a clause, but was also still licensed in some non-negative DE contexts.

- (19) *dheyn so gebryset ritter noch so hoch enist in dißer welt nicht*  
n-Det/any so praised knight nor so high NEG-is in this world NEG  
‘There is no knight so praised or so high in this world ...’  
(Lancelot 36, 167)

The general ban on co-occurrence of NIs and *niht* suggests that in MHG neg-marked XPs could still not co-occur (in contrast to some later stages of the language viz. certain present-day dialects, see below). This is corroborated by the fact that in our corpus, we find NC in the form of the above-mentioned type of Neg-Doubling between clitic *ne/en* and an NI, but not in the form of Neg-Spread: In negated clauses containing several indefinite expressions, generally only one is neg-marked, as illustrated in (20) and (21).<sup>4</sup>

- (20) *wir heten ninder einen zagen.*  
we had n-place a hesitation  
‘We did not hesitate at any point’  
(Nibelungenlied (A) IV, 231, 4)
- (21) *ich wene nie ingesinde groezer milte ie gepflac.*  
I think n-time attendants greater mildness ever cultivated  
‘I think that no attendants ever acted with such great mildness’  
(Nibelungenlied II, 43, 4)

Again *dehein/kein*, being an original NPI, forms an exception to this restriction cf. (22): It regularly occurs in Neg-Spread constructions, and in our corpus there are even a few attestations of a combination of Neg-Doubling and Neg-Spread including *dehein/kein* within one clause, as illustrated in (23) - a further NC pattern that is unattested with genuine NIs.

- (22) NI + *dehein/kein*:
- aber sîn freude hât niemer mêt kein ende*  
but his joy has n-time more n-Det/any end  
‘but his joy will never have an end’  
(Berthold I, 14 (4))

<sup>4</sup> The unavailability of Neg-Spread sets MHG apart from closely related languages such as Middle English (cf. Ingham 2003) or Middle Low German and Middle Dutch (cf. Breitbarth 2009). In these languages, Neg-Doubling with the verb-independent, adverb-like neg-particle is also highly restricted or ungrammatical, but crucially, Neg-Spread is a common pattern in clauses with several indefinites in the scope of negation. The same pattern is found in other languages, e.g. Modern French.

- (23) *ne/en* on V<sub>fin</sub> + NI + *dehein/kein*:

*Da macht sie so großen jamer das nye keyn man*  
 there makes she such big mourning that n-time n-Det/any man

*merern jamer endörfft gesehen*  
 bigger mourning NEG-might see

‘She was in such great mourning that nobody may ever see greater mourning’  
 (Lancelot 46, 229)

Our corpus data contradict Donhauser's (1998: 297) claim that NC occurs in the form of Neg-Doubling in OHG, but in the form of Neg-Spread in MHG: While Neg-Spread is at most marginally possible in both, it was never very widespread and definitely not compulsory with several indefinites. Neg-Doubling with the verbal clitic neg-particle is by far the most common type of NC in both OHG and MHG. In the latter period, however, the prevalent syntactic pattern in clauses with an indefinite expression in the scope of negation is neg-marking by means of an NI only, with no neg-particle or other additional neg-marker in the clause (cf. Jäger 2008). This type of construction, as illustrated in (24) and (25), amounts to an average of 77% of clauses with an indefinite in the scope of negation in the MHG corpus.

- (24) *wir heten ninder einen zagen.*  
 we had n-place a hesitation  
 ‘We did not hesitate at any point’  
 (Nibelungenlied (A) IV, 231, 4)

- (25) *Und sie hatten nymant miteinander gewonnen dann ein junges*  
 and they had nobody with-each-other won than a young

*knebelin kleyn*  
 boy small

‘and they had no children apart from a little boy’  
 (Lancelot 10, 3)

Against the background of these data, the loss of NC, which had largely taken place by the Early New High German period (cf. also Pensel 1981), can be understood as a natural development that occurred well before any possible influence of prescriptive grammar.

## 2.3. Modern German

During the further development, the verbal clitic neg-particle disappeared completely. Modern Standard German consistently instantiates stage III of Jespersen's Cycle. Sentential negation is marked either by the negative particle *nicht* (< *niht*) or by one NI, but not both. Otherwise each is interpreted as a semantic negation (compare Modern Standard English or Dutch). Modern Standard German is thus a non-NC language, in contrast to the earlier stages of the language.

- (26) a. *Niemand kam.*  
 n-person came  
 ‘Noone came’

- b. *Er kam **nicht**.*  
 he came NEG  
 'He didn't come'
- c. ***Niemand** kam **nicht**.*  
 n-person came NEG  
 \*'Noone came.'  
 'Noone didn't come.' (= Everyone came.)

However, NC is still found in various Modern German dialects: In Upper German such as Bavarian<sup>5</sup> cf. (27) and (28) or certain Swiss German dialects cf. (29), in some Central German dialects e.g. some varieties of Thuringian cf. (30) and (31), as well as in Lower German dialects cf. (32).

- (27) ***Koa** Mensch is **ned** kema*  
 n-Det human is NEG come  
 'Nobody came' (Weiß 1998: 167)
- (28) *Mia hod **neamad koa** stikl broud **ned** gschengt*  
 me has n-person n-Det piece bread NEG given  
 'Nobody gave a piece of bread to me' (Weiß 1998: 186)
- (29) *Es cha **niemer nüüt** defür.*  
 it can n-person n-thing there-for  
 'It's nobody's fault'  
 (www.medical-info.ch/samwunsch/playlist.php, July 2006)
- (30) *die war aus Berlin un hatte von **nischt nech** offn Dorfe*  
 she was from Berlin and had of n-thing NEG at-the village  
  
*änne Ahnung*  
 a clue  
  
 'She was from Berlin and did not have a clue about anything in the village'  
 Blankenhain (TWB, vol. 4, 871 f.)
- (31) ***nürjend** war **kei** Schwein ze fingen*  
 n-place was n-Det pig to find  
 'No pig was to be found anywhere'/'Nobody was around'  
 Mansfeld area (TWB, vol. 4, 888)
- (32) *Hebbt se dat noch **nie nich** sehn?*  
 have you that yet n-time NEG seen  
 'Have you never seen that yet?' (Appel 2007: 91)

German dialects partly display NC of the Neg-Spread type only, as in the case of the above-mentioned Swiss German NC dialect, or also of the Neg-Doubling type with the verb-independent neg-particle *nicht* in its corresponding dialectal form *nich*, *nech*, *ned* etc. In

<sup>5</sup> The case of Bavarian has been particularly well-studied, cf. Bayer (1990) and Weiß (1998).



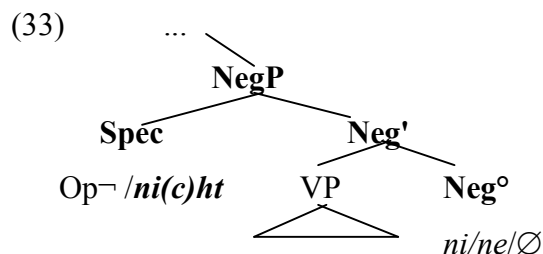
other words, the Modern German dialects show NC of different types compared to the main NC pattern in OHG and MHG. The dialects did not simply preserve the old syntactic patterns, but in fact developed new types.

### 3. Analysis

Having described the patterns of negation marking exhibited by different stages of German, we now move on to give an analysis of the syntax-semantics interface underlying these patterns. There are two main questions that need to be addressed. The first concerns the syntax of the negative particles found in the history of German. For each of the negative particles, the syntactic status has to be determined. The second question concerns the semantics of the elements used as negation markers. Here we have to ask which of these elements are semantically negative and which are mere agreement markers of a semantic negation realized in a different position.

#### 3.1. Syntactic Status of Neg-Particles

In contrast to Weiß (1998) and Abraham (2003), who assume substantial structural changes including the presence or absence of the functional projection NegP and varying numbers of NegPs in order to account for the development of negation in German,<sup>6</sup> we propose that there was no change in the underlying syntactic structure with respect to negation throughout the history of German: There was consistently one NegP above VP, and all observable changes at the surface can be reduced to changes in the lexical filling of the unchanged structural positions (see also Jäger 2005, 2008). This underlying syntactic structure is given in (33).



Diachronic variation can thus be modelled along the lines of typological variation: Ouhalla (1990), Haegeman (1995) and others suggest that the observable typological variation negative particles exhibit can be captured as resulting from their different syntactic status. Negative particles that interfere with head movement (notably verb movement), for instance in the form of blocking or cliticization, are analysed as the head Neg°, and negative particles that are entirely verb-independent as SpecNegP. This analysis is also fruitful under a diachronic perspective: The various stages of Jespersen's Cycle accordingly involve lexical filling of just the head or just the Spec position of NegP, respectively, or of both positions at the intermediary stage of the development (cf. also Rowlett 1998 for historical French and van Gelderen 2004 for historical English).

(34) Jespersen's Cycle:

stage I: Neg° overt

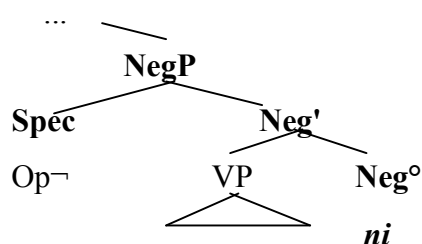
stage II: grammaticalisation of SpecNegP > SpecNegP and Neg° overt

<sup>6</sup> Compare van Kemenade (2000) for an analysis of the history of English negation in terms of a changing syntactic structure involving several different NegPs.

stage III: loss of overt Neg° > only SpecNegP overt

As described above, all three stages of Jespersen's Cycle are instantiated in the history of German. The assumption of one NegP suffices to account for these. OHG represents stage I with just the head position of NegP filled by overt lexical material. (The specifier position is taken up by a covert negative operator that needs to be assumed for semantic reasons, as will be argued in more detail below.)

(35) OHG: stage I



This analysis neatly explains the fact that *ni* always occurs as a clitic on the finite verb<sup>7</sup> and also moves with it to the C° position: As the finite verb moves out of V° to any higher functional projection, notably its left-peripheral position C° in verb-first or verb-second constructions, it moves through Neg° in accordance with the Head Movement Constraint. There, it head-adjoins to the negative particle *ni* and therefore moves *ni* along with it, resulting in constructions such as (8), (10), (11) above.

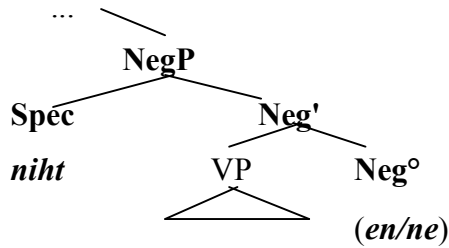
NegP is taken to be head-final in accordance with standard assumptions on German INFL projections. Furthermore, there is no evidence that negated verbs have to move to the left of VP as would be predicted by the assumption of a head-initial NegP dominating VP (cf. Abraham 2003). Rather, there is evidence that in verb-final clauses, negated verbs follow VP-internal material such as PPs or - as illustrated in (36) - verbal particles, which are generally assumed to strand in V°. From data like (36), one may conclude that the Neg° position where the complex of *ni*+finite verb (here *ne-sêhe*) is formed must be to the right of the verbal base position V° hosting the verbal particle (here *ána*).

- (36) *daz er siê fûrder/ ána ne-sêhe.*  
 that he her further at-NEG-look  
 ‘That he shall not look at her any more’  
 (Notker Psalter 9, 32 (11))

MHG partly shows evidence for stage II of Jespersen's Cycle: Neg° is optionally filled by *ne/en*. The newly grammaticalized second negative particle *niht* is unaffected by verb movement, cf. (15), (16) vs. (49), and stands in a fix position in the middle field that can be analysed as SpecNegP. VP may be emptied by scrambling. As mentioned above, most negative clauses including a negative particle in MHG already display stage III with the head position of NegP being non-overt and only SpecNegP filled by lexical material, viz. *niht*.

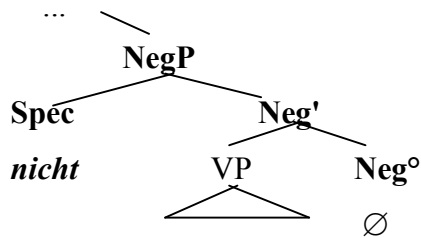
<sup>7</sup> In infinitival constructions, too, it is generally the finite verb that *ni* attaches to. There are very few exceptions (see Jäger 2008: 70-73), notably loan-syntactic participle constructions in Tatian where *ni* attaches to a participle.

(37) MHG: stages II and III



Finally, Modern Standard German (as well as its dialects) still represents stage III: Only SpecNegP is filled; *nicht* has not (yet) undergone a change from Spec to head, as it does not interfere with head movement, notably fronting of the finite verb (cf. (26 b) and (c) above).

(38) Modern Standard German: stage III



### 3.2. Semantic Status of Neg-Markers

The analysis we propose assumes a large amount of underlying diachronic continuity. This does not only hold for the position of NegP, but also for the semantic status of negation markers. We argue that from OHG up to Modern Standard German there is no change in the semantic status of NIs and of the negative particles found in a certain position within NegP. Consequently, the semantic negation is always located in the same position. We argue that this position is SpecNegP, which is filled either by *ni(c)ht* or a covert negation operator  $\text{Op}\neg$ . Negative markers in other positions (i.e. negative clitics and NIs) are mere agreement markers and semantically non-negative.

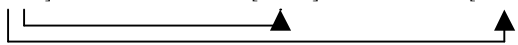
Regarding the semantic status of NIs, we adopt the analysis of Zeijlstra (2004) for NC languages. The essential ideas of his analysis are the following: NIs possess a merely formal (i.e. non-interpretive) negative feature, the feature [uNEG]. The corresponding interpretable negative feature, [iNEG], is borne by (possibly covert) elements semantically interpreted as negation. We assume that [iNEG] is anchored to SpecNegP. The feature [uNEG] has to be checked by [iNEG] under c-command (Agree).<sup>8,9</sup> In order to account for the fact that several

<sup>8</sup> This contrasts with a view on the licensing of NIs known as the Neg-criterion (Haegeman & Zanuttini 1991), according to which NIs need to be in a Spec-Head relation with a negative head in order to be licensed. We assume that licensing of NIs does not involve obligatory movement to SpecNegP, neither overt (compare examples with NIs as part of VP-internal PPs: *Inti niantligita imo/ zi noheinigemo uuorte* - 'And did not answer him to a single word' (Tatian 310, 16f.); for further evidence against overt movement of NIs cf. also Depréz 1999) nor covert (see Penka and von Stechow 2001 for arguments against obligatory LF-movement of NIs), and that c-command is sufficient for checking of negative features.

<sup>9</sup> This requires assumptions about feature checking that deviate in certain aspects from the standard view on agreement (Chomsky 2000), according to which an uninterpretable feature is also an unvalued feature (a probe) and has to be valued by a corresponding interpretable feature in its c-command domain (the goal). As pointed out by Pesetsky and Torrego (2007), the notions of an (un)interpretable feature and an (un)valued do not necessarily correspond and should be disentangled, making available uninterpretable valued and

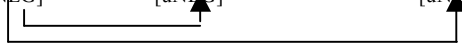
elements with the feature [uNEG] can occur in one clause, Zeijlstra assumes that Multiple Agree of [NEG]-features is available, i.e. several [uNEG]-features can be checked by one and the same instance of [iNEG] simultaneously.<sup>10</sup> NC is thus analysed as agreement with respect to negative features. For illustration, the Italian sentence (39) is analysed in (40).

- (39) *Non ho detto niente a nessuno.* (Italian)  
 NEG have.1.SG said n-thing to n-person  
 ‘I haven’t said anything to anyone.’

- (40) Non<sub>[iNEG]</sub> ho detto niente<sub>[uNEG]</sub> a nessuno<sub>[uNEG]</sub>  
  
 Checking (Agree)

In clauses where NIs occur without a negative particle, semantic negation is assumed to be contributed by a phonologically empty negation operator  $Op^-$ . The Italian example (41) with Negative Spread is thus assumed to have the underlying structure shown in (42).

- (41) *Nessuno ha visto niente.* (Italian)  
 n-person has seen n-thing  
 ‘Nobody has seen anything.’

- (42)  $Op^-$ <sub>[iNEG]</sub> nessuno<sub>[uNEG]</sub> ha visto niente<sub>[uNEG]</sub>  
  
 Checking (Agree)

Zeijlstra (2004) further argues that certain negative particles are themselves just agreement markers and carry the feature [uNEG]. This is argued to hold for one element of bipartite negative particles, e.g. French *ne*, but also for negative particles in languages in which NIs always co-occur with negative particles (e.g. the Slavic languages).

Departing from Zeijlstra (2004) and following Penka (2007), we assume that not only NIs in NC-languages are semantically non-negative, but that this also holds for NIs in Modern Standard German, which does not allow NC. Evidence for this analysis comes from the fact that NIs in Modern Standard German lead to split readings when they are embedded under a modal operator (cf. Bech 1955/57, Jacobs 1982). Consider the following example (from Penka and von Stechow 2001):

- (43) *dass du keinen Schlips anziehen musst* (MSG)  
 that you n-Det tie on-put must  
 ‘that you don’t need to wear a tie’

In the salient reading, this sentence says that the addressee is not required to wear a tie. In this reading, the modal *musst* (‘must’) is in the scope of negation, which expresses negation of the

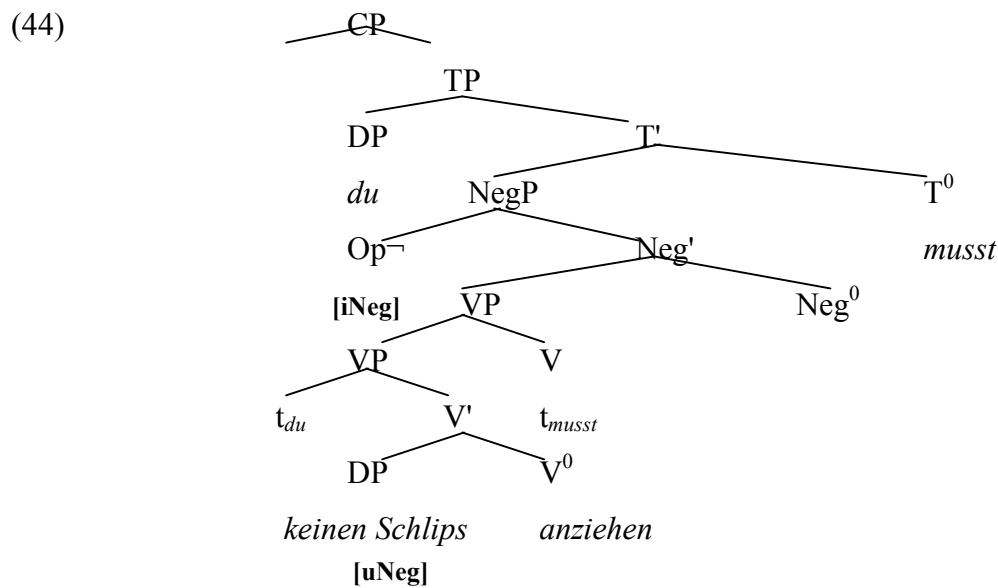
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interpretable unvalued features. Assuming [uNEG] to be an uninterpretable unvalued feature and [iNEG] to be an interpretable unvalued feature allows maintaining the standard assumption that the valued feature has to be in the c-command domain of the unvalued feature. The assumption that [iNEG] on a covert negation operator  $Op^-$  is unvalued might also be used to explain that  $Op^-$  on its own is not sufficient to negate a clause and obligatorily goes together with an element bearing valued [uNEG]. Alternatively, this might be attributed to an economy condition to the effect that covert elements can be present in the structure only if there are unchecked features causing the derivation to crash otherwise (cf. Zeijlstra 2004).

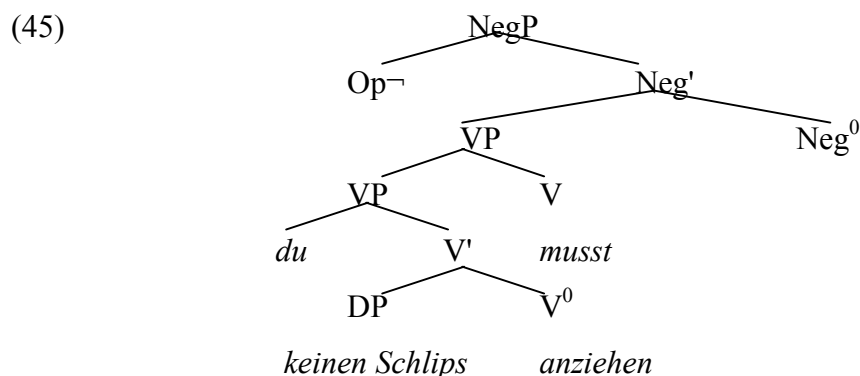
<sup>10</sup> Haegeman and Lohndal (forthcoming) argue that Multiple Agree is superfluous once agreement is taken to be feature sharing in the style of Pesetsky and Torrego (2007). The data we discuss for the history of German, however, seems to argue for Multiple Agree being available as an operation which is subject to parametrization.

obligation to wear a tie, corresponding to permission of not wearing a tie. If *keinen Schlips* ('no tie') is analysed as a negative quantifier, the only way for the modal to get in the scope of negation is by raising the negative quantifier across it at LF. This results in a *de re* interpretation of *keinen Schlips* ('no tie'), which can be paraphrased as 'There is no tie you have to wear'. This paraphrase, however, does not correspond to the salient reading, as it only denies that wearing of any of the actual ties is obligatory and does not express that tie-wearing as such is not required. In order for the latter, the indefinite has to be interpreted *de dicto*, i.e. in the scope of the modal. The salient reading is therefore one in which the modal takes scope in between the negative and the indefinite meaning component of the NI.

To account for this scope splitting effect, Penka and von Stechow (2001) argue that also in Modern Standard German, NIs are semantically non-negative indefinites that have to be licensed by a semantic negation. Assuming that this covert negation operator is located in SpecNegP dominating the VP headed by the modal and using Zeijlstra's feature checking mechanism, the underlying structure of sentence (43) corresponds to (44):



From this structure, it follows that the modal takes scope in between the negation and the indefinite: It is obvious when we look at the Logical Form that is derived by reconstruction of the subject and the finite verb into their base positions:



As NegP dominates the VP headed by the modal verb, the covert negation operator in SpecNegP outscopes the modal. At the same time, the NI, interpreted as a plain indefinite, is contained in the embedded VP in the scope of the modal. As the negation is in a different position from the NI, the effect of scope splitting is readily explained.

The assumption that NIs in Modern Standard German bear the feature [uNEG] raises the question why NC between NIs and the negative particle *nicht* is not possible. In accordance with our assumption that semantic negation and thus the feature [iNEG] is located in SpecNegP, *nicht*, being situated in SpecNegP, is assigned the feature [iNEG]. The unavailability of NC between NIs and *nicht* can be explained by assuming that NIs in German can only be licensed by a covert negation operator. This means that NIs in German are sensitive to the (c)overtness of a licensing negation. Penka (2007) implements this formally by two different uninterpretable negative features. One, Zeijlstra's [uNEG]-feature can be regarded as an underspecified feature that can be checked both by an overt and a covert semantic negation. A second feature, written as [uNEGØ], can only be checked by the corresponding [iNEGØ]-feature on a phonetically empty negation operator. Assigning NIs in MSG the feature [uNEGØ], thus accounts for the fact that NIs cannot be licensed by *nicht*.

With these assumptions on the semantic status of negative markers, we now turn to the question how the negative markers of German developed throughout the history. We argue that the negative markers in German did not undergo a major change in their semantic status when German developed from an NC to a non-NC language. What changed is rather the realization of the positions within NegP.

For OHG we assume, unlike Jäger (2008), that the neg-particle in Neg° is non-negative, i.e. semantically empty, and carries the feature [uNEG].<sup>11</sup> This is corroborated by the fact that the position of the neg-particle *ni* does not have an influence on interpretation. That is, it does not matter whether the finite verb on which *ni* is cliticized occurs in final or second position (compare examples (9) and (10), (13) and (14) above). Another indication for *ni* not being the semantic negation is the fact that NPIs can occur preceding *ni*, as for instance in example (14). NPIs in general cannot occur in a position preceding semantic negation, cf. (46).

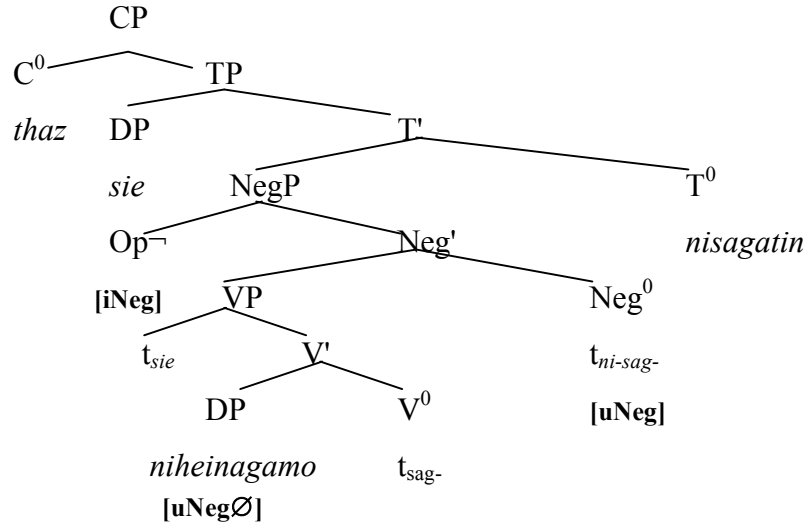
- (46) \**Anyone didn't come.*

These facts are readily accounted for if *ni* is not analysed as semantic negation. The semantic negation is assumed to be contributed in OHG by an abstract negation operator Op<sub>-</sub> situated in SpecNegP. Its [iNEG]-feature checks the [uNEG]-feature on the negative particle and also on an NI if present. For the OHG example in (47), this results in the structure given in (48):

- (47) *gibot her/ in tho thaz sie niheinagamo nisagatin* (OHG)  
told he them then that they n-person NEG-told  
'Then he told them not to tell anybody'  
(Tatian 130, 15f.)

<sup>11</sup> This corresponds to Zeijlstra's (2004) analysis of the negative particle in the Slavic languages.

(48)



As laid out in section 2.1, OHG shows an interesting property setting it apart from other NC languages discussed in the literature: Generally, only one of multiple indefinites in the scope of negation is neg-marked. We interpret this fact to show that at most one NI can be licensed by  $Op^-$ . In other words, Multiple Agree of the uninterpretable negative features on NIs is not available. Since  $Op^-$  can, however, simultaneously license an NI and the negative clitic *ni* (as in (47)), the features on  $Neg^0$  *ni* and NIs have to be different. We thus assign NIs the more specific feature  $[uNEG\emptyset]$ . The negative clitic, in contrast, is assumed to carry the more general feature  $[uNEG]$ . The fact that  $Op^-$  can license at most one NI in addition to the clitic *ni*, can then be accounted for by assuming that Multiple Agree of  $[uNEG\emptyset]$  is not available.

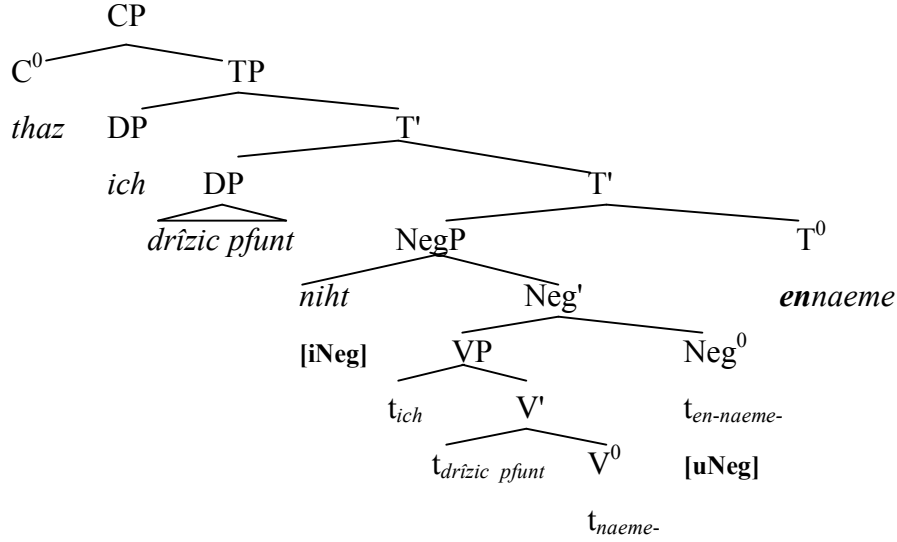
This state of affairs persists in MHG. When multiple indefinites occur in the scope of negation, generally only one is neg-marked (cf. examples (20) and (21) above). This suggests that Multiple Agree of  $[uNEG\emptyset]$ -features is still not possible. There is however, one change towards MHG, namely the grammaticalization of the negative particle *niht*. We assume *niht* to be located in SpecNegP, as argued above. As this is the position where we assume semantic negation to be situated, we furthermore analyse *niht* as semantically negative, carrying the feature  $[iNEG]$ . As indicated above, the original NI *ni(o)wiht* 'nothing' was grammaticalized on the basis of its adverbial use meaning 'in nothing/not at all' into a higher syntactic position adjacent to its VP-adjoined adverbial position, viz. into SpecNegP.<sup>12</sup> As a consequence of this syntactic change, *niht* became associated with the semantic feature of SpecNegP, i.e. it changed from  $[uNEG\emptyset]$  to  $[iNEG]$ . If in MHG,  $Neg^0$  is filled by the negative clitic (which is optional), its  $[uNEG]$ -feature is licensed by the  $[iNEG]$ -feature of *niht*. This is illustrated in (50) for example (49).<sup>13</sup>

- (49) *daz ich drîzic pfunt **niht** ennaeme* (MHG)  
 that I thirty pound NEG NEG-take  
 'that I would not take thirty pound'  
 Bert I, 176 (30)

<sup>12</sup> Its adverbial use also explains why it was this NI that was grammaticalized as a new neg-particle and not for instance the more common NI *nioman* 'nobody': The latter item was not used adverbially, i.e. adjacent to SpecNegP, and could thus not be reanalysed as occupying this position. By contrast, the also adverbial NI *nio(mer)* 'never' expectedly showed some tendencies towards grammaticalization as a neg-particle, too, as can also be observed for its cognates in many languages.

<sup>13</sup> The object has scrambled out of VP. For expository reasons, we assume a landing position adjoined to NegP.

(50)

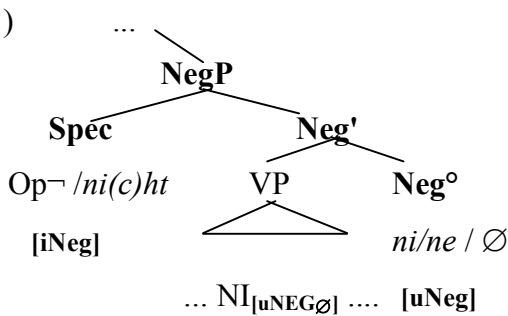


While *niht* may license the negative clitic *ne/en*, recall that *niht* generally does not co-occur with NIs. This follows from the features on NIs: If NIs in MHG continue to carry the feature [uNEGØ], as in OHG, we expect that they can only be licensed by a covert negation, but not by overt *niht*. For clauses involving NIs, the underlying structure is thus exactly the same as in OHG: The NI is licensed by covert Op<sup>-</sup> in SpecNegP, possibly in addition to the negative clitic.<sup>14</sup>

The change that happened from MHG towards MSG is that the negative verbal clitic vanished and Neg<sup>o</sup> is obligatorily empty. Semantic negation is realised either as the negative particle *nicht* or as an abstract operator in SpecNegP. As NIs can only be licensed by an abstract negation, i.e. NIs still carry the feature [uNEGØ] as in OHG and MHG, SpecNegP has to be filled by Op<sup>-</sup> if an NI is present. Moreover, Multiple Agree of [uNEGØ]-features is still not possible, which is reflected by the fact that MSG does not allow NC between multiple NIs.

(51) summarizes the structure we argue negated clauses in German to have invariably throughout its historical development.

(51)



<sup>14</sup> It is interesting to note that the pattern of negation marking MHG exhibits is very similar to the one found in present day French, which also has a bipartite negation particle, cf. (2), with the clitic *ne* being the head of NegP and semantically non-negative and *pas* as semantic negation being located in SpecNegP (cf. Rowlett 1998). In colloquial French, *ne* has become optional. Moreover, NIs cannot co-occur with *pas* under an NC-reading. Whenever *pas* and an NI occur in the same clause each contributes semantic negation, irrespective of pre- or postverbal position of the NI (in contrast to e.g. Italian). MHG and French differ, however, w.r.t. availability of Multiple Agree of [uNEGØ]-features. While it does not seem to be available in MHG, it is optionally available in French, as witnessed by the fact that a clause involving multiple NIs is ambiguous between an NC-reading and a reading with double negation (cf. de Swart and Sag 2002).



The semantic negation (i.e. the feature [iNEG]) is always situated in SpecNegP, either realized as the negative particle *ni(c)ht* or as covert  $\text{Op}\neg$ . If  $\text{Neg}^\circ$  is filled by a negative particle, it is semantically empty and carries the feature [uNEG]. NIs are semantically non-negative indefinites bearing the feature [uNEGØ]. Consequently, NIs can only be licensed by a covert negation operator, not by a negative particle in SpecNegP. Moreover, Multiple Agree of [uNEGØ] is not possible, and thus only one indefinite in the scope of negation is realized as NI.

Briefly coming back to the present-day German NC dialects mentioned above, the picture widens to a whole typology of phenotypes due to varying feature-specifications of NIs and the availability of Multiple Agree: In Bavarian, for instance, NIs changed from [uNEGØ] to [uNEG] so that may be licensed by a covert or - in contrast to OHG, MHG as well as MSG - an overt element bearing [iNEG], i.e. Neg-Doubling with the SpecNegP neg-particle *ned* occurs.<sup>15</sup> Furthermore, Multiple Agree is available for [uNeg] so that Bavarian also developed Neg-Spread. By contrast, NIs in the Swiss German variety discussed above still bear the feature [uNEGØ] resulting in the ungrammaticality of Neg-Doubling between the neg-particle and an NI. However, Multiple Agree is obviously available for the [uNEGØ]-feature here, as Neg-Spread occurs, i.e. several NIs may have their [uNEGØ]-feature checked by [iNEG] of one and the same covert  $\text{Op}\neg$ .

## 4. Conclusion

The analysis we propose for negation in German assumes a large amount of diachronic continuity. At first sight, this might seem surprising, as German appears to have undergone a major change in its negation system when developing from an NC to a non-NC language. When looking more closely, however, it turns out that most characteristics of MSG are already present in earlier stages of German. As early as OHG, we find that only one of multiple indefinites in the scope of negation is neg-marked. When the negative particle *ni(c)ht* has grammaticalized in MHG, it generally does not co-occur with (genuine) NIs. The only difference between diachronic stages of German exhibiting NC and MSG is thus the availability of the negative particle in  $\text{Neg}^\circ$ . The negative clitic (in the form of *ni*, *ne* or *en*) is the main element that gives rise to patterns of NC in historical German. When the negative clitic disappeared towards MSG, NC disappeared, too.

We analyze this state of affairs by proposing that the syntactic structure of negated clauses remained the same throughout diachronic development. There is consistently one NegP, located above VP. What changes is the lexical filling of the positions within NegP. Here, German underwent the development descriptively captured in Jespersen's Cycle: After having one negative particle, located in  $\text{Neg}^\circ$ , a second negative particle in SpecNegP is grammaticalized and finally becomes the sole negative particle.

But not only the syntactic structure of negated clauses did not change during history. We argue also that the semantic status and the licensing requirements of NIs remained the same: NIs always had and still have to be licensed by a covert negation operator in a one-to-one relation. In contrast to MSG as well as the earlier stages of German, however, new types of NC developed in some dialects as a result of changes in the feature make-up of NIs and the availability of Multiple Agree with negative features.

<sup>15</sup> Data such as (30) and (32) suggest that Thuringian and Low German NIs also bear the feature specification [uNeg] in contrast to Modern Standard German.

From our investigation of the history of German, we conclude that the transition from an NC to a non-NC language may be less dramatic than is usually assumed, while superficial continuity in form of the presence of NC at different stages within one language may in fact be due to diachronic change resulting in very different types of NC. We do not find evidence for a change in the semantic status of NIs, i.e. their becoming semantically negative (as assumed e.g. in Zeijlstra 2004). The actual changes towards Modern Standard German are of a rather minor nature, but effectively changed German from an NC and non-NC language.

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