The grammaticalization of the *have* perfect in Dutch
A corpus study of contextual extension and semantic generalization

Evie Coussé
Ghent University

Abstract

The article investigates the grammaticalization of the *have* perfect in Dutch by means of a corpus study of historical legal texts dating from the middle of the thirteenth century until the end of the eighteenth century. The focus of the investigation is on the gradual extension of the *have* + past participle construction in contexts that were not attested before. The study of the status of the subject, the direct object and the past participle in the corpus shows that the construction is increasingly used in a wider array of contexts. Moreover, the corpus search indicates that meaning components of the *have* + past participle construction are lost in the process of contextual extension. More specifically, the construction is increasingly used in the background of the discourse in order to expand on events that happened before the time of reference.

1. Introduction

Grammaticalization research has traditionally been interested in how grammatical function words develop out of lexical words (a.o. Meillet 1912, Lehmann 1982). A classical example of grammaticalization in this research tradition is the development of the perfect auxiliary *have* out of a lexical verb with the possessive meaning ‘have’ or ‘hold’ in the Germanic and Romance languages. In recent approaches to grammaticalization, however, the research focus has shifted from isolated words to entire constructions, as is indicated by the present-day mainstream definition of grammaticalization:

As a term referring to a research framework, “grammaticalization” refers to that part of the study of language change that is concerned with such questions as how lexical items and constructions come in certain contexts to serve grammatical functions or how grammatical items develop new grammatical functions. (Hopper & Traugott 2003: 1)

Given this broader view on grammaticalization, the historical roots of the *have* perfect are currently considered to lie in a construction with the possessive verb *have* and a past participle that functions as a complement to the direct object of the clause (a.o. Mitchell 1985, Carey 1994 for English; Oubouzar 1974, Grønvik 1986 for German; Kern 1912, De Belder 2005 for

1 I would like to thank Gudrun Rawoens and two anonymous reviewers for their constructive comments on an earlier version of this article.

2 Italicized *have* will be used throughout the article to refer to any reflex of the English verb *have* in Germanic and Romance languages, abstracting away from cross-linguistic and diachronic differences in realization.
Dutch; Larsson 2009 for Swedish; Vincent 1982, Pinkster 1987 for Romance). The semantic interpretation of this possessive construction is typically illustrated by means of the following present-day example (a.o. De Haan 1991):

(1) Peter heeft zijn haar sinds gisteren kort geknipt.

‘Peter has his hair cut short since yesterday.’

The finite verb have in the example is a prototypical possessive verb, i.e. it expresses a relation between the human subject Peter and the concrete direct object zijn haar ‘his hair’ that are in each other’s proximity and where the subject has active, physical control over the object (Langacker 1978, Baron & Herslund 2001). The past participle in the example designates the present end state that the direct object has reached as a result of the past process in the verb stem. The salience of this interpretation is highlighted by the time adverbial sinds gisteren ‘since yesterday’ that stresses the maintaining of the short state of zijn haar ‘his hair’ until the moment of speaking. This particular reading is referred to as the resultative interpretation (Nedjalkov & Jaxontov 1988).

The resultative interpretation of the have + past participle construction is quite limited in compatible contexts of usage. First, the resultative interpretation of the past participle appears to be only compatible with discourse situations involving a process that leads up to a certain endpoint beyond which the process cannot continue (Nedjalkov & Jaxontov 1988). Put differently, the end state that is profiled in the resultative interpretation of the past participle requires a telic discourse situation. Typically, the telicity of a discourse setting correlates with the Aktionsart in the main verb of the clause. In the verb typology of Vendler (1967), the resultative interpretation of the construction is compatible with achievements, that reach an inherent end point instantly (e.g. ontploffen ‘to explode’, neerschieten ‘to shoot down’), and accomplishments, that require a longer process to arrive at the inherent end point (e.g. bevriezen ‘to freeze’, sluiten ‘to close’). Next to limitations on the aspectual properties of the discourse situation, the resultative interpretation of the past participle also imposes certain requirements on the participants involved in the discourse. As a consequence of the resultative interpretation, the discourse needs to involve a direct object that undergoes the action or event in the verb stem and that is fully affected by the process at its end point.

The sketched resultative usage of the have + past participle construction is argued to be the historical source for the present-day have perfect. The perfect in Dutch is usually defined as expressing an event in the past which has continuing relevance for the present (a.o. ANS 1997: §2.4.8.4). This semantic interpretation can be illustrated with the following example:

(2) Peter heeft zijn haar gisteren kort geknipt.

‘Peter cut his hair short yesterday.’

The finite verb have in this example expresses the more bleached abstract stative relation of the direct object zijn haar ‘his hair’ being within the ‘sphere of influence’ of the subject Peter (Langacker 1978: 864). The past participle in the example profiles all the states within the process in the verb stem as it unfolds, not just the final state. In the literature, this
interpretation is referred to as the processual interpretation of the past participle (a.o. Van der Wal 1986: 126). The salience of this processual interpretation is highlighted by the time adverbial *gisteren* ‘yesterday’, that stresses the process in the past rather than the present result.

The processual interpretation of the past participle is less restricted in compatible contexts of usage than the resultative interpretation, which was only compatible with telic discourse situations that involve an undergoer participant. Since the processual interpretation of the past participle profiles all the states within the process in the verb stem, there is no compelling need to limit the discourse situation to telic situations (Nedjalkov & Jaxontov 1988). Put differently, the perfect interpretation of the *have* + past participle construction is compatible with both atelic and telic past participles. Furthermore, the processual interpretation of the past participle does not impose any restriction on discourse situations that involve an undergoer participant. Since the end state of the direct object is not profiled, this direct object does not necessarily have to be expressed in the discourse.

This short comparison of the meaning and contextual usage of the present-day *have* perfect and its source construction (for more details, see Coussé submitted) indicate that the modern *have* + past participle construction is compatible with much more contexts of usage. As a consequence, it can be hypothesized that the construction has been subject to contextual extension in the course of time. This hypothesis is corroborated by Hopper & Traugott (2003: 48) who indicate that “a rule change has occurred if (a) it has evidently spread from the individual and has been accepted by a group, and (b) the constraints of the former linguistic environment are no longer obligatory.” Moreover, Carey (1994) and Larsson (2009) have presented some quantitative results that show that the *have* + past participle construction is increasingly used in a broader array of contexts in English and Swedish respectively.

Along with the expected contextual extension, it is hypothesized that the *have* + past participle construction undergoes meaning generalization in the course of time (cf. Bybee et al. 1994: 69). A comparison of the resultative interpretation with the perfect interpretation suggests that the latter expresses a more general meaning. The resultative interpretation, on the one hand, expresses the rather complex meaning that the direct object has reached a present state as the result of an action in the past. The perfect, on the other hand, refers primarily to a past action with only a general relevance to the present moment. The more general meaning of the *have* perfect implies that specific components of the resultative interpretation are bleached or lost along the process of grammaticalization.

In order to investigate the hypothesized contextual extension of the *have* perfect, an empirical study will be presented of the *have* + past participle construction and its contexts of usage using a corpus of Dutch historical texts spanning from the middle of the thirteenth century.

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3 It should be noted that monovalent telic past participles with only an undergoer participant (e.g. *ontploffen* ‘to explode’, *bevriezen* ‘to freeze’) are excluded from the *have* + past participle construction. These monovalent telic past participles combine with the finite verb *zijn* ‘to be’ in standard Dutch in order to form a perfect (ANS 1997: §2.3.2.8-iv).
until the end of the eighteenth century. More details on the compilation of the corpus and of
the method of investigation will be provided in section 2. In sections 3, 4 and 5, the empirical
results of the investigation will be discussed.

2. Corpus and method

The grammaticalization of the have perfect will be investigated empirically on the basis of a
component of the Compilation Corpus Historical Dutch which spans from the middle of the
thirteenth century until the end of the eighteenth century (Coussé 2010a). Studying a long
term development such as the grammaticalization of the have perfect depends heavily on
the availability of a longitudinal corpus with historical texts that cover an extensive and
continuous period of time. The corpus under investigation contains legal texts (such as
charters, statutes and contracts) that are evenly distributed over three central dialect regions
(i.e. Flanders, Brabant and Holland) in equal time slots of twenty-five years. The advantage of
using a corpus of legal texts for longitudinal linguistic research is that legal texts are
systematically archived by chanceries in the middle ages and beyond, thus allowing us to
compile a balanced longitudinal corpus that stretches over several centuries. Unfortunately,
legal texts have as a drawback that they are written in a rather formal and stereotyped register
that does not really reflect the spoken language of the time. However, previous research of
these legal texts has shown that even extremely formulaic phrases such as zoals voorzeid is
‘as is aforementioned’ are subject to the process of grammaticalization (Coussé 2010b). In
sum, the corpus under investigation provides a very homogenous source of language data that
covers the whole Middle Dutch and Early Modern Dutch period without any interruption.

A total number of 1344 attestations of the have + past participle construction has been
extracted from the corpus, appearing both in subordinate and main clauses (1095 and 249
attestations respectively). Only clauses that contain a finite form of the verb to have are taken
into consideration, thus discarding instances of the have + past participle construction that are
nested in other verbal constructions (marked in bold), as is illustrated in example (3) and (4):

(3) dat hijt onwetens gedaan zouden hebben (Breda 1448)
‘that he should have done it without knowing’

(4) als zy zullen willen ghepandt hebben (Brugge 1580)
‘as they would have wanted to pawn’

Attestations like (3) and (4) with complex verb clusters only become frequent from the end of
the fourteenth century onwards, as other verbal constructions are emerging in the Dutch
language (see Coussé 2008: 100-104 for more details).

In the collected corpus sample, the contextual properties of the have + past participle
construction have been investigated systematically. More specifically, the status of the subject,

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4 The information in between brackets indicates the city and the year in which the corpus attestation is written.
the direct object and the past participle are analysed for each clause in the corpus sample. In 
section 3, 4 and 5 these contextual parameters will be operationalized in more detail. The 
main advantage of choosing exactly these three parameters is that they appear systematically 
in each clause under investigation. Thus, every instance of the have + past participle 
construction in the sample can be evaluated for having a resultative and/or a perfect 
interpretation. Other conceivable contextual parameters, such as the presence of time 
adverbials of the type since yesterday or yesterday pointing to respectively a resultative and a 
perfect interpretation, do not have this desired property. An earlier exploration of (a subset of) 
the corpus sample showed for instance that only 99 out of 911 investigated clauses (that is 
10,9%) contain a time adverbial that allows to distinguish between a resultative and perfect 
interpretation (Coussé 2008: 97-100).

3. Agency of the subject

In this paragraph, the grammaticalization of the have + past participle construction will be 
uncovered by analyzing the status of the subject of the construction in the corpus of historical 
legal texts. In the introduction, it has been pointed out that have originally functions in the 
construction as a full lexical verb denoting possession. It has been argued that the subject in 
this possessive relation is a prototypical agent, as it has active, physical control over the object. 
In the present-day perfect, however, have expresses a far more abstract relation between the 
participants of the clause, where the direct object only finds itself within the ‘sphere of 
influence’ of the subject. Subsequently, the subject in this stative relation is considerably 
lower in agency than in a prototypical possessive relation. Comparing the status of the subject 
in the possessive construction and in the present-day perfect, leads to the hypothesis that the 
subject of the have + past participle construction has become a less prototypical agent in the 
course of time.

In order to test this hypothesis in the corpus, it is necessary to develop some criteria that allow 
us to distinguish highly agentive subjects from less prototypical agents in a systematic way. 
Moreover, these criteria should not rely on our present-day intuitions which are notoriously 
anachronistic and subjective. In order to meet these rather strict requirements, it has been 
opted to apply the agency hierarchy of Silverstein (1976) (also known as the animacy 
hierarchy) to the subjects in the corpus sample. The agency hierarchy provides a ranking of 
nominal constituents on the basis of their agency. The hierarchy expresses the decreasing 
capacity (from left to right) of a participant in a particular form to function as an agent in 
discourse:

1st person pronoun > 2nd person pronoun > 3rd person pronoun > proper name 
> human > non-human animate > inanimate

Although the hierarchy can be readily applied to the subjects of the corpus sample, some 
adjustments have been made in order to tailor the distinctions in agency to the hypothesized 
development of the subject. First, the different types of pronouns and the proper name 
category are collapsed into one highly agentive category of subjects. It is unnecessary for the
purpose of this article to further distinguish between these highly agentive subjects as a possible increase of less agentive subjects is in the focus of attention. Therefore, the remaining types of less agentive subjects are accordingly retained. It should be noted that non-human animate subjects do not occur in the legal texts. Finally, also the option of unexpressed subjects has been included in the analysis of the corpus examples. In sum, the following types of subjects have been distinguished:

- pronominal subjects and proper name subjects
  e.g. *wi ‘we*, *broeder heinric ‘father Henry’
- human subjects (that are not referred to by a pronoun or their proper name)
  e.g. *scepenen ‘aldermen*, *de comparanten ‘the appearers*, *de abdes ‘the abbess’
- inanimate subjects
  e.g. *dordenanche ‘the ordinance*, *die cloc ‘the clock’
- unexpressed subjects

The distribution of these different types of subjects is depicted in figure 1 in time slots of fifty years for the period 1250 until 1600 and thereafter in time slots of a century, due to a shortage of available data. It is hypothesized that the relative frequency of less agentive subjects will increase during the investigated time period.

![Figure 1: Agency of the subject (n = 1344)](image)

Figure 1 shows that highly agentive subjects occur most frequently in all clauses with a *have* + past participle construction throughout the whole corpus. The white bars that represent the pronominal and proper name subjects dominate from the earliest sources until the end of the eighteenth century. Nevertheless, the figure also shows an increase of less agentive subjects in course of time that is statistically highly significant. This trend supports the hypothesis that the subject of the *have* + past participle construction has become a less prototypical agent in the course of time.

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5 The Mantel Haenszel chi square test shows a significant linear association between the agency of the subject (excluding absent subjects, n = 1303) and the time variable (MH-$\chi^2 = 69.41$, df = 1, $p < 0.05$). The gamma coefficient shows a significant positive association between the two variables ($\gamma = 0.36$, ASE = 0.04, $p < 0.05$).
The increase of less agentive subjects is most striking with the human subjects (that are not referred to by a pronoun or their proper name) which constitute about 10% of all investigated clauses in the thirteenth and fourteenth centuries and thereafter rise to a proportion of about 40% of all attestations. Although these subjects refer to human referents, they are lower in the agency hierarchy than pronominal and proper name subjects, that frequently refer to human participants as well. The difference in agency between both categories of subjects lies in the conceptualizing and the subsequent formal coding of the human referents in discourse. Pronominal and proper name subjects refer to human agents that are discourse topics, whereas nominal human subjects introduce less topical participants in the discourse. The use of a nominal human subject in the *have* + past participle does not exclude a possessive reading of the construction. In other words, we cannot call this usage of the construction a disambiguating context between a possessive and a perfect reading. However, the observed increase of this type of subjects does indicate that the subject of the *have* + past participle construction is increasingly conceptualized as a less prototypical agent in discourse.

From the end of the fourteenth century onwards also inanimate subjects start to appear in the corpus. As opposed to subjects with a human referent, inanimate subjects can no longer be interpreted as the prototypical possessor participant that has active, physical control over the direct object. The use of inanimate subjects can thus serve as a true disambiguating context for the perfect reading of the *have* + past participle construction. Intriguingly, this disambiguating context appears relatively late in the investigated corpus. The introduction of the variant seems to mark a rather categorical change from human subjects that are both compatible with a possessive and perfect reading to animate variants that are only compatible with a perfect reading. Closer inspection of the attested inanimate subjects, however, reveals a much more gradual shift from human to inanimate than figure 1 suggests.

Consider the following two clauses that contain one of the earliest attestations of the *have* + past participle construction (marked in bold) that are combined with an inanimate subject (underlined):

(5) *om ghebrec dat die stede vortiits in alrehande beleede ghehadt heeft* (Dordrecht 1367)

‘concerning the shortage that the city previously has had in all sorts of administration’

(6) *den groten cost ende last die de vorseide stede langhen tijt ghehadt heift* (Brugge 1381)

‘the big cost and burden that the aforementioned city has had for a long time’

There is good reason to believe that the subject *die stede* ‘the city’ in both clauses refers metonymically to the human inhabitants and/or administrators of the city rather than to the literal inanimate streets and buildings that constitute it. Using inanimate nouns to refer to an implicit human actor is a typical strategy in legal texts to give the appearance of objectivity and anonymity (Stålhammar 2006: 100). This typical metonymic relation ‘inanimate for human’ in legal texts might have functioned as a kind of bridging context that allows the *have* + past participle construction to extend its usage to inanimate subjects. Bridging contexts
(Heine 2002) – or critical contexts in the terminology of Diewald (2002, 2006) – are defined as particular usages of a construction that invite secondary inferences or implicatures that are not part of the original meaning of the construction. In the words of Heine (2002: 84) bridging contexts “trigger an inferential mechanism to the effect that, rather than the source meaning, there is also another meaning, the target meaning, that offers a more plausible interpretation of the utterance”. The historical attestations presented here, however, do not seem to illustrate a classical case of invited inference (i.e. a new meaning for one particular form in context) but rather show how a new form is used to express the original meaning through the process of metonymy. Heine (2002: 87) states that metonymy of the type ‘inanimate for human’ – where a participant role typically reserved for humans is opened for inanimate participants – is perhaps one of the most common types of meaning change.

Another type of inanimate subjects in the corpus are nouns that refer to legal texts as dordenanche ‘the ordinance’, die kuer ‘the statute’ and die hielicxe voirwairde brieue ‘the marriage settlements’ in combination with the past participle begrepen ‘held, included, implied’:

(7) ghelijc dat dordenanche doen ghemaect begrepen heeft (Antwerpen 1391)
   ‘as the earlier ordinance has included’

(8) also die kuer dat begrepen heeft (Leiden 1435)
   ‘as the statute has included’

(9) dan die hielicxe voirwairde brieue begrepen hebben (Haarlem 1442)
   ‘than the mariage settlements have included’

These inanimate subjects can also be interpreted metonymically referring to human participants. Stålhammar (2006: 102) has pointed out that official documents like ‘act’, ‘constitution’ or ‘report’ are typically used in legal texts to substitute for the authors of these works. This type of ‘law for legislator’ metonymy can as well be applied to the given corpus attestations. However, it should be noted that – as opposed to the earlier discussed examples (5) and (6) – the metonymic reading is not compulsory, as the past participle begrepen can both read as the active transitive verb ‘to take, include’ or as the stative intransitive verb ‘to hold, contain’. In other words, either the official document or the implicit author of that document itself can be implied. These examples illustrate how the process of metonymy does not only allow inanimate nouns to be used in a subject position that was typically reserved for humans but also how it opens the door for inanimate subject to be used in their literal inanimate meaning.

The sketched semantic evolution can be hypothesized to have paved the way for the usage of inanimate subjects that refer to abstract concepts without any conceptual link to a human agent:

(10) ghelyck offer gheene opposicie ghevallen en hadde (Brugge 1580)
‘as if there had not been any opposition’

The contextual usage of the have + past participle construction in example (10) forms a true unambiguous context for the perfect interpretation, since the inanimate subject gheene opposicie ‘no opposition’ is far too abstract to be interpreted as a possessor participant in the discourse. This analysis can be corroborated by the fact that the example does not even contain a direct object that actually might be in the possession of the subject. Heine (2002) and Diewald (2002, 2006) consider the appearance of unambiguous contexts as a sign of the completion or consolidation of a grammaticalization process, as the new interpretation of a construction has become separable, and thus independent, from the original one. Interesting in the corpus under investigation is that the first attestations of unambiguous inanimate subjects tend to appear relatively late in time. However, the total number of attested inanimate subjects is far too low to attach any statistical significance to the relative timing of the different types of inanimate subjects, and thus of the different stages in the grammaticalization of the perfect construction.

4. Concreteness of the direct object

Next to the agency of the subject, the grammaticalization of the have + past participle construction can also be traced in the corpus by studying the status of the direct object. In the introduction, it was argued that the direct object of the have + past participle construction originally was a concrete participant that was possessed by a human subject. Moreover, the direct object of this original possessive construction functioned as the undergoer participant of the action or event expressed by the past participle. The present-day perfect, however, does not impose such strict requirements on the direct object used in the construction. First, as the finite verb have does not express a possessive but rather a bleached stative relation between the participants of the clause, the direct object does not need to be a concrete participant that can be in the possession of the subject. Furthermore, since the processual past participle profiles all the states within the process in the verb stem and not only the end state of the direct object, the perfect does not require an explicit direct object present in the clause. This implies that the perfect is compatible with transitive past participles with an elided direct object (e.g. Maria heeft een uur lang geschreven ‘Mary has been writing for an hour’) or with intransitive past participles that do not govern a direct object (e.g. Ik heb lekker geslapen ‘I have been sleeping well’). A comparison of the direct object in the possessive construction and in the present-day perfect gives reason to hypothesize that the direct object has become less concrete in the course of time and eventually may be left out all together.

The following types of direct objects are distinguished in the corpus sample, where the category ‘concrete nominal direct objects’ is compatible with both a possessive and a perfect reading and that the other categories are unambiguous contexts for the perfect interpretation:

- concrete nominal direct objects
  e.g. scepenen ‘aldermen’, enen brief ‘a letter’, ij sticken land ‘two pieces of land’
- abstract nominal direct objects
e.g. elkerlijcs recht ‘everyman’s right’, gratien ‘mercy’
- sentential direct objects
e.g. dat die sake onnosel is ‘that the case is futile’
- unexpressed direct objects

Concrete nouns are defined here as referring to physical entities that can be observed by one of the senses (i.e. alderman, letter, land), whereas abstract nouns refer to non-tangible entities such as feelings, ideas or concepts (i.e. right, mercy). This semantic distinction can be readily applied to the nominal direct objects in the corpus sample. Pronominal direct objects, however, are far more problematic to categorize as concrete or abstract nouns since their antecedents are not always recoverable from the context. This type of direct object has therefore been left aside in the rest of the analysis (n = 312).

The distribution of the different types of direct objects is displayed in figure 2 from the middle of the thirteenth century until the end of the eighteenth century. It is expected that the relative frequency of abstract direct objects will increase in the course of that time period. This hypothesis is corroborated by previous corpus research on Old Germanic and Romance sources (Kern 1912, De Belder 2005 for Dutch; Michell 1985 for English; Oubouzar 1974, Grønvik 1986 for German). These studies show that the have + past participle construction predominantly appeared with transitive past participles and an accusative object in the earliest sources. In later stages of the investigated languages, the have + past participle construction extended to sentential objects and genitive/dative case objects that are not compatible with a possessive interpretation. Ultimately, the have + past participle construction started appearing without an explicit direct object in the clause.

![Figure 2: Concreteness of the direct object (n = 1012)](image-url)
Figure 2 shows a significant increase of non-concrete direct objects in the course of time. In the earliest corpus texts, the *have* + past participle construction (marked in bold) is still predominantly combined with concrete nominal direct objects (underlined), as is illustrated by examples (11) and (12):

(11) *so wie die enegherande letteren heuet besegheilt met scepenen segheilen* (Dordrecht 1281)
   ‘whoever has any letters sealed with the seals of the aldermen’ or ‘whoever has sealed any letters with the seals of the aldermen’

(12) *soe hy den man gevangen had* (Dordrecht 1415)
   ‘as he had the man captured’ or ‘as he had captured the man’

Both examples allow for a resultative interpretation of the *have* + past participle construction with the concrete direct object *enegherande letteren* ‘any letters’ and *den man* ‘the man’ in the actual possession of the human subject. The possessed direct object in this resultative reading is to be interpreted as the undergoer of the telic process denoted in the past participle, i.e. the letters are in a sealed state and the man has become a prisoner. Next to the resultative interpretation, there is also a perfect interpretation conceivable for the *have* + past participle construction where the human subjects are the actor of the process denoted in the past participle. Especially in example (12), it is most likely that the sheriff who holds the man prisoner is also responsible for capturing him. Both example (11) and (12) thus provide ambiguous contexts in which both the resultative and perfect interpretation are possible.

Next to these concrete direct objects, the *have* + past participle construction already appears from the thirteenth century onwards in contexts with other types of direct objects, such as an abstract nominal object (example 13) or with a sentential direct object (example 14):

(13) *dat wi hem gratien hebben ghegheuen* (Dordrecht 1367)
   ‘that we have given him grace’

(14) *omdat sy van enen man gezeyt heeft dat hy een quaet dieff ende moordenaer is* (Dordrecht 1484)
   ‘because she has said of a man that he is a malicious thief and murderer’

It should be obvious that the resultative interpretation is not possible in these contexts, as the abstract nominal object *gratien* ‘grace’ and the sentential object *dat hy een quaet dieff ende moordenaer is* ‘that he is a malicious thief and murderer’ cannot be in the actual possession of a human subject. These usages of the *have* + past participle construction therefore form a

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6 The Mantel Haenszel chi square test shows a significant linear association between the concreteness of the object (excluding pronominal objects, n = 1012) and the time variable (MH-$\chi^2$ = 50.98, df = 1, p < 0.05). The gamma coefficient shows a significant positive association between the two variables ($\gamma$ = 0.28, ASE = 0.03, p < 0.05).
disambiguating context for the perfect interpretation. Note, however, that this perfect interpretation does not prevent the abstract direct object to function as the undergoer of the past participle.

Finally, the *have* + past participle construction can be used from the thirteenth century onwards in contexts where no direct object is explicit, as is illustrated:

(15) *daer hi up ghetemmert heft* (Mechelen 1291)
    ‘on which he has built’

(16) *alse wi met hem ghesproken hebben* (Dordrecht 1284)
    ‘if we have spoken with him’

(17) *ghelijc den abbet of hiere zelue hadde ghewesen present* (Brugge 1281)
    ‘as if the abbot had been present himself’

In example (15), the undergoer of the transitive past participle *ghetemmert* ‘built’ is missing from the discourse. Although the undergoer participant can be assumed to be concrete in nature (it might be a house or so) the fact that it is elided in actual usage prevents a resultative interpretation where the human subject possesses the house in a built state. In example (16), the past participle *ghesproken* ‘spoken’ is combined with a prepositional phrase *met hem* ‘with him’ instead of a direct object. Again, this particular usage of the *have* + past participle construction prevents a resultative interpretation of the construction, and thus forms a clear disambiguating context for the perfect interpretation. The same argumentation applies to example (17) where the static transitive past participle *ghewesen* ‘been’ is used without a direct object in the clause.

Figure 2 shows that the relative frequency of the discussed unambiguous perfects gradually increases in the course of time in the investigated corpus. By the end of the eighteenth century, the majority of the investigated direct objects refers to abstract entities or are absent altogether, which indicates the advanced grammaticalization of the *have* perfect in Dutch.

5. **Telicity of the past participle**

A final criterion that allows us to trace the grammaticalization of the *have* perfect is the aspectual properties of the past participle. In the methodology section, it was argued that the past participle in the possessive construction needs to be a telic verb that expresses a process leading to a certain end state of the direct object. In the present-day perfect, however, the past participle does not specify the end state of the direct object and therefore should not be limited to telic verb stems. Comparing the possessive and the perfect usage of the *have* + past participle construction leads to the hypothesis that the Aktionsart of the past participle extended from telic events to both telic and atelic events. This hypothesis is corroborated by existing corpus research on Old High German sources (Oubouzar 1974, Grønvik 1986). It appears that the earliest attestations of the *have* + past participle construction in these sources
are combined with telic past participles. In later stages, the construction is extended to atelic past participles (Grønvik 1986) and to past participles of modals and of the verb *have* itself (Oubouzar 1974).

In order to distinguish between telic and atelic past participles in the corpus, we should not rely on our present-day intuitions on the Aktionsart of the verb stems. Instead, telic and atelic verbs can be categorized by means of the time adverbial ‘in x time’ that refers to the end point of a time span and the time adverbial ‘for x time’ that refers to the duration in the clause (Vendler 1967). In the following sentences, this classical test is illustrated for English (the time adverbials are underlined):

(18a) *Mary writes the letter in an hour.* → telic
(18b) *Mary writes the letter for an hour.*

(19a) *Peter walks in an hour.*
(19b) *Peter walks for an hour.* → atelic

Unfortunately, this type of test cannot be systematically applied to our corpus data since only a minority of the clauses appears with time adverbials in real usage (see also section 2). An earlier exploration of (a subset of) this data showed that only 4 out of 1095 investigated clauses (0.4%) appeared with an adverbial of the type ‘in x time’ and only 23 out of 1095 clauses (2.1%) with a durational time adverbial (Coussé 2008: 92).

In order to test the aspectual properties of the past participle more systematically, the discussion of Hopper & Thompson (1980) and Thompson & Hopper (2001) on transitivity provides an excellent source of contextual criteria that correlate systematically with telicity. Hopper & Thompson (1980) consider transitivity as a gradual phenomenon in actual language that correlates with a number of discourse features in the clause, such as – not surprisingly – the number of participants in the clause but also with the status of those participants in the clause and – importantly – with the aspect of the event. Although the proposed discourse features are primarily intended to uncover the degree of transitivity in the clause, the fact that these features all correlate with each other allows us to reformulate the correlation in order to determine the degree of telicity of a given state of affairs. A selection of discourse features that are argued to correlate with transitivity is given in table 1. Note that both columns represent the most prototypical (and thus maximal contrasting) instantiation of the relevant discourse features.

<table>
<thead>
<tr>
<th>Feature</th>
<th>HIGH</th>
<th>LOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>aspect</td>
<td>telic</td>
<td>atelic</td>
</tr>
<tr>
<td>participants</td>
<td>2 or more participants</td>
<td>1 participant</td>
</tr>
<tr>
<td>individuation O</td>
<td>O highly individuated</td>
<td>O non-individuated</td>
</tr>
<tr>
<td>affectedness of O</td>
<td>O totally affected</td>
<td>O not affected</td>
</tr>
<tr>
<td>agency</td>
<td>A high in potency</td>
<td>A low in potency</td>
</tr>
</tbody>
</table>

*Table 1:* Discourse feature correlating with transitivity (Hopper & Thompson 1980: 252)
A first parameter in the correlation is the number of participants in the clause. The table indicates that clauses with two or more participants express a highly transitive event whereas clauses with only one participant tend to express a more intransitive state of affairs. As all discourse features in the table correlate with each other, the number of participants in the clause can also serve as a criterion for the aspectual properties of that clause. In other words, clauses with two or more participants do not only express a highly transitive event but that event simultaneously appears to be telic in aspect. Clauses with only one participant, on the other hand, do not only tend to express an intransitive state of affairs but also appear to be atelic in aspect. Given this correlation, the parameter provides an excellent criterion to test the degree of telicity of the clause objectively and systematically on the corpus sample of have + past participle constructions. Actually, the parameter has already been tested empirically in the preceding paragraph where the distribution of unexpressed direct objects has been discussed. More specifically, figure 2 showed that the amount of unexpressed direct objects has increased significantly in the investigated time slot. These findings suggest that the telicity of the have + past participle construction has simultaneously decreased in the time period under investigation.

Not only the number of participants correlates with the telicity of the clause but also the discourse status of these participants. Table 1 indicates that highly individuated direct objects concur with a telic aspect whereas direct objects that are non-individuated correlate with atelic events. Hopper & Thompson (1980: 253) define individuation, following Timberlake (1975), as the degree to which a participant is characterized as a distinct entity or individual in actual discourse. Individuation and telicity correlate, in the sense that, a highly individuated participant is more likely to be fully affected by an event until they reach a certain end state than a non-individuated participant, that cannot be conceptualized as distinct from other participants. According to Timberlake (1975: 124), individuation should be conceptualized as a gradual concept that is determined by factors such as animacy, countability, concreteness, number and definiteness. The factor concreteness in particular has already been tested empirically on the have + past participle construction. In the preceding paragraph, the distribution of concrete vs. abstract direct objects has been investigated in the corpus. It showed that the relative frequency of abstract direct objects has increased significantly in the course of time. Given the correlation between the individuation of the direct object and telicity, this trend implies a simultaneous decreasing telicity of the have + past participle construction in the investigated time slot.

A parameter that is closely related to individuation is the affectedness of the direct object. Hopper & Thompson (1980: 253) indicate that an event tends to affect a participant more completely if that participant is a distinct entity with a high degree of individuation. Subsequently, it is not surprising that fully affected direct objects correlate with telic events since these events are more likely to reach a certain end state. As opposed to the individuation of the direct object, which was determined by a number of formal features, the parameter of affectedness is not easy to test systematically on corpus attestations. An earlier exploration of (a subset of) the corpus sample showed that only 14 out of 1095 investigated clauses (1.3%)
appeared with an adverbial of the type *vol, volledig, ten volle, geheel en al* that indicate the completion of the event (Coussé 2008: 90). No clear diachronic tendencies could be derived from these limited data.

Next to the status of the direct object also the subject interacts with the telicity of the clause. More specifically, highly agentive subjects tend to correlate with telic events whereas subjects which are low in potency indicate atelic events. Highly agentive subjects correlate with telic events as they have the potency to initiate and put through the event in the clause until that event has reached its internal endpoint. Hopper & Thompson (1980: 273) define agency as a gradual concept, following the agency hierarchy of Silverstein (1976). In section 3, this parameter was tested systematically on the sample of *have* + past participle constructions, showing a significant decrease in agency of the subject from the middle of the thirteenth century until the end of the eighteenth century. As with the individuation of the direct object, these results can be readily reformulated in order to uncover the telicity of the clause. Given the correlation between the agency of the subject and telicity, the decreasing agency of the subject implies a simultaneous decrease of telicity of the *have* + past participle construction in the same time period in the corpus.

In sum, applying the parameters (a) number of participants, (b) individuation of the direct object and (c) agency of the subject on the corpus has uncovered an increasing usage of the *have* + past participle construction in atelic contexts. This tendency confirms the hypothesis that the *have* + past participle construction becomes increasingly used in atelic contexts that are incompatible with a possessive reading of the construction.

6. Conclusion

Having examined the changing discourse context of the *have* + past participle in the corpus, a usage-based scenario of the grammaticalization of the *have* perfect in Dutch can be formulated.

In the introduction, it was hypothesized that the grammaticalization of the perfect was accompanied with a contextual extension of the *have* + past participle construction, i.e. the increasing usage of the construction in contexts that were not attested before. The study of the status of the subject, the direct object and the past participle in the corpus sample showed that the construction was indeed increasingly used in a wider array of contexts. More specifically, the *have* + past participle construction has become increasingly compatible with the followings discourse contexts:

(a) subjects that are not prototypical agents
(b) direct objects that have a low individuation
(c) absent direct objects
(d) atelic discourse situations

Moreover, it was hypothesized that this contextual extension correlates with a semantic generalization of the construction. This semantic change has been defined as a loss of the
specific components of the resultative interpretation along the process of grammaticalization. More specifically, it was assumed that the complex meaning of the resultative interpretation, expressing a present state as the result of an action in the past, eroded to the perfect interpretation, referring primarily to a past action with only a general relevance to the present moment. Bybee et al. (1994: 69) hypothesized that this “generalization of meaning probably comes about in discourse contexts in which the resultative is expressed in order to set the stage for a subsequent action”. Presumably, the authors refer with this type of stage setting contexts to what Hopper & Thompson (1980: 280) call the background of discourse, i.e. “that part of a discourse which does not immediately and crucially contribute to the speaker’s goal, but which merely assists, amplifies, or comments on it”.

Interestingly, the events described in the backgrounded portions of the discourse are argued by Hopper & Thompson (1980) to cluster on the lower end of the transitivity continuum, correlating with discourse features such as non-agentive subjects, lowly individuated objects and atelic aspect. As has been argued before, precisely these contextual parameters correspond to the discourse contexts that the have + past participle construction has been extended to in the corpus. The correlation between the discourse parameters indicating low transitivity and the background of the discourse allows us to conclude that the observed contextual extension in the corpus does uncover an ongoing semantic change of the have + past participle construction, i.e. the construction is increasingly used in the background of the discourse in order to expand on events that happened before the time of reference.

References


