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Analysing Dutch Present Participle Manner Adverbials

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Abstract: As recent research has shown, MAs cross-linguistically show signs of a complex internal structure which can consist of a diverse set of syntactic categories. Notably absent from previously studied MA patterns are those that, at first impression, appear to contain verbal substructure. This raises the question whether or not the category V is among the diverse syntactic categories that feature in the grammar of MAs. In this study, I take a closer look at Dutch MAs that appear to contain a present participle *-end* form of the verb, like *lopend* 'by walking' or *spelenderwijs* 'playfully'. Using tests for verbal substructure, I expand on findings from previous literature that show Dutch *-erwijs* adverbials do not contain verbal substructure by showing that Dutch present participle MAs without *-erwijs* also lack verbal substructure. Instead, the adjectival *-end* form is argued to enter into a small clause structure as a predicate over a manner noun to account for the manner reading of Dutch present participle MAs.

Keywords: morpho-syntax; Dutch; present participles; adverbials; WISE-adverbs; word-level syntax

1. Introduction

At first glance, the inner structure of Dutch manner adverbials (henceforth MAs) appears rather heterogeneous; witness (1).[1]

(1) a. Reinder gaat **snel** naar huis.
Reinder goes quick to home
'Reinder goes home quickly.'

b. Reinder gaat **op deze manier** naar huis.
Reinder goes in this manner to home
'Reinder goes home (in) this way.'

c. Ik doe het **mijn manier**.
I do it my manner
'I do it my way.'

In (1a), we find the adverb *snel*, which is formally identical to a Dutch adjective. Example (1b) shows that the set of possible MAs consists not only of single words but also of multi-word expressions like prepositional phrases. In (1c) (adapted from Corver, 2021, fn. 21, p. 14), we see that a bare nominal phrase like *mijn manier* can be used as an MA too.[2] While (1) is not intended to exhaustively demonstrate all possible realizations of the inner structure of Dutch MAs, it suffices to show that, at first glance at least, the major lexical categories A, P, and N appear to feed MA formation. To the set of MAs in (1), we can add those in (2) (which I will refer to throughout as (present) participle MAs), which seem to consist of a present participle form of the verb *lopen*, optionally suffixed with *-erwijs*. Such present participle MAs make up the primary empirical scope of this paper.

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Academic Editor: Anna Cardinaletti

Received: 12 November 2024
Revised: 28 February 2025
Accepted: 5 March 2025
Published: 28 March 2025

Citation: Cloin-Tavenier, L. (2025). Analysing Dutch Present Participle Manner Adverbials. *Languages*, *10*(4), 70. https://doi.org/10.3390/languages10040070

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(2) a. Reinder gaat **lop-end** naar huis.
Reinder goes walk-PTCP to home

b. Reinder gaat **lop-end-erwijs** naar huis.
Reinder goes walk-PTCP-ERWIJS to home
Both: 'Reinder goes home in a walking manner.'

The examples in (2) raise the question if the set of major lexical categories that feed MA formation can be completed with V. Such seemingly 'deverbal' Dutch MAs have received little attention in the literature (although see De Belder and Vanden Wyngaerd (2024) for a recent study), and the aim of this paper is to contribute to our understanding of the internal structure of Dutch present participle MAs through a detailed discussion of their morpho-syntactic and semantic properties.[3] I conclude that Dutch present participle MAs do not have verbal properties, and the participial form ending in *-end* is adjectival instead. This adjectival projection is embedded in a larger word-internal structure that may be realized overtly with the *-erwijs* suffix, which I propose gives evidence for a small-clause structure in which the adjectival projection predicates over a manner noun.

The rest of this article is structured as follows: Section 2 discusses relevant semantic, morpho-syntactic, and phonological properties of Dutch present participle MAs and compares them directly to Dutch present participle adverbials with a temporal/adverbial reading. It concludes that the form in *-end* (which I refer to as the present participle throughout) in the MA pattern is adjectival, in contrast to the present participle in temporal patterns. In Section 3, I present data from Dutch that allow me to zoom in on the internal structure of Dutch present participle MAs. After discussing the separate constituent parts of the complex inner structure of Dutch present participle MAs, I synthesize my findings of this section and the previous one in the analysis presented here. Section 4 concludes.

2. Telling Dutch Present Participle MAs Apart from Temporal Present Participles

Because of the heterogeneity of the MAs in (1–2), the class of MAs is hard to define based solely on the inner structure of its members. Additionally, whereas they appear to share the same syntactic distribution, their distribution is not perfectly identical.[4] To identify (Dutch) MAs as a natural class, and to be able to count Dutch present participle MAs among them, in this section, I focus on semantic and syntactic properties they do share. I observe that the Dutch present participial patterns *lopend* and *lopenderwijs* (used as MAs in (2)) are both ambiguous between manner and other readings. The morpho-syntactic diagnostics I discuss serve to identify their structural properties under their manner readings in preparation for Section 3, where I develop an analysis of the internal structure of Dutch present participle MAs. The distinguishing properties of Dutch present participles with a manner reading as opposed to Dutch present participles with a different (temporal) reading are as follows:

- The former are ill-formed in combination with *al*; the latter are well-formed in combination with it.
- Dutch present participle MAs need stress to be to the right of the particle if they have one.
- Dutch present participles with a temporal reading need stress to be on the particle, if they have one.

In Section 2.1, I discuss the semantic ambiguity in Dutch present participle adverbials in more detail and the semantics of (present participle) MAs in general. I also introduce a first morpho-syntactic factor that allows one to distinguish between them: the incompatibility of Dutch present participle MAs with *al* and the contrasting compatibility of temporal

present participles with it. In Section 2.2, I explain how the phonology of Dutch present participle adverbials with particles is different between those with a manner reading and those with a temporal reading; the former need stress to fall to the right of the particle, while the latter need stress to fall on the particle itself. I demonstrate how this difference brings to light that present participle MAs have adjectival properties which temporal present participles lack. Employing these diagnostics to tell apart present participles with manner vs. temporal readings, I additionally argue that the former lack verbal projections/properties which the latter have using tests for argument structure, eventivity, inherent reflexivity, and noun incorporation.

2.1. The Semantics of Dutch Present Participle MAs

The main focus of this paper is Dutch present participles like those in (2) that specify the manner of an event. These participial patterns share this meaning with the MAs in (1); all bold-faced constituents in (1–2) answer the question of how (i.e., in what way) an action was carried out. As Piñón (2007) argues, MAs do this as predicates over manner objects of type *m*, which are ontologically dependent on events of the verbal projections they modify.

In discussing the semantics of Dutch present participle MAs, it is important to note that Dutch adverbial participles like *lopend* (which I may refer to as 'bare' present participles because they are not suffixed with *-erwijs*) are ambiguous between such a manner reading and a temporal reading like that of a secondary predicate; (2a) could alternatively be translated as 'Reinder goes home *while* walking', which puts focus on the simultaneity of a going-home event and a walking event. These two readings of the bare Dutch present participle can be difficult to tell apart. However, the context of the sentence in which the participle occurs can make either of the manner or temporal readings more or less prominent/well formed; as Van de Velde (2005, p. 120) notes, in (3) (adapted from Van de Velde (2005), my glosses and translations, grammaticality judgments original) the bare participle *spelend* in (3a) is slightly degraded in a context where the manner of learning is under discussion.

(3) Context: on the ways actors used to learn scripts

a. ?Vroeger ging het teksten leren **spel-end**[...]
previously went the texts learning play-PTCP

b. Vroeger ging het teksten leren **spel-end-erwijs** [...]
previously went the texts learning play-PTCP-ERWIJS
Both intended: 'Previously, learning of scripts happened by way of playing...'

I agree with Van de Velde's assessment that this is likely due to the fact that the bare participle is not interpreted with a relevant manner but a temporal reading, which is less relevant to the context under discussion. In contrast to the bare present participle, the Dutch present participle form marked with *-erwijs* has only a manner reading in (3b) and is well formed as a result.

As a final note on the semantics of Dutch bare present participle MAs, an anonymous reviewer points out that the examples in (4) suggest that there is a difference in terms of eventivity between the participle MA *zingend* and the adjectival MA *vrolijk*; while *zingend* suggests an event of singing simultaneous to the talking event, *vrolijk* does not. However, I disagree with the reviewer that the manner reading they provide (see the translation, adopted verbatim) suggests this difference; the only reading that (4a) has to my native ear is one in which there is a single event of talking, which takes place in a sing-song tone of voice or manner. To put it differently, an event of talking singingly does not entail an event of singing. In fact, I cannot construe (4a) to have a reading where the subject is both talking and singing simultaneously: doing one excludes doing the other. Thus, here we find an

example of how the sentential context disambiguates between the two possible readings of bare Dutch present participle adverbials. To illustrate that the different readings of bare Dutch present participle adverbials also have an impact on their morpho-syntax, consider how adding the *al* 'while' particle, signaling progressive aspect, yields a degraded result in (5). As I discuss in Section 2.2, the *al* particle is generally well formed with (temporal) present participles. The fact that (5) is ill-formed despite this suggests to me that (4a) cannot be construed with two overlapping events and that a manner reading of the participle is forced (as the reviewer's translation suggests). Thus, instead of illustrating a contrast in eventivity between the participle MA in (4a) and the adjective in (4b), these data show they are semantically parallel in entailing only a single event, and the morpho-syntactic data in (5) support this.

(4) a. Ze praatte **zingend** tegen Klaas.
she talked singing to Klaas
'She talked to Klaas in a singing manner.'

b. Ze praatte **vrolijk** tegen Klaas.
she talked merrily to Klaas
'She talked to Klaas merrily.'

(5) ??Ze praatte al **zingend** tegen Klaas.
she talked while singing to Klaas
Intended: 'She talked to Klaas while she was singing.'

Dutch present participles marked with *-erwijs* are also ambiguous between a temporal and a manner reading. In their study of Dutch adverbs formed with *-erwijs*, De Belder and Vanden Wyngaerd (2024) show that Dutch present participles with *-erwijs* can realise different adverbial projections in the Cinquean hierarchy (Cinque, 1999); they can realise an adverbial projection marking a progressive aspect (with a reading I have so far called a temporal reading), as in (6a), or an adverbial projection marking manner (labelled Voice in Cinque, 1999), as in (6b) ((6ab) both taken from De Belder and Vanden Wyngaerd (2024, p. 8), gloss and translations original). The contrast in the well-formedness of *al* in (6a) and (6b) mirrors that of the well-formedness of *al* with bare Dutch present participles observed between (5) and (4a): the well-formedness of *al* is contingent on the temporal, eventive reading of the present participle adverbial, and it is ill-formed under a non-eventive manner reading of a Dutch present participle (regardless of whether or not the participle is bare or marked with *-erwijs*).

(6) a. (Al) **zingend-erwijs** kwam Mathilde de trap af.
PRT singing-ERWIJZE came Mathilde the stairs down
'Mathilde came down the stairs singing.'

b. (*Al) **subtiel-erwijze** liet hij merken dat die uitkomst hem niet beviel.
PRT subtly-ERWIJS let he know that that outcome him not pleased
'He subtly made it known that he was not pleased with the outcome.'

The discussion in this section shows that Dutch present participles are potentially ambiguous between a manner or a temporal reading and that care must be taken to control for the manner reading that I am concerned with here. As we have seen, sentential context can promote one of the two readings over the other or outright rule out one of them because they only imply one event, resulting in disambiguation. In addition, the different readings of both bare Dutch present participle adverbials and those marked with *-erwijs* have repercussions for their morpho-syntactic properties: only under a temporal reading do they support *al*. In the next section, I discuss more morpho-syntactic as well as phonological

properties of Dutch present participle MAs and how they allow us to tell them apart from temporal adverbial participles. The main thrust of it is that Dutch present participle MAs exhibit adjectival properties and not verbal ones.

2.2. Dutch Present Participle MAs Exhibit Adjectival, Not Verbal Properties

Concerning the syntactic properties of Dutch present participles, Bennis and Wehrmann (1990) argue that they constitute a diverse class that exhibits mixed adjectival and verbal properties. The point of departure for them are observations about the distribution of participles in adjunct and complement positions: while they appear rather freely as attributive adjectives in NPs (7a) and adverbs in VPs (7b), not all of them appear freely in the complement position—compare *huilend* in (8a), which cannot appear in the copular construction like the adjective *zielig*, with *ontroerend* 'moving' in (8b), which can be ((7–8) adapted from Bennis & Wehrmann, 1990).

(7) a. de **zing-end-e** detective
the sing-PTCP-AGR detective

b. Ik dans **zing-end** in de regen.
I dance sing-PTCP in the rain

(8) a. Reinder is **zielig**/*__huil-end__*.
Reinder is pitiful/cry-PTCP

b. Dat argument is **ontroer-end**.
that argument is move-PTCP

As Bennis and Wehrmann observe, in particular, those present participles derived from Experiencer verbs are well-formed adjectives in complement or predicative position as in (8b). As finite verbs, these Experiencer verbs realise their Experiencer arguments differently from adjectives with an Experiencer argument, witness (9): the Experiencer argument of the verb in (9a) surfaces as a pronoun which cannot be introduced by the preposition *voor*, but the Experiencer argument of *painful* in (9b) must surface as a PP headed by *voor*.

(9) a. Dat argument ontroert (*voor) **mij**.
that argument moves for me

b. Dat argument is pijnlijk *(**voor**) **mij**.
that argument is painful for me

Bennis and Wehrmann go on to observe that participles derived from Experiencer verbs display variable argument structure properties when they appear as attributive adjectives with nouns: the Experiencer argument pronoun of *ontroerende* in (10) can be introduced by the preposition *voor* but need not be.

(10) Het (voor) mij **ontroer-end-e** argument.
the for me move-PTCP-AGR argument

Given this mixed adjectival vs. verbal behaviour of Dutch present participles, the question arises as to whether the relevant present participles in Dutch MAs are adjectival or verbal. I argue, based on facts about the stress patterns of present participle MAs of separable particle verbs, that they are adjectival as follows:[5] as De Belder and Vanden Wyngaerd (2024, p. 12), citing Bennis and Wehrmann (1990), note, Dutch separable particle verbs like *uitvoeren* 'implement' typically carry the main stress on the particle (*úit-voeren*), but adjectivising derivational morphology shifts this stress to the right (*uit-vóér-baar*, 'implementable'). Taking a look now at the stress pattern of the present participle of the Experiencer verb *op-vallen* 'strike' (lit.: up-fall) used as an attributive modifier in (11), we see again that its Experiencer argument can be realized variably as a pronoun or a PP

embedding a pronoun. In addition, we see that the stress pattern on the present participle correlates to the realization of the Experiencer argument: in (11a), the Experiencer argument is realized as a pronoun, like in (9a) with the Experiencer verb, and in (11b), the Experiencer argument is realized as a PP, like in (9b) with the Experiencer adjective.

(11) a. het mij **óp-vall-end-e** argument
the me up-fall-PTCP-AGR argument

b. het voor mij **op-váll-end-e** argument
the for me up-fall-PTCP-AGR argument

Both: 'the argument that stands out to me'

The present participle that realises its Experiencer like the verb carries stress on the particle *op*, and the present participle that realises its Experiencer like the adjective has its main stress shifted to the right. This suggests that the stress pattern we observe on the present participle is an indication as to its adjectival vs. verbal nature. Turning now to the present participle MA *opvallend* in (12), we see that, used as an MA, the stress pattern of the participle is consistent with that of an adjectival analysis of the participle: it is shifted from the particle to the right, and the MA is ill-formed if stress falls on the particle itself. To confirm we are dealing with a manner reading of the present participle, we can test if *al* is grammatical or not (recall from Section 2.1 that *al* is ill-formed with present participle MAs): the ill-formedness of *al* in (12) confirms that the present participle has a manner interpretation and not a temporal one. The pattern in (12) can be replicated with a present participle MA derived from the non-Experiencer particle verb *afkeuren* 'reject/disapprove', in (13). I take this as evidence that the participle in bare Dutch present participle MAs featuring a particle are adjectival, not verbal.

(12) Reinder zingt (*al) **op-váll-end**.
Reinder sings PRT PRT-fall-PTCP
'Reinder sings in a striking manner.'

(13) Reinder schudt (*al) **af-kéúr-end** zijn hoofd.
Reinder shakes AL PRT-approve-PTCP his head
'Reinder shakes his head disapprovingly/in a disapproving way.'

This finding about the structure of Dutch particle participles can be generalized to that of non-particle participles; as (14) shows, a Dutch participle MA with a particle can be coordinated with a Dutch participle MA without a particle. Under the assumption that only like categories/constituents can be coordinated (cf. Broekhuis & Corver, 2019, sect. 1.3. for discussion), I take this as evidence that the participles in bare Dutch present participle MAs like *zingend* and *lopend* are also adjectival.

(14) Reinder spreekt hem (*al) **zing-end en op-béúr-end** toe.
Reinder speaks him PRT sing-PTCP and PRT-bear-PTCP PRT
'Reinder addresses him in a sing-song and encouraging way.'

Now, I turn to the syntactic properties of Dutch present participle MAs ending in *-erwijs*. Two relevant facts are the following: first, *-erwijs* participle MAs are ill-formed as attributive or predicative adjectives (as opposed to (some) bare Dutch present participles). This is seen in (15); compared to *zingende* and *ontroerend* (see (7a) and (8b)), neither *zingenderwijze* nor *ontroerenderwijs* are well-formed attributive/predicative adjectives, respectively. To me, this indicates that the adjectival present participle that forms part of Dutch *-erwijs* MAs is part of a larger word-internal structure that is not adjectival as a whole.[6] In other words, Dutch *-erwijs* participles contain an adjectival substructure but are

not adjectives themselves, a conclusion De Belder and Vanden Wyngaerd (2024) reach as well. In my analysis in Section 3.3, I argue that the *-erwijs* suffix gives evidence for this larger word-internal structure.

(15) a. *de **zing-end-erwijz-e** detective
the sing-PTCP-ERWIJS-AGR detective

b. *Dat argument is **ontroer-end-erwijs**.
that argument is move-PTCP-ERWIJS

Second, as De Belder and Vanden Wyngaerd (2024) demonstrate, Dutch *-erwijs* participles do not contain any verbal projections. They illustrate this using several tests for argument/event structure, due originally to Alexiadou et al. (2015), which indicate a total lack of related verbal projections. The tests and data they discuss are the following ((16–23) all taken from De Belder & Vanden Wyngaerd, 2024, pp. 14–16): (16) shows that, in contrast to a bare present participle, the *-erwijs* adverb *schreeuwenderwijs* cannot control the null subject PRO of an infinitival clause. The ability to control PRO indicates that the bare present participle has an external argument; since it is able to control PRO, it must have a Voice projection hosting this external argument. Since the present participle marked with *-erwijs* cannot control PRO, it must lack this projection.

(16) a. **Schreeuwend** om PRO hulp te krijgen rende ze door de stad.
screaming to PRO help to receive ran she through the city
'Screaming to receive help she ran through the city.'

b. ***Schreeuwend-erwijs** om PRO hulp te krijgen rende ze door de stad.
screaming-ERWIJS to PRO help to receive ran she through the city

(17) shows that, in contrast to a bare present participle, the *-erwijs* adverb *zingenderwijs* cannot be modified by the agentive adverb *vrijwillig*. Since agentive adverbs are contingent on an (implicit) external argument, this constitutes further evidence that the *-erwijs* marked present participle does not have an external argument.

(17) a. Vrijwillig **zingend** liep ze door de stad.
voluntarily singing walked she through the city
'Voluntarily singing she walked through the city.'

b. *Vrijwillig **zingend-erwijs** liep ze door de stad.
voluntarily singing-ERWIJS walked she through the city

In (18), we find the bare present participle passes another test for agentivity, which the *-erwijs* marked participle fails. The ability to license an instrumental adjunct is contingent on the presence of an external argument. This too indicates that the bare present participle has an external argument and that *schreeuwenderwijs* does not.

(18) a. **Schreeuwend** met een megafoon liep ze door de stad.
shouting with a megaphone walked she through the city
'Shouting with a megaphone she walked through the city.'

b. ***Schreeuwend-erwijs** met een megafoon liep ze door de stad.
shouting-ERWIJS with a megaphone walked she through the city

The anaphoric modifier *vanzelf* in (19) must be licensed by an Agent or Causer thematic role. Since the bare present participle can be modified by it, this indicates again that it has an external argument. Since *brekenderwijs* cannot be modified by it, this indicates a lack of external argument.

(19) a. Vanzelf **brekend** zakte het ijs weg.
of.self breaking dropped the ice away
'Breaking by itself the ice fell through.'

b. *Vanzelf **brekend-erwijs** zakte het ijs weg.
of.self breaking-ERWIJS dropped the ice away

In (20), we see that the bare present participle can select an object (in casu, the prepositional object *tegen haar vader*), which *brullenderwijs* cannot. This shows the bare present participle can host an internal argument, while the *-erwijs* marked participle cannot.

(20) a. **Brullend** tegen haar vader rende zij het huis uit.
screaming at her father ran she the house out
'Screaming at her father she ran out of the house.'

b. ***Brullend-erwijs** tegen haar vader rende zij het huis uit.
screaming-ERWIJS at her father ran she the house out

The test in (21) shows the event of the bare present participle *spelend* can be modified by the temporal adjunct *urenlang*. (21b) is ill-formed since *spelenderwijs* has no event for *urenlang* to modify. This indicates that the *-erwijs* participle does not have the verbal substructure responsible for projecting an event variable.

(21) a. Urenlang **spelend** brachten de kinderen de zomer door op het strand.
for.hours playing brought the children the summer PRT at the beach
'Playing for hours the children spent their summer at the beach.'

b. *Urenlang **spelend-erwijs** brachten de kinderen de zomer door op het strand.
for.hours playing-ERWIJS brought the children the summer PRT at the beach

In (22), we see that the incorporation of the noun *piano* into the bare present participle *spelend* is well formed, but that incorporation into *spelenderwijs* is not. Since incorporation (along the lines of Baker, 1988) is contingent on verbal structure, this indicates the bare present participle has verbal substructure, whereas the *-erwijs* participle does not.

(22) a. **Pianospelend** verleidde hij de Amerikaanse gast.
piano.playing seduced he the American guest
'Playing the piano he seduced the American guest.'

b. ***Pianospelend-erwijs** verleidde hij de Amerikaanse gast.
piano.playing-ERWIJS seduced he the American guest

Finally, in (23), we see that bare present participles can be built on the basis of inherently reflexive verbs like *zich schamen* but not an *-erwijs* marked participle.

(23) a. Zich **schamend** over zijn belabberde prestatie verliet de speler het veld.
RFL shaming about his dismal performance left the player the court
'Ashamed about his dismal performance, the player left the court.'

b. *Zich **schamend-erwijs** (over zijn belabberde prestatie) verliet de speler het veld.
RFL shaming-ERWIJS about his dismal performance left the player the court

Taken together, these tests show that *-erwijs* participles lack the verbal projections that bare present participles have. What De Belder and Vanden Wyngaerd (2024) do not discuss (presumably because it is not the focus of their inquiry) is that the bare present participles in the (a) examples in (16–23) are not MAs. This can be shown on the basis of stress patterns on bare participles of particle verbs under the same tests. As (24–29) show, the same tests for agentivity, external and internal arguments, and eventivity only yield well-formed results if stress falls on the particle of the bare present participle and yield ill-formed results if stress falls to the right of the particle.[7]

(24) a. **Áán-vallend** om PRO de overwinning binnen te slepen, bestormde de
PRT-falling to PRO the victory inside to drag stormed the
menigte het kasteel.
crowd the castle
'Attacking in order to secure victory, the crowd stormed the castle.'

b. *__Aan-vállend__ om PRO de overwinning binnen te slepen, bestormde de menigte het kasteel.

(25) Context: in a game of chess, the grandmaster makes an unforced move (i.e., the move is not forced because she is in check). A reporter reports the move as follows:

a. Vrijwillig **áán-vallend** sloeg de grootmeester een stuk van wit.
voluntarily PRT-falling struck the grandmaster a piece of white
'Voluntarily attacking, the grandmaster takes a piece of the white player.'

b. *Vrijwillig **aan-vállend** sloeg de grootmeester een stuk van wit.

(26) a. **Áán-vallend** met een paard nam de grootmeester een groot risico.
PRT-falling with a horse took the grandmaster a great risk
'Attacking with a knight, the grandmaster took a big risk.'

b. *__Aan-vállend__ met een paard nam de grootmeester een groot risico.

(27) Context: in a series of test matches with a grandmaster, a new chess computer is tested in various modes. At first, the computer is programmed never to take a piece without consulting its programmer about the move and loses. In a second match, the computer plays without this constraint, gets to take pieces by itself, and wins. A reporter says the following:

a. Vanzelf **áán-vallend** won de computer de partij in zes zetten.
of.self PRT-falling won the computer the match in six moves
'Attacking by itself, the computer won the match in six moves.'

b. *Vanzelf **aan-vállend** won de computer de partij in zes zetten.

(28) a. Elkaar **áán-vallend** zetten ze de discussie voort.
each.other PRT-falling put they the discussion PRT
'They continued the discussion attacking each other.'

b. *Elkaar **aan-vállend** zetten ze de discussie voort.

(29) a. Urenlang **áán-vallend** boekte de menigte vooruitgang in de richting van
for.hours PRT-falling booked the crowd progress in the direction of
het kasteel.
the castle
'Attacking for hours, the crowd made progress in the direction of the castle.'

b. *Urenlang **aan-vállend** boekte de menigte vooruitgang in de richting van het kasteel.

To demonstrate that *aanvallend* is well formed as an MA in the first place (and that the (b) examples in (24–29) are thus not ill-formed because *aanvallend* is ill-formed as an MA in general), see (30); the ill-formedness of *al* demonstrates that, of the two possible guises of the Dutch bare present participle, we are dealing here with the MA one. Note that if the bare present participle bears stress on the particle, it combines perfectly with *al* (see (31)), which only combines with temporal present participles, as we have seen in Section 2.1.

(30) De man sprak de vrouw (*al) **aan-vállend** toe.
the man spoke the woman PRT PRT-falling PRT
'The man addressed the woman aggressively.'

(31) De man sprak de vrouw al **áán-vallend** toe.
the man spoke the woman PRT PRT-falling PRT
'The man addressed the woman while attacking.'

I take the data in (24–29), combined with (30–31), to show that bare temporal present participle adverbials with a particle are structurally distinct from bare present participle MAs: Dutch present participles yield grammatical examples under the various tests for verbal substructure only with a stress pattern that bare present participle MAs with particles cannot have (as discussed above in (12–13)). On the contrary, with the stress pattern found on bare present participle MAs with particles, they yield ungrammatical examples under the same tests across the board. Furthermore, *al*, as another diagnostic that distinguishes between present participles with manner and temporal readings, combines to form a well-formed result only with a bare present participle if stress falls on its particle, and not to the right of it, showing this diagnostic is sensitive to the differences in the underlying structure of Dutch present participle adverbials as made apparent by their stress pattern.

These data show that Dutch bare present participle MAs with particles do not have verbal substructure and that the bare present participle forms of particle verbs that pass De Belder and Vanden Wyngaerd (2024)'s tests thus are not MAs. Since there is reason to believe that Dutch bare present participles without particles do not differ relevantly from those with particles (recall the coordination data in (14) that suggest they form structurally parallel constituents), I conclude that Dutch bare present participle MAs in general lack a verbal substructure.

2.3. Interim Summary

Before moving on to spell out my detailed analysis of the internal structure Dutch present participle MAs in Section 3, I briefly summarise (and in part repeat) the relevant diagnostics distinguishing between Dutch present participle MAs and Dutch present participle adverbials with temporal readings and the conclusions about the morpho-syntactic properties of present participle MAs I arrived at above:

- Dutch present participle MAs (with or without *-erwijs*) can be told apart from Dutch present participles with a temporal reading (with and without *-erwijs*) as follows:
  - The former are ill-formed in combination with *al*, and the latter are well-formed in combination with it.
  - Dutch present participle MAs need stress to be to the right of the particle, if they have one.
  - Dutch present participles with a temporal reading need stress to be on the particle, if they have one.
- Dutch present participle MAs marked with *-erwijs* do not show signs of verbal substructure, as shown using tests for argument structure, eventivity, and the verbal projections responsible for inherent reflexivity and noun incorporation.
- Bare Dutch present participle MAs likewise do not show signs of verbal substructure, as shown using tests for argument structure, and eventivity.
- The participle in Dutch present participle MAs (with and without *-erwijs*) show signs of adjectival properties.

In the following section, I discuss in detail the 'ingredients' of my analysis of Dutch present participle MAs (to wit, a root adjectivised by the participial morphology *-end*, which predicates over a silent noun WAY encoding manner semantics in a small clause structure optionally realized by *-erwijs*). I then bring together these ingredients in my analysis of Dutch present participle MAs.

3. The Internal Structure of Dutch Present Participle MAs

Recall from the introduction that I raised the question as to whether what look like participle forms of the verb *lopen* in (2), repeated here as (32), give us reason to believe that the full set of major lexical classes, including V, feeds the formation of MAs.

(32) a. Reinder gaat **lop-end** naar huis.
Reinder goes walk-PTCP to home

b. Reinder gaat **lop-end-erwijs** naar huis.
Reinder goes walk-PTCP-ERWIJS to home
Both: 'Reinder goes home in a walking manner.'

Based on the evidence presented in Section 2, I answer this question in the negative: the MAs in (32) do not contain verbal substructure. Indeed, verbal (sub)structure does not feed MA formation in Dutch: none of the finite verb *loopt*, the infinitival *lopen*, or the past participle *gelopen* are well-formed (manner) adverbials in (33).[8] Also, none of these forms of the verb can be suffixed with *-erwijs* to form an adverbial of some sort (see De Belder & Vanden Wyngaerd, 2024 for an overview of different types of Dutch *-erwijs* adverbials): **loopt-erwijs*, **lopen-erwijs*, **gelopen-erwijs*.

(33) *Reinder gaat **loopt/lopen/gelopen** naar huis.
Reinder goes walks/to.walk/walked to home
Intended: 'Reinder goes home walking.'

Instead, I argue that Dutch present participle MAs contain adjectival substructure. It is this adjectival substructure that makes Dutch present participles good candidate MAs as opposed to the verb-based patterns in (33). However, I argue below that adjectival substructure is not all that is present in Dutch present participle MAs; the *-erwijs* suffix, which I argue is a complex suffix, provides evidence for a word-internal small clause structure.

In this section, I develop my analysis of Dutch present participle MAs with and without *-erwijs* after discussing the component pieces of morphology we find in the MAs in (32) in more detail. I propose that Dutch present participle MAs with and without *-erwijs* have the same underlying structure, with a crucial difference being the silence of *-erwijs* in bare participle MAs. I start the discussion by further developing the idea proposed in Section 2.2 that the present participle form that appears in Dutch MAs is adjectival; that is, the *-end* suffix is an adjectival piece of morphology that combines with a root to form a derived adjective.

3.1. Further Evidence That -end is Adjectival

In Section 2.2 I have argued that the present participle we find as an MA in Dutch is adjectival. Here, I present more evidence that there is something adjectival about Dutch present participle MAs: they feed comparative and superlative formation and allow degree modification. Since comparative, superlative, and degree morphology are associated with adjectival functional structure Bobaljik (2012); Corver (1997), I conclude that this gives further evidence for the adjectival nature of the *-end* pattern in MAs.

In (34a), we see that the bare participle MA *aanvallend* can take a comparative *-er* suffix. In (34b), we see that it can also take a superlative *-st* suffix. Finally, in (34c), we see that it can also be modified with *erg* 'very'.

(34) a. De man sprak de vrouw (*al) **aan-vállend-er** toe dan haar dochter.
the man spoke the woman PRT PRT-falling-COMP PRT than her daughter
'The man addressed the woman more aggressively than her daughter.'

b. De man sprak de vrouw (*al) het **aan-vállend-st** toe van iedereen in de zaal.
the man spoke the woman PRT the PRT-falling-SUP PRT of everyone in the room
'Of everyone in the room, the man addressed the woman most aggressively.'

c. De man sprak de vrouw (*al) **erg** **aan-vállend** toe.
the man spoke the woman PRT very PRT-falling PRT
'The man addressed the woman very aggressively.'

Notably, not all Dutch bare present participle MAs can take comparative/superlative/degree morphology; see (35).

(35) a. *Reinder gaat **lop-end-er** naar huis (dan zijn broer).
b. *Reinder gaat het **lop-end-st** naar huis (van iedereen).
c. *Reinder gaat **erg lop-end** naar huis.

However, I do not think this has to be taken as counterevidence for the adjectival nature of the present participle. I would like to propose that the difference in well-formedness between (34) and (35) is due to a difference in gradability between addressing someone aggressively and going home walking. While the former is gradable, the latter is not.[9] Since gradability is commonly taken to be a prerequisite for the well-formedness of comparative and degree morphology, we can account for the difference between (34) and (35) without abandoning an adjectival analysis of the present participle; (35) is ill-formed on the independent basis of semantics.

In Section 2.2, we have seen evidence for the adjectival nature of the present participle form in MAs marked with *-erwijs*, put forward first by De Belder and Vanden Wyngaerd (2024). Combined with the data in (34), this raises a new question: why are *-erwijs* participle MAs ill-formed with comparative/superlative/degree morphology (see (36)) if they contain the prerequisite gradable (adjectival) participle?

(36) a. *De man sprak de vrouw (*al) **aan-vállend-er-erwijs** toe dan haar
the man spoke the woman PRT PRT-falling-COMP-ERWIJS PRT than her
dochter.
daughter

b. *De man sprak de vrouw (*al) het **aan-vállend-st-erwijs** toe van iedereen
the man spoke the woman PRT the PRT-falling-SUP-ERWIJS PRT of everyone
in de zaal.
in the room

c. *De man sprak de vrouw (*al) **erg** **aan-vállend-erwijs** toe.
the man spoke the woman PRT very PRT-falling-ERWIJS PRT

De Belder and Vanden Wyngaerd (2024) do not discuss these facts, but, although it is not an explanatory answer to the question, their analysis at least allows for a straightforward descriptive answer, which goes as follows: in their analysis of Dutch analysis *-erwijs* adverbials (in (37), adapted from De Belder & Vanden Wyngaerd, 2024, p. 10), *-erwijs* is an adverbialising suffix that selects a derived adjective, consisting of a root that has merged with an adjectivising suffix (which to them would be the *-end* suffix in the case of present participles marked with *-erwijs*).

(37) [[root + adjectival suffix] *-erwijs*]

Since under this analysis there is a head–complement relation between *-erwijs* and the adjectival complex [root + adjectival suffix], the facts in (36) can be descriptively captured as a selectional restriction that *-erwijs* imposes on its complement: it takes an adjectival complement no bigger than AP (i.e., not an extended projection of AP in the sense of Grimshaw, 2000).[10]

I suggest a different possible answer to this question in my analysis in Section 3.3, for reasons that have to do with the structure of the *-erwijs* suffix. First, I briefly touch on the nature of the roots selected by the *-end* suffix.

A Note on the Root in Dutch Present Participle MAs

An anonymous reviewer raises an important question about the kind of morphemes that *-end* can combine with to create a well-formed adjective; all of them appear to be 'deverbal'. In contrast to the well-formed (bare or *-erwijs* marked) *-end* forms discussed so far like *lopend*, *spelend*, *aanvallend*, *zingend*, *schamend*, *schreeuwend*, *brullend*, *brekend*, *opvallend*, *ontroerend*, *ontdekkenderwijs*, *lerenderwijs*, no denominal or de-adjectival *-end* form seems to be well formed: **tass-end*, **stoel-end*, **grot-end*, **rod-end*, and **bred-end* are all ill-formed; none of them are well formed in either attributive or predicative position, as illustrated in (38–39) for **tassend* and **grotend* as representative ill-formed denominal and de-adjectival *-end* patterns, respectively. If *-end* is merely an adjectivising functional head, one would not expect this restriction.

(38) a. *de tass-end-e detective
the bag-PTCP-AGR detective

b. *de detective is tass-end
the detective is bag-PTCP

(39) a. *de grot-end-e detective
the big-PTCP-AGR detective

b. *de detective is grot-end
the detective is big-PTCP

Furthermore, the reviewer observes that within the class of roots that typically appear in verbs, it seems like those that form eventive verbs lend themselves to the formation of *-end* forms, while those that form stative verbs make poor MAs; see (40) for *-end* forms with the root *weet* 'know' (star judgment of (40c) provided by the reviewer, double question marks by me).[11]

(40) a. *de wet-end-e detective
the know-PTCP-AGR detective
intended: 'the knowing detective'

b. *de detective is wet-end
the detective is know-PTCP
intended: 'the detective is knowing'

c. */?? Ze sprak wet-end over haar vak.
she talked know-PTCP about her discipline
intended: 'She spoke about her discipline with knowledge/knowledgeably.'

As the reviewer suggests, these facts suggest that Dutch *-end* forms are verb-based in the sense that they should contain some piece of verbal substructure responsible for the observed eventivity; the facts in (40) make sense if the *-end* suffix selects for roots that have been verbalized by an eventive (extended) verbal projection and not roots themselves (contra De Belder & Vanden Wyngaerd, 2024, p. 10).[12] Of course, this finding contradicts the facts discussed in Section 2.2 that the *-end* form in Dutch present participle MAs shows no signs of verbal substructure. Thus, I come to the conclusion that roots themselves must encode some sort of information like a category label or that at least informs the projection of a label. Pursuing this important issue here would take me too far afield and require too much space, but I refer the reader to Wall (2025)'s dissertation, especially chapters 1 and 7. Omitting details, Wall argues for a conception of the grammar that makes no reference

to (category) labels. Instead, the syntactic effects of categorial information are a result of (among other factors) the conceptual information encoded on roots or 'listemes'. Under Wall's conception of syntactic categories, it is conceivable that the participial *-end* morpheme is set apart from another adjectivising head like a^{o} in that *-end*, but not *a*, is sensitive to the conceptual information of roots and selects only those that encode 'verb-like' information (like eventivity), and does so without that information resulting in the projection of verbal structure. The tenability of this speculative selection of conceptual information encoded in roots, let alone its formal implementation, is an issue that I will not be able to do justice to here, and I leave it for future inquiry.

To distinguish *-end* from a more general adjectival head a^{o}, I refer to it as a Ptcp^{o} going forward. This distinction is possibly (partly) responsible for the fact that not all Dutch present participles are well formed as adjectives in the predicative position (as discussed in Section 2.2 and demonstrated in (8a)).

I turn next to the morpho-syntax of the *-erwijs* suffix.

3.2. Deconstructing -erwijs

As we have seen in (37), De Belder and Vanden Wyngaerd (2024) take *-erwijs* to be a single adverbialising suffix. This is mirrored in Van de Velde (2005). However, this runs afoul of data like (41) (retrieved from https://www.swvvo-delflanden.nl/wp-content/uploads/2023/03/POS-Grotius-ISK-22-23.pdf, accessed on 24 March 2025, my boldface).[13] In (41), which sounds perfectly well formed to my ear, *-er* is split from *-wijs* under the conjunction of two *-erwijs* MAs; while *ontdekkender-* lacks *-wijs*, note that *ontdekkender* is not a well-formed MA—it needs *-wijs* for that. I suspect that, underlyingly, the structure of *ontdekkender- en lerenderwijs* looks something like [*ontdekkender*-WIJS *en lerenderwijs*], with WIJS not receiving an overt spellout under identity with the *-wijs* in *lerenderwijs*, which is enabled by the conjunction of the two MAs. Under the assumption that the grammar can only 'split' up (or rather fail to overtly spell out parts of) a suffix in this way along constituent boundaries, this leads me to conclude that *-erwijs* is bimorphemic instead of monomorphemic; there is a morpheme boundary between *-er* and *-wijs*.[14]

(41) **Ontdekk-end-er- en ler-end-er-wijs** verkennen de leerlingen de
discover-PTCP-ER and learn-PTCP-ER-WIJS explore the students the
Nederlandse samenleving.
Dutch society
'The students explore Dutch society by way of discovering and learning.'

Given that Dutch *-erwijs* can be split into *-er* and *-wijs*, this begs the question of what syntactic structure either of these suffixes spell out. I start by discussing the latter and propose that *-wijs* is a suffixal realization of a manner noun. Van de Velde (2005, pp. 105–107) traces the diachronic development of *-erwijs* (and other Dutch suffixes that also feature *-wijs*) to the Middle Dutch free morphemic noun *wise* 'way'. In contemporary Dutch, the free morphemic noun *wijze* still exists and can be used in MAs; substituting it for *manier* in (1b) yields the equally well-formed (42), for instance.

(42) Reinder gaat **op deze wijze** naar huis.
Reinder goes in this way to home
'Reinder goes home (in) this way.'

The fact that MAs may feature an affixal realization of a noun has a precedent in the literature: omitting details, Alexeyenko (2015) analyzes English *beautifully* as in (43).

(43) $[_{\text{DP}}\ \text{ø}_{\text{D}}\ [_{\text{NP}}\ [_{\text{AP}}\ \textit{beautiful}]\ [_{\text{N}}\ \textit{ly}]]]$

In (43), the adverb is decomposed into a nominal core realized by the suffixal noun *-ly* and an adjective *beautiful*.[15] The noun, which encodes manner semantics in the syntax, projects an extended DP structure, in which the adjective takes a straightforward position as an attributive modifier of the noun, modifying the manner to be beautiful (as in, e.g., *Eveline sung* ***beautifully***). I refer the reader to Alexeyenko (2015) for several arguments for the historical development of English *-ly* from free a morphemic Germanic noun *lic* 'body' into a suffix. For French *-ment* too, it has been proposed that this 'adverbial' suffix is actually a suffixal noun that developed from the Latin free morphemic dative noun *mens* 'mind' (Déchaine & Tremblay, 1996).

Keeping this in mind for now, I turn to the syntactic status of *-er*. Although, as I noted above, he takes contemporary Dutch *-erwijs* to be a single affix as far as I can tell, Van de Velde (2005, p. 107) explicitly suggests that in origin it consists of two parts: the noun *wise/wijs*, preceded by dative inflectional morphology on a preceding attributive adjective in prepositional MAs. Although he does not explicitly refer to any example of this, an earlier example he gives may be what he refers to; see the Middle Dutch (44) (Van de Velde, 2005, p. 106, boldface, gloss, and translation mine). This example seems to be an excerpt from Jacob van Maerlant's *Roman van Torec* and features the MA PP *in snel-re wise* 'in fast-AGR way'. Possibly, it is the agreement inflection *-re* on the adjective *snel* that Van de Velde has in mind as a precursor of *-er* in *-erwijs*.

(44) Rechte bider avond-stonde quam hi gereden **in snelre wise** ane Druants casteel.
right at.the night-fall came he ridden in quick way at Druant's castle
'At nightfall, he arrived at Druant's castle riding quickly.'

Regardless of whether or not Van de Velde is right in pointing out this adjectival inflection as the origin of the *-er* part of *-erwijs*, contemporary Dutch lacks such adjectival dative inflection. For it to have been retained when Dutch lost this inflection on its adjectives suggests that the *-er* in *-erwijs* has been reanalyzed and spared from being lost as a result. The question now is what *-er* is in contemporary Dutch. As Norbert Corver (p.c.) pointed out to me, it is possible this *-er* morpheme is related to the *-er* found in Dutch (45a), which is diachronically related to a genitival case morpheme that is no longer productive in Dutch. In (45b), we see that (45a) can be paraphrased using an analytical construction featuring not *-er*, but *van* (which is productively used in Dutch analytical genitive constructions, much like English *of*). Interestingly, *-erwijs* present participle MAs can also be paraphrased using a *van* construction, as in (46), which is a paraphrase of *spelenderwijs*.[16]

(45) a. één dez**-er** dagen
one these-ER days

b. één **van** deze dagen
one of these days

both: 'one of these days'

(46) Vroeger ging het teksten leren **bij wijze van spelen**.
previously went the texts learning by way of playing
'Previously, learning of scripts happened by way of playing.'

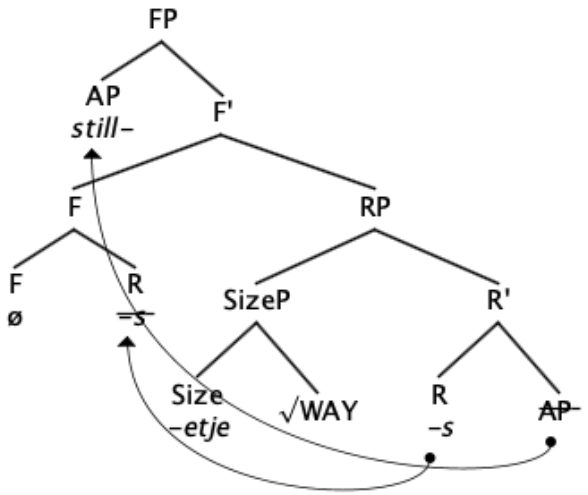
As remnants of genitival case markers, in *spelenderwijs* and the examples in (45–46) the Dutch morphemes *-er* and *van* serve as markers of a relation (between the manner noun *-wijs/wijze* and the present participial adjective in the MAs, and the noun *dagen* and *één* in (45)). To capture this status of *-er* syntactically, I take it to be a Relator in the sense of Den Dikken (2006) going forward.[17] Since there are no signs of verbal substructure in Dutch *-erwijs* MAs (and thus no sign of a full clause structure), this Relator must head a small clause structure. I take the suffixal *-wijs* nominal to be the subject of this small clause.

In the next section, I spell out my analysis of Dutch present participle MAs (with and without *-erwijs*) in full detail, based on my findings above.

3.3. Analysis of Dutch Present Participle MAs

The discussion above about the semantic and morpho-syntactic properties and building blocks of Dutch present participle MAs suggest they are complex constituents with the following characteristics: (1) semantically, they predicate over *m*(anner), further specifying the way in which an event is carried out/takes place, (2) they feature a root adjectivised by a Ptcp° head, and (3) *-erwijs* MAs show overt signs of a small clause with a suffixal nominal *-wijs* as its subject. Taken together, these characteristics are reminiscent of the analysis of another Dutch 'de-adjectival' MA pattern, which features diminutive morphology, like *still-etje-s* quiet-DIM-S 'quietly' Cloin-Tavenier (2024). The tree in (47) represents the structure of such Dutch diminutive MAs argued for there.

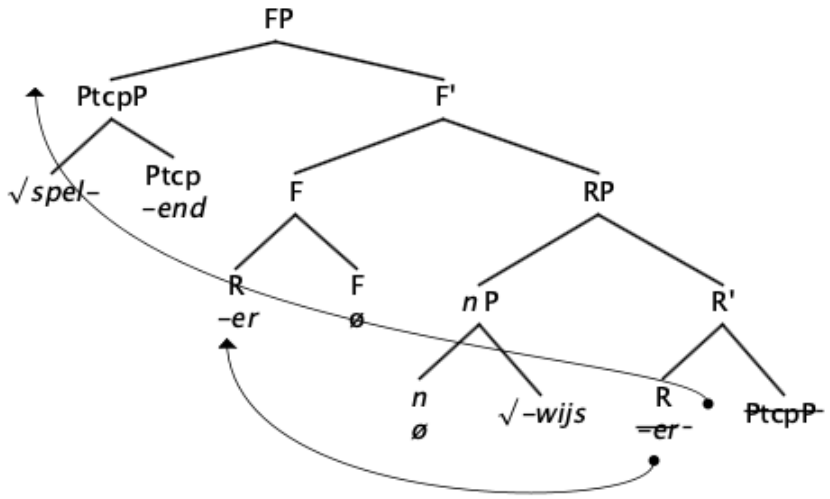
(47)



In the nominal small clause RP in (47), we find a subject root √WAY (nominalized by Size°, which hosts diminutive morphology) and an adjectival predicate *stil*. Den Dikken (2006)-style domain-extending head movement of R° (which spells out as adverbial *-s*) facilitates predicate fronting of *stil* to [Spec,FP]. Of the movement chain of R°, only the foot is spelled out due to phonological restrictions concerning the ordering of F° and R° in the complex head they form after movement. The small-clause analysis of *stilletjes* is argued for in Cloin-Tavenier (2024) on the basis of variable affix ordering in spoken/dialectal Dutch diminutive MAs, in which the comparative *-er* is attested either preceding or following the diminutive morpheme (i.e., *still-er-tje-s* vs. *still-etje-s-er*). Additionally, the suffix *-s* has been argued independently to be a functional nominal head (Corver, 2007), which qualifies it as an R(elator)° in Den Dikken (2006)'s terms.[18] Cloin-Tavenier (2024) argues the diminutive Size° head provides evidence for otherwise silent nominal substructure. Finally, the FP is argued to be an extended nominal projection, which hosts the AP *still* in its specifier, which must move there to provide the suffixes *-etje-s* a suitable left-adjacent phonological host at Spell-Out.

Inspired by the analysis of *stilletjes*, I propose the following analyzes of Dutch present participle MAs (marked with *-erwijs*) in (48).

(48)



In (48), the adjectival PtcpP *spelend* predicates over the *n*P *-wijs* in the small clause RP, which is headed by *-er*. In parallel to what happens in the derivation of Dutch diminutive MAs, predicate fronting of PtcpP to [Spec,FP] takes place in order to provide the suffixes *-er* and *-wijs* with an appropriate left-adjacent host. Contra Bennis and Wehrmann (1990), under this analysis, the Dutch present participle (as a PtcpP) can appear as a small clause predicate, after all.

I take the structure in (48) to represent the underlying structure of bare Dutch present participle MAs as well. As we can conclude from the well-formed coordination of a bare and *-erwijs*-marked participle MA in (49), they must be structurally parallel (although possibly, they may differ in the movement steps that can/must take place—see (52) below).[19]

(49) Reinder spreekt hem (*al) **zing-end-erwijs en op-béúr-end** toe.
Reinder speaks him PRT sing-PTCP-ERWIJS and PRT-bear-PTCP PRT
'Reinder addresses him in a sing-song and encouraging way.'

The difference between the bare form of the participle MA and the *-erwijs*-marked one, is that in the former, the R° and the manner root receive a zero Spell-Out. The zero Spell-Out of the root is unsurprising given the phonologically null manner root √WAY argued for in diminutive MAs. The silence of R° requires some further explanation. Although I will have to leave the issue for future research, I tentatively suggest that, as a head expressing a relation, R° only spells out overtly if both the subject and predicate of the small clause it heads are overt; since, in the bare form of the participle MA, the silent root √WAY is used instead of its overt counterpart *-wijs*, R° is not spelled out overtly since one of the two things it relates (the manner nominal subject of the small clause) is silent. As a possibly related pattern of a head expressing a relation that is only spelled out overtly if both entities involved in the relation are overt, consider (50). Comparing (50a) and (50b), we see that marking the possession relation between *Reinder* and *broer* with *-s* is only well formed if both constituents are realized overtly (capitalization intended to mark non-overt Spell-Out in (50b)). Conceivably, the grammar of Dutch disallows such a construction on the grounds of encoding information (of a relation) that is 'incomplete' in a sense.[20] This possible account of the silence of R° in bare Dutch present participles needs further formalization and testing.

(50) a. Dit is Ruud-'s broer en dat is Reinder-s broer.
this is Ruud-POSS brother and that is Reinder-POSS brother
b. *Dit is Ruud's broer en dat is Reinder-s BROER.

Both intended: 'This is Ruud's brother and that is Reinder's brother.'

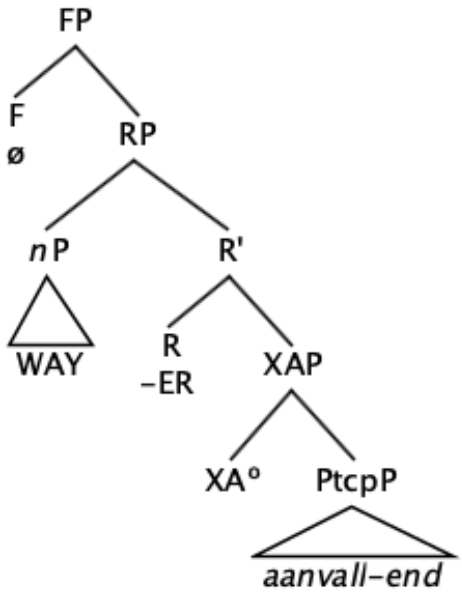
The analysis in (48) captures the semantic, morpho-syntactic, and phonological properties of Dutch present participle MAs in the following ways: first, it captures the semantic predication relation argued for by Piñón (2007) in a syntactic predication structure—the manner noun *-wijs* is predicated over by the (adjectival) predicate PtcpP. There is a direct mapping of semantics to the syntax of the MA. Second, the analysis captures the stress pattern of Dutch present participle MAs with particles: in Section 2.2, we have seen that the stress pattern on Dutch present participles is indicative of their internal verbal vs. adjectival nature. Since (48) features an adjectival predicate (PtcpP) and not a verbal one, this forces *-end* forms with particles to show up in their adjectival guise, with the stress pattern (to the right and away from the particle) to match.[21] Third, the analysis accounts for the fact that *-erwijs* forms are ill-formed as adjectives (recall my discussion of (15)); as I suggested above, although *-erwijs* forms contain adjectival substructure, this adjectival material is embedded in a larger structure FP which is not adjectival itself. I propose that those *-end* forms that are well-formed as adjectives (such as those in (7a), (8b), and other examples discussed in Section 2.2) lack the complex inner structure depicted in (48) and are simply PtcpP. Fourth, there is no verbal material in the tree in (48), consistent with my conclusions from Section 2.2. Fifth, (48) is incompatible with *al*. Speculatively, I propose this is because *al* is (part of) a time modifier QP that modifies an aspectual adverbial. QP is an extended nominal projection of a silent noun TIME à la Kayne (2005) and is headed by Q°, which is spelled out as *al*, which has the semantics of a universal quantifier. Q° quantifies over the entirety of a relevant time window encoded by TIME to yield the temporal reading of full temporal coincidence of event denoted by the main predicate of a clause and the event denoted by a time adverbial.[22] Since QP only modifies eventive/verbal categories, it is incompatible with (48) for lack of verbal categories. This raises the question of why temporal *-erwijs* adverbials show no evidence of verbal projections (De Belder & Vanden Wyngaerd, 2024) but are well formed with *al*. I propose this is the result of a structural difference between present participle MAs and temporal present participles. Suppose that, in lacking the manner semantics, *-erwijs* in temporal adverbial *-erwijs* patterns has been reanalyzed as a single adverbialising head Adv° (as in De Belder & Vanden Wyngaerd, 2024), which yields (among other things) a temporal/aspectual adverbial, as in (51a).

(51) a. [[root + *-end*] *-erwijs*]
b. [[*al*(= Q°) TIME] [[root + *-end*] *-erwijs*]]

It is this temporal/aspectual adverbial projection headed by this reanalyzed *-erwijs* that QP modifies, as in (51b). Since such a projection is not available in (48), *al* is ill-formed. This suggests the reanalyzed *-erwijs* adverbialiser can be silent in bare temporal present participle adverbials to capture the fact that *al* is well-formed with bare temporal present participle adverbials too (although I admit this is merely a descriptively adequate analysis of bare temporal present participle adverbials and does not offer an answer as to what governs the silence of temporal *-erwijs* as an adverbialiser). Finally, there remains the question of the incompatibility of comparative/superlative/degree morphology with *-erwijs* MAs; if bare present participle MAs are structurally parallel to *-erwijs*-marked ones, we have to conclude that the incompatibility of this extended adjectival morpho-syntactic material with *-erwijs* MAs is due to the one factor that distinguishes between them: the overtness of *-erwijs*. Recall that the movement of PtcpP to [Spec,FP] is proposed to be driven by the need for *-erwijs* to have a left-adjacent host (much like predicate fronting in Dutch diminutive MAs in Cloin-Tavenier, 2024). Suppose now that [Spec,FP] is a well-formed landing site for adjectival PtcpP but not extended adjectival projections (like projections hosting degree, comparative, and superlative morphology, cf. Alrenga et al., 2012; Bobaljik,

2012).[23] Since the overtness of *-erwijs* forces movement of the complement of R° to [Spec,FP], with overt *-erwijs*, the complement of R° cannot be larger than PtcpP (because an extended adjectival projection would find no licit landing site in [Spec,FP]. If *-erwijs* remain(s) silent, however, there is no forced movement of the complement of R° to [Spec,FP]. Then, any (extended) adjectival projection Merged as the complement of R° is not forced to move from its original position and can remain in situ. This derivation is sketched in (52) (with non-overt realization indicated in capitalized terminals).

(52)



In (52), PtcpP is selected by a higher XAP (for extended adjectival phrase), which hosts the comparative/superlative/degree morphology. Since both R° and *n*P are silent, no movement of XP to [Spec,FP] is forced, hence why bare present participle MAs can feature comparative/superlative/degree morphology, whereas *-erwijs*-marked ones cannot. This explanation of the pattern of the grammaticality of comparative/superlative/degree morphology with bare vs. *-erwijs* marked participle MA suggests that PF requirements (such as affixes with an appropriate phonological host) can inform core syntax (a conclusion also reached in Cloin-Tavenier, 2024, fn.14). The extent to which this is possible/plausible is an issue I leave for future research.

Finally, let me end the discussion of (48–52) with a note on FP. As noted above, FP is argued to be a nominal functional projection. Since it does not appear to contribute to the meaning of the MA but is involved with word-internal displacement inside this complex nominal phrase, I tentatively suggest that it could be a nominal focus projection along the lines of Corver and Van Koppen (2009). Whether or not this plausibly accounts for why its specifier is an illicit landing site for any adjectival projection larger than PtcpP, I must also leave it as an open question for now.

4. Conclusions

In this article, I have argued that Dutch present participle MAs, which can be marked with *-erwijs* or remain unmarked, are not 'deverbal', contrary to what the present participle form they contain suggests. Rather, this *-end* form has been shown to be adjectival in nature and to lack a verbal substructure on the basis of observations of the semantics, phonology, and morpho-syntactic properties of Dutch present participle MAs and the ways in which they contrast with temporal present participle adverbials. Given the evidence of affixal nominal substructure in *-erwijs* MAs, this adjectival present participle is analyzed as a

predicate over a manner noun in a complex word-internal small clause. Based on Dutch present participle MAs, then, there is no reason to believe that all lexical categories are involved in the grammar of MAs; neither V nor functional verbal projections are involved in their inner structure.

Since this article is concerned with the internal structure of Dutch present participle MAs, I have mostly neglected the issue of the way this internal structure informs the distribution of participle MAs. Under my analysis, the top-most structural layer FP must be relevant to the integration of the MA into the larger clausal structure, for instance, as the phrasal category in a functional specifier à la Cinque (1999). The phrasal analysis of manner adverbial 'words' I adopt here is compatible with a line of thinking according to which (manner) adverbials are uniformly adpositional phrases (Alexeyenko, 2015; Emonds, 1985, 1987; Kiss & Hegedüs, 2021; Manninen, 2003). In addition to informing a view of MAs under which both manner phrases and manner 'adverbs' are all underlyingly syntactic phrases, this suggests that FP may be the complement of a higher PP layer responsible for clausal integration instead. Since FP is an extended nominal projection and P°s tend to select nominal complements, my analysis would be compatible with such a PP analysis. On top of being compatible with Collins and Kayne (2023), this line of research contributes to the much-debated status of adverb(ial)s in the larger architecture of grammar (Baker, 2003; Kádár, 2009; Payne et al., 2010; Sugioka & Lehr, 1983; Zwicky, 1995). It pursues a clearly Minimalist agenda of eliminating them as syntactic primitives, by showing how they are derived categories whose morpho-syntactic properties follow from their (adpositional, nominal, and adjectival) subconstituents. The substantiation of a higher PP layer in Dutch (present participle) MAs I leave for future research, but for now, I hope to have shown how taking MAs to be (derived) phrasal categories can allow us to make sense of their internal structure.

Funding: The research detailed above was carried out in the scope of the *Mind your Manner Adverbials!* (*MiMA!*) project at Utrecht University. The *MiMA!* project is funded by the *Nederlandse Organisatie voor Wetenschappelijk onderzoek* (NWO, the Dutch Research Council), under grant number 406.20.TW.008.

Data Availability Statement: The original contributions presented in this study are included in the article. Further inquiries can be directed to the corresponding author(s). Where extant data are re-used, this is noted in the article, and citations to the original source(s) are provided.

Acknowledgments: This research has benefited from insightful comments and questions from audiences at talks given at the *Meertens Instituut* in May 2024, the NYU Syntax Brown Bag in September 2024, and at the workshop on Current Issues in Syntax, Semantics, and Pragmatics at the 48th Austrian Linguistics Conference in Innsbruck in December 2024. In particular, I thank Chris Collins, Richard Kayne, and Gary Thoms for in-depth discussion. I thank Norbert Corver, Marjo van Koppen, and Marta Massaia for detailed feedback on previous drafts of the paper. I also thank two anonymous reviewers for their constructive feedback on a previously submitted version of this paper. All usual disclaimers apply.

Conflicts of Interest: The author declares no conflict of interest. The funding sponsors had no role in the design of the study; in the collection, analyzes, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

Notes

[1] I use the term 'manner adverbial' here not to claim that the bold-faced constituents in (1) are of the syntactic category 'adverb', but in reference to their adverbial (as opposed to thematic/argumental) function in the larger sentence. One reviewer notes that it may be better to refer to them as manner adjuncts, and while I see how this more or less covers what I mean by manner adverbial, I still opt for the latter. I think referring to them as adjuncts may give the wrong impression that I am making claims as to their clausal integration (via an adjunction structure). Since I am not concerned with this issue here and want to remain agnostic to their mode of clausal integration, I prefer to call these patterns adverbials.

[2] For one anonymous reviewer who is a native speaker, the MA in example (1c) is ill-formed in any register. To me, it is ill-formed in a formal register due to the lack of a preposition; ***op*** *mijn manier* would be well-formed. In less formal registers of Dutch, however, dropping the preposition is possible (a quick Google search and several attestations on online blogs, forums, and other websites confirm this) and is almost fully acceptable to me. Questions concerning the dropping of the preposition (Is it silent, but syntactically present in (1c), or absent entirely? What explains this difference between formal and informal Dutch?) are tangential to the present issue, and I leave them for future research.

[3] My use of the term 'deverbal' should not be taken to mean that I analyze these MAs as containing verbal substructure in what follows (in fact, I argue that they do not; see the single quotation marks). It should also not be taken to mean that I assume a traditional process of derivation unique to the word-building component of the grammar, which changes one category into another. Instead, I adopt Collins and Kayne (2023)'s *Morphology as Syntax* model of the grammar in which the word-building component and the syntax or phrase-building component are one and the same. Under this conception of grammar, which has only one generative engine, 'words' are phrases that are spelled out as a single morpho-phonological unit. In other models of grammar, which feature an active word-building lexicon as a component separate from the narrow syntactic component, the process of derivation is captured through combinatorial rules that predict which stems combine with what category-changing morphological material to yield newly derived words. Taking the syntactic component to be responsible for word-building means recapturing such derivational processes as a decomposition of derived words into complex constituents, which may crucially contain syntactic material of different syntactic categories. This gives the impression that, for example, a verb is 'turned into' another constituent of a different category. Here, I use the term 'deverbal' only to imply that these MAs have the appearance of somehow being related to a (form of a) verb or contain/consist of verbal morpho-syntactic material, even if this turns out not to be the case upon closer inspection.

[4] Note that the MAs in (1) do not distribute perfectly uniformly; in the structural context of an embedded clause, *op deze manier* can appear in a pre- as well as postverbal position, as in (i), but *snel* is only well formed in a preverbal position, as in (ii). As Corver (2021, fn. 22, p. 14) has noted before, such distributional asymmetries constitute a potential counterargument to the line of thought that holds that the class of MAs may be given a unified analysis as (underlying) PPs (e.g., Alexeyenko, 2015; Manninen, 2003).

i. ...dat Reinder <**op deze manier**> naar huis gaat <**op deze manier**>.
...that Reinder <in this way> to home goes <in this way>
'...that Reinder goes home in this way.'

ii. ...dat Reinder <**snel**> naar huis gaat <***snel**>
...that Reinder <quick> to home goes <quick>
'...that Reinder goes home quickly.'

Still, this need not be the case; although it will take me too far afield to investigate this in detail here, suppose *snel* is underlyingly a PP, like *op deze manier*. I want to propose that the distributional difference may be derived from the size of the nominal constituent they embed (which would be a silent WAY in the case of *snel*) and whether or not the underlying PP is pre- or postpositional. To see that either of these factors may impact the distributional behaviour of Dutch MAs, see (iii–v); comparing (iii) and (iv), we see that whereas the prepositional pattern *op harde wijze* can appear either pre- or postverbally, the postpositional (partial) paraphrase *hard-op* can only appear preverbally. Comparing (v) with (i), we see that *te paard*, as a prepositional structure embedding a small nominal (i.e., in this MA, *paard* cannot be pluralized (**te paarden*), or preceded by a determiner (**te het paard*) or modifier (**te snel paard*)), distributes differently from *op deze manier*, which crucially features a nominal that allows such functional superstructure, as well as modifiers.

iii. ...dat Reinder <**op hard-e wijze**> spreekt <**op harde wijze**>.
...that Reinder <in loud-E way> speaks <in loud-E way>
'...that Reinder speaks out loud/in a loud tone of voice.'

iv. ...dat Reinder <**hard-op**> spreekt <***hard-op**>.
...that Reinder <loud-up> speaks <loud-up>
'...that Reinder speaks out loud'

v. ...dat Reinder <**te paard**> naar huis gaat <***te paard**>
...that Reinder <at horse> to home goes <at horse>
'...that Reinder goes home by horse.'

Since for my present purposes nothing hinges on whether or not de-adjectival MAs like *snel* are underlying PPs, I leave a more detailed review of these facts, as well as a formalization, for future research.

[5] Note that I do not claim that (bare) Dutch present participle MAs are fully adjectival; as I argue below, there are reasons to believe these words have a complex internal structure that the present participle is only one subconstituent of. It is this subconstituent, I claim, that is adjectival.

[6] An anonymous reviewer points out that the data in (15) alternatively suggest that there is no adjectival substructure in *-erwijs* adverbials. However, the evidence for the adjectival properties of the present participle in MAs presented in this section, as well as in Section 3.1, suggests otherwise.

[7] The incorporation test and the inherent reflexive test are not replicated for separate reasons: incorporation of a noun into a verb to my ear invariably draws the (main) stress to the incorporated noun, away from the rest of the present participle. Since I am interested here in the placement of stress on the particle vs. other parts of the participle and the incorporation introduces a parasitic variable, this test is ill-suited for my purposes. Since, to my knowledge, there is no Dutch inherently reflexive particle verb that also lends itself to being an MA, this test only yields a circumstantial result; one could always object that (ii) is ill-formed because it is an impossible/implausible MA in the first place. Still, I note that in (i–ii), the stress on the bare present participle of a inherently reflexive particle verb must be on the particle, and not to the right of it:

i. Zich **áán-kledend** rende Reinder door het huis.
RFL PRT-dressing ran Reinder through the house
'Reinder ran through the house dressing himself.'

ii. *Zich **aan-klédend** rende Reinder door het huis.

[8] Norbert Corver (p.c., September 2024) points out that some past participles appear to function as MAs in Dutch, like *gearticuleerd* in (i). It may be that such past participles can be used as MAs because they are adjectival participles; see (ii), in which we find that *gearticuleerd* can be modified with degree modifiers (i.e., *net iets*) and suffixed with comparative morphology, both typical of adjectival constituents. The possibility that adjectival properties of the past participle are what allow it to be used as an MA mirrors the idea I develop below for present participles used as MAs (i.e., that their adjectival nature is what allows them to be used as MAs too).

i. Reinder sprak de woorden **gearticuleerd** uit.
Reinder spoke the words articulated out
'Reinder pronounced the words clearly.'

ii. Reinder sprak de woorden **net iets gearticuleerd-er** uit dan Kees.
Reinder spoke the words just somewhat articulated-COMP out than Kees
'Reinder pronounced the words just a bit more clearly than Kees.'

It seems to me that an alternative analysis of *gearticuleerd(-er)* in (i–ii) presents itself, however, in which it is used not as an MA modifying the verb, but rather as a secondary predicate modifying the object *de woorden*, under a reading in which it is not the way of speaking, but rather the words themselves that are ultimately clear/articulated. I leave it to future research to tease apart these readings and investigate how (if at all) they affect the well-formedness of the past participle and its syntactic function in such examples.

In a related comment, an anonymous reviewer points out that so-called pseudo-participles like *gespierd* 'muscled/muscular' or *kort-gerokt* 'dressed in a short skirt' (lit.: short-skirted), which exhibit what looks like past participial morphology combined with roots that do not appear in Dutch verbs (e.g., **Jan spier-t* (Jan muscle-1.SG.PRES) intended: 'Jan muscles') can function as modifiers of nouns in Dutch (as in *De vrouw kwam kortgerokt binnen* 'The woman entered in/wearing a short skirt.'). Although pseudo-participles do not have a manner reading, it is worth asking what about this participial form makes them well-formed modifiers (like present participle MAs are modifiers of verbal projections). In a similar vein as what I argue below for the (present) participial morphology found in MAs, I propose what sets apart such pseudo-participles from truly verbal past participles is that the participial morphology in pseudo-participles is adjectival rather than verbal. See also the difference between verbal vs. adjectival passives, which in Dutch are both formed using *ge- -d* morphology and which may lead to the impression that (some) 'past'/'passive' participles can function as (adjectival) modifiers (Emonds, 2006).

[9] An anonymous reviewer points out that we might conceive of degrees of going home walking in terms of distance traveled, or the speed at which the walking is performed (and thus that going home walking might be gradable in a sense after all); one hiker may walk faster or slower than another, and a distance A can be measurably bigger/smaller than, or equal to another distance B. However, the reviewer goes on to add that *speeds* of walking are not degrees proper. As far as distance traveled goes, I point out that the rate of distance traveled is orthogonal to the mode of locomotion: one can walk, swim, crawl, etc., over a distance of a kilometre, but the distance traveled is unaffected by the way one crosses it. However, I have a hard time conceiving of a sense in which these potential degrees of going home walking are on a par with the degree of addressing someone aggressively, which turns out to be gradable as per the well-formedness of (34).

[10] As an anonymous reviewer points out, *-erwijs* adverbials based on adjectives (as opposed to those based on present participles) also do not support comparative/superlative/degree morphology (i–iii)—note that *subtielerwijs* 'subtly' is a well formed *-erwijs* MA in Dutch.

i. *De man corrigeerde de vrouw (*al) **subtiel-er-erwijs** dan haar dochter.
the man corrected the woman PRT subtle-COMP-ERWIJS than her daughter

ii. *De man corrigeerde de vrouw (*al) het **subtiel-st-erwijs** van iedereen in de zaal.
the man corrected the woman PRT the subtle-SUP-ERWIJS of everyone in the room

iii. *De man corrigeerde de vrouw (*al) **erg subtiel-erwijs** .
the man corrected the woman PRT very subtle-ERWIJS

The pattern in (i–iii) is similar to other Dutch (non-manner) *-erwijs* adverbials based on adjectives, such as *toevalligerwijs* 'incidentally'. This shows that the issue of the incompatibility of adjectival functional superstructure with *-erwijs* extends beyond those *-erwijs* adverbials based on (adjectival) present participles.

[11] Another reviewer points out that further data make this picture less clear: some *-end* forms of roots that typically form stative verbs are well formed, as in *een alwetende detective* 'an all-knowing detective', *een liefhebbende vader* 'a loving father', and *een staande lamp* 'a standing lamp/a floor lamp'. It is thus not clear that an eventive (verbal) projection needs to be postulated to be part of Dutch *-end* forms on the basis of examples like (40).

[12] I would like to point out that this explanation of the facts in (38–40) is merely descriptively adequate, in that it pushes back the question of which roots are selected by which (categorial) functional heads by one level; it raises the new question why some roots (more readily) lend themselves to being verbalized by verbal functional superstructure, while others do not, and suggests no deeply insightful answer. A possible answer to this has significant ramifications for our theory of the role of the lexicon/narrow syntax in the representation of categorial information and is beyond the scope of the current paper. More research on this issue is required.

[13] I thank Norbert Corver, p.c., for bringing to my attention this pattern of split *-erwijs* under conjunction.

[14] Native speakers of German M. Butschety and M. Loitzl, p.c., December 18 2024, confirm to me that well-formed examples similar to (41) can be constructed using German *-erweise* present participle MAs too, suggesting this German suffix is bimorphemic like its Dutch counterpart.

[15] See Alexeyenko (2015); Déchaine and Tremblay (1996) for arguments for the historical development of English *-ly* and French *-ment* from free morphemic nouns into suffixal realizations of nouns.

[16] One anonymous reviewer questions whether *bij wijze van spelen* is a good paraphrase of *spelenderwijs*. Another anonymous reviewer accepts the connection between (45a) and (45b) that I suggest as clear, but also objects that it is not clear that the relation between *spelenderwijs* and *bij wijze van spelen* is of the same kind. The reason is that to them, the two are not semantically equivalent, and they illustrate this by comparing *sprekend-erwijs* (speaking-ERWIJS) 'by (way of) speaking' and *bij wijze van spreken* (by way of speaking) 'as a way of speaking/to put it like this'; indeed, to me *bij wijze van spreken* seems to have lexicalized as a fixed expression and taken on a conventionalized meaning absent from *sprekenderwijs*. Furthermore, to the reviewer, *bij wijze van spelen* seems not particularly natural. I propose this is because the example is given out of a sentential context and it has not become a fixed expression with a conventionalized meaning like *bij wijze van spreken*, rather than because the pattern is ill-formed. As an illustration that the *bij wijze van...* construction is attested both with *spelen* and other verbs in Dutch, witness examples (i–v) found using Google search (all retrieved on 20 January 2025, my boldface), which are all well-formed to my ear.

i. Retrieved from https://shorturl.at/Jt9zG

Bouncespace heeft in 18 maanden **bij wijze van vallen en opstaan** uit kunnen zoeken wat een
Bouncespace has in eighteen months by way of fall and get.up PRT can seek what a
haalbare business case is.
achievable business case is

'By way of trial and error, Bouncespace has been able to determine what is an achievable business case in eighteen months.'

ii. Retrieved from https://denuk.nl/sprokkel/

Het katje zat **bij wijze van spelen** het konijn steeds tikjes uit te delen op zijn neus.
the kitty sat by way of playing the rabbit constantly taps PRT to share on his nose

'By way of playing/in a playful way, the kitty was constantly hitting the rabbit on his nose.'

iii. Retrieved from https://www.saarmagazine.nl/judith-52-van-rommel-naar-rust-reinheid-en-regelmaat/

Ik vond het goed voor de kinderen om, **bij wijze van spelen**, keukenkastjes leeg te mogen halen [...]
I found it good for the children to by way of playing cupboards PRT to be.allowed get [...]

'I thought it was good for the children to playfully empty the cupboards...'

iv. Retrieved from https://heitenmem.frl/probleem-opgelost-het-zat-m-in-de-primaire-reflex/

Het ziet er zo schattig uit als een kind, **bij wijze van kruipen**, op de billen door de kamer schuift.
it sees there so cute PRT when a child by way of crawling on the buttocks through the room scoots

'It looks so cute when a child scoots through the room on their buttocks by/as a way of crawling.'

v. Retrieved from https://tpo.nl/column/usa-vs-navo-onbetrouwbaarheid-bevindt-zich-aan-eu-kant-van-oceaan/

Bij gebrek aan kogels roepen Nederlandse militairen nogal eens "pang" **bij wijze van schieten**.
by lack on bullets yell Dutch soldiers quite once "bang" by way of shooting

'Sometimes, lacking bullets, Dutch soldiers yell out "bang" by/as a way of shooting.'

In addition to *bij wijze van spelen*, some of these *bij wijze van...* constructions are paraphrasable to me with an *-erwijs* MA (like *kruipenderwijs* and *schietenderwijs*) and these *-erwijs* MAs are also attested, see (vi–vii). *bij wijze van vallen en opstaan* to me seems difficult to paraphrase in this way due to the conjunction of two verbs following *van*, as well as the more or less conventionalized meaning of this conjunction of *vallen en opstaan*. What governs this process of conventionalization of meaning, and the exact way in which the 'fixedness' of some *bij wijze van...* constructions impinge on the well-formedness of the *-erwijs* MA formed with the same root is a topic I cannot fully explore here and leave to future research.

vi. Retrieved from https://dedaggedachte.blogspot.com/2019/07/gezien-terwijl-het-leger-paradeerde.html

Of hoe onze kleine man, kleinzoon Georges, voor het eerst **kruipend-erwijs** de wereld ging verkennen...
or how our little man grandson Georges for the first crawling-ERWIJS the world went explore...

'Or how our little man, our grandson Georges, explored the world by crawling for the first time...'

vii. Retrieved from https://www.dispuut-mocca.nl/history.html

Deze functionaris dient te allen tijde bewapend met een pistool op de vergadering aanwezig te zijn om zo nodig de orde **schietend-erwijs** te herstellen.
this officer should at all times armed with a pistol at the meeting present to be to as necessary the order shooting-ERWIJS to restore

'Armed with a pistol, this officer should be present at the meeting at all times to restore order by way of shooting if necessary.'

[17] Under this analysis, the *-er* in *-erwijs* MAs is homophonous with the Dutch comparative *-er*, which we have encountered above, which goes against Kayne (2020)'s principle of anti-homophony of the functional lexicon, that is, that the grammar strictly precludes homophones in the functional lexicon. We may be able to uphold the principle of anti-homophony, however, if it is stated as a condition holding of underlying phonological forms, and it can be shown that the *-er* in *-erwijs* differs from comparative *-er* underlyingly. Although it is not my main concern to show this here, one piece of evidence at least suggests that there is more to the underlying phonology of comparative *-er* than is obvious from such examples as (34a); if the Dutch comparative follows an *r*-final morpheme, it is spelled out as *-der*, rather than *-er*. For example, the comparative of *ver* 'far' is *ver-der* 'farther', rather than **ver-er*. This might suggest that the Dutch comparative morpheme features a *d* in its underlying phonology. It remains to be seen, however, if the *-er* in *-erwijs* behaves similarly or differently in such a phonological context.

[18] In an interesting parallel to the *-er* found in *-erwijs* MAs, this 'adverbial *-s*' has been argued to be diachronically related to genitival *-s*, like I suggested in Section 3.2 (cf. Corver, 2007).

[19] For the ease of glossing and consistency, I continue glossing *-erwijs* as a single morpheme, ERWIJS, even though I take it to be a complex morpheme along the lines described in Section 3.2.

[20] If this is on the right track, English serves as an interesting point of comparison with Dutch, in that it allows exactly the kind of structure that is ill-formed in Dutch; see (i) (capitalization again intended to mark non-overt Spell-Out):

i. This is John's brother and that is Jack's BROTHER.

What accounts for this difference between Dutch and English is a matter I leave to future research.

[21] An anonymous reviewer wonders why the analysis in (48) should require an adjectival predicate instead of a verbal one. Indeed, while I make the case above that the participle found in Dutch MAs is adjectival and not verbal, I do not offer an explanatory account of why this should be so. We can rephrase the observed ban on verbal predicates inside Dutch MAs as a selectional restriction that *-er*/R° imposes on its complement. The prediction made by this analysis, then, is that this Dutch *-er*/R° never functions as a relator between a small clause subject and a verbal predicate. In a cursory overview of such examples as *langzam-er-hand* 'slowly' (slow-ER-hand), *mijn-er-zijd-s* 'from/on my side' (mine-ER-side-S, and *twee-er-lei* 'bipartite/double' (two-ER-kind), this indeed appears the case.

[22] Under this analysis, QP is not an exception in Dutch as a nominal time modifier; in parallel to English *all the while*, we find other Dutch nominal time modifiers like *al die tijd*—which, note, also features *al*, preceding the demonstrative *die*.

[23] An anonymous reviewer points out that they are unaware of any such constraint on movement of a constituent as opposed to an extended projection of the same syntactic type of constituent. It remains to be seen if such a constraint is independently motivated. In this light, it would be interesting to determine if there are cases of stranding that could be explained in terms of such a constraint.

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