# Complications of complex left branches: Some observations on Dutch derived verbs 

Anne-Li Demonie

Masaryk University
NanoDays
07.02.2024

## Introduction

- Problem of intervening prefixes, (1)


## Introduction

- Problem of intervening prefixes, (1)
(1)

b. lexicon:

(2)

b. lexicon:

- The complex left branch must project its feature into the main spine
(2)

- The complex left branch must project its feature into the main spine
- F2 is not a part of the lexical item in (2)
(2)

- The complex left branch must project its feature into the main spine
- F2 is not a part of the lexical item in (2)
- F2 prevents the lexical item from lexicalising F3
- This issue is better known as the so-called 'bracketing paradox' (cf. Newell 2019; 2021 a.o.)
- This issue is better known as the so-called 'bracketing paradox' (cf. Newell 2019; 2021 a.o.)
- = a form whose bracketing based on morphophonological criteria differs from its bracketing based on semantic criteria.
- This issue is better known as the so-called 'bracketing paradox' (cf. Newell 2019; 2021 a.o.)
- = a form whose bracketing based on morphophonological criteria differs from its bracketing based on semantic criteria.
(3) [[un-happy]-er] vs. [un[happy-er]]
- This issue is better known as the so-called 'bracketing paradox' (cf. Newell 2019; 2021 a.o.)
- = a form whose bracketing based on morphophonological criteria differs from its bracketing based on semantic criteria.
(3) [[un-happy]-er] vs. [un[happy-er]]

(4)


## Aims

- Present a case study of Dutch derived verbs


## Aims

- Present a case study of Dutch derived verbs
- Discuss 3 solutions within this paradigm, using the tools available in Nanosyntax


# Dutch derived verbs 

Move the prefix

Pointers

## Multiple Merge

Conclusion

## Derived verbs

- Zero conversion
- Suffixation
- Prefixation


## Derived verbs

- Zero conversion
- Suffixation
- Prefixation

| PFX | BASE | GLOSS | VERB | GLOSS |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | A | breed | 'wide' | ver-breed-(en) | 'widen' |
| ver- | N | vel | 'skin' | ver-vell-(en) | 'molt' |
|  | V | doe-n | 'do' | ver-doe-(n) | 'waste' |
| be- | A | vuil | 'dirty' | be-vuil-(en) | 'dirty' |
|  | N | bos | 'forest' | be-boss-(en) | 'afforest' |
|  | V | giet-(en) | 'pour' | be-giet-(en) | 'water' |
| ont- | A | hard | 'hard' | ont-hard-(en) | 'soften' |
|  | N | bos | 'forest' | ont-boss-(en) | 'deforest' |
|  | V | vriez-(en) | 'freeze' | ont-vriez-(en) | 'unfreeze' |
| P- | A | slank | 'slim' | af-slank-(en) | 'slim' |
|  | N | burger | 'citizen' | in-burger-(en) | 'integrate' |
|  | V | gooi-(en) | 'throw' | in-gooi-(en) | 'throw in' |


| BASE | GLOSS | VERB | GLOSS |
| :--- | :--- | :--- | :--- |
| heilig | 'holy' | ont-heilig | 'desecrate' |
| groen | 'green' | ont-groen | 'haze' |
| zilt | 'salty' | ont-zilt | 'desalinate' |
| rond | 'round' | ont-rond | 'unround' |
| menselijk | 'humane' | ont-menselijk | 'dehumanise' |

- Structure of deadjectival verbs (cf. Ramchand (2008), Vanden Wyngaerd et al. (2022), Caha et al. (2023) a.o.)
- Structure of deadjectival verbs (cf. Ramchand (2008), Vanden Wyngaerd et al. (2022), Caha et al. (2023) a.o.)



## Prefix

- Building on Lieber \& Baayen (1993), I propose that ont(minimally) consists of a Source and Result feature:


## Prefix

- Building on Lieber \& Baayen (1993), I propose that ont(minimally) consists of a Source and Result feature:
(6) ont- $\Leftrightarrow \quad$ ResP



## Source

(7) a. Het volk onttroont de koning. 'The people dethrones the king.'
b. The king $_{\mathrm{F}}$ is being removed from the throne ${ }_{G}$. (ablative)
(8) a. Het bedrijf ontbost het Amazonewoud. 'The company deforests the Amazone.'
b. The forest ${ }_{F}$ is being removed from the Amazone ${ }_{G}$.

## Source

(7) a. Het volk onttroont de koning. 'The people dethrones the king.'
b. The king ${ }_{F}$ is being removed from the throne ${ }_{G}$. (ablative)
(8) a. Het bedrijf ontbost het Amazonewoud. 'The company deforests the Amazone.'
b. The forest ${ }_{F}$ is being removed from the Amazone ${ }_{G}$.

- Pantcheva (2011): Source head is also strongly reminiscent of a reversative or negative head


## Source

(7) a. Het volk onttroont de koning.
'The people dethrones the king.'
b. The king $_{\mathrm{F}}$ is being removed from the throne ${ }_{G}$. (ablative)
(8) a. Het bedrijf ontbost het Amazonewoud. 'The company deforests the Amazone.'
b. The forest ${ }_{F}$ is being removed from the Amazone ${ }_{G}$.

- Pantcheva (2011): Source head is also strongly reminiscent of a reversative or negative head
(9) a. Het Gentse Milieufront onthardt de voetpaden. 'The Ghent Environmentfront softens the pavements'
b. The pavements ${ }_{F}$ are changed from being hard ${ }_{G}$ (to being soft).


## Res

(10) a. Zijn wangen kleurden rood 'His cheeks coloured red'
b. *Zijn wangen ontkleurden bleek 'His cheeks decoloured pale'
c. *Men onthardde de voetpaden zacht 'They un-hardened the pavements soft'

## Derivation

(11)





## Dutch derived verbs

Move the prefix

Pointers

Multiple Merge

Conclusion

## Vanden Wyngaerd et al. (2022)

(15) De bloemen zijn (*kapot) ver-droogd. the flowers are broken PFX-dry-ptcpl 'The flowers have dried up'

## Vanden Wyngaerd et al. (2022)

(15) De bloemen zijn (*kapot) ver-droogd. the flowers are broken PFX-dry-ptcpl 'The flowers have dried up'
(16) $\quad$ ver $-\Leftrightarrow$ REsP


## Vanden Wyngaerd et al. (2022)

(15) De bloemen zijn (*kapot) ver-droogd. the flowers are broken PFX-dry-ptcpl 'The flowers have dried up'
(16) $\quad$ ver $-\Leftrightarrow$ ResP

(17) ProcP


- They allow the prefix to evacuate by means of 'spec-movement'
- They allow the prefix to evacuate by means of 'spec-movement'
- The prefix no longer projects
- They allow the prefix to evacuate by means of 'spec-movement'
- The prefix no longer projects
(18)

(19) ProcP

(20)



In favour of a movement-account:

In favour of a movement-account:

- Root suppletion under Tense

In favour of a movement-account:

- Root suppletion under Tense
- Syncretic verb forms


## Tense

- While the majority of Dutch ont-verbs are weak and take a Past Tense suffix -de/-te, a subset of them is irregular:


## Tense

- While the majority of Dutch ont-verbs are weak and take a Past Tense suffix -de/-te, a subset of them is irregular:

| PRESENT | PAST | GLOSS |
| :--- | :--- | :--- |
| ont-loop | ont-liep | 'avoid' |
| ont-neem | ont-nam | 'take away' |
| ont-doen | ont-deed | 'undo' |
| ont-gaan | ont-ging | 'elude' |

## Tense

- While the majority of Dutch ont-verbs are weak and take a Past Tense suffix -de/-te, a subset of them is irregular:

| PRESENT | PAST | GLOSS |
| :--- | :--- | :--- |
| ont-loop | ont-liep | 'avoid' |
| ont-neem | ont-nam | 'take away' |
| ont-doen | ont-deed | 'undo' |
| ont-gaan | ont-ging | 'elude' |

- The root is updated at Tense, meaning T and V again need to form a constituent to the exclusion of ont-




## Syncretisms

- Singular conjugations of regular and irregular verbs:


## Syncretisms

- Singular conjugations of regular and irregular verbs:

|  | ontgroen | onthard | ontnam |
| :--- | :--- | :--- | :--- |
| 1 | ontgroen | onthard | ontnam |
| 2 | ontgroen-t | onthard-? | ontnam |
| 3 | ontgroen-t | onthard-? | ontnam |




Contra movement:

- Projecting complex left branches cannot be moved out without altering the fseq


# Dutch derived verbs 

Move the prefix

Pointers

Multiple Merge

Conclusion

- Circumventing technical issues with no-movement solutions
- Circumventing technical issues with no-movement solutions
- Low/non-productivity of ont-
- Circumventing technical issues with no-movement solutions
- Low/non-productivity of ont-
"Ont- [ont] is a Germanic prefix that derives verbs from other verbs, nouns or adjectives. This process is productive for nouns, though not for verbs or adjectives."
(Taalportaal)
- Low/non-productivity of ont-
"The strongest argument for a denominal analysis is the consideration that deverbal derived ont-verbs are unproductive in general."
(translated from Baayen 1990)
- Low/non-productivity of ont-
"Un- also occurs in derivations that have the meaning in (4) [e.g. loss: unbalance, unriddle, unsex], but definitely not as productively. This is in stark contrast to Dutch and German, where (4) forms the productive group."
(translated from Hendriks et al. 1994)
- Counterexamples are attested, however (especially in creative contexts):
- Counterexamples are attested, however (especially in creative contexts):

| BASE | GLOSS | VERB | GLOSS |
| :--- | :--- | :--- | :--- |
| N vriend | 'friend' | ont-vriend | 'unfriend' |
| N boek | 'book' | ont-boek | 'get rid of books' |
| V volg | 'follow' | ont-volg | 'unfollow' |
| V kook | 'cook' | ont-kook | 'uncook' |
| A lelijk | 'ugly' | ont-lelijk | 'make not ugly' |

- But overall, productivity seems relatively limited
- But overall, productivity seems relatively limited
- Argument for assuming lexical entries which store ont- + root combinations with a particular meaning?
- But overall, productivity seems relatively limited
- Argument for assuming lexical entries which store ont- + root combinations with a particular meaning?

- But overall, productivity seems relatively limited
- Argument for assuming lexical entries which store ont- + root combinations with a particular meaning?
(29) onthard $\Leftrightarrow$

- Lexicalisation in (29) too broad
- Lexicalisation in (29) too broad
- Pointers (cf. Blix 2021, Caha et al. 2019 a.o.)
- Lexicalisation in (29) too broad
- Pointers (cf. Blix 2021, Caha et al. 2019 a.o.)
- = a kind of index or reference inside a lexical entry which points to another lexical entry.
- Lexicalisation in (29) too broad
- Pointers (cf. Blix 2021, Caha et al. 2019 a.o.)
- = a kind of index or reference inside a lexical entry which points to another lexical entry.
(33) onthard $\Leftrightarrow$

- With Init and Proc, the lexical item is updated as follows:
- With Init and Proc, the lexical item is updated as follows:

- Extra reason to assume pointers
- Extra reason to assume pointers
- Some verbs no longer fit a clear pattern and their meanings have become (somewhat) lexicalised:
- Extra reason to assume pointers
- Some verbs no longer fit a clear pattern and their meanings have become (somewhat) lexicalised:

| BASE | GLOSS | VERB | GLOSs |
| :--- | :--- | :--- | :--- |
| V moet | 'must' | ont-moet | 'meet' |
| V goochel | 'perform magic' | ont-goochel | 'disappoint' |
| V breek | 'break' | ont-breek | 'lack' |
| V werp | 'throw' | ont-werp | 'design' |

- Extra reason to assume pointers
- Some verbs no longer fit a clear pattern and their meanings have become (somewhat) lexicalised:

| BASE | GLOSS | VERB | GLOSS |
| :--- | :--- | :--- | :--- |
| V moet | 'must' | ont-moet | 'meet' |
| V goochel | 'perform magic' | ont-goochel | 'disappoint' |
| V breek | 'break' | ont-breek | 'lack' |
| V werp | 'throw' | ont-werp | 'design' |
| ?/A ferm | '?/solid' | (zich) ont-ferm | 'care out of pity' |
| ? beer | '?' | ont-beer | 'endure' |

- Following the example in (10), the lexical item for a lexicalised verb will also look like this:
- Following the example in (10), the lexical item for a lexicalised verb will also look like this:
(37) ont-moet $\Leftrightarrow$



# Dutch derived verbs 

Move the prefix

Pointers

Multiple Merge

Conclusion

## Russian dative

|  |  |  |
| :--- | :--- | :--- |
| NOM | pjat'-ø | stol-ov |
| ACC | pjat'-ø | stol-ov |
| GEN | pjat'-i | stol-ov |
| DAT | pjat'-i | stol-am |

Show where the derivation crashes, again bracketing issue

- To account for the case marking on both the numeral and the counted noun, Caha proposes to add the following step to the algorithm:
- To account for the case marking on both the numeral and the counted noun, Caha proposes to add the following step to the algorithm:
(39) Multiple Merge

When backtracking reopens multiple workspaces, merge F in each workspace.

Show how this works

Other outcomes of Multiple Merge:

- Lexicalise F only in the complex left branch (numeral marking only)
- Lexicalise F in both the complex left branch and the main spine (concord)
- Lexicalise F only in the main derivation
- Spawn yet another new derivation

Other outcomes of Multiple Merge:

- Lexicalise $F$ only in the complex left branch (numeral marking only)
- Lexicalise F in both the complex left branch and the main spine (concord)
- Lexicalise F only in the main derivation
- Spawn yet another new derivation

Show what this means for ont-verbs

# Dutch derived verbs 

Move the prefix

Pointers

Multiple Merge

Conclusion

For the time being:

1. Movement (spec)

For the time being:

1. Movement (spec)
2. No movement (pointers)

For the time being:

1. Movement (spec)
2. No movement (pointers)
3. Multiple Merge

For the time being:

1. Movement (spec)
2. No movement (pointers)
3. Multiple Merge

But none of these solutions solve everything and they each have their own challenges

## Thank you!

## References I

Baayen, Harald. 1990. Corpusgebaseerd onderzoek naar morfologische produktiviteit. Spektator 19. 213-233.
Blix, Haagen. 2021. Phrasal Spellout and partial overwrite: On an alternative to backtracking. Glossa: a journal of general linguistics 6(1). 1-17.
Caha, Pavel, Karen De Clercq \& Guido Vanden Wyngaerd. 2019. The fine structure of the comparative. Studia Linguistica 73(3). 470-521.

Caha, Pavel, Karen De Clercq \& Guido Vanden Wyngaerd. 2023. Zero morphology and change-of-state verbs. Zeistschrift für Sprachwissenschaft 42(1). 35-62.

Hendriks, Petra, Mark Kas \& Liesbeth Laport. 1994. De semantiek van afleidingen met ont-. De Nieuwe Taalgids 87. 136-144.
Lieber, Rochelle \& Harald Baayen. 1993. Verbal prefixes in Dutch: A study in lexical conceptual structure. In Geert Booij \& Jan van Marle (eds.), Yearbook of morphology 1993, 51-78. Dordrecht: Springer Science + Business Media.
Newell, Heather. 2019. Bracketing paradoxes in morphology. In Rochelle Lieber (ed.), The Oxford Encyclopedia of Morphology, 1-33. Oxford University Press.

## References II

Newell, Heather. 2021. Bracketing paradoxes resolved. The Linguistic Review 38(3). 443-482.

Pantcheva, Marina Blagoeva. 2011. Decomposing path: The nanosyntax of directional expressions. Tromsø: University of Tromsø [PhD dissertation].
Ramchand, Gillian Caitriona. 2008. Verb meaning and the lexicon: A first phase syntax. Cambridge: Cambridge University Press.

Vanden Wyngaerd, Guido, Karen De Clercq \& Pavel Caha. 2022. A nanosyntactic approach to Dutch deadjectival verbs. Linguistics in the Netherlands 39(1). 240-262.

