"Grammaticalization of prepositions into prefixes"

Van Goethem, Kristel

Abstract
The central aim of my presentation is to study the relationship between prepositions and their prefixal counterparts in French and Dutch. In line with the studies by Amiot (2004, 2005) and by Blom (2005) among others, I claim that prepositions can undergo a grammaticalization process and this way develop into prefixes. This "prefixization" process can be described on the basis of several parameters. Contrary to prepositions, which prototypically interact with two syntactic arguments, assuming the semantic roles of trajector and landmark (e.g. Le livre est sur la table 'the book is on the table'), prefixes have scope only over the stem to which they are bound (e.g. suralimenter 'to overfeed'). Moreover, this functional opposition correlates with semantic differences: whereas prepositions are characterized by (spatial, temporal or metaphorical) relational semantics (e.g. expressing the "spatial superiority" of the trajector in relation to the landmark), a prefix often expresses aspectu...

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Grammaticalization of prepositions into prefixes

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Overview

- **PART I: PhD Research (2003-2006)**
  - **Subject**: Prepositions used as preverbs in French and Dutch
  - **Objectives**:
    - Study of the grammaticalization of prepositions into prefixes ("prefixization")
    - Comparison of the paths of prefixization in French and Dutch
    - Comparison of the degree of prefixization in French and Dutch

- **PART II: Postdoctoral Research (2007)**
  - **Subject**: P-N compounds in French and Dutch
  - **Objective**:
    - Study of the interaction between grammaticalization and word structure
PART I

Prepositions used as preverbs in French and Dutch:
paths and degree of “prefixization”
Key problem

- **Prepositions used as bound morphemes:**
  - après-midi/ namiddag ‘afternoon’
  - contre-attaque/ tegenaanval ‘counterattack’
  - surestimer/ overschatten ‘to overestimate’

- **Preposition or prefix?**
  - après-midi ‘la période après midi’/ namiddag ‘de periode na de middag’
  - surestimer/ overschatten ?
Two approaches

- **Syntactic approach:**
  < formal and functional similarities between prepositions and their bound counterparts (e.g. *namiddag* ‘na de middag’)
  → preposition (compounds)

- **Lexicalist approach:**
  < semantic differences between prepositions and their bound counterparts (e.g. ‘excess’ meaning in *surestimer*/*overschatten*)
  → prefix (derivations)
Mixed approach: “prefixization”

  - Combines the advantages of the syntactic and the lexicalist approach
  - Continuum between preposition and prefix
  - Parameters of “prefixization”:
    - *De-/resemanticization/ Subjectification*
    - *Decategorialization/ Morphological Degeneration*
    - *Paradigmaticization* (e.g. *surtension* – *hypertension*)

Study object: French and Dutch preverbs

- **Interest of studying preverbs:**
  - Neglected in the literature, especially for French
  - Integrated in the VP, impact on argumental structure
  - *L’avion vole* ‘The plane flies’ (intransitive)
    - vs *L’avion survole l’océan* ‘The plane flies over the ocean’ (transitive)
Interest of comparative dimension:

- French: inseparable preverbs
  ↔ Dutch: separable and inseparable preverbs
    - *Hij breekt de stok dòór* ‘He breaks the stick’
    vs *Hij doorbreekt de stilte* ‘He breaks the silence’

- French: prepositional preverbs
  ↔ Dutch: homonymic prepositions, postpositions, adverbs
  → also postpositional and adverbial preverbs
    - *Hij springt over het hek* ‘He jumps across the fence’
    - *Hij springt het hek over* ‘He jumps across the fence’
    - *De pijn is over* ‘The pain has gone’
Data

- Analysis of all verbs in the bilingual dictionaries of Van Dale beginning with
  - `sur-`, `op-`, `over-` ‘up, on, over’
  - `contre-`, `tegen-` ‘against’
  - `entre-`, `tussen-` ‘between’

<table>
<thead>
<tr>
<th>French</th>
<th>Frequency</th>
<th>Dutch</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>sur-</code></td>
<td>67</td>
<td><code>op-</code></td>
<td>678</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>over-</code></td>
<td>282</td>
</tr>
<tr>
<td><code>contre-</code></td>
<td>20</td>
<td><code>tegen-</code></td>
<td>27</td>
</tr>
<tr>
<td><code>entre-</code></td>
<td>51</td>
<td><code>tussen-</code></td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>138</strong></td>
<td><strong>Total</strong></td>
<td><strong>991</strong></td>
</tr>
</tbody>
</table>
Parameters of “prefixization”

- **Morpho-syntactic parameter**: analysis of the preverb’s scope

  - Scope over a noun/ NP → preposition/ postposition/ predicative adverb
    - (1) *Ils ont emprisonné le criminel* ‘They put the criminal into prison’
    - (2) *L’avion survole actuellement les îles Baléares* ‘The plane is currently flying over the Balearic Islands’
    - (3) *Hij heeft heel Europa doorgereisd* ‘He travelled all through Europe’
    - (4) *Hij heeft het touw doorgesneden* ‘He cut the rope’

  - Scope over the base verb → prefix
    - (5) *Il a surchargé la voiture* ‘He overloaded the car’
    - (6) *We zullen nog eventjes doorfietsten* ‘We’ll keep on riding for a while’
**Semantic parameter**: analysis of meaning change and meaning type (relational, resultative, modifying meaning)

- (1-3): prepositional/ postpositional meaning (relational type)
- (4): adverbial meaning (resultative type)
- (5-6): meaning extension (modifying type)
  - (5): evaluative meaning (excess)
  - (6): aspectual meaning (continuative)

**Comparative parameter**: analysis of the preverb’s translation
1. Relational preverbal constructions (< preposition, postposition)
   - Relational preverb + base verb
   - Verbalization of [relator + trajector]
   - Verbalization of [relator + landmark]

2. Predicative preverbal construction (< adverb)
   (not in French)

3. Prefixal preverbal constructions
   - Prefixal preverb + base verb
   - Verbalization of a noun
   - Verbalization of an adjective

4. Lexicalized preverbal constructions
1. Relational preverbal constructions

- **Relational preverb + base verb**
  \[
  [[\text{Relator} \ [\text{Verb}]]_V \ [\text{NP}_{\text{landmark}}]]
  \]
  - *survoler les îles Baléares* ‘to fly over the Balearic Islands’
  - *een woord tussenvoegen* ‘to insert a word’

- **Verbalization of [relator + trajector]**
  \[
  [[\text{Relator}} \ [\text{Noun}_{\text{trajector}}]]_V \ [\text{NP}_{\text{landmark}}]
  \]
  - *souligner un mot* ‘to underline a word’
  - *een rivier overbruggen* ‘to bridge a river’

- **Verbalization of [relator + landmark]**
  \[
  [[\text{Relator}} \ [\text{Noun}_{\text{landmark}}]]_V
  \]
  - *emprisonner un criminel* ‘to put a criminal into prison’
  - *de groenten inblikken* ‘to put the vegetables in a can’
2. Predicative preverbal construction

\[ [NP] [[Predicative adverb] [Verb]]_v \]

e.g. *al zijn geld opmaken* ‘to spend all his money’

→ “*al zijn geld is op*”

*het touw doorsnijden* ‘to cut the rope’

→ “*het touw is door*”
3. Prefixal preverbal constructions

- **Prefixal preverb + base verb**

  \[[\text{Prefixal preverb}] \ [\text{Verb}]\]_V

  - *entrouvrir la porte* ‘to open the door partway’
  - *de puppy’s overvoeden* ‘to overfeed the puppies’

- **Verbalization of a noun**

  \[[\text{Prefixal preverb}] \ [\text{Noun}]\]_V

  - *een paar oude schoenen oplappen* ‘to mend an old pair of shoes’

- **Verbalization of an adjective**

  \[[\text{Prefixal preverb}] \ [\text{Adjective}]\]_V

  - *een zieke opvrolijken* ‘to cheer a sick person up’
4. Lexicalized preverbal constructions

- Non-transparent preverbal constructions
  - *contre* carrer les plans de quelqu’un ‘to thwart someone’s plans’
  - heel goed met elkaar kunnen *opschieten* ‘to get on very well (together)’
Hypothesis

Grammaticalization of relational and predicative preverbs into prefixal preverbs:

- **Resemanticization**: new aspectual, evaluative meanings (modifying type)
- **Condensation** of the preverb’s scope (cf. Lehmann 1995)

- *survoler une île* ‘to fly over an island’
  \[\rightarrow \text{surcharger la voiture} \text{ ‘to overload the car’}\]
- *de stad doorwandelen* ‘to walk through the city’
  \[\rightarrow \text{nog eventjes doorfietsen} \text{ ‘to keep on riding for a while’}\]
**Analysis results**

**Result 1:** Discrepancy between preverbal use of comparable prepositions in French and Dutch

<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><em>sur-</em>/<em>op-</em></td>
<td>4/67</td>
<td>5,97%</td>
</tr>
<tr>
<td><em>sur-</em>/<em>over-</em></td>
<td>29/67</td>
<td>43,28%</td>
</tr>
<tr>
<td><em>op-</em>/<em>sur-</em></td>
<td>7/678</td>
<td>1,03%</td>
</tr>
<tr>
<td><em>over-</em>/<em>sur-</em></td>
<td>32/282</td>
<td>11,35%</td>
</tr>
<tr>
<td><em>contre-</em>/<em>tegen-</em></td>
<td>5/20</td>
<td>25,00%</td>
</tr>
<tr>
<td><em>tegen-</em>/<em>contre-</em></td>
<td>6/27</td>
<td>22,22%</td>
</tr>
<tr>
<td><em>entre-</em>/<em>tussen-</em></td>
<td>0/51</td>
<td>0,00%</td>
</tr>
<tr>
<td><em>tussen-</em>/<em>entre-</em></td>
<td>0/4</td>
<td>0,00%</td>
</tr>
</tbody>
</table>
Explanation

(1) Different paths of grammaticalization

- *sur-* vs *op-*

- Preverbal meanings of *op-* derive from its adverbial ‘upward’ meaning by means of metonymical and metaphorical extension

  (cf. Blom 2004):

  - ‘moving upward’: *opklimmen* ‘to climb’, *ophijsen* ‘to pull up’, etc.
  - ‘moving upward’ + ‘surfacings’: *opborrelen* ‘to bubble up’, *opbaggeren* ‘to dredge up’, etc.
  - ‘surfacings’ + ‘becoming visible’: *opduiken* ‘to dig up, to dive for’, *opvissen* ‘to fish up’, etc.
  - ‘becoming visible + accessible’: *opzoeken* ‘to look up’, *opsporen* ‘to track (down)’, etc.
↔ *sur-/over*: same paths of grammaticalization

- **Relational meanings**
  - ‘spatial superiority’: *surcoller une affiche/ een affiche overplakken* ‘to stick a poster over another poster’
  - ‘hierarchical superiority’: *surpasser son rival/ zijn rivaal overtreffen* ‘to surpass one’s rival’

- **Modifying meanings**
  - Evaluative meaning ‘excess’: *se surestimer/ zich overschatten* ‘to overestimate oneself’
  - Aspectual meaning ‘repetition’: *sursemer la terre/ het land overzaaien* ‘to sow the land again’
(2) Different degree of grammaticalization

→ French preverbs closer to prefixes than Dutch ones

- *sur- > over-*
- *contre- > tegen-*
- *entre- > tussen-*
### Analysis results

**Result 2:** French preverbs are more grammaticalized than Dutch preverbs

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>sur-</em></td>
<td>48/67</td>
<td>71.64%</td>
</tr>
<tr>
<td><em>op-</em></td>
<td>127/678</td>
<td>18.73%</td>
</tr>
<tr>
<td><em>over-</em></td>
<td>64/282</td>
<td>22.70%</td>
</tr>
<tr>
<td><em>contre-</em></td>
<td>15/20</td>
<td>75.00%</td>
</tr>
<tr>
<td><em>tegen-</em></td>
<td>4/27</td>
<td>14.81%</td>
</tr>
<tr>
<td><em>entre-</em></td>
<td>14/51</td>
<td>27.45%</td>
</tr>
<tr>
<td><em>tussen-</em></td>
<td>0/4</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
Explanation

(1) Grammaticalization started earlier in French (since Latin) than in Dutch (XIII\textsuperscript{th} century)

(2) Dutch preverbs are often stuck in the intermediate stages of grammaticalization

- Intermediate semantic categories: new resultative meanings (e.g. \textit{opzoeken} ‘to look up’, \textit{opvegen} ‘to sweep up’, \textit{opwekken} ‘to stimulate’, etc.)
- Separable preverbs do not often develop into prefixal preverbs (exceptions: e.g. \textit{opvrolijken} ‘to cheer up’)

→ Boundary between syntax and morphology is blurred in Dutch, but is rather strict in French
PART II
P-N compounds in French and Dutch:
interaction between word structure
and grammaticalization
Grammaticalization of prepositions into prefixes

- **Preposition ~ Head**
  - Syntactically: selects a (nominal) object, determines the construction of the PP (cf. Melis 2003)
  - Semantically: specifies the circumstances (e.g. localization)

- **Prefix ~ Modifier**
  - Morphologically: subordinate to the stem
  - Semantically: modifies the meaning of the stem

→ Grammaticalization of Prepositional Heads into Prefixal Modifiers
Word structure

- **Dutch**: Modifier-Head (*postzegel* lit. post-seal, ‘stamp’)
  → P-N compounds: P ~ Modifier

- **French**: Head-Modifier (*timbre-poste* lit. seal-post, ‘stamp’)
  → P-N compounds: P ~ Head
P-N compounds on a scale of grammaticalization

<table>
<thead>
<tr>
<th>Grammaticalization</th>
<th>Construction type</th>
<th>Word Structure</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preposition</td>
<td>Exocentric compound</td>
<td>Head-Modifier</td>
<td>sans-papiers ‘person without legal papers’</td>
</tr>
<tr>
<td></td>
<td>[Semi-endocentric compound]</td>
<td>[Ambiguous]</td>
<td>[contre-attaque/tegenaanval ‘counterattack’]</td>
</tr>
<tr>
<td></td>
<td>Endocentric compound</td>
<td>Modifier-Head</td>
<td>contre-exemple/tegenvoorbeeld ‘counterexample’</td>
</tr>
<tr>
<td></td>
<td>Derivation</td>
<td>Modifier-Head</td>
<td>surproduction/overproductie ‘overproduction’</td>
</tr>
<tr>
<td>Prefix</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Hypothesis:** interaction between grammaticalization and word structure

- **Dutch:** Modifier-Head structure stimulates “prefixization”
  - → P-N compounds: P = Modifier, N = Head
  - → endocentric compounds + derivations

- **French:** Head-Modifier structure counteracts “prefixization”
  - → P-N compounds: P = Head, N ≠ Head
  - → exocentric compounds (~ PP)
Case study 1: *tussen-/entre- + N*

<table>
<thead>
<tr>
<th></th>
<th><em>Tussen-</em></th>
<th><em>Entre-</em></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P-N</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Exocentric compound</td>
<td>45 (88,24%)</td>
<td>18 (72,00%) <code>entreligne</code> `distance between two lines’</td>
</tr>
<tr>
<td>~ ‘interval’</td>
<td><code>tussengeneratie</code> `intermediate generation’</td>
<td></td>
</tr>
<tr>
<td>- Endocentric compound</td>
<td>5 (9,80%)</td>
<td>6 (24,00%) <code>entremets</code> `intermediate course’</td>
</tr>
<tr>
<td>~ ‘interval’</td>
<td><code>tussenoplossing</code> `provisional solution’</td>
<td></td>
</tr>
<tr>
<td>- Derivation</td>
<td>1 (1,96%)</td>
<td></td>
</tr>
<tr>
<td>~ ‘provisional’</td>
<td><code>tussendoortje</code> `snack’</td>
<td>1 (4,00%) <code>(sur ces) entrefaites</code> `just after’</td>
</tr>
<tr>
<td>- Lexicalized</td>
<td></td>
<td></td>
</tr>
<tr>
<td>construction</td>
<td>1 (1,96%)</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>51</td>
<td>25</td>
</tr>
</tbody>
</table>
Case study 2: *over-*/ *sur-* + N

<table>
<thead>
<tr>
<th>P-N</th>
<th>Over-</th>
<th>Sur-</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exocentric compound</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>~ ‘spatial superiority’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>~ ‘hierarchical superiority’</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Endocentric compound</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>~ ‘spatial superiority’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>~ ‘hierarchical superiority’</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Derivation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>~ ‘second (degree)’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>~ ‘excess’</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lexicalized construction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 (4,35%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>overlijden</em> ‘decease’</td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>69</td>
<td></td>
</tr>
<tr>
<td><strong>Sur</strong></td>
<td>10 (9,71%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>surplace</em> ‘tactical standstill’</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>surtout</em> ‘above all’</td>
<td></td>
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<tr>
<td></td>
<td>19 (27,54%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>overjas</em> ‘overcoat’</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>overnicht</em> ‘preponderance’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>47 (68,12%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>overgrootvader</em> ‘great-grandfather’</td>
<td></td>
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<tr>
<td></td>
<td><em>overbevolking</em> ‘overpopulation’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>71 (68,93%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>surnom</em> ‘surname, nickname’</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>surcapacité</em> ‘overcapacity’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 (2,91%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>surface</em> ‘surface’</td>
<td></td>
</tr>
</tbody>
</table>
Analysis results

- **Case study 1**: confirms our hypothesis
  - grammaticalization *tussen-* → *entre-
    - Dutch: Modifier-Head → [+ grammaticalization]
      → endocentric compounds + derivations
    - French: Head-Modifier → [- grammaticalization]
      → exocentric compounds
Case study 2: does not entirely confirm our hypothesis

- grammaticalization *sur-* ~ *over-* (→ derivations)
- grammaticalization *sur-* > Head-Modifier principle
  - Explanation?
  - first grammaticalization of *sur-* + V/Adj, later *sur-* + N (cf. *TLF*)
    - 12th century: + V (*surabonder* ‘to superabound’, *surchager* ‘to overload’, *surfaire* ‘to overcharge’)
    - 13th century: + Adj (*surabondant* ‘superabundant’)
    - 14th century: + N (*surabondance* ‘superabundance’) → analogical extension
CONCLUSION: comparison of P-V and P-N compounds

PART I:

P-V: French more grammaticalized than Dutch
- French Head-Modifier structure is not applicable to verbs (no exocentric verbs)
- Impact of separable preverbs in Dutch counteracts prefixization

PART II:

P-N: Dutch more grammaticalized than French
- Dutch Modifier-Head structure stimulates prefixization
- French Head-Modifier structure counteracts prefixization
  BUT: this impact is cancelled for bound prepositions derived from preverbs (cf. *sur*)
References


TLFi = *Trésor de la Langue Française informatisé*  (http://atilf.atilf.fr/tlf.htm)


