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Synchronic variation and loss of case

Formal and informal language in a Dutch corpus of 17th-century Amsterdam texts*

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A bias towards formal texts obscures our view of language change and gives a misleading impression of actual developments if 'changes from below' are in conflict with 'changes from above,' resulting from norms that are visible in particular in formal language. A corpus of 17th-century Amsterdam texts with varying levels of formality is assembled to study the loss of genitive and dative case-marking in Dutch. These results are compared with the use of present participle constructions, which serve as an extra variable to gauge how formal a text is. We argue that nominal case-marking no longer existed in informal language in 17th-century Amsterdam and that the genitive became a feature of formal norms and was hence subject to pressures from above.

Keywords: genitive, dative, loss of case, present participle constructions, corpus, formality scale, 17th-century Dutch, change from above

1. Introduction

Diachronic analyses are often based on relatively formal texts, usually because no or few informal texts are readily available. This bias is not without problems. Formal texts tend to be homogeneous, providing a limited view of a language. This lack of knowledge of variation can hinder our understanding of language change, which generally arises from synchronic variation. In particular, changes in the underlying grammar are in general below the level of consciousness (Labov 1994: 78) and usually become visible in informal registers first (e.g., Elspaß et al. 2007). As a result, formal texts tend to reveal changes later than informal texts, and if we

only make use of formal texts, we run the risk of missing the underlying impetus of language change.

A bias towards formal texts can be even more problematic if changes from above conflict with changes from below. Formal texts are often composed with a set of prescriptive rules in mind, and changes may take place in these prescriptive rules that are relatively independent of changes in informal registers. In particular, a standard language coming into existence may lead to changes that go in the opposite direction, from informal to formal, and hence give a totally wrong impression of the complex linguistic reality. This holds for Dutch: More formal sources have traditionally been utilized for linguistic evidence, including language histories (Van der Wal & Van Bree 2008, Van Bree 1987, Van Loey 1970, De Vooys 1967). These text types primarily include official documents and correspondence along with literary works. Dutch also saw the rise of a written standard, which in some ways developed in the opposite direction of trends in the spoken language. Morphological case is a revealing example. Like other Germanic languages, Dutch had a four-way case system, as exemplified for the Middle Dutch phrase *die cleine man* "the small man" in (1) (cf. Van Gestel et al. 1991) (see also §3). Spoken modern Dutch shows no traces of morphological case, apart from a couple of two-way nominative-objective distinctions in pronominal paradigms and some lexicalized relics and semi-productive constructions (to which we will return later). So, a Modern Dutch phrase like *de kleine man* "the small man" can appear in all syntactic positions without changing its form.

(1)   Middle Dutch   "the small man"   "the small men"
      Nominative   *die cleine man*   *die cleine manne*
      Genitive   *dies cleins mans*   *dier cleiner manne*
      Dative   *dien cleinen manne*   *dien cleinen mannen*
      Accusative   *dien cleinen man*   *die cleine manne*

The decline of the case system is visible from the oldest texts available up through the 16th century, but writers and grammarians in the 17th century attempted to revive the older case-markers and were to some extent successful in their propagation during this early stage in the standardization. As a result, it is hard to evaluate the status of inflectional elements in 17th-century Dutch texts. Are they evidence for a case system in decline or just the result of (new) prescriptive rules that have little to do with informal registers?

A comparison with written Modern High German is helpful here. Written High German includes examples of genitive and dative constructions like those in (2).

(2) a. *Das Haus meines Vaters*
        /Das Haus meines Vaters/
        The   house my.GEN father.GEN
        "The house of my father"

    b. *Meines Vaters Haus*
        /Meines Vaters   Haus/
        My.GEN father.GEN house
        "My father's house"

    c. *Mit dem Vater*
        /Mit dem   Vater/
        With the.DAT father.DAT
        "With the father"

    d. *Er hat dem Vater ein Buch gegeben*
        /Er   hat dem   Vater   ein   Buch   gegeben/
        He.NOM has the.DAT father.DAT a.ACC book.ACC given
        "He has given the father a book"

Based on formal written High German alone, one could conclude that the dative and genitive cases are still entirely intact. However, in informal High German, it has been argued that the dative is still productive whereas the genitive as in (2a–b) is not (Lindauer 1995, Weerman & De Wit 1999, Di Meola 2004). The marked status of the genitive is further supported by the fact that it is absent in nearly all German dialects (Koß 1983). In formal language, however, the genitive in (2a) is still rather frequent. Likewise in formal 17th-century Dutch texts, it is not difficult to find examples similar to (2), but how should we interpret this evidence? Are the genitive and the dative both part of the informal spoken language? Is 17th-century Dutch in fact comparable to Modern High German? Or is the situation still different somehow? If we only rely on formal texts, it is impossible to tell.

Although the focus on formal texts is unavoidable for the earliest attestations of the Dutch language, the situation dramatically changes in the Early Modern Period. Numerous personal writings, or 'ego-documents', from this time can be found in Dutch archives today (e.g., Lindeman et al. 1993, 1994), including diaries and journals, travelogues, family histories and letters. These sources open up possibilities to examine texts of varying formality. Yet, most research on Dutch at this time is still based largely on more formal text types, with some exceptions (Hendriks 1998, Goss 2002). In addition, a new source has recently become available which helps fill gaps in archival documents available from this time. The so-called *Sailing Letters* are housed in the British National Archives in Kew (Van Gelder 2006). Over the course of several naval wars, starting in the 17th century, the British regularly captured Dutch mail, which was often preserved to be used as evidence in trials held before the High Court of Admiralty. Among the huge

amount of captured mail lie thousands of personal letters written by a wide range of people, including men, women and children. With such a wealth of documents, it is possible to use informal texts for linguistic evidence along with more formal texts.

Our strategy does not replace one bias for formal texts with another bias for informal ones under the assumption that informal texts represent spoken language. The relationship between spoken and written language is interesting and subtle (e.g., Koch & Oesterreicher 1985, Fitzmaurice & Taavitsainen 2007, Culpeper & Kytö 2010). Obviously, even an informal written text will by definition not give an entirely faithful impression of the spoken language. What is more, the type of constructions that we find in formal texts may sometimes be present in spoken language as well, for instance in a relatively formal address. A better strategy therefore is to compare texts that take different positions on a scale from formal to informal (see Rissanen 1999). In doing so, we might be able to evaluate the linguistic status of a phenomenon, in particular whether or not it seems to be a change below the level of consciousness, without having to rely on assumptions about relations between text and spoken language.

For English, the Helsinki Corpus of English Texts (Rissanen et al. 1993) and more importantly the Corpus of Early English Correspondence (Nevalainen & Raumolin-Brunberg 2003) allow researchers to go well beyond formal texts. Although our work is related in spirit to the work of these scholars, it is different in several respects beyond the fact that Dutch is the language of our texts. First, we focus on synchronic variation in one time period. For the reasons just discussed, we therefore need texts that take different positions on a scale from formal to informal and cannot rely solely on correspondence. What is more, to keep other possible variables constant, we stick to texts written by Amsterdam natives. We are not claiming that our corpus is representative of other regions and, in fact, it is likely not representative of the language spoken in Amsterdam. We are also not claiming that the texts are the best representatives of a specific text type, although information of the text type is relevant for our purpose. We are interested in the linguistic status of the phenomena studied, which we hope to uncover by comparing texts of different degrees of formality. We show that this is possible even though our corpus is relatively limited given those restrictions. As such the implications with respect to the status of the inflectional system go well beyond a specific region or language.

In §2 we discuss how the corpus is composed and how we rank texts on a relative scale of formality using criteria based on the work of Koch & Oesterreicher (1985) and Schneider (2002). In §3 we introduce the linguistic variables. Parallel to the German examples in (2), we examine evidence for genitive and dative case-marking. We also look at present participle constructions, which, as pointed out

by Hoeksema (2003), were never prevalent in informal Dutch; we use these as an extra variable to gauge a given text's level of formality. A quantitative overview of the results is presented in §4 and the most important findings are discussed in §5. §6 rounds off with a conclusion.

2. Composing a mixed corpus

Although most linguists will have an idea of what texts may count as formal or informal, problems arise as soon as we try to operationalize these notions. One of the problems is that several dimensions are involved, with each being classified on a sliding scale. To make things more complicated, a text can be heterogeneous, with some parts more formal than others. To classify the texts in our corpus, we decided on the following procedure. First, we chose texts that can be said to be relatively homogeneous. Instead of taking binary features or a scale with fixed values, we decided to order our texts progressively using a set of criteria where the following options apply: a text may be ranked higher, lower or at the same degree of formality as another text. As long as the orderings of the criteria do not explicitly contradict each other, we do not need a mechanism to determine which ordering outranks the others when we combine the results. In fact, even when the results for the several orderings are contradictory, it is questionable if such a decision makes sense. Due to the variable nature of language, it would be naïve to establish a strict weighting system, as this would imply that a uniform, overarching concept of formality truly exists. Instead, we prefer to correlate any contradictory results with the linguistic variables we are investigating rather than some artificial definition of formality. This is a feasible solution, as long as the linguistic variables are independent of the criteria used and both the variables and the criteria are sufficiently explicit.

   To assess the relative formality of a text, we decided to use criteria based on work by Koch & Oesterreicher (1985) and Schneider (2002). What follows is a qualitative assessment of the various texts based on characteristics distilled from these two works. Key to the external factors surrounding the document's creation is the relationship between writer and audience: A person tends to write more like they would speak when they have a close relationship with the reader. Accordingly, a historical text tends to typify informal language through the presence of more variation than would be found in more formal texts. More specifically, historical texts that are more informal contain more variation in spelling and punctuation as well as the presence of dialectal forms. Also similar to spoken language, historical texts of a more informal nature tend to contain less-complex sentences. Summarized below in (3), textual characteristics based on Koch & Oesterreicher's

and Schneider's work can help order texts relative to one another along a scale with language of proximity, or less formality, on one end and language of distance, or more formality, on the other.

(3)   *Characteristics for Assessing Formality*
   a.   Context and relationship with the audience
   b.   Spelling and punctuation
   c.   Dialectal forms
   d.   Sentence complexity

We selected texts we would expect to be of varying levels of formality written by Amsterdammers in the 17th century. For examples of more formal texts, we selected two published works of prose along with a handwritten governmental source. Considered to be one of the early standardizers of the Dutch language, P.C. Hooft exemplifies a writer invested in scribal norms, even being a prescriptive force himself in a time before standard languages existed (Van der Wal & Van Bree 2008:221). Therefore, we chose Hooft's *Nederlandsche Historien* as an example of published formal prose, figuring that his writing would likely be the most formal text in the corpus. To complement this, we chose a biography of the admiral Michiel de Ruyter written by Geeraardt Brandt, an Amsterdammer with fewer ties to prescriptive written norms.

   The rest of our sources are handwritten manuscripts which we transcribed. For an official document, we decided on the Amsterdam *Justitieboek* from the middle of the 17th century. This book, maintained by city officials, served as a register of criminal offenses in Amsterdam. For personal documents, we picked a *Dagboek*, "diary", kept by Joan Huydecoper (Sr.) while he was on a diplomatic mission to the east, and a *Kopieboek* kept by his son, Joan Huydecoper (Jr.). This book contains a copy of every letter sent while traveling, most of a personal nature between friends and family members. Both the diary and copybook are examples of ego-documents authored by wealthy, influential members of the Amsterdam elite. To compare these personal documents with those written by members of a lower social rank, we also included some *Sailing Letters* from Van Vliet (2007). Among the letters exchanged with De Ruyter's fleet, eight authors came from Amsterdam. Overall, we selected texts that would be characteristic for different text types available for 17th-century Amsterdam. Table 1 gives more information about the texts chosen. The handwritten texts were transcribed by us, and all texts were digitized so that they are electronically searchable. Note that our texts do not have complex transmission histories as is often the case with medieval texts.

Table 1. Texts from 17th-century Amsterdam in descending order of formality

Text Type	Author	Year	Title/Description	Words	Reference
Formal Prose	P.C. Hooft	1642	*Nederlandsche Historien* (*NH*)	10,000	(Hellinga & Tuynman 1972, http://dbnl.nl)
Biography	Geeraardt Brandt	1687	*Leven en bedryf van den heere Michiel de Ruiter* (*De Ruiter*)	4,700	(Uitgeverij Van Wijnen, Franeker 1988, http://dbnl.nl)
Official Document	Schout/ Schepenen	1650	*Justitieboek* — crimes in the city	4,500	(SA Amsterdam 5061, nr. 581)
Diary/ Travelogue	Joan Huydecoper, Sr. (1599–1661)	1635	*Dagboek* of a diplomatic mission	5,800	(Utrechts Archief 67, nr. 41)
Personal Letters	Joan Huydecoper, Jr. (1625–1704)	1648	*Kopieboek* of personal letters while travelling	6,000	(Utrechts Archief 67, nr. 53)
Personal Letters	Amsterdammers	1664	*Sailing letters* exchanged with De Ruyter's fleet	4,500	(Van Vliet 2007) Letters 5, 17, 44, 46, 47, 48, 49, 51

After the initial selection, we categorized each text according to its level of formality using the four main characteristics listed in (3) above. This initial ordering represents a qualitatively-informed approximation, since as mentioned above, the concept of formality is itself fuzzy and difficult to define. The first characteristic refers to the effect that the context in which a text is produced has on the language it contains. One of the main factors is the planning that goes into a text's production. In our corpus, the two works by Hooft (*NH*) and Brandt (*De Ruiter*) underwent the most planning and editing as part of the publication process and therefore rank at the same level of formality. With a public audience in mind, the authors took more time in preparing the manuscript, which then underwent editing for uniformity during printing. Overall, this time and effort spent in the production of a text leads to greater adherence to traditional writing norms. On the other hand, though having been composed in a formal governmental context for the public record, the *Justitieboek* contains primarily short handwritten entries of day-to-day crimes in Amsterdam, most likely composed with little planning, given the nature of the text type. A couple of short reports for more serious crimes are included at the end of the volume we investigated, which arguably included more planning, but certainly not as much as would be expected for a published work. Thus, the *Justitieboek*, as a governmental record, is characterized by distance between author and a public audience, but without the lengthy planning and preparation involved in published formal works. Accordingly, we rank the *Justitieboek* lower than *NH* and *De Ruiter* on this criterion.

For comparison, the three personal texts in the corpus were all composed with a more personal audience in mind, namely close friends and family members. Although we do not know exactly which audience Joan Huydecoper, Sr., had in mind when keeping his *Dagboek* during a diplomatic mission, it is apparent from his notes added after the trip that the diary was intended, to some extent, for posterity. To the short daily entries he kept on the journey, he adds descriptions of cities and stories of their inhabitants after the fact for readers other than himself to get a better picture of the places he had visited. In addition, some notes are accompanied by corrections in the text. Thus, this type of source likely consists of a fairly informal, personal language, but intended for a broader range of readers with more planning involved than personal letters. Thus, we would rank the *Dagboek* higher than the *Kopieboek* or *Sailing Letters* on criterion (3a). The last two and least formal sources we considered are the personal letters of Joan Huydecoper, Jr., in the *Kopieboek* and a selection of the *Sailing Letters* written by Amsterdammers to family and friends. The *Kopieboek* contains copies of letters sent by Joan Huydecoper in his early twenties while he was travelling in Europe shortly after graduating from the university in Leiden. Because these are all necessarily copies of letters, their authenticity may be somewhat dubious, perhaps dictated to and/or copied by someone else. However, due to their personal nature, the letters in the *Kopieboek* should still represent language that is typically more informal, as is evident in their often emotional subject matter and tone. For instance, from the letters, it is clear that Huydecoper, Sr., has not been pleased with his son's spending habits while abroad, and his son accordingly defends himself vigorously in writing. As a result we have the ranking in (4) for (3a).

(4)   *Context & relationship with the audience (criterion 3a)*
        NH, De Ruiter > Justieboek > Dagboek > Kopieboek, Sailing Letters

Turning to (3b), more formal texts generally reflect less variation in spelling and punctuation. Formal texts generally undergo more planning and preparation during their production, part of which is to make the text as graphemically consistent as possible. The two most formal texts in our corpus are prime examples of formal texts with very little variation in spelling and punctuation, ostensibly as a result of the revision process inherent in the publication of a book. Overall, the works both show high consistency in spelling with a little variation in some consonants. For example, <z> occurs primarily in onset and <s> everywhere else, with exceptions like *versierdt* vs. *verziert* "adorned". In addition, the spelling contains some alternation between <t> and <dt> as well as <g> and <gh>, with forms like *teegens* vs. *teeghens* "against" or *kreeg* vs. *kreegh* "got". All of these are common scribal conventions of the time and as such are also found in the *Justitieboek*. The formal handwritten source in the corpus contains a little more variation in spelling than

the published works. For example, the different hands in the manuscript show strong preference either for variation between <s> and <z> or avoidance of <z> altogether. However, these sorts of divisions do not extend into punctuation. Based on criterion (3b) we therefore rank *NH* and *De Ruiter* higher than the *Justitieboek*.

The remaining texts are characterized by sparse punctuation and a mixed bag of spelling conventions that vary by writer. Overall, these handwritten texts contain few periods, with some commas used as separators in lists or, at times, to break up clauses. This paucity of punctuation is especially characteristic of the *Dagboek* and *Sailing Letters*, whereas Huydecoper, Jr., maintains more regular punctuation. Although they differ in their use of punctuation, the texts written by the two Huydecopers show relatively consistent spelling. Both prefer <s> to <z> with almost none of the latter in either text, but similar to the formal texts, they show an overall consistency in spelling, despite a few exceptions. Both Huydecoper texts contrast with the *Sailing Letters* in spelling. In these personal letters, correspondents often vary their spelling similarly to other writers in the corpus, but they also opt for forms of variation not found in other texts. For example, the *Sailing Letters* show much more variation in marking vowel length, by either doubling the vowel or following it with an <i>, <y>, or <ij>. With respect to (3b) the *Sailing Letters* are therefore ranked lowest, while the *Kopieboek* is ranked higher than the *Dagboek* (contrary to what we found for (3a)), but lower than the *Justitieboek*. The overall ranking for (3b) is given in (5).

(5)   *Spelling and punctuation (criterion 3b)*
      NH, De Ruiter > Justieboek > Kopieboek >Dagboek > Sailing Letters

The next marker we investigated was the presence of dialectal forms in the texts (3c), assuming that dialectal forms are avoided in more formal language. This type of variation can be found in all the texts in the corpus, but the number and types vary. They are almost non-existent in the two published works, *NH* and *De Ruiter*. The *Justitieboek*, on the other hand, includes some more variation with forms like <ar> instead of <er>, e.g., *dartigh* for *dertigh* "thirty", or <ft> instead of <cht>, e.g., *verkoft* for *verkocht* "sold", supporting the ranking found earlier.

In contrast, the other manuscripts in the corpus contain on the whole more dialectal forms and variation. For example, in the *Dagboek*, Huydecoper, Sr., reveals some dialectal features like unrounding in words like *stijcken*, *sticken* and *stijck* for *stuk* "piece" or loss of intervocalic [d] in *weerom* vs. *wederom* "again" or *gereen* vs. *gereden* "rode". In addition, Huydecoper, Sr., uses certain verb forms that also reveal dialectal variation, like *leijt* for *ligt* "lies" and *kost* for *konst* "could". Such examples are more numerous in the *Dagboek* than in the published texts, but nonetheless, these dialectal forms are generally small in number compared to the other manuscripts in the corpus. The same types of dialectal variation found in

the *Dagboek* can also be found in the personal letters in the corpus. The *Kopieboek* also contains rich variation between the use of <ar> vs. <er> in words like *varstaen* "understand", *vartreck* "departure", *varkeerken* "weaken" and *parsuaderende* "persuading", alongside forms like *versoeke* "try", *vertrock* "departed" and *vereijste* "demanded". In addition to this type of variation, Huydecoper, Jr., writes *mijn* almost categorically for the personal pronoun *mij* "me". Use of *mijn* instead of *mij* was deemed a 'low' form by elite grammarians in the 17th century and is generally assumed to have been avoided in writing at the time (e.g., Van der Wal & Van Bree 2008: 210–11). Besides his use of *mijn*, Huydecoper, Jr., uses a periphrastic grammatical form that reveals dialectal influence. In some instances, he uses the auxiliary *hebben* "to have" with perfect constructions involving the main verb *zijn* "to be", i.e., with the past participle *geweest* "been". Formal texts utilize a form of *zijn* in this construction instead, i.e., *is geweest* "has been".

Based on these and other examples, the *Kopieboek* features overall more dialectal variation than the *Dagboek*. The *Sailing Letters*, however, contain the most dialectal variation of any text in the corpus, including not only the features already discussed but also additional features not found in the other texts. For example, the shift from [i:] to [e:] is a sound change common to several Dutch dialects (Van Loey 1976: 44, 129). In one writer, several words exemplify this sound change with <ee> or <ei> where <ie> would be expected, e.g., *breef* vs. *brief* "letter", *neit* vs. *niet* "not" and *heir* vs. *hier* "here". In addition, the *Sailing Letters* have vocalic variation between <o> and <u>, as in *untvangen* vs. *ontvangen* "received" or *gesturven* vs. *gestorven* "died", as well as palatalized forms like *meucht* vs. *mocht* "might". The *Sailing Letters* also contain dialectal finite forms of the verb *zijn* "to be", like the plural finite form *bennen* "are" (vs. *zijn*). This verb form was characteristic of Holland and Amsterdam at the time (Van der Wal & Van Bree 2008: 228). Considering the large number and differing types of dialectal forms present, we rank the *Sailing Letters* as less formal than the *Kopieboek*. In the end the ranking for (3c) is therefore as in (6).

(6)   *Dialectal forms (criterion 3c)*
       NH, De Ruiter > Justieboek > Dagboek >Kopieboek > Sailing Letters

Our final criterion, sentence complexity (3d), covers an array of characteristics. We focus on one aspect, namely sentence embedding and sentence length. We assume that formal language tends to consist of longer sentences containing more embedding, while sentences in informal language are usually shorter and are combined more often paratactically. This difference between more and less formal texts is also borne out starkly in the corpus. On one end of the scale lies *NH*, which contains an extreme amount of embedding, while the *Sailing Letters* clearly lie at the other end of the scale. Indeed, *NH* seems highly artificial at times and the long

sentences are often difficult to understand due to the highly complex sentence structures contained within. *De Ruiter* also prefers long sentences with complex embeddings (embeddings within embeddings), but *NH* should be ranked higher on this criterion.

Although less so than with these printed texts, the *Justitieboek* also contains relatively more and complex embedding when compared with the informal texts in the corpus, reflecting the legal language typical for public record at the time. The complexity of the sentences found in the personal diary and letters in the corpus is markedly less than that of the formal texts. Accordingly, the *Dagboek* and *Kopieboek* contain many short main clauses and some occasional embedding, differing little in this respect. Finally, the *Sailing Letters* show even less sentence complexity than the Huydecopers' texts, with relatively little embedding and many short main clauses connected paratactically. The overall result for this criterion (3d) is as in (7).

(7)   *Sentence complexity (criterion 3d)*
      NH > De Ruiter > Justieboek > Dagboek, Kopieboek > Sailing Letters

Comparing the rankings in (4)–(7), we may conclude the following. First, not all criteria give robust support to distinguish each text from every other text in our corpus. However, the orderings do not contradict each other, with one exception: the position of the *Kopieboek* seems somewhat ambiguous. On two criteria it falls below the *Dagboek* on the scale of formality, while on another, the reverse applies and in one case no distinction could be made. We return to the ambiguity of the *Kopieboek* in §5. With this caveat in mind, the ranking as given in Table 1 seems appropriate, where *NH* is most formal and the *Sailing Letters* are the least formal.

3.   Linguistic variables

Synchronic variation can serve to indicate that change is in progress. The reverse also holds: If a particular phenomenon is more or less constant in different types of texts, we may conclude that it is not undergoing change. In Modern Dutch, for instance, there is little chance that we will observe variation in the application of the verb-second rule in either formal or informal texts since verb-second seems to be a robust and constant characteristic of Dutch. This is quite different in the history of English, since English lost this rule, and hence, variation in texts might be expected (Kroch et al. 2000). So, if a linguistic variable is more or less constant across several texts in our corpus, we conclude that it is not changing in 17th-century Dutch.

Conversely, linguistic forms in synchronic variation can indicate that a change is taking place. Changes are generally categorized as 'from above' or 'from below' (Labov 1994), that is, from above or below the level of consciousness. Consequently, we would expect a change from above to become apparent in formal language first, where speakers generally spend more time and care tailoring their speech to their audience.[1] Conversely, we would expect a change from below to be visible first and foremost in informal texts, where speakers are paying less attention to norms. Moreover, because they are from below the level of consciousness, changes from below are generally more systematic in nature and occur across a wide spectrum of speakers. Based on this, the loss of inflection in the Germanic languages constitutes a change from below, in that it is a systematic set of changes that affects the morphological and syntactic structures of a language for large numbers of speakers (e.g. Aalberse 2009). Therefore, we expect informal texts to precede formal texts in reflecting this change. However, as discussed in the introduction, in writing norms, particular inflectional elements may be prescribed and hence be introduced from above, but we expect these to be more sporadic in informal texts. Considering change both from above and below, the resulting scale relating formality to amount of inflection is as in Table 2.

Table 2. Hypothesized variation in 17th-century Amsterdam.

MORE FORMAL		MORE INFLECTIONAL MARKINGS
TEXT TYPE	TEXT	
Formal Prose	NH	
Biography	De Ruiter	
Official Document	Justitieboek	
Diary/Travelogue	Dagboek	
Personal Letters	Kopieboek	
Personal Letters	Sailing Letters	
LESS FORMAL		FEWER INFLECTIONAL MARKINGS

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1. Although formality can often be related to social groups, we did not use it as an independent variable for classification. For instance, both Huydecoper, Sr., and Huydecoper, Jr., were from the wealthy Amsterdam elite, not unlike Hooft, but in our corpus the text by Hooft represents more formal language than the *Dagboek* and the *Kopieboek*. The fact that social background has an effect on formality is in accordance with the low ordering of the *Sailing Letters* in §2.

To disentangle these options, we need more evidence. One option is to complement synchronic with diachronic evidence. If a change is from above (i.e., a prescription to use inflection), we expect earlier stages to show less evidence of the new rule. Another type of evidence has to do with the difference in the character of the two types of change. A change from below the level of consciousness should by definition result in what we may describe as a 'natural' rule (or set of rules), whereas a change from above may result in a relatively 'artificial' rule, i.e., a rule that is less integrated with the other rules in the grammar. It may have a more lexical, construction-specific status.

Consider some remnants of the case system in modern Dutch. We noted above that modern Dutch does not have a case system. Indeed, the type of language acquired by Dutch children does not contain any traces of morphological case apart from pronominal distinctions, as a search in Dutch CHILDES corpora shows (MacWhinney 1995, Van Kampen 1997). In higher registers, however, some vestiges may appear, probably acquired relatively late, and in fact some speakers of Dutch never acquire it at all. Weerman & De Wit (1998) discuss several relics of the genitive. Some are entirely frozen, like *de dag des Heren* "the day of our Lord" in (8a), but there are also semi-productive constructions. A phrase like *'s mans* "the man's", historically related to the genitive, can appear in front of any modern noun, as illustrated in (8b). A more productive construction is the post-nominal genitive illustrated in (8c). In formal (mostly written) registers, any definite plural noun phrase construction preceded by the preposition *van* can be replaced by a genitive starting with *der* (historically related to the genitive plural definite determiner; see the paradigm in (1)). The unmarked variant of this phrase is (8d). There are examples of a singular variant of a post-nominal genitive with *der*, but these are even less common. Apart from entirely frozen constructions, the genitive article *des* is not available in post-nominal constructions. Interestingly, there is another construction where *des* shows up, illustrated in (8e). It has a special semantic effect, as indicated, and is used in a (pseudo)formal register. The noun is variable and can in principle be replaced by any other noun.

(8) a. *de dag des Heren*
/de dag des   Heren/
the day the.GEN Lord.GEN
"the day of our lord"

    b. *'s mans iPad*
/'s=mans   iPad/
the.GEN=man.GEN iPad
"the man's iPad"

   c.   *het beleid der universiteiten*
       /het beleid der   universiteiten/
       the policy the.GEN universities
       "the policy of the universities"

   d.   *het beleid van de universiteiten*
       /het beleid van de universiteiten/
       the policy of   the universities
        "the policy of the universities"

   e.   *Dat is des vrouws.*
       /Dat is des   vrouws/
       That is the.GEN woman.GEN
       "That is typical for a woman."

What the genitives in (8) have in common, apart from their (relatively) formal character and the fact that they are acquired late (if at all), is their lexical, construction-specific status. There is no evidence for an abstract generalization underlying the use of genitive case in modern Dutch syntax or morphology. Genitives of these types are normally only found in formal texts. The question is whether the genitives and datives in our corpus are integrated into the syntactic and morphological system or are more lexical in nature like these Modern Dutch constructions.

Before we can even begin analyzing the case system in our corpus qualitatively we need a more quantitative overview. Following Weerman & De Wit (1999) and to make comparison with earlier periods possible, we examined frequencies of the various means of marking adnominal specifiers and complements. Productive genitive marking may become visible in these adnominal syntactic positions in particular. Genitive assigned by verbs ('genitive objects') or by prepositions is not likely to be productive in this stage in the history of Dutch (cf. Van Gestel et al. 1991). An example noun phrase in the corpus is considered to be marked genitive if this is visible on any determiner, adjective or noun in the phrase. The case-markers we looked for were those typical for Middle Dutch when the case system was still somewhat robust. The paradigm for masculine and plural was already given in (1); the endings for neuter and feminine are illustrated in (9) (based on Van Gestel et al. 1991).

(9) Middle Dutch

	"the small bread" (neuter)	"the small gift" (feminine)
Nominative	*dat cleine broot*	*die cleine gift*
Gentive	*des cleins brodes*	*der cleiner gifte*
Dative	*den cleinen brode*	*der cleiner gifte*
Accusative	*dat cleine brood*	*die cleine gift*

In short, masculine and neuter singular nouns and accompanying determiners and adjectives were marked with *-(e)s* while feminine and plural nouns have

determiners and adjectives ending in *-(e)r*. In more recent stages other case-markers were occasionally used: we found instances in which an *-(e)n* ending served as a marker of the genitive case. In addition, we collected information about the word order of case-marked noun phrases. We categorized each example as preposed, in which the genitive complement precedes its head noun, or postposed, in which the genitive complement follows its head noun. Examples of preposed genitives are given in (10a, 10b) while post-posed forms are in (10c, 10d). Both types of genitive constructions are characteristic of a genitive case system (+Case).

(10)　*Evidence for Presence of Genitive Marking* (+*Case*)
　　a.　*van haars broeders weghe* (NH)
　　　/van haars　　broeders　　weghe/
　　　of　her.GEN brother.GEN ways
　　　"of her brother's ways"
　　b.　*'s Landts vryheit* (De Ruiter)
　　　/'s=Landts　　　　vryheit/
　　　's.GEN=Landts.GEN freedom
　　　"the country's freedom"
　　c.　*de executie den andere verkopinghen* (Justitieboek)
　　　/de executie　den　　　andere verkopinghen/
　　　the execution the.GEN other　sales
　　　"the execution of the other sales"
　　d.　*de hant des Heren* (Sailing Letters)
　　　/de hant　des　　　Heren/
　　　the hand the.GEN Lord.GEN
　　　"the hand of the Lord"

For comparison, non-case-marked genitives (–Case) were divided into three groups: those with the possessive *-s* suffix, the *van* ("of") genitive, and the *z'n* ("his") genitive (e.g. Weerman & De Wit 1999). The first is the descendant of the case-marked genitive but differs crucially in that only one element is morphologically marked, namely the head, instead of each element in the noun phrase (cf. De Wit 1997, Allen 2008, Norde 2009). In modern varieties of Dutch, this suffix is moreover highly restricted to proper nouns and a few frequently occurring fixed expressions (see Weerman & De Wit 1999). Both the *van* and *z'n* genitives are periphrastic constructions; the former occurs after the possessum and before the possessor whereas the latter occurs the other way around. An example of each type is given in (11), with the *-s* suffix, the preposition *van* and the possessive pronoun respectively. The constructions in (11) are still entirely natural in Modern Dutch.

(11) *Evidence for Absence of Genitive Marking* (*–Case*)
    a. *Karels naazaat* (NH)
       /Karels   naazaat/
       Karl.GEN successor
       "Carl's successor"
    b. *van het mes van deese man* (Dagboek)
       /van het mes   van deese man/
       from the knife of   this   man
       "from the knife of this man"
    c. *met kappeteyn Roeteryng sijn schrijver* (Sailing Letters)
       /met kappeteyn Roeteryng sijn schrijver/
       with Captain   Roetering his secretary
       "with the secretary of Captain Roetering"

Similar to the genitive data, we differentiate case-marked and non-case-marked forms of the dative case to compare their frequency across texts. Dative case-marking may be visible in several constructions, including objects, double objects and several prepositional phrases. To limit the scope of data collection and to make comparison possible with counts for earlier periods in Weerman & De Wit (1999), we chose two prepositions, *met* "with" and *van* "of, from", which traditionally took the dative. We selected these canonical dative prepositions because they are frequent and easy to filter out of the electronic corpus. In addition we searched for indirect objects, focusing on relatively frequent verbs that may select one, such as the Dutch verbs for BRING, GIVE, SAY, SEND, SHOW and WRITE. As with the genitive, we categorized each occurrence as either case-marked (+Case) or non-case-marked (–Case). Those noun phrases we considered case-marked had to have a reflex of the dative endings on the adjective (i.e., *-en*, *-er*), as in (12a), or be evident on the article (i.e., *den, dezen, eenen*), as in (12b) (paradigms in (1) and (9)). In addition, we counted singular nouns that contained an *-e* ending as case-marked (like *vlootẹ* in (12b)), since this too is a remnant of dative case-marking on the head noun. Those instances in which the noun phrase did not meet any of these criteria were categorized as –Case, as in (13). However, in many instances, the following noun phrase had no determiner or adjective, so it was impossible to decide if the noun phrase contained any remnants of the case-markers or not, e.g., with proper nouns as in (14). We marked these occurrences as unknown ('Unk') and include them in the results, but base our analysis on the relative frequency of +Case versus –Case, excluding the unknown cases.

(12) *Evidence for Presence of Dative Marking* (*+Case*)
    a. *met een meer dan mannelyken moedt* (De Ruiter)
       /met een meer dan mannelyken moedt/
       with a   more than manly.DAT   courage
       "with a more than manly courage"

    b.   *met de vloote van deezen Staat* (De Ruiter)
       /met de vloote   van deezen   Staat/
       with the fleet.DAT of   this.DAT state
       "with the fleet of this state"

(13)   *Evidence for Absence of Case-Marking (–Case)*
     a.   *met het boot* (Dagboek)
        /met het boot/
        with the boat
        "with the boat"
     b.   *met groot versoeck* (Dagboek)
        /met groot versoeck/
        with great behest
        "with great behest"

(14)   *met Capiteijn Andree* (Dagboek)
           /met Capiteijn Andree/
           with Captain   Andre
           "with Captain Andre"

The final linguistic variable that we investigate is the relative frequency of present participle constructions in the corpus. As pointed out by Hoeksema (2003), these syntactic forms were never prevalent in spoken Dutch. Nonetheless, present participle constructions have long been part of a learned formal register and are typical of 'legal' speech, assumed to have been taken over from Latin and French. Thus, they have long been canonical for formal written texts but highly infrequent or non-existent in informal Dutch. In addition, during the 16th and 17th centuries, these constructions underwent an overall increase in use (Heemstra 1925), so are especially relevant for 17th-century writings. We therefore use present participle constructions as a variable independent from case-marking that may show the extent to which the norms of written language are present in the corpus. In Dutch, the present participle is formed by adding *-de* to an infinitival verb. In a present participle construction, this verb form then takes arguments, serving as the head of a clause. Two examples from the corpus are given in (15).

(15)   *Evidence for Present Participle Construction*
     a.   *hebbende diversche goederen op verscheijde plaetsen gestolen* (Justitieboek)
        /hebbende   diversche goederen op verscheijde plaetsen gestolen/
        having.PR.PRT various   goods   at different   places   stolen
         "having stolen various goods at different places"

b.   *wenschende U.E. alles goets* (Sailing Letters)
/wenschende   U.E. alles goets/
wishing.PR.PRT you all   good
"wishing you all the best"

4.   Quantitative overview

We now present our results. If case-marking was undergoing a change in the 17th century, we should encounter more case-marked genitives, the more formal the text type. This is largely borne out in the relative frequency of the +Case versus −Case genitive constructions. Results are given in Table 3. Examining the different genitive constructions found, a clear pattern emerges from the data with the +Case constructions occurring at a much higher rate in formal than in informal texts. If we assume that the ordering of the texts can be translated into a fixed formality scale, a simple logistic regression shows that over 60 percent of the variation can be explained by formality ($R^2=0.61$, $p<.001$). If we group the three formal and the three informal texts, a Chi-square test shows that Phi = −0.24 ($p<.0001$).

Table 3.   Genitive case-marking.

Text	+Case				−Case						Total
	Pre		Post		-s		van		z'n		
NH	6	6%	43	43%	3	3%	49	49%	0	0%	101
De Ruiter	3	3%	34	35%	4	4%	55	57%	0	0%	96
Justitieboek	2	1%	20	11%	4	2%	153	85%	0	0%	179
Dagboek	0	0%	0	0%	0	0%	37	100%	0	0%	37
Kopieboek	0	0%	1	2%	3	5%	61	92%	1	2%	66
Sailing Letters	0	0%	7	23%	3	10%	18	58%	3	10%	31

An exception lies in the *Sailing Letters*, which contain an unexpectedly high number of +Case forms and could represent an exception to the overall trend. However, these seven instances are all biblical references, as in (16), arguably fossilized fixed expressions, comparable to (8a). If we take these out of consideration, only one other case-marked genitive is left over for the informal texts. We did not find the same frozen biblical expressions in the other texts.

(16)   *in de handt des Heeren* (Sailing Letters)
/in de handt des   Heeren/
in the hand the.GEN Lord.GEN
"in the hand of the Lord"

As noted, a pattern along the lines of Table 3 does not tell us whether the genitive in 17th-century Dutch is on its way out or just becoming the norm for the formal language. To establish this, we must first consider the results of the other variables.

We find a very different situation with dative case-markers. Table 4 gives results for dative case assigned by prepositions (note that we keep the same ordering as in Table 1 for all data). Most texts in the corpus contain about the same rate of +Case versus –Case forms, with the formal texts containing slightly more following *met* and *van*. On the whole, unambiguous overt dative case-marking is low. A simple logistic regression shows that only around 20% of the variation can be explained by formality (R^2=0.21 (p<.05)). If we group the three formal and the three informal texts, a Chi-square test shows that Phi= −0.12 (p<.001). Thus, the texts differ much less with respect to dative case-marking when compared with the results for the genitive.

Table 4. Dative case-marking by prepositions.

Text	+Case		–Case		Subtotal	Unk	Total
NH	94	26%	272	74%	366	231	597
De Ruiter	46	29%	112	71%	158	51	209
Justitieboek	45	29%	110	71%	155	98	253
Dagboek	15	10%	142	90%	157	83	240
Kopieboek	26	23%	88	77%	114	52	166
Sailing Letters	13	21%	48	79%	61	41	102

It is perhaps surprising that Hooft's *NH* have a relatively lower percentage of case-marked forms than we would expect to find in the writings of such an outspoken proponent of case-marking in general. Here and in *De Ruiter*, dative case-marking is less robust than genitive case-marking. The informal texts have a lower percentage, but the *Dagboek* stands out among all the texts with by far the fewest occurrences of +Case forms. In fact, according to the Fisher-Yates test, this text differs significantly from all other texts in the corpus (p<.01). The pattern in Table 4 is clearly different from that in Table 3.

We also took into account dative assigned to indirect objects. Indirect objects are not particularly frequent. Moreover, they are usually animate and very often pronominal. In the paradigm of personal pronouns in earlier stages of Dutch, there is no overt distinction between accusative and dative case, just like in Modern Dutch. As a result, the already relatively few indirect objects contain mostly examples which we have to score as Unk. We therefore grouped the most and least formal texts of our corpus and merged their results. These data are presented in Table 5, where *NH* and *De Ruiter* are the most formal texts, while the others are 'less formal'.

Table 5. Dative case-marking on indirect objects.

Text	+Case		−Case		Subtotal	Unk	Total
Most formal (NH & De Ruiter)	10	100%	0	0%	10	13	23
Less formal (J,D, K & SL)	0	0%	9	100%	9	77	86

The numbers are of course small, but they show an asymmetry in line with the ordering of our texts (Phi= −1, p<.0001). Notwithstanding the evidence for dative case on indirect objects in the most formal texts, the overall overt evidence for dative is shallow, since most cases are ambiguous between accusative and dative (like in the modern pronominal system).

To compare the relative frequency of present participle constructions — our third variable — we counted the number of occurrences in each text. While we could compare the appearance of genitive and dative in a +Case position to a −Case in all texts of our corpus, we only have an absolute frequency per text for participle constructions. To make a comparison possible, the results are tallied in Table 6 and then a normalized frequency per 10,000 words is computed. Recall that we include the present participle construction as a variable since we expect it to show us how apparent formal written norms are in our corpus. Indeed, with the exception of the *Kopieboek*, a clear difference between text types is evident after comparing the normalized frequency across texts:

Table 6. Present participle constructions.

Text	Present participles	Total words in text	Normalized frequency
NH	119	10,000	119.0
De Ruiter	52	4,700	110.6
Justitieboek	52	4,500	115.6
Dagboek	17	5,800	29.3
Kopieboek	92	6,000	153.3
Sailing Letters	8	4,500	17.8

As we might suppose, *NH, De Ruiter* and the *Justitieboek* contain the most present participle constructions, except for the *Kopieboek*. In Hooft's texts, they indicate the writer's almost hyper-formal register, and in the *Justieboek*, they probably reflect its status as a legal text.

In contrast, two of the three informal texts contain few instances, with the *Kopieboek* a gross exception. Indeed, this set of personal letters has a much higher frequency of present participle constructions than even Hooft's text and starkly contradicts what its position on the formality hierarchy would predict.

Furthermore, these constructions occur much more frequently in the personal letters of Joan Huydecoper, Jr., than in his father's diary, also unexpected considering that his father was writing in a more formal style by other indicators. Setting aside this exception for a moment, the results are generally in line with Hoeksema's estimation that present participle constructions were primarily a formal phenomenon in the 17th century.

5.   Qualitative analysis

Summarizing, we observe variation along the lines of Table 2 in genitive case-marking and present participle constructions while dative marking is consistently low. As noted, there is reason to believe that the pattern of the present participle construction is not the final stage of a change from below since this construction was probably never typical for informal, spoken Dutch. Rather we interpret this as indicating pressure from above to obey norms of formal, written language.

The decision to take over a particular formal norm is to some extent a conscious decision. This may explain why we observe the unexpected pattern of present participles in the *Kopieboek*. From the point of view of the formality hierarchy, the number of present participle constructions is overgeneralized by Joan Huydecoper, Jr., although we already noted the ambiguous position of this text in §2. One explanation for this anomaly may be a result of the nature of the personal letters in the *Kopieboek*. At the time, Joan Huydecoper, Jr. was traveling after recently graduating from the university with his doctorate. In many letters, he asks for increased financial support from his father, who is evidently getting angrier with each new request, based on the responses his son makes to his previous letters (unfortunately, his father's letters were not found). It is possible that Huydecoper, Jr., is attempting to employ a more formal register, making his requests sound more official and learned, and thereby make them more credible.

This leaves us with the genitive case. Is the pattern of the genitive case-marking the final stage of a change from below, where the loss of case had not reached the more formal language yet, or should it be explained in the same way as the present participle constructions? In the latter instance, genitive case-marking would have become a feature of scribal norms, and thus, to some extent standardized. Or is it impossible to distinguish these alternatives?

As suggested in §3, in principle two types of arguments can help us decide whether we are dealing with a change from below or from above. First, we can complement synchronic with diachronic evidence. For a change from above we would expect to see an increasing number of genitives diachronically with formal texts taking the lead. The second type of argument concerns the synchronic status

of the genitive. If there is a change from above there may be internal arguments for the genitive not belonging to the core system in the 17th century and therefore occurring less regularly in informal texts. We believe that both arguments point in the same direction here, namely in the direction of a change from above.

First, the number of case-marked genitives in the three lowest texts on our formality scale is not just low, but nearly non-existent. Recall that the few case-marked genitives in the *Sailing Letters* were mainly frozen expressions. This suggests that genitive case-marking had fallen out of use in the informal language, which we assume more closely reflects the spoken language at that time. Interestingly, this is more or less the situation Weerman & De Wit (1999) found for the 15th century. More particularly, they show that in relatively formal texts, genitive case-marking shrinks from 46% in the 13th century to 4% in the 15th century. If we add up pre- and postposed genitives like Weerman & De Wit (1999) did, our percentages for the more formal texts in the 17th century vary from 12% up to 48%. This is higher than the frequencies in the 15th century. The number of genitives in our most formal 17th-century text, Hooft's *NH*, is back to the level of the 13th century, as shown in Figure 1.

The texts in our corpus are from a different dialectal region, so that we do not have a complete diachronic overview. We know of no reason to believe that loss of inflection was less progressive in the Amsterdam region of the 17th century. In other words, diachronic evidence is consistent with the view that we are dealing with a change from above.
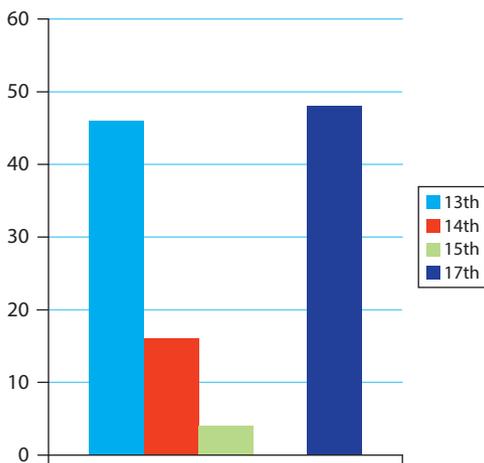

Figure 1. Percentage genitive case-marking per century (13–15th century based on Weerman & De Wit 1999, 16th century unknown).

To evaluate the synchronic status of the genitive in the 17th century, the overall low score of overt dative case-marking may help us. In the introduction, we mentioned that in spoken German, dative case-marking is still productive while genitive case-marking is not (Lindauer 1995, Weerman & De Wit 1999, Di Meola 2004). Weerman & De Wit (1999) argue that genitive case-marking typically disappears before dative in nominative-accusative case systems in general. This order is the one they observe for Middle Dutch. In the stage where the genitive is marginal, the dative is still fully productive in the texts that they examined. In the most formal texts of our corpus, genitive marking is considerably *more* frequent than dative marking, completely different from what Weerman & De Wit (1999) found and different from Modern German. This supports the view that the genitive in 17th-century Amsterdam is a feature of the new formal norms, and much like the present participle construction, is no longer part of a natural case system.

If this is true, we might expect the genitive to have a rather lexical, construction-specific character. There are several indications that this is indeed true. We already noted the frozen genitives in the *Sailing Letters*. Some genitive phrases in the *Justieboek* that are quite frequent (for instance, *der stede*, "of the city") might also be formulaic. In fact, genitives in even the most formal texts are restricted. For ease of exposition, a paradigm of Middle Dutch definite determiners is presented in Table 7; see also (1) and (9). Although these paradigms allow more options, the pre-nominal genitive is always a genitive with an *-s*, where the *-s* is visible on the noun, the determiner and, if present the adjective (it is therefore different from the construction with the possessive *-s*, which is only visible on the noun, see above). They are nearly all animate, the only exception being '*s lands* "the land's", which is used metaphorically and which might therefore also count as animate. Otherwise, this restriction holds for our entire corpus. As a result only masculine and neuter singular nouns are found in the pre-nominal genitive. There is a strong tendency for the reverse pattern in post-nominal position. In both *De Ruiter* and *Justitieboek*, nearly all post-nominal genitives have *-r* endings, so that singular feminine and plural nouns always appear in post-nominal position. Only the most formal text, namely *NH*, breaks with this tendency.

Table 7. Middle Dutch paradigm of definite determiners.

	MASC	NEUT	FEM	PLUR
NOM	die	dat	die	die
GEN	des	des	der	der
DAT	den	den	der	den
ACC	den	dat	die	die

This division of labor between -*s* for pre-nominal and -*r* for post-nominal positions reminds us of the constructions described for Modern Dutch in §3. In fact, the strong tendency for pre-nominal genitives to be animate is also evident in Modern Dutch pre-nominal genitives and, more generally, pre-nominal possessors (Van Bergen 2011). Post-nominal genitive constructions in Modern Dutch with an -*r* ending are restricted to plural nouns, whereas these forms occur with feminine singular as well as plural nouns in our corpus. Both singular feminine and plural nouns superficially have the same -*r* form (apart from the plural ending on the noun). One explanation for this more restricted -*r* genitive construction in Modern Dutch is simply that no feminine nouns are left in standard Dutch. That is, the earlier three-way gender system now shows only common vs. neuter (Geerts 1966).

The overall low and constant frequency of dative case-marking is, in this view, part of the same story. We interpret it as an indication that the dative is practically dead in the informal language in the 17th century. If the ordering of the loss of dative and genitive in the literature is correct, the end of the dative in the spoken language in fact implies that the genitive is gone as well. The difference between the genitive and the dative, however, is that the former became a more overt and productive feature of the formal writing norms in the 17th century and was hence subject to pressures from above as reflected by the texts in our corpus.

Nevertheless, our corpus contains remnants of the dative case-markers. Although the numbers are small, we found an asymmetry in the marking of indirect objects, where the two most formal texts show a dative ending that is not present in the other texts at all. Like the genitive, these residues of the dative case seem to be construction-specific. First, all dative indirect objects in our corpus show an -*n* (on the determiner and/or the pre-nominal adjective). In fact, this is the same ending found on the remaining datives assigned by prepositions in the *Sailing Letters*, *Kopieboek* and *Dagboek* (i.e., only masculine singular). In *NH*, *De Ruiter* and *Justitieboek* most dative endings in prepositional phrases end with -*n*, only a few with -*r*. Most -*n* endings are for masculine singular nouns with some for neuter singular nouns and a few for plurals. Thus, the typical construction for the dative case is based on the -*n*. That this remaining ending is especially visible in masculine forms is not without consequences: As the paradigm in Table 7 shows, there is no distinction between dative and accusative. Rather than referring to a dative, this might just as well be an objective (a non-nominative) distinction. Interestingly, this -*n* ending survived in Dutch spelling rules for accusative and dative masculine nouns up until the mid-20th century, by which time it was entirely artificial and hard for writers to maintain, since both the case system and the three way gender systems had long since collapsed. In other words, both diachronic and synchronic considerations suggest that the variation we found is a result of pressures from above.

6.   Conclusion

Our corpus of 17th-century Amsterdam texts with varying levels of formality enables us to study the loss of genitive and dative case-marking in Dutch and compare these results with the use of present participle constructions, typical of written, formal language at the time. We showed that case-marking was no longer a part of informal written language in 17th-century Amsterdam and that the genitive had become a feature of formal norms subject to pressures from above.

Although the notion 'genitive' is perhaps historically accurate, it is restricted in the 17th century and very different from a genitive within a full-fledged case system. In fact, this is what you might expect for a feature that is typical of formal language, dependent on pressure from above and hence acquired relatively late by language learners. As such the 17th century genitive is generally optional and has a lexical, construction-specific character. Rules operating below the level of consciousness can apply anywhere and are relatively hard to suppress. Consequently, they are more apparent in informal language than those features that operate above the level of consciousness. This holds for relatively superficial, lexical features. Typically, phenomena like these may be acquired throughout a person's life and consequently may show a lot of variation within and among speakers.

If we take the remains of the genitive and the dative together, a nice division of labor emerges in the way vestiges of the old case system take on new relevance in 17th-century Dutch. Where remnants of the pre-nominal genitive take an *-s* ending, the post-nominal construction is based on the *-r* ending. The dative (or objective) construction is built on the *-n* ending. Systematically this is different from a productive case system, even though it bears superficial similarities with the old case system, with residual endings taking on new roles in specific constructions (cf. Lass 1990). These endings form more or less a subset of the phonological reflexes of the original case system. Consequently, it is certainly not true that anything goes with regard to case in our texts. Case is absent or occurs in construction-specific situations that we find, often in accordance with case-markings found in previous stages of the Dutch language. This, again, is what we expect in formal language where speakers try to maintain linguistic features from earlier stages of the language as much as possible, i.e. pressure from above.

The constructions specific to the former genitive seem to be more robust than those based on the dative. This is visible in our corpus, as the genitive is more frequent than the dative, as discussed in §4 and §5, but it is also visible in the lexically-based constructions that survive in Modern Dutch (cf. 8). As noted, in the mid-20th century a spelling rule, by then entirely artificial, prescribing *-n* endings for masculine nouns was abolished. Taking the Middle Dutch paradigm as a point of reference (cf. Van Gestel et al. 1991), the cells in the rectangular figure in Table 8

form the starting point of this construction. The two separate and different genitive constructions start in the two respective oval figures. From the point of view of a rule-based case system, it is remarkable that genitive survives, since genitive disappears before dative (and objective), but this is different for lexical constructions. The remains of the genitive are robust from a superficial phonological and semantic point of view. We believe that this is what gave them a rebirth in Dutch starting in the Early Modern period. The same phenomenon plays a role in the development of the English possessive construction, e.g. *Mike's book* (cf. Allen 2008).

Table 8. Middle Dutch paradigm of definite determiners and starting point of lexical constructions.

	MASC	*NEUT*	*FEM*	*PLUR*
NOM	die	dat	die	die
GEN	des	des	der	der
DAT	den	den	der	den
ACC	den	dat	die	die

It is also interesting to observe to what extent the change from above has progressed. The typical constructions containing residual case-markers in our corpus had become more restricted qualitatively compared to the case system in older stages of the language, but one may also wonder how these forms developed quantitatively and to what extent they reached less formal registers. Given the abundance of Early Modern documents in archives, the good news is that questions of this type are not impossible to answer *a priori*. We believe we have demonstrated that a corpus of texts with varying levels of formality can provide new evidence that has been largely ignored in previous studies on the history of Dutch because of the bias towards formal texts in historical linguistics. More strongly, this study stresses the importance of using texts of varying levels of formality to better understand the complex linguistic reality in a given period.

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Résumé

Une tendance à privilégier les textes formels brouille notre compréhension du changement d'une langue, et risque donc de nous donner une fausse impression de sa véritable évolution, si

les changements inconscients sont en conflit avec les changements conscients, ces derniers issus de la langue formelle normative. On a assemblé un corpus de textes d'Amsterdam du 17ème siècle aux niveaux variables de formalité afin d'examiner la perte morphologique des cas génitif et datif en néerlandais. On a examiné l'emploi de constructions du participe présent qui caractérise les textes formels, et dont la fréquence d'emploi permet donc d'évaluer la formalité des textes du corpus. Nous soutenons que la marque casuelle nominale n'existait plus dans la langue informelle au 17e siècle à Amsterdam et que l'emploi du génitif est devenu une caractéristique de la norme linguistique.

Zusammenfassung

Eine Vorliebe für formale Texte verschleiert unseren Blick auf Sprachwandel und könnte zuweilen einen gänzlich falschen Eindruck von der tatsächlichen Entwicklung erwecken, falls Veränderungen von unter dem Niveau des Bewusstseins in Konflikt geraten mit den Veränderungen von oben, die sich aus Normen ergeben, die besonders in formaler Sprache vorkommen. Ein aus dem 17. Jahrhundert stammender Mischkorpus Amsterdamer Texte mit unterschiedlichen Graden von Formalität wurde zusammengestellt um im Niederländischen den Verlust der Kasusmarkierung von Genitiv und Dativ zu untersuchen. Diese Ergebnisse werden dann mit der Verwendung der Präsens-Partizipialkonstruktionen verglichen, die deutliche Merkmale von Formalität sind und deshalb als eine zusätzliche Variable dienen um abzuschätzen wie formal ein Text ist. Es wird behauptet dass nominale Kasusmarkierung in informeller Sprache im 17. Jahrhundert in Amsterdam nicht mehr existierte und dass der Genitiv ein Merkmal der formalen Normen wurde und deshalb den Veränderungen von oben unterlag.

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