

PERFECT DOUBLINGⁱ

Abstract

The focus of this paper is the syntax of the so-called perfect doubling construction as it occurs in dialects of Dutch, namely cases of compound tenses featuring an additional, participial HAVE (or BE). We examine the properties of the construction on the basis of recent fieldwork research, and propose an analysis, whose starting point is the assumption that auxiliary doubling as such does not exist; what we have, rather, is the perfect tense of a lexical HAVE (and BE), which takes an adjectival (small clause) complement. Dialects vary with respect to the kind of complement these lexical verbs can take. Our micro-comparative treatment takes into account related constructions, such as the geographically restricted so-called undative construction, as well as variants thereof that exist in the standard language.

Keywords: syntactic doubling, (adjectival) participles, auxiliaries, present perfect, target state, resultant state, undative construction, possession.

1. Introduction

Syntactic doubling is the phenomenon in which a syntactic element (word, morpheme, morphosyntactic feature) is expressed two or more times. Recent research has shown that syntactic doubling is a pervasive phenomenon. We find, e.g., determiner doubling, aspectual verb doubling, preposition doubling, subject pronoun doubling, WH-pronoun doubling, relative pronoun doubling, negative doubling, tense doubling, aspect doubling, comparative and superlative doubling, etc. (cf. Barbiers, Koenenman, Lekakou and Van der Ham 2008). In principle, every functional element

seems to be able to double.ⁱⁱ Moreover, according to the definition of syntactic doubling above, agreement and concord also involve syntactic doubling.ⁱⁱⁱ It is therefore reasonable to claim that syntactic doubling is a core property of natural language.

This core property poses a serious problem for current linguistic theories. A central hypothesis in modern syntactic theory (e.g., Chomsky 1995:27) is the Economy Principle: there are no superfluous elements or steps in the syntactic derivation of a sentence. A central hypothesis in semantics is the Principle of Compositionality, often attributed to Frege (1892), according to which every element and step in a derivation directly contributes to the semantic interpretation of the resulting structure.^{iv} Finally, in pragmatics the conversational maxim of quantity of information plays a central role (Grice 1975): an utterance should be as informative as required, and not more or less informative than that.

Syntactic doubling constructions potentially violate all three principles and therefore constitute an interesting research program. One option in the program is to try and show that the duplicate does make a semantic contribution. If this can be shown, the construction no longer is a problem for the three central linguistic principles.^v Another option in the research program is to try and show that the duplicate makes a pragmatic contribution. For example, it has been suggested for subject pronoun doubling in southern Dutch dialects that the doubling variant involves more empathy on the part of the speaker (Nuyts 1995). If such claims can be substantiated, part of the problem disappears. (In both cases, however, the additional question that arises is how the semantic or pragmatic contribution is encoded in the syntax.)

A third option in the research program would be to provide a syntactic analysis that shows that the doubling construction arises because one syntactic element is associated with more than one syntactic position. An example of this is the analysis of WH-doubling in Barbiers, Koenenman and Lekakou (2009a), according to which a WH-element is copied several times during a derivation and can be spelled out in various positions into which it is copied. Cross-linguistic variation then arises at the level of PF, depending on how many and which of these positions are spelled out.

A final option in the research program is to show that the syntactic doubling is only apparent. Homophony would be one such case. More interesting cases are those in which two lexically related elements occur within one clause. An example of this is double modals in Dutch as exemplified in (1a). The first modal has an epistemic interpretation, the second a root interpretation. Since the two modals in this construction each make an independent meaning contribution, we do not consider this a real case of doubling. Either the Dutch lexicon has two entries for the modal, or it has one underspecified, context-dependent entry (Kratzer 1981), but in both cases there are two instances of the modal drawn from the lexicon independently, the first one functioning as a functional element and the second one functioning as a (semi-)lexical element. This reasoning can be extended to Standard Dutch constructions in which a form of BE or HAVE occurs twice (cf. 2a, b).

(1) *Sven kan kunnen schaatsen.* (Standard Dutch)

Sven can can.INF skate

‘It is possible that Sven is able to skate.’

(2) a. *Sven heeft altijd de juiste houding gehad.*

Sven has always the right attitude had

‘Sven has always had the right attitude.’

b. *Sven is altijd scherp geweest.*

Sven is always sharp been

‘Sven has always been sharp.’

In this paper we argue that the phenomenon of perfect doubling, as illustrated in (3)-(5) in southern dialects of Dutch, is an instance of option 4 too.

(3) *Ik heb vandaag nog niet gerookt gehad.* (South-eastern Dutch)

I have today still not smoked had

‘I have not yet smoked today.’

(4) *Ik heb het gezegd gehad.*

I have it said had

‘I have said it.’

(5) *Ik ben twee keer gevallen geweest.*

I am two times fallen been

‘I have fallen twice.’

We describe the grammatical properties of the phenomenon, as well as its geographic distribution. From this description we conclude that perfect doubling is similar to the modal doubling in (1) in that it does not constitute a genuine case of syntactic doubling.^{vi} In other words, we will be arguing that auxiliary doubling does not exist (at least not as far as examples such as (3)-(5) are concerned). More specifically, the claim we will be making for constructions such as (3)-(5) in Dutch dialects is that they involve the combination of different variants of HAVE and BE, a functional and a

copular one, and thus that there is no doubling in an analytical sense. Throughout the paper the term ‘perfect doubling’ will be used, in order to refer to such examples. The term is meant as a purely descriptive means of referring to a construction that occurs in compound tenses.

As regards a second central question of this paper, the locus of syntactic variation in the mental grammar, we argue that the varieties of Dutch under examination here differ with respect to (a) how (un)restricted adjectival complements to copular variants of HAVE and BE are across varieties and (b) the composition of HAVE. In other words, in line with the minimalist agenda, we will pursue the hypothesis that syntactic variation reduces to variation in the lexicon.^{vii}

The structure of the paper is as follows. After a brief introduction, in section 2.1, of perfect doubling in varieties of Dutch, in section 2.2 we relate the construction to a similar looking but crucially distinct construction attested in the same geographical area, namely the undative construction (Broekhuis & Cornips 1994). Section 3 contains the core of our proposal, where we analyze the different constructions as they occur in the standard variety and in the relevant dialects on the basis of two micro-parameters. Section 4 summarizes our results. In the appendix we briefly present the most relevant existing claims about the semantics of this construction, which have been made on the basis of languages other than Dutch, and point out what our empirical findings suggest about the semantic properties of the Dutch construction. We end by showing how this semantics can be made to follow from our syntactic proposal.

2. Perfect doubling: what it is (not)

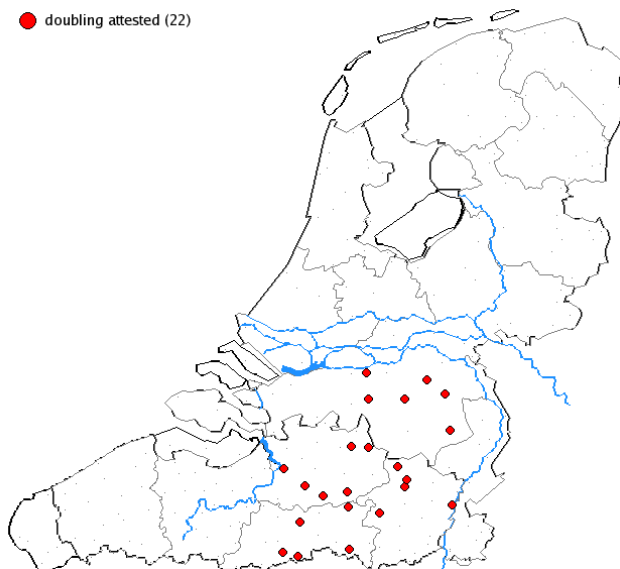
2.1 Methodological issues and theoretical questions

The phenomenon of perfect doubling has received little attention in the formal linguistic literature (see the appendix for bibliographical information). The properties of the construction in Dutch are even less well understood. In this section we describe the methodology of our empirical research and highlight the properties of the construction on the basis of the results of our fieldwork.

Our starting point was the occurrence of the perfect doubling in varieties of Dutch as documented by the SAND atlas (*Syntactic Atlas of the Dutch Dialects*, Barbiers et al 2005, 2008). Therefore, in the first instance we carried out a pilot study in the form of a written questionnaire, which was sent to informants in 70 locations in and around the area where this kind of doubling had been attested in the SAND survey of the language area.^{viii} Our goals at that stage were relatively modest: (a) to consolidate the claims in the SAND atlas concerning the geographical distribution of the construction, and (b) to get a first impression of the grammatical properties of the construction in terms of any restrictions on argument structure and lexical aspect of the most deeply embedded predicate. In the second phase of our investigation, we conducted oral interviews with a subset of the informants we consulted in the first round, and in particular a subset of those who, on the basis of the written questionnaire, had the doubling construction in their grammar. At this stage our empirical research was more focused on particular semantic and syntactic questions, such as (a) the purported correlation between having the doubling construction and lacking certain tenses, (b) semantic issues concerning for instance the availability of two semantically distinct types of perfect doubling (discussed in the appendix), and (c) syntactic issues, in particular testing the idea, which turned out to be wrong, that

perfect doubling involves a verbal cluster, namely a series of verbal heads one selecting the other.^{ix} In both stages of data collection, the tasks involved providing (relative) grammaticality judgments and translations of test sentences in the local dialect.

Starting with the answers that became available to us chronologically first, on the basis of our empirical research it is confirmed that perfect doubling is regionally restricted in the Dutch language area, in that it only occurs in the southern provinces of the Netherlands and the north-eastern provinces of Belgium. The geographical distribution of perfect doubling is illustrated in map 1.



Map 1: The geographical distribution of perfect doubling

Furthermore, through our empirical research (particularly the pilot study) we were not able to uncover a pattern of systematic (dis)preference of certain aspectual classes (although sentences based on statives were admittedly not accepted by all of our speakers). Examples of the kinds of sentences that speakers accepted are given in (6)-(9).^x

(6) *Ik heb ooit eens een kostbare vaas gebroken gehad.* (achievement)

I have once an expensive vase broken had

(7) *Dit bedrijf heeft deze maand drie huizen gebouwd gehad.* (accomplishment)

This company has this month three houses built had

(8) *Ik heb nog nooit een kat geaaid gehad.* (activity)

I have still never a cat stroked had

(9) *Ik heb mijn baas altijd gehaat gehad.* (stative)

I have my boss always hated had

Overall, the argument structure of the lexical verb in the doubling construction does not seem to matter either. We find doubling with transitive, unergative and unaccusative verbs.^{xi}

Of more general interest is our finding that, in the relevant dialects, both the simple past and the past perfect are available. This was confirmed beyond doubt in the second phase of our investigation, where informants, in addition to providing translations and relative grammaticality judgments on sentences we had constructed, were also asked to discuss among themselves some event that occurred in the past (e.g. in their childhood) and had thus the chance to spontaneously produce relevant data. This is especially important, in light of the purported correlation between the emergence of the doubling construction and the loss of the simple past tense. Let us see what the hypothesized correlation amounts to (the correlation is discussed in greater detail in Schaden 2007: 236ff).

The purported correlation states that languages develop a double compound perfect, i.e. perfect doubling, as a result of the simple past disappearing from the

system. This loss results in, on the hand, the present perfect taking on the functional load of the extinct tense and, on the other hand, the lack of means to form a past perfect (since there is no simple past of the auxiliary). The only way to have a relative past tense with the given means is through the double compound perfect, i.e. through doubling. This is the situation in e.g. Bavarian. Bavarian has no simple past tense, therefore no past perfect, and can thus only construct a relative past tense by utilizing the present perfect of the auxiliary, i.e. perfect doubling:

(10) *Wia i hamkumman bin, hot mai schwesta den opfl scho gessen ghobt.*

(Bavarian)

as I home.come am, has my sister the apple already eaten had

‘When I arrived at home, my sister had already eaten the apple.’

The doubling construction in (10) serves, roughly, to temporally locate the eventuality of the speaker’s sister eating the apple in the past relative to the past eventuality of the speaker returning home. The dialect has no other means to construct a past perfect other than by making a present perfect out of the auxiliary that is used in the present perfect itself; this gives us perfect doubling.

Although Bavarian and other German varieties are well-behaved with respect to the purported correlation, Dutch dialects provide a compelling argument against it: the dialects that have the doubling construction also have the simple past and the past perfect tense, which shows that you don’t need to lack certain tense forms in order to develop doubling. Another empirical argument against the purported correlation is presented in Poletto (2009), who brings to the fore dialects such as Friulian, which

like our Dutch varieties, does not lack any tense distinctions, yet has the doubling construction.

A last property of the doubling construction relates to the word order of the verbs in embedded clauses, which in Dutch appear at the end. The most deeply embedded predicate (that is, the lexical participle selected by HAVE/BE/modals) always has to linearly precede the other verbs in the doubling construction. This means that out of the six logically possible orders, only the two in (11) are accepted.

- (11) a. ... *dat ik zijn fiets gestolen₃ gehad₂ heb₁.* (Southeastern Dutch)
 that I his bicycle stolen had have
- b. ... *dat ik zijn fiets gestolen₃ heb₁ gehad₂.*
 that I his bicycle stolen have had
 ‘... that I had stolen his bicycle.’

This is a noticeable restriction, because outside of the doubling construction the most deeply embedded verb can easily follow the other verbs in at least a subset of the relevant dialects, as can be seen in (12):

- (12) a. ... *dat hij de fiets voor drie uur moet₁ hebben₂ gemaakt₃.*
 that he the bike before three o'clock must have.INF made.PCP
 ‘... that he should have repaired the bike before three o'clock’
- b. ... *dat hij is₁ gaan₂ zwemmen₃.*
 that he is go.INF swim.INF
 ‘... that he went for a swim’

Hence, a theory of perfect doubling constructions should have something to say about this restriction. We develop such a theory in section 3. Note already now that the discrepancy between run-of-the-mill verbal clusters, i.e. a sequence of verbal heads selecting each other, like the examples in (12), and perfect doubling strongly suggests that we don't want to assign the same syntax to the two constructions.^{xii}

2.2 *Perfect doubling and the undative construction*

Recall from the previous section that one of the empirical questions we set out to investigate was whether perfect doubling is sensitive to the transitivity of the underlying predicate. The reason we were interested in this question to begin with has to do with the existence of the so-called undative construction (Broekhuis & Cornips 1994) in southern Dutch varieties. Let us introduce the construction and then the reasons for why we think it is relevant to the study of the phenomenon of perfect doubling.

The term 'undative' comes from Broekhuis & Cornips (1994) and stems from the idea that the subject of the clause in constructions like (13) and (14) is in a derived position, originating lower, as an internal argument, in a position where it cannot get case-licensed, as the verb itself is unable to assign dative. (The reasons for taking dative case to be relevant will become clear later.) The argument thus raises to receive nominative case (see Broekhuis & Cornips *op. cit.* for details). When it involves a verbal participle (see (14)) instead of an adjective (as in (13)), the present perfect of an undative construction looks, at least superficially, extremely similar to the perfect doubling construction, so one would be tempted to wonder whether the perfect doubling construction is nothing but the perfect of the undative construction. If so, we

expect the same grammatical properties and geographical distribution for both constructions.

(13) a. *Ik heb de vrouw ziek.* (Limburg Dutch)

I have the woman sick

‘My wife is sick.’

b. *Ik heb de vrouw ziek gehad.*

I have the woman sick had

‘My wife has been sick.’

(14) a. *Ik heb het haar geverfd.*

I have the hair dyed

‘My hair is dyed.’

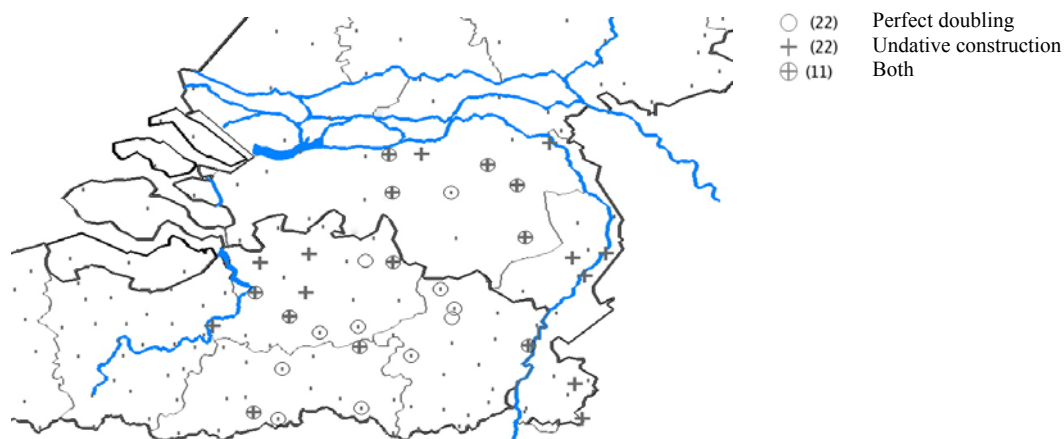
b. *Ik heb het haar geverfd gehad.*

I have the hair dyed had

‘My hair has been dyed.’

The perfect doubling construction does not immediately reduce to (a variant of) the undative construction, for two reasons. First, there is only a partial geographical overlap between the two constructions. This can be seen from map 1 below, which reflects the results of phase 1 of our investigation. This map only shows the southern part of the Dutch language area. The map is restricted to this area because perfect doubling does not occur in the rest of the language area (cf. SAND II, map 40b). The undative has a much wider geographic distribution, occurring in particular in the eastern border zone of the language area (cf. Van Bree 1981, map 1). Map 2 below

shows that there are dialects that only have the undative, dialects that only have perfect doubling, and dialects that have both. It is thus clear that the two constructions do not immediately reduce to one.



Map 2 Perfect doubling and undative in south-eastern Dutch

A second reason why perfect doubling and the undative cannot be directly reduced to a single property is that there is a significant meaning difference between the two, coupled with an obvious syntactic difference. Consider the pair in (15):

(15) a. *Ik heb de broek gewassen gehad.* (Limburg Dutch)

I have the trouser washed had

‘I have had a washed pair of trousers.’

b. *Ik heb vandaag nog niet gerookt gehad.* (Southeastern Dutch)

I have today yet not smoked had

‘I have not smoked yet today.’

In (15a), namely the perfect of an undative construction, the syntactic subject is the possessor of a pair of trousers which have been in a clean state; anyone could have

done the washing of the trousers. In other words, the Agent of the participle is undetermined. By contrast, the Agent of *gerookt* ‘smoked’ is understood as the syntactic subject in (15b), the doubling construction. As for the syntactic difference, whereas the undative requires two DPs, one the syntactic subject and one the subject of the small clause, the perfect doubling construction seems to be content with just one; put differently, it is not clear what the subject of the embedded small clause would be in (15b), if we considered ‘smoked’ to be the small clause predicate.

One might be thus tempted to conclude that the undative and the doubling construction are entirely unrelated, but there is one important similarity between the two, which cannot be overlooked. As we mentioned at the end of the previous section, doubling exhibits a word order restriction: in embedded contexts, the most deeply embedded predicate has to precede the other verbal heads. This restriction is also operative in undatives. (16) shows the word order restriction for the undative construction, and (17) shows this for the perfect doubling construction:

- (16) ... *dat ik de broek* (Southeastern Dutch)
 that I the trousers
- a. **heb gehad gewassen.*
 have had washed
- b. **heb gewassen gehad.*
 have washed had
- c. *gewassen gehad heb.*
 washed had have

d. *gewassen heb gehad.*

washed have had

‘... that I have had my trousers in a washed state.’

(17) ... *dat ik de fiets*

that I the bicycle

a. **heb gehad gestolen.*

have had stolen

b. **heb gestolen gehad.*

have stolen had

c. *gestolen gehad heb.*

stolen had have

d. *gestolen heb gehad.*

stolen have had

‘... that I had stolen the bicycle.’

In the following section we provide an analysis for perfect doubling within the context of related constructions, like the undative.

3. *The analysis*

We propose to account for the attested variation in the Dutch speaking area on the basis of two micro-parameters, one responsible for perfect doubling constructions and another for undative constructions. The following four possibilities are thus generated:

(18)

	Parameter 1: value +	Parameter 1: value -
Parameter 2: value +	undatives, perfect doubling	undatives
Parameter 2: value -	perfect doubling	—

The combination P1+ and P2+ will give a dialect that allows both the perfect doubling construction and the southern undative construction. Examples of such a dialect are Asten and Gemert in the Dutch province Noord-Brabant. The combination P1- and P2+ characterizes a dialect that allows undatives but not perfect doubling, such as Heerlen Dutch. P1+ and P2- is a dialect that only allows perfect doubling, examples of which are Lommel and Eksel in the Belgian province Limburg. If both parameter values are negative, neither construction is allowed. This gives us for instance Standard Dutch. The aim of the next sections is to provide content to Parameters 1 and 2.

The picture in (18) is a bit simplified in the following sense. We will show that doubling is not radically excluded in Standard Dutch, it is just restricted. Although Standard Dutch for instance lacks the undatives of the southern type, it does allow constructions that are close to it. Hence, the aim is to identify the loci of variation in such a way that these more subtle distinctions follow. The section is organized as follows. First, we will look at doubling of BE and provide an analysis for the absence of certain restrictions on it in particular dialects. Then, we will do the same for doubling of HAVE, first extending the analysis of BE-doubling to HAVE-doubling constructions and then looking at the undative constructions in more detail. Our working hypothesis throughout will be that auxiliary doubling, interpreted as the co-

existence of two perfect auxiliaries in one clause, does not exist in any of the Dutch variants.

3.1 BE-doubling

Standard Dutch allows BE-doubling, but not unrestrictedly. Although it disallows examples such as (19), it permits those in (20):

(19) a. **dat de man een keer gevallen geweest is.* (Standard Dutch)

that the man a time fallen been is

‘that the man has fallen once’

b. **dat de trein een keer te vroeg aangekomen geweest is,*

that the train a time too early arrived been is

‘that the train has arrived too early once.’

(20) a. *dat de vaas een keer gebroken geweest is.* (Standard Dutch)

that the vase a time broken been is

‘that the vase has been broken once’

b. *dat het zwembad een keer gesloten geweest is.*

that the pool a time closed been is

‘that the pool has been closed once’

What underlies this difference? Given the working hypothesis that doubling of auxiliaries does not exist, we pursue the idea that the contrast has to do with the fact that the participles *gebroken* and *gesloten* in (20) are adjectival, whereas they are verbal in (19). Under that hypothesis, *geweest* in (20) is a copula which selects a non-verbal, namely adjectival, complement. This copula, which is present because a clause

needs a verb (at least in Dutch), can subsequently be put in the perfect tense, so that a doubling effect arises: a form of BE is present twice, but one is a copula and the other a perfect auxiliary. *Gevalen* and *aangekomen* in (19), however, are not adjectival but verbal. This means that *geweest* is an auxiliary, as it selects a verbal predicate. If auxiliary doubling does not exist, the ungrammaticality of (19) follows because both forms of BE function as auxiliaries in (19).^{xiii} What happens in the relevant dialects, then, is that more participles can become adjectival, so that doubling is more robustly attested. Let us develop this hypothesis.

Note that this analysis does not entail that one is forced to assume the availability of two distinct BE's. Thus, we assume that there is only one BE that can be freely combined with different complements. It is then the nature of the complement that determines how BE is interpreted: if it is merged with a verbal complement, it functions as an auxiliary, whereas it functions as a copula if it is merged with an adjectival (or for that matter nominal) complement.

There is independent support for the idea that *gebroken* and *gesloten* are adjectival. Note first of all that they behave on a par with run-of-the-mill adjectives like *stuk* 'broke' and *dicht* 'closed', in that they can occur in BE-doubling constructions:^{xiv}

- (21) a. *dat de vaas een keer stuk geweest is.* (Standard Dutch)
 that the vase a time broken been is
 'that the vase had been broken once'
- b. *dat het zwembad een keer dicht is geweest.*
 that the swimming pool a time closed been is
 'that the swimming pool had been closed once'

Second, they can co-occur with the adverbial phrase *nu al twee jaar* ‘for two years already’ or *nog steeds* ‘still’, showing that they are not eventive but rather have a state reading, like the corresponding adjectives: *gebroken* patterns with *stuk* ‘broken’ and *gesloten* patterns with *dicht* ‘closed’ and both contrast with *gevallen* and *aangekomen* (cf. 22c, c’).

- (22) a. *dat de vaas nu al twee uur gebroken is*
 that the vase now already two hours broken.PART is
 ‘that the vase has been broken for two hours already’
- a’. *dat de vaas nu al twee uur stuk is*
 that the vase now already two hour broken.ADJ is
 ‘that the vase has been broken for two hours already’
- b. *dat het zwembad nu al twee uur gesloten is*
 that the pool now already two hour closed.PART is
- b’. *dat het zwembad nu al twee uur dicht is*
 that the pool now already two hour closed.ADJ is
- c. **dat de man nu al twee uur gevallen is*
 that the man now already two hour fallen is
 ‘that the man has fallen for two hours already’
- c’. **dat de trein nu al twee uur aangekomen is^{xv}*
 that the train now already two hour arrived is
 ‘that the train has arrived for two hours already’

Third, only adjectival participles (and, as it will turn out, only a proper subset of them) can occur as complement to verbs like ‘remain’, ‘become’, ‘look’, ‘seem’ and ‘sound’ (see Wasow 1977, Williams 1981, Bresnan 1982, Levin & Rapaport 1986 and many others for this and other diagnostics). This is illustrated with the verb *blijven* ‘remain’ in (23):

- (23) a. *De vaas blijft (voor altijd) gebroken.* (Standard Dutch)
the vase remains for always broken
‘The vase remains broken forever.’
- b. *Het zwembad blijft (voor altijd) gesloten.*
the pool remains for always closed
‘The pool remains closed forever.’
- c. **De man blijft (voor altijd) gevallen.*
the man remains for always fallen
‘The man remains fallen forever.’
- d. **De man blijft (voor altijd) aangekomen.*
the man remains for always arrived
‘The man remains arrived forever.’

Lastly, the adjectival behavior of *gebroken* and *gesloten* is brought out by the observation that, once the verbal reading is blocked (here, by the presence of *al twee uur* ‘for two hours already’), the participles behave like run-of-the-mill adjectives in not being able to follow the selecting verb. Note that if *al twee uur* is dropped and the verbal reading becomes available again, both orders are possible (cf. 24c). Hence,

word order freedom is indicative of the verbal status of participles, whereas a fixed order is indicative of their adjectival status.

- (24) a. **dat de vaas al twee uur is stuk / gebroken*
that the vase already two hour is broken.ADJ/broken.PART
- b. **dat het zwembad al twee uur is dicht / gesloten*
that the pool already two hour is closed.ADJ /closed.PART
- c. *dat de vaas is gebroken/gebroken is*
that the vase is broken/ broken is

To sum up, some participles can act like adjectives, but not all participles can do so. How do we account for this? We assume that the representation of adjectival participles contains an adjectival head (cf. Lieber (1980), Bresnan (1982), Grimshaw (1990), Pesetsky (1995), Anagnostopoulou (2003) among others). The fact that not all participles can function as adjectival predicates means that not all participles can become adjectival. The generalization for standard Dutch appears to be that only participles expressing a target state can become adjectival (cf. Kratzer 2000 for German and Lundquist 2009 for Swedish). According to Parsons (1990), target state participles are a type of stative participle, the other one being the so-called resultant state. Target states denote states that are in principle reversible: if I hide your wallet, your wallet ends up in a state of being out of sight, as it were. This is due to the lexical semantics of ‘hide’. Not all verbs (or roots) encode a target state: it is only a proper subset of telic predicates that do. On the other hand, any telic predicate can denote a resultant state, a state that holds forever after the culmination of the event. The difference between target state and resultant state participles is reflected in their

(in)compatibility with ‘still’: only target states are modifiable by ‘still’. This contrast is illustrated in (25):

- (25) a. **De theorie is nog steeds bewezen.* (Standard Dutch)
The theory is yet still proven
‘The theory is still proven.’
- b. *Het raam is nog steeds gebroken/gesloten.*
The window is yet still broken/ closed.
‘The window is still broken/closed.’

On the basis of this *nog steeds*-test, we can establish that *gevallen* and *aangekomen* lack a target state, unlike *gebroken* and *gesloten* in (25b):

- (26) a. **dat de man nog steeds gevallen is* (Standard Dutch)
that the man yet still fallen is
- b. **dat de trein nog steeds aangekomen is*
that the train yet still arrived is

The fact that *gevallen* and *aangekomen* are participles derived from unaccusative verbs suggests that perhaps the argument structure (or more specifically, the lack of an external argument) is relevant for the possibility of forming adjectives, but the examples in (27) show that this is incorrect. Although *gezwollen* and *verdwenen* are participles of unaccusative verbs that lack transitive counterparts, they pass the *nog steeds*-test: ^{xvi}

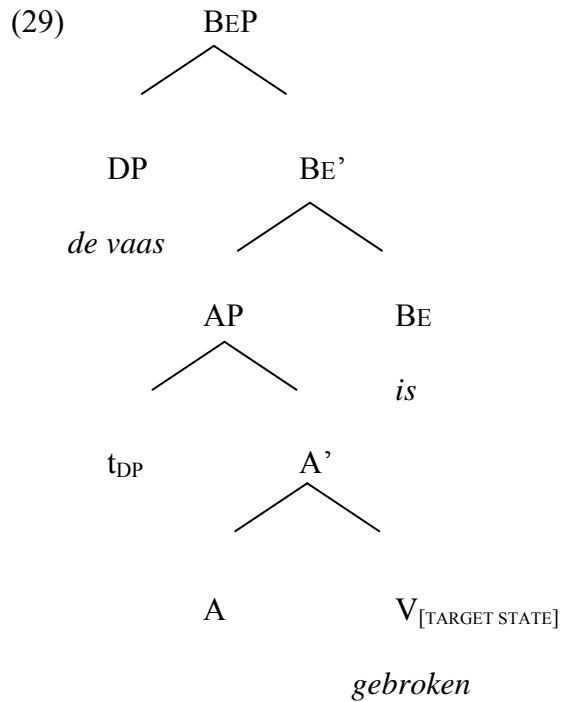
- (27) a. *Mijn arm is nog steeds gezwollen.* (Standard Dutch)
 my arm is yet still swollen
 ‘My arm is still swollen.’
- b. *Mijn fiets is nog steeds verdwenen.*
 my bike is yet still disappeared
 ‘My bicycle is still disappeared (gone.)’

Let us now return to the examples in (19) and (20) and determine their structures. Since *gebroken* expresses a target state, it can become an adjectival constituent through merger with an A-head. Adjectival constituents either function as modifiers or predicates. Since they clearly do not modify a nominal in for instance (27), they are predicational (semantically, they are of type $\langle e,t \rangle$). This means that the adjectival constituent must contain an unassigned theta-role, so that it can predicate of an entity. Since A itself is merely a categorizing head (or stativizer, according to Kratzer 2000), it does not contain any thematic information itself. If A had its own external theta-role, we would expect *gebroken* to be able to project its own argument, contrary to fact:

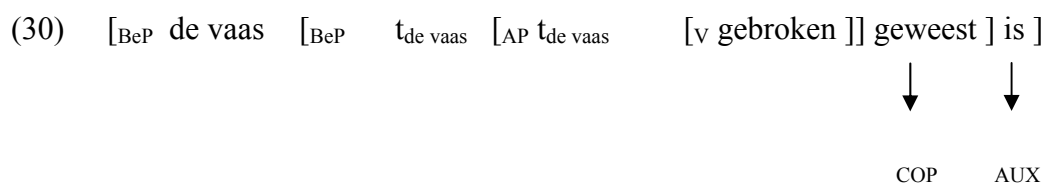
- (28) **Het raam is de vaas gebroken.*
 the window is the vase broken

Hence, for the adjectival constituent to function as a predicate, A needs to obtain this information from something else, namely from (the head in) its complement. *Gebroken* and *gesloten* assign an internal theta-role, but they have left this role undischarged. It is this undischarged thematic role that A inherits and assigns to its

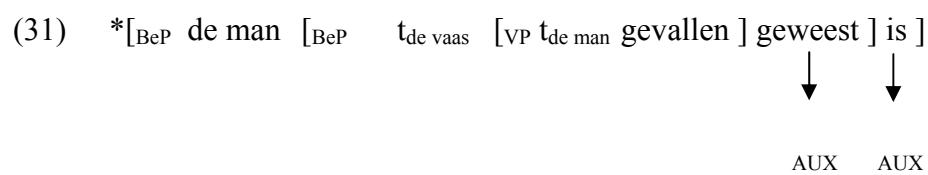
DP-specifier, *de vaas*. Since a clause in Dutch requires a verb, a form of BE is merged into the structure and *de vaas* moves to the specifier of BE. This results in the structure in (29), which can subsequently be the input to a doubling construction in Standard Dutch.^{xvii}



In this structure, BE selects an AP. This means that it does not function as an auxiliary here but rather as a copula. The consequence is that the structure in (29) can be combined with another form of BE. Since the second BE selects a verbal complement (namely the BEP), this second BE will function as an auxiliary.

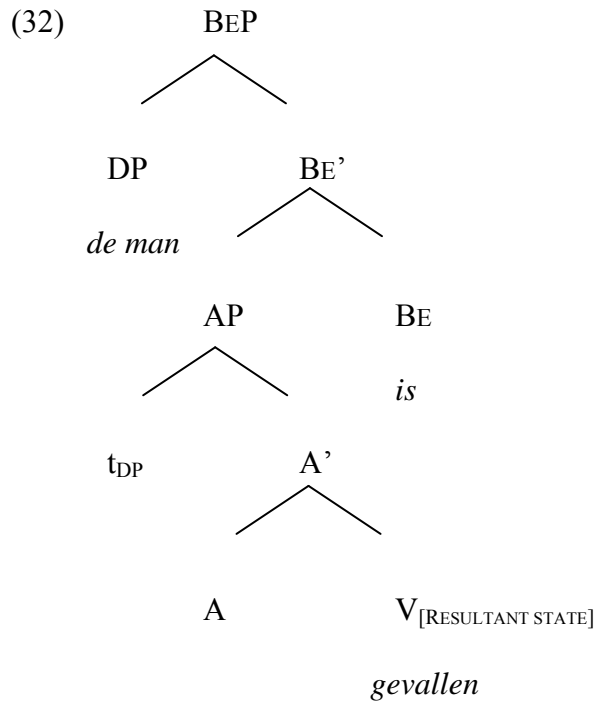


The consequence is a doubling construction but it crucially does not contain two auxiliaries. Hence, the examples in (20) are therefore correctly ruled in. The sentences in (19), on the other hand, cannot involve an AP, as A needs to select a constituent that encodes a target state. Hence, both instances of BE are merged with a verbal complement: the lower BE is merged with the VP *de vaas gebroken* and the higher BE is merged with this resulting BEP.

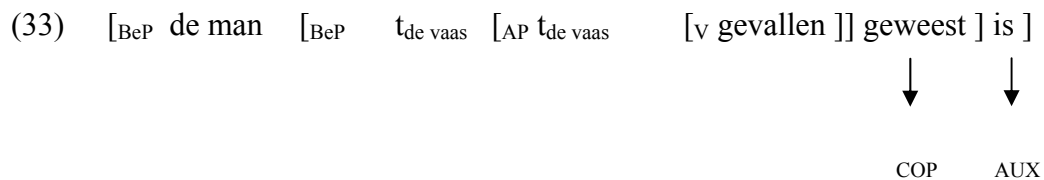


Under the assumption that auxiliary doubling is blocked, the structure in (31), representing example (19a), is correctly ruled out.^{xviii}

Southern dialects differ from Standard Dutch in allowing the sentences in (19). We conclude from this that in these variants of Dutch the adjectival head is less picky about the nature of its complement. It does not require a participle expressing a target state but can be merged with *gevallen* or *aangekomen*, which express resultant states. The structure is then as follows.



Since BE selects an AP in (32), it functions as a copula. Nothing, therefore, excludes putting this construction in the perfect tense by merging a second instance of BE. This second BE will subsequently function as an auxiliary.



As the overall structure does not contain two auxiliaries, these structures are grammatical in the relevant dialects.

To be sure, this analysis does not predict that the doubling constructions in (19) should pass the target state (i.e. the *nog steeds*) test. This test reveals a property of the semantics of the participle, not of the adjectival constituent that results after merger of the participle with the A-head. What the analysis does predict, however, is

that the participles in (19) – since they are part of an adjectival constituent – show distributional effects of adjectives. Recall from above that adjectival participles are unable to undergo reordering with the other verbal heads at the end of an embedded clause. Hence, we expect that in the BE-doubling dialects the most deeply embedded lexical participle obligatorily occurs before the other verbal heads. This prediction is borne out: the participle has to precede all other verbal heads, just like a run-of-the-mill adjective would.

(34) *dat mijn oma een keer* (Southeastern Dutch)

that my grandmother a time

a. **is geweest gevallen*

is been fallen

b. **is gevallen geweest^{xix}*

is fallen been

c. *gevallen geweest is*

fallen been is

d. *gevallen is geweest*

fallen is been

Although we see that the order of the finite and participial form of BE can switch, the lexical particle cannot occur after the selecting verb. It is important to realize that the impossibility of the order in (34a, b) does not have to be a general property of the grammar of the particular dialect: even dialects that in principle allow the participle to follow the selecting verb, as in (35), disallow the orders in (34a) and (34b):

- (35) *dat mijn oma is gevallen* (Standard & Southeastern Dutch)
that my grandma is fallen
'that my grandma has fallen'

Hence, the restriction on the lexical participle pertains to the doubling structures only, showing that the behaviour of *gevallen* in doubling constructions is different from that of the participle in non-doubling constructions, a contrast that follows straightforwardly under the assumption that the participle is adjectival in doubling constructions.

To conclude, the difference between BE-doubling and non-BE-doubling dialects is a consequence of two different settings of the parameter in (36):

- (36) PARAMETER 1:

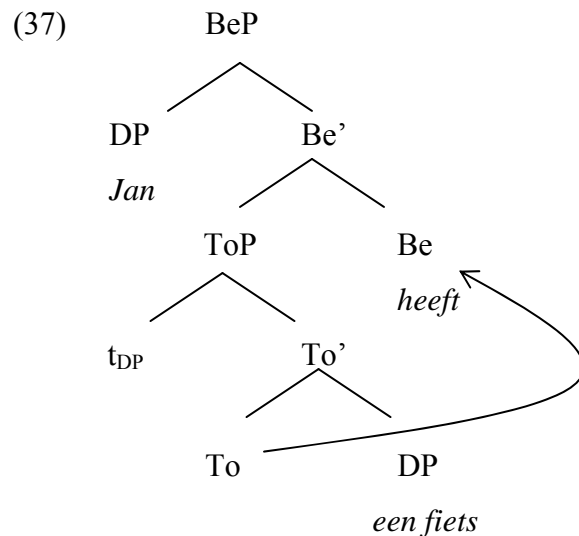
Adjectival head A only selects a participle expressing a target state: yes/no.

In Standard Dutch, participles can only be made adjectival if they encode a target state. That means, in effect, that resultant state participles can only be verbal in this language. The dialects differ in that participles that do not encode a target state can still become adjectival by merger with an A-head. In the next section, we extend this analysis to HAVE-doubling.^{xx}

3.2 *HAVE-doubling I: perfect doubling*

Before we give the analysis of HAVE-doubling constructions, we want to introduce our assumptions about the composition of HAVE. We follow Freeze (1992) and Kayne

(1993, 2000), who have argued that HAVE is the spell-out of a more complex structure, consisting of copular BE plus a P- or D-head that incorporates into BE. It is this complex head derived in the syntax that is spelled out as a form of HAVE. Although Kayne remains agnostic about the precise nature of the incorporating head (possible candidates are a determiner, a preposition or, as an anonymous reviewer points out, a dative case head), we take this lexical head to be usually prepositional TO, for reasons that become clear later). This means that the sentence (*dat*) *Jan een fiets heeft* ‘(that) Jan has a bike’ has the following structure.^{xxi}



Like for BE, we adopt the assumption that there is no inherent distinction between lexical and auxiliary HAVE in the lexicon: they involve the same lexical items. The distinction between lexical and auxiliary HAVE does not follow from its internal make-up but from the complement it is merged with (cf. Harley 1998 for a similar approach to HAVE in English). Hence, if HAVE (BE + TO) is merged with a nominal complement, like in (37), it functions as a copula that relates the DP in its specifier of TO to the complement of TO, giving a possession semantics.

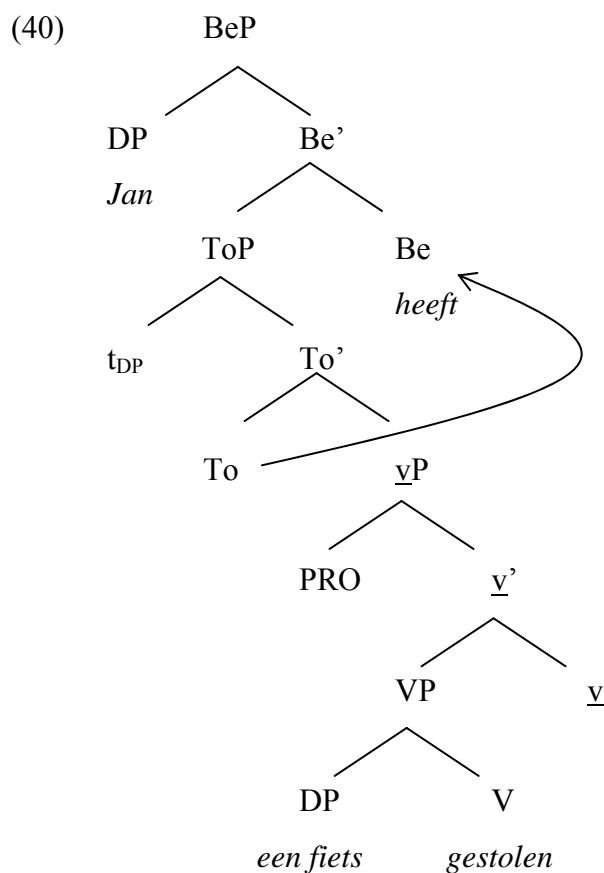
There are two key properties of the structure in (37) important for the discussion. First of all, note that in this structure *Jan* is base-generated in spec-TOP, which therefore functions as a thematic position.^{xxii} Put differently, TO requires a DP-argument in its specifier. Hence, we take HAVE to crucially differ from BE in licensing its own subject (due to the presence of TO) and BE + TO not to involve a stacking of copular elements. Secondly, note that in (37) BE + TO selects a DP and therefore will function as a copula. Hence, nothing excludes the structure in (37) from merging with a second BE + TO. This second HAVE is subsequently interpreted as an auxiliary, since it is merged with a verbal constituent. This explains why pure possession constructions allow doubling:

- (38) *dat Jan een fiets gehad heeft.* (Standard Dutch)
 that Jan a bike had has
 ‘that Jan has owned a bike.’

What, then, is the structure of a Dutch perfect construction like (39)?

- (39) *(dat) Jan een fiets gestolen heeft.* (Standard Dutch)
 that John a bike stolen has
 ‘(that) John has stolen a bike’

Since TO requires its own DP-argument in its specifier, the active participle *gestolen*, or the little y that introduces the agent of this predicate, must discharge its external theta-role to another, non-overt subject, PRO. Hence, the structure of (39) we take to be as in (40):^{xxiii}



In (40), HAVE is merged with a verbal complement, a proposition in fact, so that (i) the result does not express possession semantics (see Saebø 2009 for more discussion) and (ii) HAVE functions as an auxiliary. Under the assumption that auxiliary doubling does not exist, we predict that (40) cannot be selected by a second HAVE. This derives the impossibility of perfect doubling in Standard Dutch, but of course not the possibility of it in the Brabantish dialects.

(41) *Jan heeft mijn fiets gestolen gehad* (*Standard Dutch/^{OK}Brabantish dialects)

Jan has my bike stolen had

‘Jan has had stolen my bike.’

Therefore, the structure of the Brabantish doubling construction must be such that the most deeply embedded HAVE does not function as an auxiliary. The same analysis that we proposed for BE-doubling can be applied here, as the contrast can be accounted for with the same parametric tool that caused the difference between BE-doubling and no BE-doubling. In Standard Dutch, the adjectival head A can only select a participle denoting a target state. This is clearly not what $\underline{v}P$ expresses. For instance, in the construction at hand it fails to pass the *nog steeds*-test:

(42) **Jan heeft nog steeds mijn fiets gestolen.* (Standard Dutch)

Jan has yet still my bike stolen

‘Jan still has stolen my bike.’

Note that this is a property of the present perfect construction, and not of this particular lexical participle. Even participles that denote a target state in their passive form, do not pass the *nog steeds*-test in their active form:

(43) a. *De vaas is nog steeds gebroken.* (Standard Dutch)

the vase is yet still broken

‘The vase is still broken.’

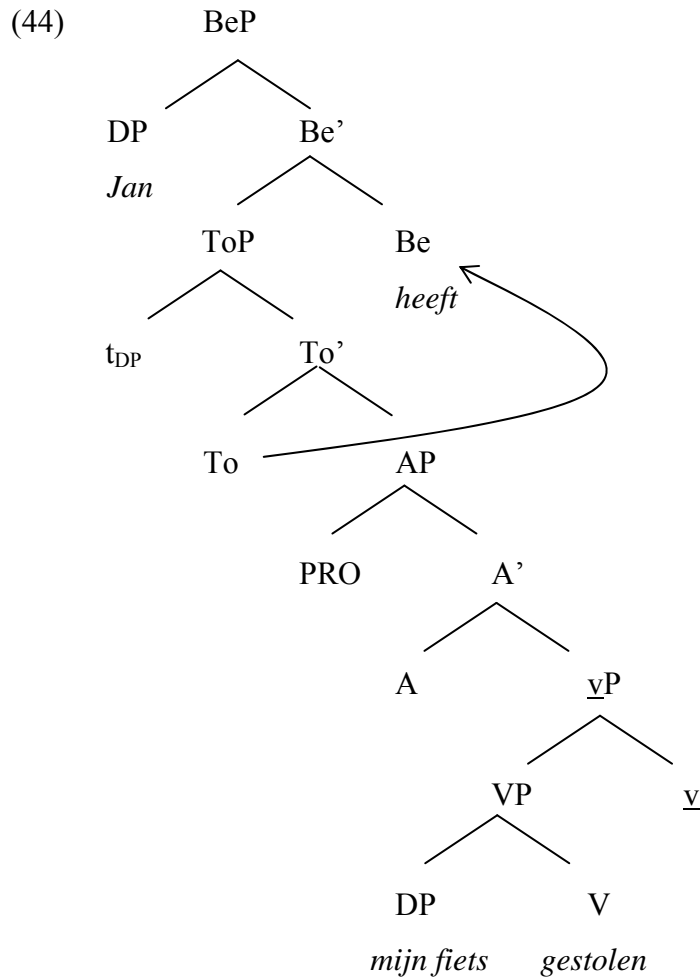
b. **Jan heeft de vaas nog steeds gebroken.*

Jan has the vase yet still broken

‘Jan has still broken the vase.’

As we proposed for BE-doubling, the dialects with perfect doubling allow the adjectival head to be less picky in what it can select. We saw earlier (section 2.2,

example (15b)) that the interpretation for (41) by HAVE-doublers is one in which *Jan* is the thief (more generally, the syntactic subject is construed as the Agent of the participle), strongly suggesting that the participle *gestolen* is active. Hence, we conclude that in perfect doubling dialects the A-head is able to select a verbal constituent that does not denote a target state, and in this case the verbal constituent contains an active participle, i.e. one in which \underline{v} is present.^{xxiv} Now, under the assumption that the adjectival constituent acts as a predicate, it must be the case that the complement of A has not saturated all its thematic information. This means that A selects a $\underline{v}P$ without the subject being projected. A can then inherit this thematic information to assign it to the DP in its specifier. Hence, the input to a doubling construction is the structure in (44):



The minimal difference with the present perfect construction in Standard Dutch is thus that PRO does not receive its theta-role from a verbal constituent (namely \underline{v}) but from an adjectival constituent, (namely A). This is identical to what happens in BE-doubling constructions, in which the subject also receives its theta-role from an adjectival, rather than from a verbal constituent.

The analysis accounts for the properties of perfect doubling. First of all, the construction involves an adjectival constituent that is selected by HAVE. This HAVE therefore functions as a composed copula. BE's presence is required to ensure that the clause/proposition is headed by a verbal element, which neither A nor TO is. Hence, nothing blocks embedding of (44) under a second HAVE, creating the doubling effect. Second, the fact that doubling-speakers interpret (41) with *Jan* as the thief follows

from the control relation between *Jan* and PRO. Third, the analysis accounts for the word order restrictions that are active on the lexical participle in the doubling construction. In perfect doubling dialects, the most deeply embedded participle cannot undergo reordering with the other verbal heads:

(47) *dat Jan een fiets...* (Southeastern Dutch)

that Jan a bike

a. **heb gehad gestolen*

have had stolen

b. **heb gestolen gehad*

have stolen had

c. *gestolen gehad heb*

stolen had have

d. *gestolen heb gehad*

stolen have had

This follows from the claim that these participles partake in an adjectival construction. This makes them behave like run-of-the-mill adjectives, which – as we have seen – also disallow reordering. It is again important to realize that this restriction only holds on the lexical participles if they partake in a doubling construction. Hence, speakers that reject (47a, b) do not necessarily reject (48):

(48) *(dat) Jan een fiets heeft gestolen.* (Standard & Southeastern Dutch)

that Jan a bike has stolen

‘that Jan has stolen a bike’

As was the case in BE-doubling constructions, the syntactic distribution of the lexical participle in doubling and non-doubling constructions differs, and this difference is accounted for straightforwardly if the lexical participle in a doubling construction is part of an adjectival constituent.

Before moving on to the undative construction, we would like to bring up an issue concerning our claim about the nature of the participle in HAVE-doubling. We are aware of the fact that it is far from common to assume that active participles can be part of an adjectival constituent.^{xxv} The obvious alternative is to pursue an analysis in which the participle in question is passive—the obvious challenge for such an approach being how to ensure that the understood Agent is realized as a nominative DP in subject position. One example of this sort of analysis is the one proposed by Taraldsen (2010) for the so-called agentive GET-passive (abbreviated as AGP) in Norwegian, exemplified in (49).

(49) *Storeulv fikk endelig blåst taket av huset.* (Norwegian)

Storeulv got finally blown roof.the off house.the

‘Zeke wolf finally managed to blow the roof off the house.’

The Norwegian AGP features a subject DP that is understood as the Agent of the action denoted by the participle. However, Taraldsen argues, the construction involves a passive, and not an active participle.^{xxvi} What seems at first sight to be an

Agent is an oblique argument introduced by a high applicative head. If our HAVE-doubling data are amenable to this kind of treatment, the participle in this construction too is passive. However, our HAVE-doubling data do not pattern with the Norwegian AGP. Let us briefly see why.

Taraldsen notes that the Norwegian AGP disallows inanimate subjects and adverbials referring to the intentionality of the Agent. These properties are illustrated in (50) and (51) respectively. Our southern Dutch informants do not reproduce these patterns for the HAVE-doubling construction. This is shown in (52) and (53).^{xxvii}

(50) **Vinden fikk blåst taket av huset.* (Norwegian)

wind.the got blown roof.the off house.the

(51) **Storeulv fikk med vilje blåst taket av huset* (Norwegian)

Zeke Wolf got with will blown roof.the off house.the

(52) *De klok heeft nog niet geluid gehad.* (Southeastern Dutch)

the clock has still not sounded had

‘The clock has not sounded yet.’

(53) *Ik heb het expres gezegd gehad.* (Southeastern Dutch)

I have it on.purpose said had

‘I have said it deliberately.’

We conclude that our proposal accounts better for HAVE-doubling than existing alternatives. Especially given current widespread views on the syntactic decomposition of (verbal and adjectival) participles, whereby participles differ in their size, i.e. how much structure they involve, and variation/flexibility exists in the level at which the stativizer/A-head applies, it is not so clear why the A-head could not

select something as big as an active participle. To our understanding, as long as the constituent selected by A does not contain a fully saturated predicate, A will be able to function as a predicate. Not generating an agent is just as much an option as not generating a patient.^{xxviii}

3.3 HAVE-doubling II: the undative construction

Before we go into the analysis of the undative construction, we bring in some additional data that show that this construction is not entirely absent from Standard Dutch. Although Standard Dutch lacks the undative construction of the type attested in southern Dutch varieties, it does have a construction that is very similar. Take a look at the examples in (54):

- (54) a. *Ik heb de deur altijd dicht.* (Standard Dutch)
I have the door always closed
'I always have the door closed.'
- b. *Ik heb het raam altijd open.*
I have the window always open
'I always have the window open.'

Like undative constructions, the examples in (54) can be put in the perfect tense, creating a doubling effect:

- (55) a. *Ik heb de deur altijd dicht gehad.* (Standard Dutch)
 I have the door always closed had
 ‘I have always had the door closed.’
- b. *Ik heb het raam altijd open gehad.*
 I have the window always open had
 ‘I have always had the window closed.’

This is expected, as the embedded predicate is adjectival. In a construction with two HAVE’s, one selects an AP and one a BEP. Hence, the construction will not contain two auxiliaries.

The Standard Dutch undative construction differs from the southern one with respect to the type of adjectives that can occur in it. In the southern undative construction, any stage-level adjective is possible: *open* ‘open’, *schoon* ‘clean’, *ziek* ‘sick’, *moe* ‘tired’, *verdrietig* ‘sad’. Adjectives in the Standard Dutch undative construction must denote a point on a bounded scale (Barbiers 1995, 2005). Possible are, e.g., *open* ‘open’, *dicht* ‘closed’, *vast* ‘fixed’, *los* ‘loose’, *vol* ‘full’, *leeg* ‘empty’. Impossible are, e.g., *ziek* ‘sick’, *groot* ‘big’, *snel* ‘fast’, *moe* ‘tired’, *verdrietig* ‘sad’. The relevance of bounded scales is evident in at least two other constructions involving adjectival complements, namely adjectival complements of modals (cf. Barbiers 1995, 2005) and adjectives in resultative constructions (cf. van den Wyngaerd 2001). Examples of modal constructions displaying a similar restriction are given in (56).^{xxix,xxx}

- (56) a. *Het raam moet open/*groot.* (Standard Dutch)
 the window must open/big
 ‘The window has to be made open/big’
- b. *De man moet dood/*ziek.*
 the man must dead/ill
 ‘The man must be made dead/ill.’

To sum up, there are two types of undative constructions.^{xxxii} One of these occurs in standard Dutch, requiring a bounded scale. This restriction is not a property of the southern construction.

What we propose is that the bounded scale property of the Standard Dutch undative construction is a restriction that is set by the preposition TO, which expresses PATH (cf. Jackendoff 1983). TO can be seen as a pointer, a directional relation between an entity and a fixed point on a scale. This scale may involve time, place, number or degree. Not all degree adjectives can satisfy the needs of TO. E.g., an adjective such as *long* provides a scale but not a fixed point on a scale. On the other hand, an adjective such as *empty* inherently denotes the endpoint of a scale. Only adjectives that inherently denote a fixed point on a scale can be the complement of TO.

Since the southern undative construction does not require the adjective to denote a point on a bounded scale, we conclude that TO must be absent. What we propose is that the relevant dialects also use HAVE to spell out an alternative decomposition, namely BE + AT. AT does not express PATH but PLACE, denoting an inclusion relation between an entity and a location or set, and therefore sets no bounded scale requirement on its complement.^{xxxiii} Hence, *ziek* ‘sick’ can occur in a

southern undative construction just as well. We therefore propose the following parameter:

(57) PARAMETER 2:

HAVE can/cannot be used as the spell-out of BE + AT.

The hypothesis that southern dialects with the undative construction have a different head as part of the decomposition of HAVE is corroborated by the fact that syntactically this head behaves in a different way from TO. Whereas TO obligatorily incorporates into BE, AT only optionally does so (for reasons we do not understand at this point). The central observation, going back to Cornips (1994), is that there is an alternative way of expressing the undative semantics, namely by having a construction with BE and a dative argument. Hence, the undative construction in (58a) corresponds to the dative construction in (58b):

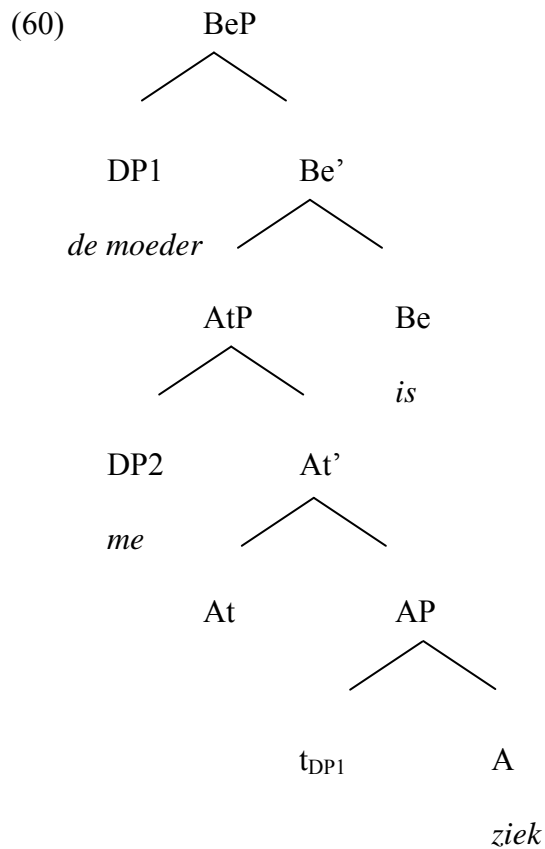
- (58) a. *Ik heb de moeder ziek.* (Limburg Dutch)
I.NOM have the mother ill
'My mother is ill.'
- b. *De moeder is me ziek.*
the mother is me.DAT ill
'My mother is ill.'

Note that (58b) is equally impossible in Standard Dutch, which suggests that the two constructions are indeed related. Nor does Standard Dutch have dative counterparts of the undative constructions that it does allow:

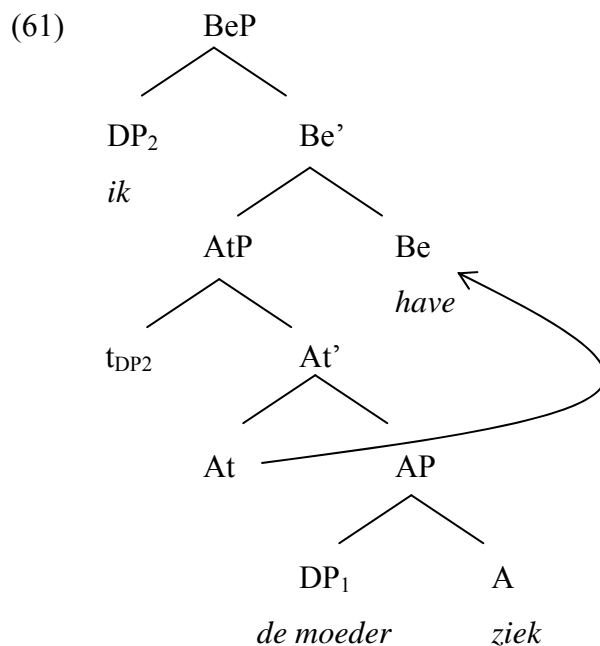
- (59) a. **De deur is me altijd dicht.* (Standard Dutch)
the door is me.DAT always closed
- b. **Het raam is me altijd open.*
the window is me.DAT always open

Hence, the property responsible for the difference between Standard Dutch and the southern undative dialects not only accounts for the less restrictive behavior of the adjectives that feature in the southern undative construction, but also for the availability of (58b).

Structurally, we take (60) to represent the underlying representation for (58b) (modulo verb second):



Me receives dative case from the abstract AT, whereas *de moeder* moves to specBEP on its way up to SpecIP to receive nominative case. What happens in (58a) is that AT incorporates into BE, so that it gets spelled out as HAVE. By incorporating, AT loses its dative case assigning abilities. In other words, HAVE is an undative verb, an intuition already expressed in Broekhuis & Cornips (1994; cf. section 2.3). *De moeder* subsequently receives accusative case from BE + AT, whereas *me* moves to specBEP to receive nominative case. Hence, the representation is as in (61):



To sum up, the assumption that southern undative dialects use HAVE as the spell-out of BE plus AT accounts for two properties: (i) the lack of the bounded scale requirement in the southern undative construction (ii) the fact that the availability of (58a) correlates with the availability of (58b).

There are two issues we still have to address. Firstly, if Standard Dutch HAVE is decomposed into BE plus TO, and if TO sets a bounded scale requirement on its complement, then how is this requirement satisfied in (i) pure possession constructions (represented in (37)) and (ii) compound perfect constructions. With respect to (i), we will follow Saebø (2009) in assuming that even pure possessive constructions contain a small clause, so that the object of HAVE is actually a subject of a silent small clause predicate. One can think of this predicate as a covert counterpart of the particles that occur in constructions like the following:^{xxxiii}

- (62) a. *Ik heb een pruik op.* (Standard Dutch)
I have a wig on

‘I am wearing a wig.’

- b. *Ik heb een trui aan.*

I have a sweater on

‘I am wearing a sweater.’

- c. *Ik heb geld bij (me).*

I have money on (me)

‘I have money on me.’

As for perfect constructions, we assume that participles in Dutch are perfective (see fn. 45 in the appendix for independent motivation stemming from the nature of the Dutch present perfect). If perfectivity involves the assertion of a bound on the time scale (or event scale, as an anonymous reviewer suggests, in line with Hay et al. 1999), then it is this bound that satisfies the bounded scale requirement set by TO.

The second issue we need to address involves a construction mentioned in Broekhuis and Cornips (2010) that superficially looks very similar to the undative construction. An example is given in (63). A difference with the dialectal undative is that it does not necessarily involve possessive semantics and expresses agenthood or control on the part of the subject.^{xxxiv}

- (63) a. *Ik heb de deur (eindelijk) open.* (Standard Dutch)

I have the door finally open

‘I (finally) managed to get the door open.’

b. *Ik heb de vrouw (eindelijk) ziek.*

I have the woman finally ill

‘I (finally) managed to get the woman ill.’

If these examples were undative constructions, it comes as a surprise that *ziek* ‘sick’ can appear in it, since it does not have the bounded scale property. Closer examination strongly suggests that this construction is not of the undative-HAVE type. As suggested by the gloss, we believe that the sentences in (63) contain an unpronounced participle *gekregen* ‘got’.^{xxxv} This hypothesis is confirmed by the fact that these examples are also possible (with no meaning difference) with an overt *gekregen*. Moreover, this analysis predicts that you cannot get a doubling effect in these examples, as the covert *gekregen* blocks the presence of *gehad*. This prediction is correct. The example in (64a) is ungrammatical on the relevant, agentive reading – although it is grammatical on the undative reading, which is irrelevant here. In (64b), even the undative reading is out, because *ziek* does not express a bounded scale.

(64) a. *Ik heb de deur open gehad.* (Standard Dutch)

I have the door open had

‘I have had the door open.’/

‘*I managed to get the door open.’

b. **Ik heb de vrouw ziek gehad.*

I have the woman ill had

4. *Summary*

The first goal of this paper was to answer the question if constructions involving HAVE-/BE-doubling as found in certain south-eastern Dutch dialects constitute genuine cases of doubling. Our answer to this question is no. These are all cases in which copular HAVE/BE is combined with auxiliary HAVE/BE. The participial complement selected by copular HAVE/BE is adjectival, not verbal. In this respect, these constructions behave like undatives. Evidence for the adjectival status of the participial complement is that the participle always has to precede the other verbs, even in dialects that in principle allow other orders in verb clusters.

The second goal was to explain the differences between Standard Dutch and south-eastern Dutch with respect to the availability of the HAVE-/BE-doubling construction. At first sight, Standard Dutch seemed to lack this construction entirely, but upon closer scrutiny, it turned out that Standard Dutch does have the perfect doubling construction, but in a more restricted fashion. The relevant restrictions are summarized in the table in (65).

(65)

	Standard Dutch	South-eastern Dutch
1. BE doubling with passive participles	+	+
2. BE doubling with unaccusative participles	-	+
3. HAVE doubling with active participles	-	+
4. Undative HAVE with bounded scale adjectives	+	+
5. Undative HAVE with other adjectives	-	+
6. BE counterpart of the undative	-	+

Two independent parameters capture these differences:

(66) The abstract adjectival head A (of the complement of copular BE/HAVE) only selects a participle expressing a target state. Standard Dutch: +; South-eastern Dutch perfect doubling dialects: -.

This captures the properties 1-3.

(67) HAVE can be used as the spell-out of BE + AT (in addition to BE + TO). Standard Dutch: -; South-eastern Dutch undative dialects : +

This captures the properties 4-6.

Both parameters involve properties of lexical items. Thus, apparent syntactic variation is reduced to lexical variation, supporting a central hypothesis of the minimalist program. The geographic distribution of BE/HAVE-doubling and the southern undative supports the independence of the two parameters. There are dialects that have properties 2 and 3 but not properties 5 and 6, there are dialects with the reverse properties, there are dialects that have both 2, 3, 5 and 6, and there are dialects that lack all four properties.

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Appendix: On the semantic contribution of perfect doubling

Throughout the paper we have remained silent on the semantic contribution of the doubling construction in comparison to the non-doubling variant. The reason behind this is two-fold: on the one hand, pinpointing the precise semantic contribution of doubling in general has been a far from trivial task. In our case, since our investigation has been for the most part informed by the rather scarce, dialectal occurrence of the phenomenon, drawing clear conclusions has been particularly difficult, given the intricacies and complications inherent in dialectal research (where e.g. issues of optionality, as well as interference by the standard language come up). The other reason we have so far ignored semantic aspects of the phenomenon is that they do not, at this stage at least, provide a compelling argument in favour of or against a particular syntactic proposal. We have therefore reserved this appendix for a brief summary of the semantics of doubling, and for showing how this semantics can be seen as consonant with the syntax proposed in the preceding sections.

In the existing literature on perfect doubling (e.g. Carruthers 1994, Paesani 2001, Schaden 2007, Poletto 2009) in varieties such as Occitan, Franco-provençal, Northern Italian dialects, as well as German varieties such as Bavarian and Alemannic a basic distinction is drawn between two kinds of readings or uses of the construction: the anterior use and the so-called ‘superperfect’ use.^{xxxvi} In its anterior guise, the construction refers to a state resulting from an event that is located in the past relative to another past event.^{xxxvii} Recall Bavarian example (1) (repeated from section 2.1), where the doubling construction temporally locates the state expressed by the lexical participle in the past relative to the past eventuality expressed by the embedded clause (in Reichenbachian terms, the event in the embedded clause sets the Reference time for the event in the matrix clause). In other words, on the anterior use, the doubling

construction serves as a relative past tense.^{xxxviii} The anterior use is also attested in variants of French (see example (2) from Schaden 2007).^{xxxix}

(10) *Wia i hamkumman bin, hot mai schwesta den opfl scho gessen ghobt.* (Bavarian)

as I home.come am, has my sister the apple already eaten had

‘When I arrived at home, my sister had already eaten the apple.’

(2) *Quand j’ai eu dîné, je suis sorti.* (regional French)

when I have had dined I am left

‘After having had supper, I left.’

On its second guise, namely the so-called superperfect use, the doubling construction does not seem to make a clear temporal (or aspectual) semantic contribution, but rather has been associated with a more vague, pragmatic contribution. According to Carruthers (1994: 172) the superperfect has been claimed to mark “an action or state which is *definitively complete and unlikely to recur*; an action or state which took place or existed in *a distant past*; an action or state which occurred at *an indeterminate point or points in time*; an action or state which is *in some way exceptional; heightened speaker involvement* in the action or state on the part of the speaker” (emphasis added). Examples (3) and (4) from Schaden (2007), illustrate this use of the present perfect double compound tense.^{xi}

(3) *Du blé, j’en ai eu récolté du plus beau.* (regional French)

of wheat I of-it have had harvested of-the more beautiful

‘I’ve harvested the most beautiful wheat.’

(4) *J’ai eu voté socialiste.*

I have had voted socialist

‘I once voted for the socialist party (but that was long ago, and I will certainly not do it again).’

In these examples (see the enriched translation of (4), due to Schaden), the doubling construction does not perform the task of an anterior tense, namely of locating the resulting state of an event as anterior with respect to some reference point in the past. It is unclear what that past reference point would be in these examples, since it is not present in the (immediate) linguistic context. What we would like to suggest (see also Schaden 2007: xx) is that, on the superperfect use, the doubling construction picks up as a reference time not some independent past event, but rather the time set by its own tense: with doubling in a present perfect, the reference time is the utterance time, whereas with doubling in a past perfect, the reference time precedes the utterance time.^{xli} How that is done, and how it is ‘undone’ in the case of the anterior reading, is something we have to leave for future research.

Interestingly for our purposes, the anterior and the superperfect use do not always co-exist in a given language. As pointed out by Schaden, for reasons that are not at this stage clear, there are languages that have one, but not the other use of the double compound tense. Breton, for instance has the superperfect but not the anterior use. In French, anteriors are claimed to exist throughout the language area, whereas superperfects are regionally restricted (Carruthers 1994, Paesani 2001, Schaden 2007). We believe that Dutch provides additional evidence in favour of this claim, in

that its varieties only have the superperfect use. In the remainder of this appendix we will discuss our evidence for this claim, and show how the semantic claim is compatible with the syntactic claims made earlier in the paper.^{xlii}

Our evidence that Dutch dialects lack the anterior use of the doubling construction comes from the low acceptability of the construction when a past reference point was explicitly given in the linguistic context. First, speakers largely rejected sentences involving contexts (such as *when*-clauses, temporal adverbials, preceding discourse) specifying the past event/time, relative to which the state expressed in the doubling construction was anterior. To give an example, our informants could not use doubling in a context such as (5), where ‘yesterday at dinner time’ specifies the past reference point. Our speakers instead opted for a past perfect in such contexts (which, incidentally, is one of the instances where the dialects showed the past perfect to be perfectly available).

(5) Context: I didn’t see you eat yesterday at dinner time. Why not?

Answer: *#Ik heb al gegeten gehad.*

I have already eaten had

(Intended, approx.: ‘I had already eaten.’)

By contrast, in varieties where the anterior use is available (e.g. Swiss German, Martin Salzmann, p.c.), the doubling construction is perfectly acceptable in a context such as (5).^{xliii} Moreover, in contexts where the doubling construction was accepted, speakers also accepted the non-doubling counterpart. These observations follow if the Dutch dialects, unlike for instance the relevant German and Romance varieties, lack the anterior use.

As a final point in this paper, we would like to make a tentative suggestion about the superperfect, on the basis of our understanding of it in varieties of Dutch. One meaning aspect that our dialect speakers reported repeatedly as their intuition on the doubling construction is that it involves what we have come to call the ‘reversal’ interpretation. The implication of an example such as (6) is that the bicycle is no longer missing.^{xliv}

- (6) *Jan heeft mijn fiets gestolen gehad.* (Southeastern Dutch)
Jan has my bike stolen had
‘Jan has stolen my bike.’

It is interesting to see that this interpretational effect of the doubling construction is entirely compatible with the syntactic analysis we have proposed. Recall that the gist of our analysis is that perfect doubling is no doubling at all; rather, it is the perfect tense of a copular verb, whose complement is an adjectival participle. It turns out that a similar implication of ‘reversal’ as the one reported by our dialect speakers for the doubling construction is to be detected in Standard Dutch perfect tenses of copula constructions with run-of-the-mill adjectives. For instance, (7) conveys that the wall is no longer white, and (8) that the door is no longer open.^{xlv}

- (7) *De muur is wit geweest.* (Standard Dutch)
the wall is white been
‘The wall has been white.’

(8) *De deur is open geweest.*

the door is open been

‘The door has been open.’

If this analysis is on the right track, the superperfect as a tense distinct from the other compound tenses is nonexistent, at least for Dutch. Detailed comparative research will have to show whether this conclusion can be maintained and carried over to other language varieties.

ⁱ This research has been conducted within the European Dialect Syntax project, funded by the European Science Foundation (EURYI grant to Sjeff Barbiers). For valuable feedback, we would like to thank the audiences at the 24th Comparative Germanic Syntax Workshop in Brussels, the 2009 syntax workshop at University College London, the 4th Edisyn Meeting in San Sebastian, and the 2010 EGG school in Constanța. We are particularly grateful to Elena Anagnostopoulou, Ellen Brandner, Hans Broekhuis, Sabine Iatridou, Björn Lundquist, Cecilia Poletto, Martin Salzmann and Gerhard Schaden for helpful discussions. Finally, we wish to thank our Dutch linguistic colleagues for sharing their judgments. Our errors remain our own.

ⁱⁱ Judging on the basis of the papers in Barbiers, Koenenman, Lekakou and Van der Ham (2008), syntactic doubling involving two lexical elements seems to be much less common, at least in European dialects. A relevant case is doubling of lexical verbs in Spanish, Portuguese and Hungarian (Vicente 2007).

ⁱⁱⁱ Cf. Baker (2008) and Preminger (2009) for discussion.

^{iv} Putting aside well-known exceptions to compositionality such as idioms.

^v This route will often be obstructed by the fact that, in many cases, doubling either seems to be optional in a particular language variety or it expresses a particular meaning in dialect A, while it is inexistent in closely related dialect B, that expresses the same meaning without doubling. This seems to be the case for most cases of syntactic doubling found in the Syntactic Atlas of the Dutch Dialects, henceforth SAND (Barbiers et al, 2005, 2008), although further research is necessary.

^{vi} Consonant with this is our decision to use the present perfect in our English translations of the doubling examples. We refrain from making claims about the semantics of the construction in the paper, but see the appendix for discussion.

^{vii} Cf. Broekhuis (2008) for an evaluation of this point of the minimalist agenda.

^{viii} See Cornips and Poletto (2005) for the use of written questionnaires as an elicitation technique as used in e.g. the SAND project.

^{ix} On this kind of account, perfect doubling can be seen as involving doubling of auxiliaries. On top of theoretical qualms against this state of affairs, we have good empirical reasons to reject this kind of approach. See footnote 12.

^x This conclusion was drawn on the basis of our written questionnaire, hence we cannot be entirely sure that the lack of a pattern was not due to the methodology we used. It remains to be confirmed through further empirical research whether this picture is accurate.

^{xi} Among speakers, however, considerable variation in which sentences were accepted was attested, but it was not possible to formulate generalizations pertaining to restrictions on argument structure for individual speakers. This situation could be due to task effects.

^{xii} Before data such as (11) became available to us, we (Barbiers, Koenenman & Lekakou 2009b) had proposed an analysis of perfect doubling in terms of verbal clusters. The basic tenet of that analysis was that perfect doubling is subject to a haplology rule operating within the single prosodic domain of the basic 123-order (the order in Standard Dutch) – the order illustrated in (12a) and (12b). A well-known property of verbal clusters is that they allow different orderings of the elements inside them (cf. Wurmbrand 2006 for an overview). Doubling, we suggested, then occurs when syntactic movement, needed independently to derive word-order variation in the cluster, bleeds the haplology rule by creating new prosodic boundaries. This made for a very attractive feature of our earlier account: we could reduce variation in the (un)availability of doubling to independently existing variation in the syntax of verbal clusters. Unfortunately, this analysis turned out to make too many predictions that were not verified by the data. For instance, it predicted, contrary to fact, that any 321 variety will have, and any 123 variety will lack, perfect doubling. Moreover, on this analysis it is hard to accommodate the following fact, which we also discovered in our second stage of investigation: even though the predominant order in embedded clauses featuring perfect doubling is 321, there were occurrences of 312 in some (admittedly very limited) cases. This goes against the analysis of Barbiers, Koenenman & Lekakou (2009), which therefore had to be given up.

^{xiii} Restricting such kinds of functional doubling is independently necessary. The generalization appears to be that within a domain a particular functional head can only be projected once. This rules out, e.g., nominal groups with two determiners, clauses with two T's, and so on. This is why analyses that explicitly argue for the presence of multiple functional heads (such as Giorgi & Pianesi's (1997) proposal for the presence of multiple tense heads) make a clear featural distinction between them, so that there is no overlap in what these heads contribute.

^{xiv} An anonymous reviewer wonders whether the presence of *een keer* in (20) does not imply that *gebroken* and *gesloten* are eventive, given the evidence from Landman (2004) that *keer* is an event classifier. Regardless of whether this is true or not, the examples in (21) show that *een keer* can equally well occur with regular adjectives, showing that its presence is neutral with respect to the categorial status of the participle.

^{xv} A reviewer notes that in English *for two hours* is compatible with *The man left* but not with *The man arrived*. This does not hold for *al twee uur*: example (22c') remains bad if *aangekomen* is replaced by *vertrokken*.

^{xvi} Although participles not expressing a target state cannot function as adjectival predicates, they can be used as attributive modifiers:

- (i) de gevallen man
the fallen man
- (ii) de aangekomen man
the arrived man

This is not necessarily problematic for the generalization in the main text if these participles are verbal. That this is the case is suggested by the fact that they can be modified by *twee uur geleden* 'two hours ago' but not by *al twee uur* 'for two hours already' (cf. (iii) and (iv)). Such a contrast is absent with for instance participles of transitive verbs (cf. v) and (vi)), showing that they are ambiguous between having a verbal or adjectival status (cf. Rapp 2001, Meltzer 2007 for more discussion).

- (iii) de twee uur geleden gevallen/aangekomen man
the two hour ago fallen/ arrived man
- (iv) *de al twee uur gevallen/aangekomen man
the already two hour fallen/ arrived man
- (v) het twee uur geleden gesloten zwembad
the two hour ago closed swimming.pool
- (vi) het al twee uur gesloten zwembad
the already two hour closed swimming.pool

^{xvii} We have adopted a head-final structure in order to display a more transparent relation to the examples but recasting the trees into ones compatible with anti-symmetry is of course possible. Also,

the structure of V could be more extended, including a head position for the participial morphology or consisting of a root and a verbalizer. These details, irrelevant for the discussion, will be left out.

^{xviii} There is variation among standard Dutch speakers concerning which participles they accept in doubling constructions. Judgments from ten native speakers showed variation on the verbs *bestuderen* ‘to study’, *verliezen* ‘to lose’, *zinken* ‘to sink’, and *overlijden* ‘to pass away’. Although we are unable to detect what singles out these verbs, it is clear that for every speaker that (marginally) accepts one of these verbs in a doubling construction, the same speaker to the same extent allows the non-doubling version in a sentence that contains *nog steeds*. What this shows is that speakers differ on the extent to which they can construct a target state interpretation for these predicates, but that the same restriction is part of their grammar.

^{xix} There were two speakers of BE-doubling dialects that more or less accepted the order in (34b). This can be analyzed as a case of cluster interruption, i.e. the possibility for non-verbal material such as adverbs, arguments and predicative complements to occur in between two verbs in a cluster (cf. SAND Volume II, Barbiers et al 2008, Chapter 2). Since *gevallen* in (37b) is adjectival and a predicative complement, the acceptability of this order is expected. SAND Volume II does not provide maps for cluster interruption with adjectival complements, but it does provide a map (map 31b) for interruption by adpositional particles which have been analyzed as predicative complements too (Den Dikken 1992). This map shows that in most of the dialects in the relevant area the adpositional particles occur inside the cluster. These dialects do not allow cluster interruption by adverbs or arguments, but that is unproblematic. As SAND Volume II, map 30b shows, dialects differ w.r.t. which non-verbal material may occur inside a cluster, and there seems to be a one-way implicational hierarchy such that dialects that have cluster interruption with arguments/adverbs also have cluster interruption with predicative complements but not vice versa.

^{xx} A different way of stating the variation among Dutch varieties would be one in which the two kinds of participles are formed using two different kinds of stativizers, as proposed by Anagnostopoulou (2003) on the basis of German and Greek. In this proposal, target states are formed with a stativizer TARG, which attaches low (RootP), and resultant states with a stativizer RES that attaches at variable heights: at VoiceP in Greek and at *v*P in German. On this approach, Standard Dutch can be thought of as only having the TARG stativizer, while the Dutch dialects also have the RES stativizer, attaching at varying heights depending on the dialect (to also capture HAVE-doubling, see the next section). It is not clear what the empirical differences are between this proposal and the one in the main text.

^{xxi} This structure will be slightly modified later after we have been more explicit about the properties of TO.

^{xxii} See Kayne (1993, 2000) for an alternative analysis in which the possessor originates as a specifier to the possessee, so that the DP in the specifier of the phrase dominating this complex DP is in a derived position.

^{xxiii} There are approaches to control structures that allow DPs to be theta-marked more than once (cf. Hornstein 1999), in which case there would be a movement rather than a control relation between the two theta-positions. See Ramchand (2008) for a more generalized view on composite theta-roles. We will not adopt these assumptions but our proposal can be couched in such a framework without affecting the core of it.

^{xxiv} It is not important for our analysis if the distinction between active and passive constructions is encoded as the presence or absence of \bar{v} , or whether different versions of \bar{v} are involved (as in Harley 1995), as long as the distinction is encoded. This is required in order to explain that there is only a partial overlap between dialects with BE-doubling and dialects with HAVE-doubling. Some dialects allow A to select passive participles not denoting a target state, others allow it to select an active participle not denoting a target state, and others allow both. We have nothing informative to say about what causes these further distinctions.

^{xxv} We thank Tarald Taraldsen and Michal Starke (p.c.) for insisting on this point.

^{xxvi} The main argument for analyzing the participle as passive is that with strong verbs passive rather than supine (‘active’) morphology appears in Swedish. It is not clear, however, how robust this fact is. According to Lundquist (2009: 155 ff. and p.c.), active morphology in this construction is marked with unergative verbs but clearly preferable to passive morphology for many speakers. According to his own judgment, both passive and active morphology are highly marked with transitive verbs. This substantially weakens the case for the passive status of the participle in the AGP.

^{xxvii} Tarald Taraldsen (p.c.) points out that granting active participles adjectival status makes the prediction that they should appear as complements to verbs like ‘remain’, which as mentioned earlier has been used as a standard diagnostic for the adjectival status of participles. It actually seems that this test picks out a subset of adjectival participles, namely those expressing reversible states, i.e. target

states (Anagnostopoulou 2003:22). Since we are not claiming that active participles encode target states, but that they can be adjectival in certain varieties, we do not make this prediction. Something we do predict, though, is that active participles should be able to appear prenominal in those dialects that have HAVE-doubling. Since this does not seem to be a possibility, we would like to exclude it.

^{xxviii} It is well known that predication and modification obey different restrictions. Whereas participles not expressing a target state cannot function as predicates by entering adjective formation, they can be used as modifiers (see footnote 16). Careful investigation of these discrepancies will have to provide a solution to an obvious problem we face: why can an active participle not be used attributively?

^{xxix} The predicates that can occur in the Standard Dutch undative construction are a subset of the non-verbal predicative complements that are possible with modals. Some predicates that are possible with modals, but not with undative HAVE include *dood* ‘dead’, *kapot* ‘broken’. In turn, the adjectives that can occur under modals are a subset of the adjectives that can occur in resultative constructions. To the best of our knowledge, the factors determining these sets have not yet been identified.

^{xxx} The fact that both modals and HAVE impose the bounded scale requirement upon their complements can be explained if modals contain HAVE, as suggested in Hoekstra (1996, 2004) and HAVE is BE + TO.

^{xxxi} Treating the Standard Dutch HAVE + bounded scale construction as an undative raises the question why it does not always have obligatory possessive semantics. We leave this issue for further research.

^{xxxii} Importantly, AT is an abstract preposition and should not be taken to be identical to English *at*, or Dutch *aan*.

^{xxxiii} To the extent that you can modify these particles, the modifiers are those that Barbiers (1995, 2005) and van den Wyngaerd (2001) use as diagnostics for bounded scale denoting predicates: *helemaal* ‘completely’ and *half* ‘half’ are fine, whereas *erg* ‘very’ is not:

- (i) a. Ik heb de pruik helemaal/ half/*erg op
I have the wig completely/half/ very up
‘The wig is fully/half/very on me.’
- b. Ik heb de trui helemaal/ half/*erg aan
I have the sweater completely/half/ very on.
‘The sweater is fully/half/very on me’.

This confirms the idea that these particles denote a point on a bounded scale.

^{xxxiv} In fact the Standard Dutch construction in (63) looks very much like the Norwegian agentive GET-passive that was mentioned earlier in connection to HAVE-doubling: the Standard Dutch speaking authors of this paper do not tolerate inanimate subjects or adverbs that refer to the intentionality of the Agent.

^{xxxv} This means that the sentences in (63) are present perfects of the versions in (i). Although we do not understand what allows this kind of non-pronunciation in Standard Dutch, it is strongly reminiscent of the pattern of verbal passives in the language: to form the present perfect of a verbal passive, such as (iia), Dutch allows the participle to be unpronounced, as indicated in (ii). In other words, like the participle *geworden* in (iib), *gekregen* in (63) can also be optionally left unpronounced.

- (i) a. Ik krijg de deur (eindelijk) open.
I get the door finally open
‘I’m (finally) managing to get the door open.’
- b. Ik krijg de vrouw (eindelijk) ziek.
I get the woman finally sick
‘I’m (finally) managing to get the woman sick.’
- (ii) a. De deur wordt geopend.
the door becomes opened
‘The door is being opened.’
- b. De deur is geopend (geworden).
the door is opened become
‘The door has been opened.’

^{xxxvi} We basically follow the categorization of Schaden (2007), who systematizes four different uses into two broad categories. We refer the interested reader to this work for more detailed discussion of the semantics and for a review of the existing literature.

^{xxxvii} In our view, and in accordance with the gist of our analysis, it is a locus of cross-linguistic variation whether the state in question should be identified with the target or with the resultant state; we therefore use the term ‘resulting state’ so as to remain vague about this.

^{xxxviii} The anterior use of the doubling construction thus functions in a very similar way to the past perfect. See Schaden (2007:226ff) for detailed discussion of how the two differ.

^{xxxix} We abstract away from the discrepancy in (1) and (2), between occurrence of doubling in the matrix vs embedded clause. It is not clear at this stage whether this is due to a cross-linguistic difference in the grammatical properties of the doubling construction itself. See Schaden (2007) and Poletto (2009) for relevant discussion.

^{xi} For detailed illustration of how the anterior reading differs from the superperfect, see Schaden (2007).

^{xii} This brings doubling closer to its non-doubling variant. This also does justice to our decision in the beginning of the paper to translate perfect doubling as non-doubling, i.e. as a present perfect. Towards the end of the appendix we discuss what looks like a meaning difference between doubling and non-doubling.

^{xiii} Such cross-linguistic facts may lend support to Schaden's claim that the superperfect and the anterior involve distinct semantic representations, but they raise the question how the two readings relate to each other semantically and syntactically, since there are languages where both kinds of meanings are conveyed by one and the same form. This very important question is left open.

^{xiii} The factors behind the distribution of the anterior use are mysterious for everyone, as far as we know.

^{xiv} It seems to us entirely possible to link the effects that Carruthers attributed to the superperfect use, such as the temporal remoteness of the state/event and its exceptionality, to the semantic property responsible for the reversal reading, via pragmatic enrichment. In fact, at least for Dutch Carruthers' description is not entirely accurate: for example, several of our doubling cases occur in sentences containing temporal adverbials that convey neither remoteness nor lack of specificity (like *vandaag* 'today'). So it is preferable to consider such effects as due to pragmatic enrichment (hence optional), rather than to semantic encoding.

^{xiv} Ultimately, we believe this effect to be due to the nature of the present perfect in Dutch: like several other languages in the world (e.g. Greek, see Iatridou et al. 2002), Dutch seems to lack the universal perfect and to only have the existential perfect. For instance, (i) is perfectly coherent in Dutch (unlike English), and (ii) does not feel redundant. See Iatridou et al. (2002) for discussion.

(i) Ik heb sinds 2005 in Amsterdam gewoond, maar nu woon ik in Utrecht.

I have since 2005 in Amsterdam lived but now live I in Utrecht
'I lived in Amsterdam since 2005 but now I live in Utrecht.'

(ii) Ik heb sinds 2005 in Amsterdam gewoond, en daar woon ik nog steeds.

I have since 2005 in Amsterdam lived, and there live I yet still
'I have been living in Amsterdam since 2005 and I still live there.'

This is important to note, because one could easily associate the notion of reversal with the notion of a target state (which is in principle reversible state). Clearly, this notion of reversal goes beyond target states, since it shows up with resultant states (such as *gestolen*), and also states that do not derive from something that has event implications (such as *wit*).