Gaan ‘go’ as Dummy Auxiliary in Dutch Children’s Tense Production

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1 Introduction

Dutch tense can be expressed with specific verb morphology: the simple past tense forms with –te or –de. Additionally, the Dutch present perfect is an analytic past tense form. Alternatively, there is a periphrastic progressive construction: the aan het-construction. Thus, Dutch offers a choice of alternative forms to refer to time (Boogaart, 2000; Geerts et al., 1984; Verkuyl, 2008). English and the Romance languages also have a variety of tense expressions. Other language only have synthetic forms (Russian) or only analytic constructions (Basque) to express tense distinctions.

When tense can be expressed in a variety of forms, the question arises if the meaning of certain forms is easier to learn than others. We approach this question from the angle of tense production (cf. Hollebrandse et al., in prep.).¹ We elicited different tense forms from Dutch five-year-olds in an experiment involving past, present and future time situations. Surprisingly, the children tended to use constructions with dummy auxiliaries ging ‘went’ and gaat ‘goes’ plus an infinitive verb, in contrast to the control group of adults who used synthetic and analytic tense forms. We discuss the prominence of ging/gaat-constructions, focusing on the morphological, syntactic and semantic advantages of using such dummy verbs for a child learning the Dutch tense system.


(1) a. ik doe ook praten . S. 2;5
   I do also talk
   ‘I’m also talking.’
 b. wat doe jij zeggen ? S. 3;5
   what do you say
   ‘What are you saying?’
 c. poes ga slapen . L. 3;6 [child is pointing at sleeping pussy cat]
   cat goes sleep
   ‘cat is sleeping’

In an elicited production study Zuckerman (2001) found regional variation in the choice of the dummy auxiliary: gaan ‘go’ is used by children in the north of the

¹ This research is part of the EU-funded COST A33 project “Crosslinguistically Robust Stages of Children’s Linguistic Performance, with Applications to the Diagnosis of Specific Language Impairment” (P.I. U. Sauerland, 2006-2010). Researchers from twenty-five European countries participate. The goal is to provide a cross-linguistically uniform picture of 5-year-olds’ knowledge of grammar, which can serve as the basis for further research into clinical markers for the detection of SLI. The COST research themes include pronouns, quantification, implicatures, passives, tense and aspect, and questions.
http://www.zas.gwz-berlin.de/index.php?id=47&L=1
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Netherlands (Groningen area) and doen ‘do’ in the south (province of Limburg). Zuckerman and also Van Kampen (1997) did not find any dummy verb-insertion in embedded clauses.

While dummy auxiliaries are not used in adult-to-adult speech registers, doen ‘do’ occurs in the informal speech of (southern Dutch) adults to children. Auxiliary gaan ‘go’ is common in adult speech, but it essentially has a future-modal meaning, rather than the present-ongoing meaning (especially northern Dutch) children use it with, as in (1c) (although Lalleman (1986) observes occasional uses of gaan ‘go’ structures in adults that indicate present time as well). Note that most often it will be impossible to assess in spontaneous speech whether the child intends an ongoing or a future meaning when she uses the gaan ‘go’ construction. Example (1c) is a clear case because of the accompanying pointing gesture. Apparently then, the gaan ‘go’ construction is ambiguous for children, compatible with ongoing and future reference. For adults it carries only the future meaning.

Where do the dummy verbs in children’s speech come from? Southern Dutch children hear occasional cases of the doen ‘do’ structure in the input, as in informal and child-directed speech. Constructions with gaan ‘go’ are present in the input as future auxiliary forms. Zuckerman (2001), following Jordens (1990), argues that northern Dutch children model the dummy use of gaan ‘go’ on the future auxiliary, with gaan ‘go’ having an underspecified meaning.

Until what age do Dutch children produce dummy verbs? Nobody has studied when exactly these dummy verbs phase out. Zuckerman (2001) observes that it disappears at the age of four in the children in his elicited production study. However, Van Kampen (1997) lists examples from older children (5-year-olds and even at 8;1). To establish until when dummy verbs are produced, one would have to do a systematic study with children age five and up.

Why do Dutch children use dummy verb-insertion? All the above-mentioned researchers argue that a construction with a tensed auxiliary plus infinitive lexical verb is syntactically a more “economical” option than using an inflected verb which undergoes V2-movement. There are various reasons why dummy verbs are more economical than tensed main verbs. (i) There is no movement from V to T. (ii) Both positions T and V are visible. (iii) There no need for relabeling a verb from category V to T. Thus, a dummy is more “economical” than an inflected verb.

In our study we find that dummy verbs are still widely used at the age of five, an age at which children would be expected to be able to inflect their verbs. Moreover, dummy verbs occur in embedded clauses which have no V2 movement. So at least some of the economy considerations proposed by the earlier researchers do not apply. We therefore raise the question anew: why do Dutch children use dummy verbs?

2 Dutch tenses

Dutch contains a large variety of verb forms and constructions to refer to past, present and future time situations. Many of these forms are not limited to one specific time situation, and especially in spoken Dutch various forms can be used interchangeably. Thus, there is a many-to-many mapping between form and temporal meaning. The various verb forms and their temporal reference are illustrated for the verb dansen ‘dance’ in Table 1; all are 3sg forms.

2 A comprehensive overview of Dutch verb forms and their various uses is given in the ANS, a comprehensive grammar of Dutch (Geerts et al., 1984).
It seems superfluous for a language to have multiple forms which roughly carry a similar meaning. But, amongst other things, different forms represent different temporal perspectives. For an action that happened in the past, one can basically take two possible perspectives: (i) looking back at that past time while “sitting” in the present time, or (ii) first back-shifting in time to the relevant past moment and look at the action “right there” (Verkuyl, 2008). This is illustrated in Figures 1a and 1b. The picture is taken from one of the short movies from the experiment discussed below. In the clips a pirate walks along a road and does certain actions at the three landmarks (table, plant, bike). He first goes to the table and kneels down there. He then gets up and goes to the plant to kneel there too; this is the snapshot shown in Figure 1a-b. Below the pictures a time line is shown; the stars indicate three temporal reference points. The arrows suggest the two different perspectives. Verkuyl uses the metaphor of a movie camera to explain the difference: the camera can either be pointed from the present time (Now) back at a past event, or, in a flash back, the viewer travels back in time and experiences the past event as if it were in the present.
When the camera specifying the “Now” is taken as vantage point in Figure 1a, the action which happened in the “past” would be described with a present perfect in Dutch: *heeft geknield* ‘has kneeled’. A different viewpoint leads to another verb form: when the “past” is used as a vantage point, as in Figure 1b, the action in the “past” would be depicted with a simple past *knielde* ‘kneeled’ or the periphrastic progressive *was aan het knielen* ‘was kneeling’. In order to distinguish different temporal perspectives, adults use different forms.

3 Experiment

The full study included a comprehension and a production part. As we focus on children’s use of tensed verbs versus dummy verbs, we only present the method and results from the production part here.

3.1 Participants

We tested a group of five-year-olds and a control group of adults. The children were pupils in a Groningen kindergarten. 21 children were tested (N = 21, mean age =5;6). An additional 7 subjects were tested but not counted in the analysis, because they either failed to complete half of the trials or they gave three or more *I don’t know*-answers on at least one time situation. The adult subjects were undergraduate students who received credits for their participation (N = 12, mean age = 21;4). All participants were tested individually. The children received a sticker as reward for their participation.

3.2 Set-up and task

The experiment elicited production of past, present and future tenses by means of a sentence completion task. We adapted Wagner’s (2001) experimental set-up with a road with three landmarks, but worked with short video clips in which an actor (a clown, a pirate or a king) walked down a road, see Figure 1. We presented the movies in a PowerPoint presentation. The actor performed a certain action (e.g., dancing, kneeling) two or three times at salient landmarks (a plant, a table, a bike) which corresponded to the past, present and future. While the actor was performing his action at the second or third location, subjects were asked to complete a sentence, as in (2), which illustrates an item from the past-time condition.

\[(2) \text{ Experimenter: } \text{ Dit filmpje gaat over knielen. Laten we eens kijken.} 'This clip is about kneeling. Let's have a look.' \]
\[
\text{Experimenter: } \text{ Hmm, Ik denk dat de clown bij de fiets...} 'Hmm, I think that near the bike the clown...' \\
\text{Subject: } \text{ ... knielde.} '... was kneeling.'
\]

Exploiting the fact that Dutch is verb-final in embedded clauses, the experimenter started the sentence with *I think that*, followed by the subject and a locative PP. Participants had to complete the sentence by producing an inflected verb. Since the test question was asked during the actor’s real time performance, the task involves choosing a deictic tense form related to the now of the actor’s ongoing action.
3.3 Stimuli and procedure

The verbs depicted in the movies were selected according to the following criteria: intransitive, atelic and regular tense morphology. Lexical aspect was kept constant, so that there would not be any interference of preferring certain tenses for telic vs. atelic predicates. For that reason argument structure was also kept constant—verbs had one subject argument—in order to avoid any interference from a direct object potentially adding telicity. The target forms all have regular past tense morphology, in order to avoid any effects of the regular vs. irregular distinction. The following six verbs were included: *dansen* ‘dance’, *gooien* ‘throw’, *hoesten* ‘cough’, *knielen* ‘kneel’, *niezen* ‘cough’, and *snurken* ‘snore’.

The only variable in this experiment was the time of the situation for which the sentence had to be completed: the three time situations targeting a past, present, future tense, respectively. As Wagner (2001) notes, “[t]he timing of the test question is crucial because it permits a logical connection between the tense values and the locations on the road.” (2001, p. 667). There were six items for each condition. Each of the six verbs was targeted once in the past, once in the present and once in the future. Participants thus saw a total of 18 items. The test was administered in two sessions, with nine production items in each.

Before the test items came, there was a warm-up session of three trials for which the sentence to be completed was augmented with an appropriate temporal adverbial: *nu* ‘right now’, *eerder* ‘before’ and *later* ‘next’. There was one warm-up trial of each kind.

In order to vary the time/location relation, the walking direction of the actors was balanced: in half of the movies the actor started from the right and in the other half from the left. When the actor came up from the left, the table was the past time and the bike the future time; when the actor came from the right, the bike was the past time and the table the future time. Moreover, the present time, at which the actor was still doing his action, was either at the second or the third location. Thus, the table in the middle constituted a present time when the actor was engaged there at the moment the test sentence was spoken; it was a past time when the ongoing action and test sentence were given at the third location.

3.4 Results

Subjects’ responses were scored as correct when they used a past tense for the first location, a present tense for the second location, and a future tense for the remaining location. Figure 2 shows the results from the adults. Adults were very consistent and

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3 Verb selection was furthermore severely restricted by the crosslinguistic basis of the design. The selected verbs had to fulfill the same three criteria in fifteen (!) different languages.

4 Each session also included nine comprehension items. Comprehension always preceded production in order to facilitate the production task; children had already heard the types of forms they were then expected to produce themselves.

5 In the pilot experiment actors only performed the actions twice: at the past and present locations. When we asked to complete the sentence involving the future location, many children and several adults answered that the actor never got there. Therefore, we added some clips which showed the actor performing three actions at three separate locations. These clips could only be used in combination with a present location, as they contained two past situations and no future location.

6 In the pilot experiment actors only came in from the left. We changed this, because this created a bias towards the left location always being the past time, the middle the present and the right the future-time. Furthermore, both children and adults seemed to become bored when the clips showed actors only coming in from the left.
produced a present perfect for past-time situations and a simple present for present-time situations. The future-time situations were answered with less consistency, as the adults used three different constructions with future auxiliaries; the *zullen* ‘shall’ future was used more often than the other two future types.

The results of the children, shown in Figure 3, suggest that the Dutch five-year-olds performed rather well, at least as a group. They gave significantly more past tense forms for past-time situations than present or future tense forms; more present tense forms for present-time situations than past or future tense forms; and more future tense forms for future-time situations than past or present tense forms ($F(2,61)=2.000$ and $p=0.001$).

However, when we examined the individual results, the picture changes. We labelled the children as passers or failers on a given tense. When someone produced five or six target uses for a certain time situation, e.g. a past-tense form for a past-time situation, she or he passed. Someone who did not reach this criterion was labelled as a failer. Moreover, children who consistently used one tense form for all time situations, cf. a simple present or the *gaat* ‘goes’ construction for past, present and future time situations, were coded as failers on all three times. In Figure 4 the
blue bars represent for each time the percentage of passers in the group; the red bars represent the failers. For all time conditions the failers outnumber the passers. So, many five-year-olds did not perform well at all.

Figure 4. Five-year-olds’ individual results: passers and failers.

The types of forms produced by the children varied much more than the adults. We analyzed the form types that appeared 10% or more in the total data set (340 responses out of the total of 378; the remaining forms occurred less often). Figure 5 shows the percentages in this subset.

Figure 5: Types of forms in children’s responses

Note the large percentage of constructions with *gaat ‘goes’* and *ging ‘ging’*—the dummy auxiliaries we are focusing on. *Ging ‘went’* was used for past-time situations, which is acceptable in Dutch. *Gaat ‘goes’* was used for future-time situations, but also for present-time situations, as in (3). The latter use is not acceptable in the target grammar where it has an exclusively future reading. The adult controls never produced it in the present-time condition.

(3) Experimenter: Hm, ik denk dat de piraat bij de plant... Hm, I think that the pirate near the plant...
We furthermore examined the kinds of forms individual children produced and their variation across the conditions in more detail. Seven children did not vary at all. The remaining 14 children varied the forms across conditions, producing many different forms for past and present time situations. Some forms were used only occasionally. Figure 6 shows a count of the forms which occurred more than 5% in these 14 children’s answers. Comparing Figures 2 and 6, one sees that the five-year-olds were much less consistent as a group than the adults.

![Figure 6. Verb forms as used by subset of children who varied across conditions](image)

Although the children as a group used many different verb forms, many of them used a consistent pattern of verb forms. We detected four different patterns, (4); the number of children with a particular pattern is given in the n.

(4)  
   a. No variation: One form for all time situations  
   b. Tensed dummy verbs or auxiliaries  
   c. Aspectual constructions  
   d. Tensed verbs

Seven children had a No-variation strategy, using only one form for all three conditions (gaat V ‘goes V’, ging V ‘went V’, simple present or the periphrastic form with staat ‘stands’). Four children used tensed dummy verbs (gaat/ging ‘goes/went’) or auxiliaries in the periphrastic progressive (is/was aan het V ‘is/was V-ing’). Three children used aspectual constructions with a present perfect for the past time, a present periphrastic for the present time and auxiliary gaat ‘goes’ the for future time. Only two children produced tensed lexical verbs (simple present and past). The remaining five children did not have a specific strategy.

4 Discussion

Adults performed as expected, producing past tense forms in the past-time condition, present tense in the present-time condition and future auxiliary constructions in the future-time condition. The children’s patterns differed from that of the adults in a number of respects. (i) The children used many different forms. This reflects the many-to-many mapping of tense verb forms in Dutch, Table 1, even though these
forms were not all used by the adults in the study, who were essentially unanimous in their choice of past and present forms. (ii) The children produced temporally non-matching forms, such as present forms for past-time situations and vice versa, Figure 3. (iii) A striking difference with the adults is that several five-year-olds used *gaat V* ‘goes V’ for present and future situations (and some even for past situations), whereas the adults only used this auxiliary for future time situations.

We have thus established new evidence for the use of dummy verbs in another elicited production study. The dummy verb in our study with children in the northern part of the country was always *gaan* ‘go’, never *doen* ‘do’, like the northern Dutch children in Zuckerman’s (2001). The children in our study are considerably older than Zuckerman’s and so his observation that children older than four no longer use dummy *gaan* ‘go’ is not supported by the present data. Importantly, dummy verbs occur in embedded clauses here, in contrast to the findings in Zuckerman and Van Kampen (1997).

In section 1 we mentioned several reasons advanced in the dummy-verb L1 literature on Dutch as to why children resort to using dummies rather than tensed verbs. We review these reasons here and discuss to what extent they hold up given the new evidence of dummy verb use presented above. Evers and Van Kampen (1995) and Van Kampen (1997) argue that insertion of a dummy verb is more economical than carrying out V2-movement. Both auxiliary insertion (Merge) and movement (Move) are Universal Grammar options for spelling out tense and finiteness. Van Kampen argues that dummy verb insertion is preferred because there is no discrepancy between LF and PF, in contrast to V2-movement; children are claimed to avoid such discrepancies. Hollebrandse and Roeper (1995) claim that children avoid moving a lexical element labeled V into a T-position, since this involves relabeling (V must become T). Avoidance of V2 leads to insertion of a pure carrier of tense features; a dummy verb spells out the features in Tense. Zuckerman (2001) explains dummy-verb insertion with reference to Chomsky’s (1995) Economy principle of Merge-over-Move: insertion of a dummy is more economical than V-to-T movement.

Van Kampen’s PF-LF explanation, Hollebrandse and Roeper (1995)’s avoidance of V-to-T relabeling after Verb Second and Zuckerman’s Merge-over-Move explanation predict that dummy-verb insertion should only occur in main clauses, because lexical verbs do not undergo V2 in embedded clauses in Dutch. Zuckerman and Van Kampen indeed report hardly any dummy-verb insertion in embedded clauses as compared to main clauses. However, all dummy-verb uses in the present study occur in embedded clauses. Thus, the syntactic economy considerations proposed by these researchers do not apply here. And so, we ask again: why do children use dummy verbs?

Syntax is not the only domain where dummy-verb use may be more economical. We argue that there are at least two other reasons which make the use of dummies more economical: morphology and semantics. Morphologically, tense variation is restricted to just the auxiliary (*doet* ‘does’ vs. *deed* ‘did’; *gaat* ‘goes’ vs. *ging* ‘went’), and not needed for the lexical verb which keeps its infinitive form. So, until the tense paradigm of lexical verbs are firmly acquired, dummy verbs offer ‘quick and dirty’ forms to be used instead. Semantically, the dummy verb represents one piece of information, i.e., tense, while the infinitive represents another, i.e. the lexical meaning of the verb. And so a construction with a dummy verb adheres to a strict one-to-one mapping in contrast to the conflation of two meanings in inflected verbs.
5 Conclusions

We have contributed more data with dummy verb *gaan* ‘go’ in (northern) child Dutch. Our data were elicited in a production study with 5-year-olds and they all involved dummy verbs in embedded contexts. We have argued that the use of a dummy verb is an economical choice based on a combination of syntactic, morphological and semantic reasons.

The abundance of dummy verbs in children’s speech shows that learners seem to be in need of a dummy verb in order to fill out an economical construction consisting of an auxiliary plus main verb. In the South they hear constructions with *doen* ‘do’, in which the auxiliary has a very light meaning, and so it serves as a perfect dummy. In the North, on the other hand, all auxiliaries carry meaning, either a modal meaning of modal auxiliaries or the future meaning of *gaan* go*’.

Our explanation raises at least three questions. (i) If using a dummy verb is more economical than using regular tense inflection, then the adult system with its variety of tense forms seems redundant. Why are there tensed verbs, in addition to dummy auxiliaries in Dutch? (ii) How will children re-interprete *gaan* ‘go’ as semantically specified for future time, so that they will make a more restricted use of it? (iii) Why do children select *gaan* ‘go’ as their dummy of choice, thus overgeneralizing the *gaan* ‘go’ construction for use in present-ongoing situations? (iv) When will children abandon the use of dummy verbs?

In principle, a dummy verb could be used in all situations to express tense. Nevertheless, the adult system offers a range of form choices. That is because different forms present different temporal perspectives. In our study the adults selected a present perfect to refer to the past situations. A dummy-verb construction with *ging* ‘went’, the periphrastic progressive with *aan het* and also the simple past are alternative possible options to refer to past events. However, these forms do not express the termination of an event, and so present perfect is the most informative form to describe the past situations in the movies. A construction with dummy verb *ging* ‘went’ merely expresses that some action started in the past. It does not express a perspective which is taken from the “Now”, see Figure 1a, nor does it carry the aspectual notion of termination. So, different forms carry different aspectual flavors of past times.

Jordens (1990) claims that the auxiliary *gaan* ‘go’ is semantically underspecified in children. This is supported by a comprehension study of Zuckerman (2001) who finds that Groningen children misinterpreted *gaan* ‘go’ constructions as referring to present times. One wonders if *gaan* ‘go’ is thus underspecified only in the speech of children who do not have *doen* ‘do’ as dummy verb. In other words, do children from the South have the same sense of underspecification of *gaan* ‘go’, or rather, do they acquire its futurate meaning earlier because *doen* ‘do’ serves as their dummy?

Jordens (1990) argues that *gaan* ‘go’ will disappear as dummy verb for present times “as soon as the child acquires a sense of the semantic difference between a particular aux+inf pattern and its corresponding V-finite alternative” (Jordens 1990:1437). Related to this, we believe it is not only the comparison of *gaan* ‘go’ constructions vis à vis finite forms—simple past and present—but also the other possible Dutch tense forms (past and present perfect, past and present progressive). Ultimately, the Dutch learner needs to acquire the full package of forms with their different semantic meanings. Moreover, the use of *gaan* ‘go’ as dummy limits the expression of aspect and the way in which temporal perspective can be taken. Children will eventually move away from the dummy, because it limits their modes of expression.
It is an intriguing question why children in the North of the Netherlands pick *gaan* ‘go’ as their dummy verb. Possibly, there is a regional use of *gaan* ‘go’ as present-time auxiliary in the adult speech, although we haven’t found any indication for it nor any literature on it. The auxiliary options to combine with an infinitive verb are limited: it would need to be future *gaan* ‘go’ or one of the modal auxiliaries. Maybe *gaan* ‘go’ is chosen because it is ambiguous in the input. Not only is it used as future auxiliary, it also serves as main verb, literally *go*, as well as light verb in constructions like *uitgaan* ‘litt. out-go: go out, end’ and *kapotgaan* ‘litt. broken-go: break’.

We do not know when children give up dummy verbs and consistently use other, more informative tense forms. Future research will need to establish when the overuse of *gaan* ‘go’ as present-time auxiliary fades out, in production as well as comprehension, and when children will behave more similarly to adults.

In conclusion, dummy verbs offer Dutch learners morphological, syntactic and semantic advantages as ‘quick and dirty’ forms to carry tense. In that sense, dummy verbs form a more economical choice. Eventually though, the need to express more than one perspective will be the semantic trigger to become more adult-like and start using all possible Dutch tense and aspect forms.

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**References**


