**Grammatical Aspect and Endpoint Encoding in Motion Event Descriptions**

**by Dutch Learners of English**

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1

**Abstract**

Previous studies on motion event descriptions have indicated that speakers of languages without grammatical aspect make less use of progressive constructions and mention more endpoints than speakers of languages that grammatically mark aspect when describing motion events (e.g. Schmiedtová, Von Stutterheim, & Carroll, 2011). These differences are generally found to be only partially acquired by second language learners (e.g. Schmiedtová et al., 2011). Dutch has been observed to behave differently from other non-aspect languages, as more progressive forms seem to be used in nonlocomotion events (e.g. '*A woman is playing the piano*') than in locomotion events, i.e. events that involve an entity moving towards a goal (e.g. Hilberink-Schulpen, Nederstigt, & Starren, 2012). The present study aimed to find out how Dutch learners of English' use of progressives and mentioning of endpoints relates to those of native speakers of English. A production task was performed by Dutch university students, in which learners provided written descriptions of short videoclips depicting motion events. Results indicated no significant differences between the number of endpoints mentioned by native speakers of English and second language learners of English. The learners, however, used significantly fewer progressive forms than native speakers of English when the videoclip did not display someone reaching the endpoint. When the videoclip did display that an endpoint was reached, no significant differences were found between the use of progressives by native English speakers and learners. These findings are in line with previous research, as learners seem to have acquired the different structures for a large part, although they did not display native-like patterns in all respects.

**Table of Contents**

**Introduction**

When people are presented with a scene and are asked to describe it, the elements that are described differ depending on the language that is spoken. A considerable amount of literature has been published on these descriptions of motion events. Motion events are "situation[s] involving physical displacement, whereby an entity occupies different spatial locations at different points in time" (Bylund, Athanasopoulos, & Oostendorp, 2013). Initially, these studies focused on spatial features rooted in the verbs: Talmy (2000) found that in some languages verbs encode path of motion, e.g. example (1) in Spanish, while in other languages verbs encode manner of motion, such as illustrated in the English translation; this example is a modified version of example (29a) in Talmy (2000, p. 49).

(1)  *la     botella     entr-ó                 a       la      cueva (flotando)*

the     bottle      move-in-PST.3SG        to      the     cave    (floating)

'the bottle floated into the cave'

In second language studies, the general consensus is that advanced learners are able to master the different features encoded in verbs, with only few traces of their L1 present in their L2 (Schmiedtová et al., 2011).

However, the past few decades, the focus in motion event description studies has shifted from the spatial features of a language to their temporal features (Bylund et al., 2013). Temporal features seem to play an important role in determining the elements described in these descriptions: Languages that have a grammatical morpheme to express ongoingness such as the *-ing* suffix in English, i.e. *aspect languages*, tend to use more progressive constructions than speakers of *non-aspect languages* (e.g. Schmiedtová et al., 2011). Furthermore, speakers of non-aspect languages tend to mention event endpoints or resultative states, while speakers of aspect languages often omit mentioning these, unless the description regards a movement where the endpoint is reached (Schmiedtová et al., 2011). The following

descriptions, which were elicited in a production study, illustrate these differences between the description of a scene in which the endpoint is not reached in non-aspect language German in example (2) and aspect language English in example (3) (examples are modified versions from of examples in Schmiedtová et al., 2011, p. 104):

(2) *Ein   Mann  steig-t              die    Leiter  hinauf zu     einem  Balkon*

    a     man   climb-PRS.3SG        the    ladder  up      to      a        balcony

    'a man climbs up a ladder onto a balcony'

(3) *A     man   is                  climbing      a ladder*

    a     man   is-AUX.PRS.3SG      climb-PROG  a ladder

In second language learners, most studies find that although learners are able to shift towards native-like language use in some cases, they are generally unable to perform native-like on both use of aspect and reference to endpoints across all types of situations.

Dutch does not have a morpheme to express ongoingness in verbs and is thus classified as a non-aspect language. However, Dutch is believed to be in the process of developing the progressive aspect, as progressive constructions (e.g. '*is aan het + INF*' [is on the + INF]) are frequently observed in descriptions of nonlocomotion events, such as activities (Schmiedtová & Flecken, 2008). In locomotion events, such as examples (2) and (3), use of these progressive constructions is rare (Carroll, Natale, and Starren, 2008; as cited by Hilberink-Schulpen et al., 2012).

The present study examines the effect of the absence of progressive aspect in Dutch on the expression of ongoingness and event endpoints in English. Specifically, the hypothesis will be tested that Dutch learners of English use fewer progressive forms and mention more endpoints than native English speakers.

## Theoretical background

The way motion events are described in various languages differs substantially. An example of these differences is illustrated by descriptions of an event in which two people are walking along a road towards a house (Von Stutterheim & Carroll, 2006; as cited by Flecken, n.d.):
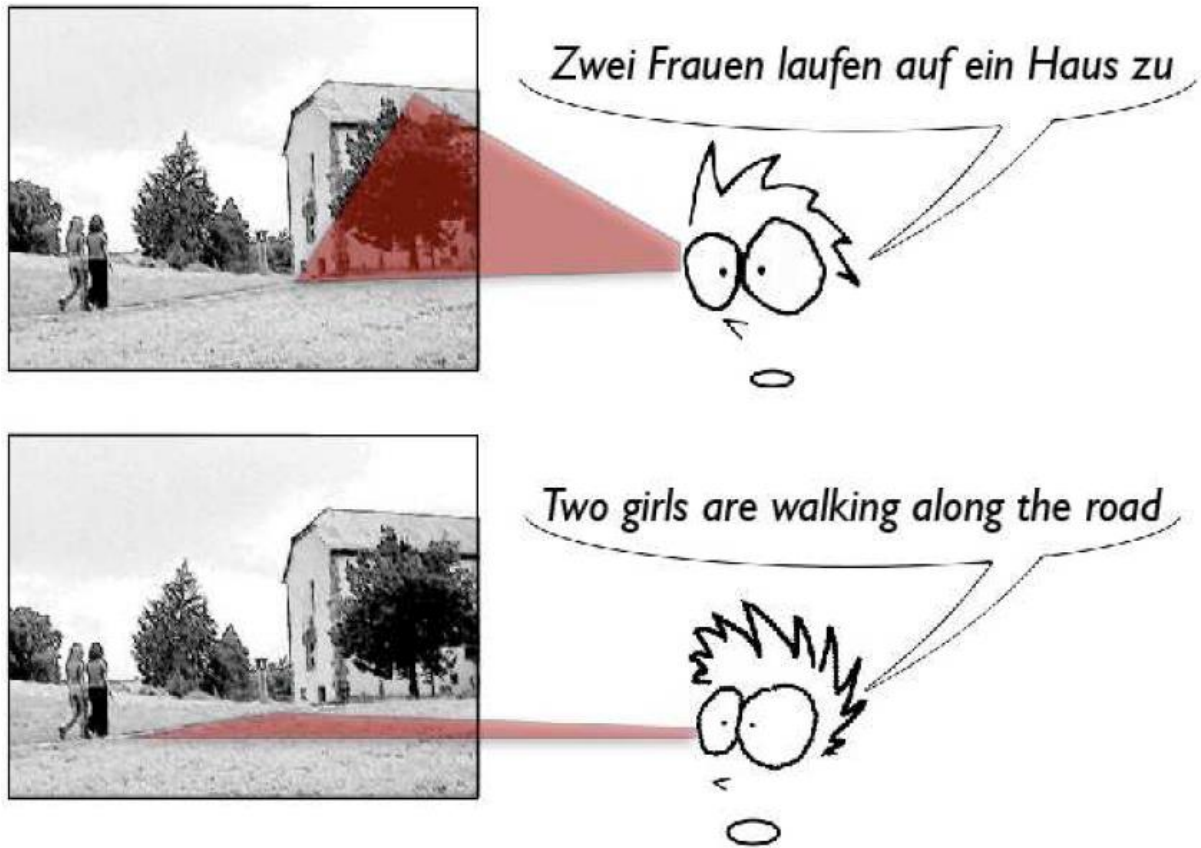


*Figure 1.* Example of a motion event description by speakers of German and English in Von Stutterheim & Carroll (2006), as visualised by Flecken (n.d.). This image is taken from Flecken (n.d.). Reprinted with permission.

(4)  *Zwei  Frau-en      lauf-en      auf  ein  Haus  zu.*        (German)

two    woman-PL    walk-PRS.PL  on    a    house  to

'two women walk towards a house'

(5)  *Two   girl-s   are                walk-ing      along  the  road.*   (English)

two    girl-PL   be-AUX.PRS.PL    walk-PROG     along  the    road

The example in Figure 1 and glosses in examples (4) and (5) show that despite looking at the same scene, speakers of German and speakers of English describe the same scene differently, focussing on different parts of the scene and using different temporal categories.

Recent literature on motion event descriptions has focused on the role of temporal properties on descriptions by speakers of different languages. Although speakers of languages that do not have a progressive aspectual morpheme can resort to other constructions to express ongoingness (e.g. a periphrastic construction in Dutch, serial verbs in Norwegian, or lexical means in German), they generally show a preference for a simple form of the verb, such as the present simple, in event descriptions (Carroll, Von Stutterheim, & Nüse, 2004). While speakers of aspect languages tend to focus on the action taking place at the time of reference (i.e. a subphase of the full event), speakers of non-aspect languages usually refer to the situation as a whole, including an endpoint, goal, or result of an action, even if this is not overtly shown and has to be inferred (Carroll et al., 2004). This encoding of endpoints is thought to be done "to avoid a generic reading [and indicate] specificity" (Hilberink-Schulpen et al., 2012, p. 970). A phrase such as '*two women walk*' would be very general and little explanatory of a situation, which is why it can be made more specific by adding, for instance, a temporal perspective, e.g. '*two women are walking*', or a locative perspective, which is often done if the former option is unavailable or unusual in a language.

Differences between aspect and non-aspect languages can already be observed in speech planning. In eye-tracking studies, Schmiedtová et al. (2011) found that in preparation for speech in a motion event description task, speakers of non-aspect languages fixated on the possible endpoint significantly more than speakers of aspect languages, and started to speak significantly later, as they first waited for the full event to unfold (Schmiedtová et al., 2011).

***Expressing ongoingness in Dutch***

Dutch seems to be a special case among non-aspect languages. Dutch lacks a progressive

morphological form, but ongoingness can be expressed in several ways, which are listed

below [for more information on options (i), (ii), and (iii), see Starren (2017); for option (iv),

see Audring & Booij (2007); and for option (v), see Abraham (2011)].

i.   *is*            *aan*    *het* + INF

     be-PRS.3SG    on       the + INF

ii.  *zitten   /lopen /staan /liggen te* + INF

     sit      / walk /stand /lie      to + INF

iii. *bezig   zijn     met     /om te* + INF

     busy    be       with    /to       + INF

iv.  *komen  aan-*            +INF

     come    on-PREFIX    +INF

v.   passive sentences with the auxiliary *worden* [become]

Although speakers generally use fewer progressive forms and mention more endpoints than

speakers of aspect languages, this pattern does not hold true for all situations (Hilberink-

Schulpen et al., 2012). Carroll et al. (2004) found that in the production of narratives, Dutch

displayed patterns similar to other non-aspect languages: Dutch participants did not express

ongoingness, and referred to situations as a unity, rather than a series of subevents; the

opposite pattern was found for native speakers of English (see Carroll et al., 2004, for a more

detailed discussion on temporal relations between subsequent events). However, in single

event descriptions (i.e. no contextual information) in the same study, native speakers of Dutch

behaved more like speakers of aspect languages, making more use of the Dutch progressive

construction '*is aan het + INF*' and mentioning fewer endpoints (i.e. endpoints Dutch: 15.0%;

English: 23.3%; German: 76.4%). Carroll et al. (2008, as cited in Hilberink-Schulpen et al.,

2012), then, found that the expression of ongoingness was affected by event typology: when describing locomotion (i.e. goal-oriented motion) events, such as examples (2 – 5), speakers of Dutch made less use of progressive constructions than when describing nonlocomotion events, e.g. people playing tennis (1% and 32%, respectively). Furthermore, they found that in nonlocomotion events, speakers generally used more progressive forms when a visible object was present, e.g. for a video in which a man was painting, more progressives were used when the canvas he was painting on was visible (Carroll et al., 2008; as cited by Hilberink-Schulpen et al., 2012). This may explain some of the unexpectedly low frequency of endpoints and high frequency of progressive constructions in Carroll et al. (2004), as this study included both locomotion events and activities.

Schmiedtová and Flecken (2008) offer a fitting explanation for the large difference in use of progressives in different event types, as they suggest that Dutch is in the process of developing a grammaticalised progressive aspect. The periphrastic construction '*is aan het + INF*' [is on the + INF], which is used to express ongoingness and only applies to the here-and-now, is remarkably similar to the Middle English progressive construction, as exemplified by "*he is on hunting*" (p. 374). The authors explain that grammaticalisation of the progressive aspect proceeds in four phases. First, the progressive form is used for activities only (e.g. *swim*). In a second phase, it is used for change-of-state or "two-state verb[s] referring to a rather long time span" (p. 376) (e.g. *change*, *finish*). In the third phase, change-of-state verbs referring to a short time span are included (e.g. *break*, *fall*). Lastly, non-action or zero-state verbs (e.g. *be*, *love*) are included in the range of verbs that allow for a progressive construction. An acceptability judgement task confirms this hypothesis, as verbs in the first category generated most progressives, with the number descending for each subsequent category to zero progressives in the last-mentioned category (see Schmiedtová and Flecken, 2008, for a more extensive discussion).

*L2 learners*

The temporal relations in motion event descriptions form a domain in which it seems to be very difficult for second language learners to reach native-like levels (Von Stutterheim & Carroll, 2006; Schmiedtová, 2011; Hilberink-Schulpen et al., 2012). Even advanced learners display transfer errors in their event descriptions (Von Stutterheim & Carroll, 2006; Schmiedtová, 2011; Hilberink-Schulpen et al., 2012).

One example that illustrates this difficulty is a production study by Von Stutterheim & Carroll (2006), who tested advanced German learners of English and advanced English learners of German on whether they mentioned endpoints in their descriptions of locomotion events. Generally, English learners of German increased, and German learners of English decreased their mentions of endpoints when speaking in their respective L2s (i.e. both moved towards the target norm), although German learners of English shifted to a greater extent (i.e. endpoints mentioned: L1 English 25.2%, L1 German 76.4%, L1 English-L2 German 31.6%, L1 German-L2 English 36.7%). German learners of English were further found to mention even fewer endpoints than L1 English speakers (L1 English 25.0%, L1 German 50.0%, L1 German-L2 English 13%) in situations where endpoints were easily inferred (e.g. "a boy jumping off a cupboard *onto the floor*" [p. 48]) while keeping their L1 pattern (L1 English 25.0%, L1 German 68.0%, L1 German-L2 English 70.6%) in situations where endpoints were not as predictable (e.g. "a car driving along a country road that goes past *a house*" [p. 48]). The authors reason that the large difference between the two groups of learners may be due to the salience of the English grammatical form for expressing ongoingness, compared to the absence of a grammatical form uniquely expressing that the situation should be considered as a whole in German, making it more difficult for learners of the latter language to acquire target-like patterns (Von Stutterheim & Carroll, 2006).

Similarly, transfer errors were found in Schmiedtová (2011) and Schmiedtová and

Sahonenko (2008; as cited by Schmiedtová et al., 2011), who both investigated locomotion

event descriptions produced by Czech and Russian learners of German as compared to

descriptions by native speakers of German. Czech and Russian, unlike German, both have a

grammatical morpheme that encodes ongoingness in the imperfective aspect; however, in

Czech, the simplex imperfective cannot be used without the provision of additional

information (e.g. "a car is riding *slowly/on the road/into the village*" [p. 152, emphasis mine]),

while in Russian, this is optional (e.g. "a car is riding" [p. 152]) (Schmiedtová, 2011).

Schmiedtová (2011) found no significant differences in the number of endpoints between the

German and Czech participants, while the Russian learners mentioned significantly fewer

endpoints. Given that both Czech and Russian grammatically encode aspect, this finding

suggests that not only the availability of the progressive aspect, but also the way in which it is

used in a language, influence the learnability of aspect-related structures in a second language.

Schmiedtová and Sahonenko (2008, as cited by Schmiedtová et al., 2011), however, found the

opposite: Czech learners mentioned significantly more, and Russian learners of German

mentioned significantly fewer endpoints than the native speakers of German. Here, no

significant differences were found between the number of endpoints learners used by the

learners in German and in their respective L1s, indicating that their L2 locomotion event

descriptions were largely based on L1 linguistic patterns (Schmiedtová & Sahonenko, 2008;

as cited by Schmiedtová et al., 2011).

In line with findings in these production studies, significant differences between native

speakers and learners were also found in a perception study on nonlocomotion events

descriptions (Hilberink-Schulpen et al., 2012). Here, participants were asked to rate the

likeability that they would use the target sentences to describe a scene, to find preferences in

the use of progressive constructions and the mentioning of an object among native speakers of

Dutch, English, and German, and Dutch learners of English and German. L1 speakers of Dutch were found to have no overall preferences (i.e. there were no significant differences between their ratings for simple vs. progressive verbs, and mentioning or omitting an object), while L1 English speakers preferred progressives, and like the Dutch group, did not have preferences regarding the mentioning of an object. Dutch learners of English rated progressive sentences target-like, but their ratings for simple forms were significantly higher than those of the English control group, i.e. the learners were more accepting of simple verb forms than native speakers were. The authors reason that the L1 transfer that was found in these studies may be related to frequency in the input, as the use of progressives is relatively easy to learn, while ratings for other forms may be influenced by their L1 (Hilberink-Schulpen et al., 2012).

Thus, the previous examples illustrate that although studies have tried to disentangle the question of learnability of aspectual differences in second language acquisition, results insofar have been inconclusive. It seems that learners initially rely on linguistic patterns of their L1, but are able to shift towards the target norm of their respective L2 in varying degrees, although they are generally found to never reach nativelike proficiency in all respects.

### *Focus of this study: Dutch learners of English*

Although there is a growing body of research on the effects of temporal properties on motion event descriptions in L1s and L2s, the production of motion event descriptions by Dutch foreign language learners of English (EFL learners) remains unexplored. The difference in distribution of progressive constructions between the two languages makes it particularly interesting to see whether these learners perform native-like in their linguistic descriptions of motion events. Therefore, the present study contributes to this line of research by examining Dutch EFL learners' motion event descriptions. The focus of this study is on locomotion events, as this is the type of event in which the largest differences have been found between

Dutch and English regarding native-speakers' use of progressives and the mentioning of endpoints. In a production study on locomotion event descriptions, native speakers of Dutch barely used progressive constructions (i.e. 1% progressives), while in nonlocomotion event descriptions, a third of the responses expressed ongoingness (Carroll et al., 2008, as cited by Hilberink-Schulpen et al., 2012). In a similar study, native speakers of English were found to express ongoingness in 100% of their descriptions (Bylund et al., 2013). Returning to the subject of endpoint encoding, a low frequency of endpoints was found in Dutch, but as this included both locomotion events and nonlocomotion events, these findings are difficult to interpret (Carroll et al., 2004). The number of endpoints mentioned by native speakers of Dutch has (to my knowledge) not been studied for locomotion events in isolation, although it seems to be related to the use of progressive constructions. In English, endpoint mentions were observed to be relatively infrequent, e.g. 25% compared to 76% in German in Von Stutterheim and Carroll (2006).

Due to the large difference between the use of grammatical aspect in locomotion events in Dutch and English, target-like use of aspect may be particularly difficult to acquire by Dutch EFL learners in this context. This may result in language production that sounds non-native, although it may be difficult for language teachers to pinpoint what causes this perception (Von Stutterheim & Carroll, 2006). The present study investigates the learnability of target-like expression of ongoingness and mentioning of endpoints by Dutch learners of English. Specifically, this study will focus on the question: Do Dutch EFL learners use more simple verb forms and mention more endpoints in their descriptions of locomotion events than native speakers of English? And do they use more progressives and mention fewer endpoints than in Dutch? The relative salience of the progressive *–ing* suffix in English, as compared to the acquisition of a more covert structure that is used to refer to situations as a whole, might enable the learners to acquire the grammatical aspect to some extent (Von Stutterheim &

Carroll, 2006). Based on earlier findings on L2 learners' acquisition of progressive aspect (e.g. Von Stutterheim & Carroll, 2006; Schmiedtová, 2011; Hilberink-Schulpen et al., 2012) as discussed above, I hypothesise that Dutch EFL learners will fall between speakers of English and of Dutch, in the sense that they will produce more progressive forms and mention fewer endpoints than in Dutch, but that they will produce fewer progressives and encode more endpoints than native speakers of English.

## Methodology

### *Participants*

Thirty-six Dutch students, who were enrolled in varying (non-foreign-language) majors at various universities, participated in the present study. All students were monolingual, in the sense that Dutch was their only native language. These participants were randomly assigned to groups: twenty-two of them participated in the test group (10 male, 12 female; aged 18-25 [$M = 21.41$; $SD = 2.06$]), and the remaining fourteen formed the native Dutch control group (5 male, 9 female; aged 19-52 [$M = 23.86$; $SD = 8.46$]). Education levels of the test group and the Dutch control group at the time of testing were bachelor (test: 72.7%; control: 85.7%) and master level (test: 27.3%; control: 14.3%). No tests were performed to test their competence levels in English. However, in the Netherlands, English is a mandatory subject in all secondary schools, as a result of which university of applied sciences students should have obtained at least A2+ level for writing (B1 for oral communication skills), and university students should have obtained at least B1 level for writing (B1+ for oral communication skills) in secondary school, according to the Common European Framework for References for Languages (Europees Referentiekader Talen, 2018a, 2018b).

Furthermore, fourteen monolingual native speakers of English formed the native English control group (11 male, 3 female; aged 20-65 [$M = 45.21$; $SD = 17.18$]). This group

consisted for 7.1% of bachelor students at the time of testing; others had obtained a bachelor's

degree (21.4%), a master's degree (14.3%), or different (57.1%).

*Materials*

The stimuli were provided by prof. dr. Von Stutterheim and her research team (Schmiedtová

et al., 2011) and were part of a larger set of stimuli that was previously used in various studies

(e.g. Bylund et al., 2013; Schmiedtová & Sahonenko, 2008, as cited by Schmiedtová et al.,

2011; Von Stutterheim & Carroll, 2006;). They consisted of short, muted videoclips depicting

everyday situations, and could be categorised as critical test items ($n = 8$), control test items ($n = 8$), and fillers ($n = 20$). Each videoclip was 5 seconds long. The critical test items showed

locomotion events in which a possible endpoint was not reached, but could be inferred (e.g. a

man who is walking along a country road in the direction of a blue parked car, but whether he

reaches his car is not displayed in the video). The control test items showed locomotion

events in which an endpoint was reached (e.g. a horse walking into its box stall), and were

expected to elicit endpoints in all languages. The fillers were meant to distract the participants

from the aim of the study, and displayed other types of activities whereby no endpoint could

be observed (e.g. people who are playing tennis), or static scenes (e.g. a leaf floating on

water). A list of all stimulus items is included in Appendix A. Five additional videoclips were

used in a familiarisation phase (critical: $n = 1$; control: $n = 1$; filler: $n = 3$). Furthermore, a

questionnaire was constructed to gather relevant information on participants' demographics,

such as their educational and language backgrounds. This background information was used

both as an inclusion criterion and for descriptive and interpretative purposes. One of the

original twenty-three participants in the test group was excluded from the analyses because of

not meeting the criterion of being enrolled as a student, and one of the original fifteen

participants in the Dutch control group was excluded because of describing the scenes in

English instead of in Dutch. This was most likely due to failing to read the instructions, as these were very clear about the language in which the scenes should be described.

*Procedure*

A survey was constructed for each group (native English control group: *Survey A*; native Dutch control group: *Survey B*; learner test group: *Survey C*) using the online survey programme LimeSurvey v2.5 (Schmitz, 2015). The surveys consisted of three parts: a familiarisation phase, an experimental phase, and a background questionnaire. All surveys contained the same instructions, questions, and video clips, except for the language they were provided in. The general introduction, which was situated prior to all instructions, was always given in the participants' native language, as was the questionnaire at the end of the survey. All instructions, as well as the target questions, were provided in the target language (i.e. English in Surveys A and C, and Dutch in Survey B), to ensure this language was mentally activated.

The experimental procedure for the test phase and experimental phase was as follows: First, participants received written instructions on the procedure. This included a screenshot of one of the test items (included in Appendix B), to make sure participants knew what the experimental procedure looked like. On each page of the survey, a videoclip automatically started playing. Below each video the question '*what is happening?*' (native English survey and learner survey) or the Dutch equivalent (native Dutch survey) was displayed:

(6)     *Wat     gebeur-t                 er?*

        what    happen-PRS.3SG      there

        'what is happening?'

Each videoclip was 5 seconds long, after which a coloured screen appeared for 8 seconds. The participants were instructed to finish their sentences and move on to the next question once this coloured screen had disappeared. This time indication was meant to avoid overthinking,

and to make the results comparable to other studies that employed a time limit of six to twelve seconds for oral descriptions (Schmiedtovà et al., 2011). Altogether, participation took on average less than 25 minutes (i.e. duration in minutes was $M = 24.29$ [$SD = 10.85$] for the native English survey, $M = 19.06$ [$SD = 7.02$] for the native Dutch survey, and $M = 24.47$ [$SD = 9.83$] for the learner survey).

*Analyses*

The results were coded for and analysed on use of progressives and the explicit mentioning of locative endpoints. In English, progressives were selected based on the morphological *–ing* suffix; in Dutch, options are listed above in (i – v), although only options (iv) and (v) occurred in the locomotion event descriptions, as exemplified in (7) and (8).

(7)     "*Een bus komt aanrijden.*"

        A bus comes on-riding

        A bus is driving in the direction of the speaker

(8)     "*De auto wordt geparkeerd in de garage*"

        The car becomes parked in the garage

        The car is being parked in the garage

Options for endpoints are listed in the list of stimuli in Appendix A. An example is *car* for a scene in which someone is walking along a country road, in the direction of a parked car; this may be explained by participants as '*A man is walking to his car'*. References to activities (e.g. '*A lady popping in for some shopping*') or and other types of implicit refences to endpoints (e.g. '*Travelling to somewhere*') were not counted as endpoints. A few descriptions were left out of the analyses because of being provided in an unfit format (e.g. '*Coach in distance*'). However, omission of a subject was not considered to be a problem for the present study, and descriptions without a subject were thus included in the analyses (e.g. '*Walking towards bins*').

Apart from the dichotomous data, percentages of the use of progressives vs. simple forms, and of endpoints vs. no endpoints, were used to transform the variables *verb form* and *endpoint* into continuous data. This enabled the use of quantitative statistical analyses.

The coded data was then analysed using IBM SPSS Statistics versions 24 and 25. Tendencies in each L1 and L2 group were compared, as well as the interaction between progressives and endpoints.

## Results

Percentages of mentions vs. omissions of endpoints and the use of progressives vs. simple forms were calculated per participant for the critical and control condition. The data did not display a normal distribution. Therefore, sample bootstrapping was used to ensure the robustness of the statistical tests.

### *Endpoints*

Mean percentages for the mentions of endpoints were calculated for each group and are displayed in Figure 2.
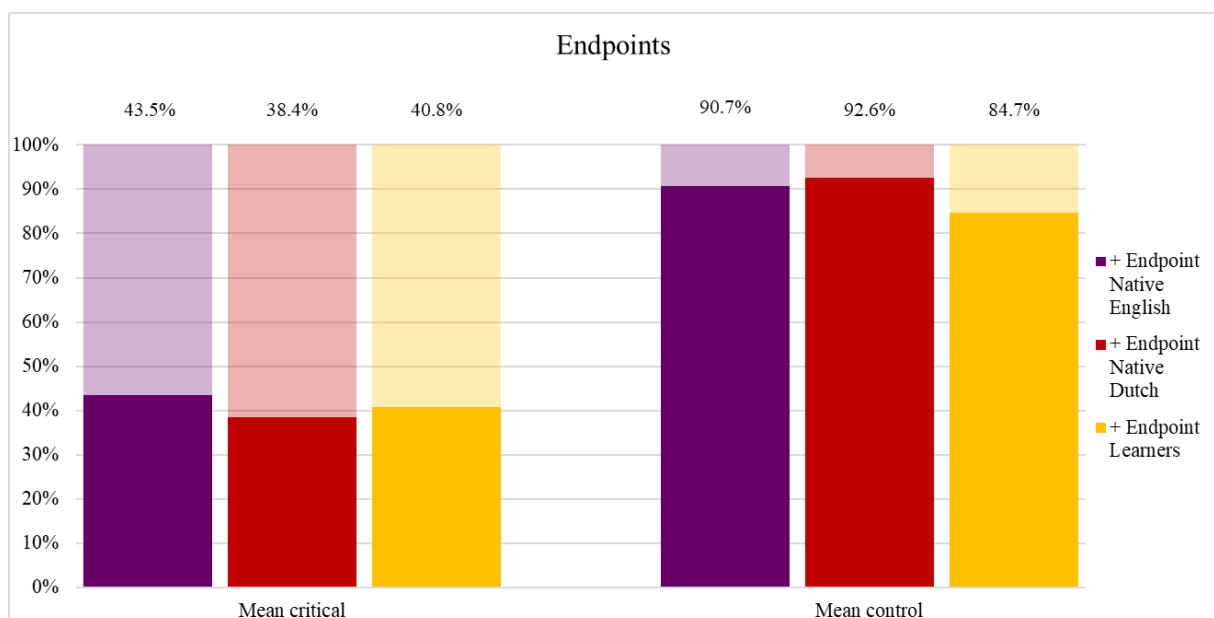


*Figure 2.* Percentage of mentioned endpoints in each survey.

As shown in Figure 2, endpoints were on average mentioned in 43.5% ($SD$ = 21.96) of the target descriptions by the native English participants, 38.4% ($SD$ = 17.99) by the native Dutch control group, and 40.8% ($SD$ = 23.24) by the learner group.

R (R Core Team, 2016) was used to compute a robust variant of the one-way ANOVA in IBM SPSS Statistics 24, using the WRS2 package (Mair, Schoenbrodt, & Wilcox, 2017). In the critical items, the prediction was that the Dutch natives and learners would produce more endpoints than the native English speakers. The native English speakers, however, mentioned endpoints most often, and the native Dutch control group did so least often. Yet, a one-way ANOVA ($\gamma$ = 0.2 [i.e. 20% trimmed means], 2000 bootstrapping samples) revealed that the differences between the three tested groups were not significant: $F_t$ = 1.03, $p$ = .38, $\omega$ = 0.25.

In the control items (i.e. when the endpoint was reached in the video clip), endpoints were expected to elicit endpoints in all languages. Here, mean percentages were 90.7% ($SD$ = 15.42) for the native English control group, 92.6% ($SD$ = 11.14) for the native Dutch control group, and 84.7% ($SD$ = 19.15) for the learner group. A robust one-way ANOVA ($\gamma$ = 0.2, 2000 bootstrapping samples) again revealed no significant difference in the endpoints mentioned between the three groups: $F_t$ = 0.79, $p$ = .38, $\omega$ = 0.22.

The control items were further expected to elicit more endpoints than the critical items. To test this prediction, bootstrapped paired samples t-tests were used for each group to compare frequency of use of endpoints in the critical and the control condition. Significantly more endpoints were mentioned by each group in the control condition compared to the critical condition: $t(13)$ = -7.21, 95% CI [-61.33, -33.05], $p$ < .001 (two-tailed) for the native English control group; t(13) = -11.59, 95% CI [-64.31, -44.10], $p$ < .001 (two-tailed) for the native Dutch control group; t(21) = -8.36, 95% CI [-54.73, -32.93], $p$ < .001 (two-tailed) for the Dutch learners of English.

*Verb Forms*

As for the endpoints, the percentages of use of progressive versus simple verb forms were calculated and are displayed in Figure 3. As expected, in the critical condition, native speakers of English primarily used progressives ($M = 98.21$; $SD = 6.68$), while the native Dutch control group mostly used simple verb forms (progressive: $M = 0.89$; $SD = 3.34$). Dutch learners of English used progressives in 77.84% ($SD = 33.17$) of their descriptions in this condition.
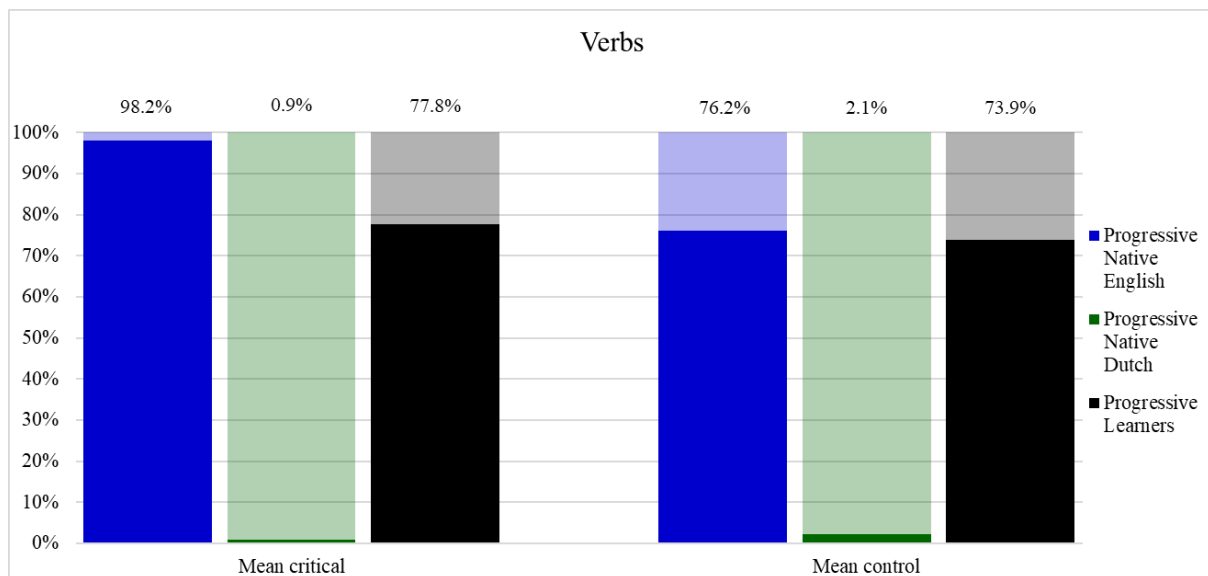


*Figure 3.* Percentage of progressives in each survey.

To compare the three groups on their use of progressive constructions, a 2000-sample bootstrapped one-way ANOVA was performed. This method was chosen over a trimmed-means variant, because the large number of 0%-scores in the Dutch control group made it impossible to execute this function. For the interpretation of the results, it is important to keep in mind that this ANOVA was executed in SPSS, where unlike in R, the bootstrapping function on the one-way ANOVA does not work on the *F*-statistic, but only on "the means, […] contrasts and *post-hoc* tests" (Field, 2018, p. 556). A one-way ANOVA indicated that there was a significant difference between the groups on their use of progressives in the critical condition: $F(2, 47) = 75.11$, $p < .001$. A post-hoc Tukey's HSD test indicated that the native English control group used significantly more progressives than both the native Dutch

control group (95% CI [76.73, 117.92], $p < .001$) *and* the Dutch EFL learners (95% CI [1.74, 39.00], $p = .029$). The learner group used significantly more progressives than the Dutch control group (95% CI [58.32, 95.58], $p < .001$), yet still differed from the native English speakers. Similarly, there was a significant difference between groups in the control condition: $F(2, 47) = 25.99$, $p < .001$. A post-hoc Tukey's HSD test indicated that the English control group used significantly more progressives than the native Dutch control group (95% CI [44.78, 103.35], $p < .001$), and that the Dutch learners of English used significantly more progressives than the native Dutch control group (95% CI [45.29, 98.27], $p < .001$). The learners did not differ significantly from English native speakers (95% CI [-24.20, 28.77], $p = .98$).

A bootstrapped paired-sample t-test (IBM SPSS Statistics 25) was used to compare the use of progressives between both conditions. The native speakers of English used significantly fewer progressives (i.e. more simple verb forms) in the control condition (i.e. when the endpoint was reached) than in the critical condition: $t(13) = 2.22$, 95% CI [0.56, 43.57], $p = .045$ (two-tailed). Differences in the use of progressives between the critical and control condition were not significant for the native Dutch control group: $t(13) = -0.67$, 95% CI [-5.02, 2.64), $p = .51$ (two-tailed); and the learner group: $t(21) = 1.58$, 95% CI [-1.26, 9.22], $p = .13$ (two-tailed).

### Discussion and Conclusions

The aim of this study was to find out how the expression of ongoingness and the mentioning of endpoints by Dutch learners of English related to native speakers of English and to Dutch. As for the number of endpoints mentioned, no significant differences occurred between learners and native speakers of English. Moreover, the number of endpoints mentioned by native speakers and learners in English did not differ from the number of endpoints mentioned in Dutch. For all groups, significantly more endpoints were mentioned when the endpoint was

reached in the videoclip, than when it had to be inferred. The hypothesis that Dutch learners of English would mention significantly more endpoints than native speakers of English, and significantly fewer endpoints than in Dutch, was rejected. However, the finding is in line with previous research, which found that for nonlocomotion and locomotion events combined, speakers of Dutch followed similar patterns to speakers of aspect languages in their encoding of endpoints in their L1. The present study observed that for the event type in which the largest differences could be expected between Dutch and English, i.e. locomotion events, speakers of Dutch indeed behaved as if their L1 was an aspect language.

For the encoding of grammatical aspect, however, learners did not perform native-like in all conditions. When the endpoint was not reached in the videoclip, learners used significantly fewer progressives than native English speakers. However, they *did* use significantly more progressives than in Dutch, indicating that they did acquire grammatical aspect to some extent. When describing motion events in which the endpoint was reached, learners performed native-like on the encoding of ongoingness, as no significant differences were found between the number of progressives used by learners and by native English speakers. Both English groups used significantly more progressives than the Dutch group. The results confirmed the hypothesis that Dutch EFL learners would use fewer progressives than native English speakers, and more progressive forms than in Dutch, in the critical condition. In the control condition, however, learners behaved target-like. These findings are in line with previous research, as learners were able to acquire the salient English progressive marker to a great extent, but were still observed to deviate from native-like use (Von Stutterheim & Carroll, 2006).

It remains unclear, however, what caused the low frequencies of endpoints mentioned by speakers of Dutch. Previously, the suggestion was made that the hypothetical development of grammatical aspect may have influenced the low numbers of endpoints mentioned in Dutch

(Hilberink-Schulpen et al., 2012). However, given the low frequency of progressives used in locomotion events in this language, at least in this event type, endpoint encoding seems to be unrelated to the expression of ongoingness. Therefore, more research is needed to disentangle the exact properties that trigger the use or omission of endpoints in motion event descriptions.

## Limitations

There were a few factors that may have influenced the findings in this study. For instance, in the coding of endpoints, the decision was made to analyse only instances of explicit locative endpoints as [+endpoint], thereby excluding other types of reference to endpoints. Previous studies did not specify the exact criteria they used for endpoints, but referred in their examples to locative endpoints. To avoid ambiguity, only explicit locative endpoints were selected. However, it could be argued that indirect references to endpoints, such as 'a lady popping *in for some shopping*' or 'travelling to *somewhere*', equally refer to the situation as a whole, rather than a subphase of the event. Future research may focus on the distribution of different types of endpoints in motion event descriptions across languages and event types, as this fell outside the scope of the present study.

Secondly, the decision to test participants' written descriptions rather than oral ones, was made for practical reasons. However, no studies that I am aware of have tested whether there are differences between patterns emerging in written and oral motion event descriptions. It would therefore be interesting to see whether written and oral event descriptions with the same stimuli and procedure elicit similar responses in motion event descriptions in speakers' L1s and L2s.

## Future Research

There are several suggestions for future research that arose from the results, or that could not be tested in the present study. These suggestions would all lead to a better understanding of the differences in use of grammatical aspect and endpoint encoding in different languages, in

different event types, or the general learnability for second language learners. By disentangling these issues, learnability could perhaps be improved, as linguists and teachers could reach a higher understanding of these complex issues.

Thus far, a few recommendations have already been made in previous sections. In the *Discussion and Conclusions* section, it was suggested to further investigate the exact features that trigger the mentioning or omission of endpoints, as this did not always seem to be related to the expression of ongoingness, as was previously offered. In the *Limitations* section, then, the distribution of different types of endpoints, as well as the relationship between features expressed in written and oral descriptions, were offered as topics for future research.

Furthermore, the types of progressive constructions used in Dutch and their distribution across various event types would also make an interesting topic for future research. In the present study, no instances were found of '*is aan het + INF*' [is on the + INF], '*bezig zijn met/om te + INF*' [be busy with/to + INF], or '*zitten/lopen/staan/liggen te + INF*' [sit/walk/stand/lie to +INF] in descriptions of locomotion events. Previous studies on motion event descriptions in Dutch (e.g. Carroll et al., 2008; Hilberink-Schulpen et al., 2012) did not take '*komen aan- + INF*' [come on- +INF] and passive sentences with '*worden*' [become], found in locomotion events in this study, into account as constructions for expressing ongoingness, although results for the frequency of use of progressives were fairly similar in previous research (i.e. 0.9% and 2.1% in the critical and control condition in the present study vs. 1.2% and 0.0% in similar conditions in Carroll et al., 2008). Although frequency of use of '*is aan het + INF*' has been explored for various event types (Schmiedtová & Flecken, 2008), this seems to be an underexplored domain for the other progressive constructions in Dutch. Future research could for instance investigate whether there is a relationship between event type and the progressive marker that is selected in Dutch.

Finally, another element that would be interesting to explore, but which fell outside the scope of the present study, is the performance of Dutch leaners of English in the domain of nonlocomotion event descriptions. It would be interesting to see how their expression of ongoingness and encoding of endpoints in these events relates to those in English by native speakers and in Dutch. In these event types, more variation in these features was found in Dutch (Carroll et al., 2008; as cited by Hilberink-Schulpen et al., 2012). More research is needed to find out whether this has consequences for their language use in English.

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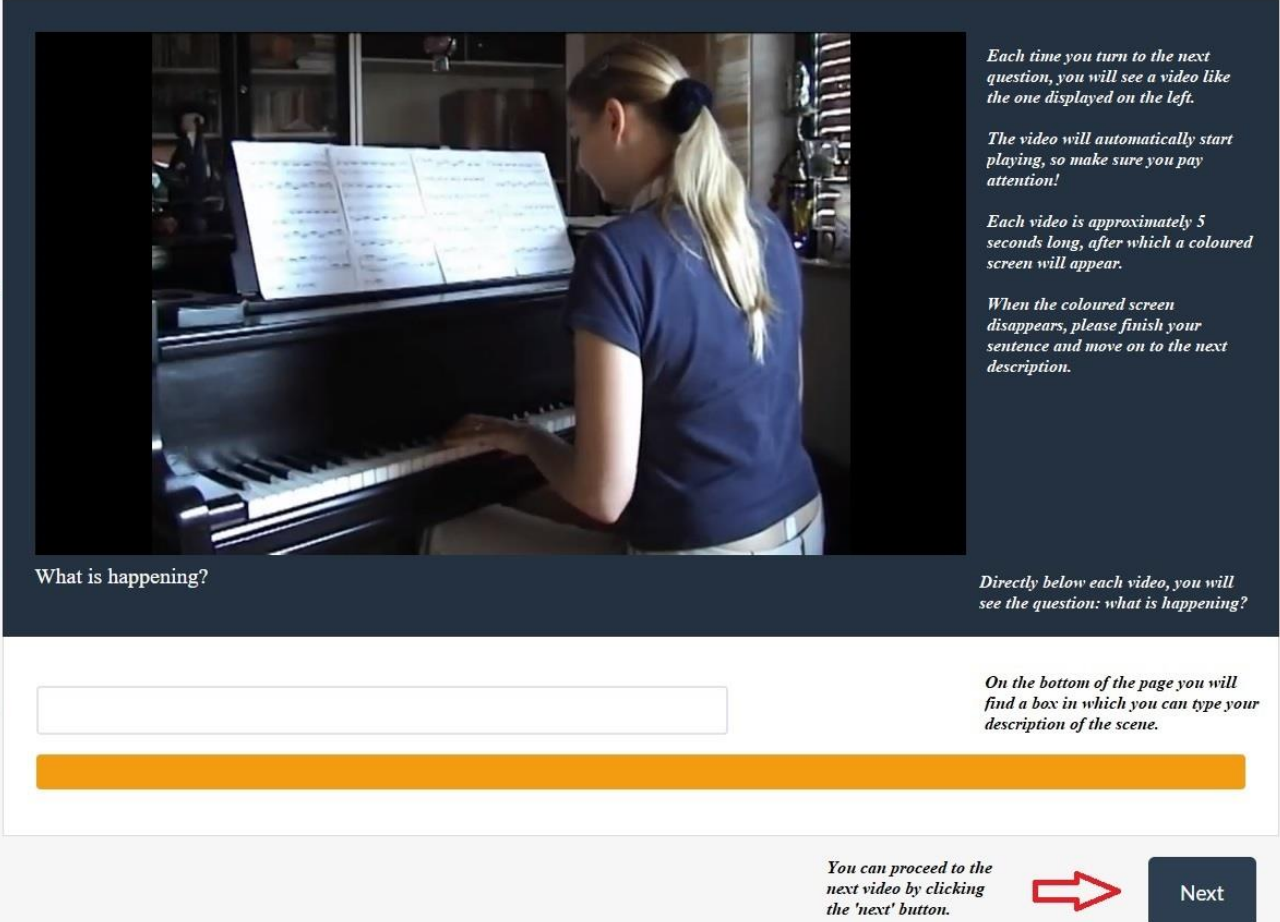/handle/10822/558211/GURT_2005.pdf?sequence=1#page=50

**Appendix A. List of Stimuli**

Table 1.

*List of Experimental Stimulus Items*

| Type | Action | Possible endpoints |
|---|---|---|
| Critical (test) | Van driving | yard/premises/driveway, gate/entrance |
| Critical | Bus driving | bus stop |
| | Person walking | car |
| | Person walking | rubbish bins |
| | Person walking | telephone box, building/house, gate |
| | Car driving | church, village |
| | Person walking | car |
| | Bus driving | village |
| | Person walking | building/house/college |
| Control (test) | Person walking | bench, path |
| Control | Person running | building/train station, entrance |
| | Car driving/parking | garage/lockup |
| | Horse | stable |
| | Person walking | supermarket/shop |
| | Child walking | playground/park, gate |
| | Person walking | building, door |
| | Person walking | building/church, door |
| | Person riding horse | building/barn/stable/arena/paddock |
| Filler (test) | Person playing the piano | – |
| | Person threading a necklace | – |
| | Cigarette burning | – |
| Filler | Person wrapping a present | – |
| | Candle burning | – |
| | Person drawing a tree | – |
| | Person sweeping a garden | – |
| | Printer printing | – |
| | Person mixing ingredients | – |
| | Person cutting a cucumber | – |
| | People playing tennis | – |
| | Leaf floating on water | – |
| | Person knitting | – |
| | Washing machine spinning | – |
| | Person making a paper airplane | – |
| | Person cleaning a table | – |
| | Person peeling potatoes | – |
| | People playing football | – |
| | Water tap running | – |
| | Person playing the flute | – |
| | Child swinging on swing | – |
| | Ice-cream melting | – |
| | Person writing on chalkboard | – |

**Appendix B. Screenshot Survey**



*Figure 4*. Screenshot of a test item with instructions. The screenshots were part of the

instructions in Survey A and C. In Survey B, all text in the screenshot was in Dutch.