Variation in Verbal Inflection: Dutch Dialects

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http://www.meertens.knaw.nl

Outline of this presentation
- Introduction: Geographic variation in inflection
- Variflex
- The verbal paradigm:
  - Data
  - Generalisations (5) and feature organisations
- Summary

Geographic variation in inflection
Aims to describe and explain the boundaries and structure of geographic variation in verbal and adjectival inflection.
Research Question:
Which morphosyntactic features are relevant within the Dutch inflectional system and how is this system organised?

Variflex Project
Research on verbal and adjectival inflection in:
First language acquisition
(Daniela Polisenska, UvA)
Second language acquisition
(Elma Blom, UvA)

Data I
Data for verbal inflection are taken from a database created by the Meertens Institute:
Syntactic Atlas of the Dutch Dialects
http://www.meertens.nl/projecten/sand

Data II
229 paradigms of the verbs leven ('to live') and gaan ('to go') of 117 Dutch dialects. Attested through translation sentences:
Als ik ga, ga ik 'When I go, I go'
Als hij nog drie jaar leeft, leeft hij langer dan zijn vader. "If he lives three more years, he'll be living longer than his father"

Examples of variation in the Netherlands I
Paradigms with 3 forms (n=146)

<table>
<thead>
<tr>
<th>Standard Dutch (n=52/146)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
</tr>
<tr>
<td>2sg</td>
</tr>
<tr>
<td>3sg</td>
</tr>
<tr>
<td>1pl</td>
</tr>
<tr>
<td>2pl</td>
</tr>
<tr>
<td>3pl</td>
</tr>
</tbody>
</table>

Examples of variation in the Netherlands II
Paradigms with 4 forms (n=47)

<table>
<thead>
<tr>
<th>Groningen (n=37/47)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
</tr>
<tr>
<td>2sg</td>
</tr>
<tr>
<td>3sg</td>
</tr>
<tr>
<td>1pl</td>
</tr>
<tr>
<td>2pl</td>
</tr>
<tr>
<td>3pl</td>
</tr>
</tbody>
</table>

Examples of variation in the Netherlands II
Paradigms with 4 forms (n=47)

<table>
<thead>
<tr>
<th>Limburg (n=10/47)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
</tr>
<tr>
<td>2sg</td>
</tr>
<tr>
<td>3sg</td>
</tr>
<tr>
<td>1pl</td>
</tr>
<tr>
<td>2pl</td>
</tr>
<tr>
<td>3pl</td>
</tr>
</tbody>
</table>

Focus in this presentation
The syntactic features that are minimally required to describe the observed variation
Examples of variation in the Netherlands III
Paradigms with 2 forms (n=36)

<table>
<thead>
<tr>
<th></th>
<th>Overhead</th>
<th>Noord-Holland</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>kooft</td>
<td>gap-t</td>
</tr>
<tr>
<td>2sg</td>
<td>kooft</td>
<td>gap-t</td>
</tr>
<tr>
<td>3sg</td>
<td>kooft</td>
<td>gap-t</td>
</tr>
<tr>
<td>1pl</td>
<td>kooft</td>
<td>gap-t</td>
</tr>
<tr>
<td>2pl</td>
<td>kooft</td>
<td>gap-t</td>
</tr>
<tr>
<td>3pl</td>
<td>kooft</td>
<td>gap-t</td>
</tr>
</tbody>
</table>

III Paradigms with 2 forms (n=36)

gaa-

gaa-

gaa-

t

Noord-Holland (n=3/36)

gleef-

gleef-

gleef-

gleef-

gleef-

Overijssel (n=13/36)

map 1: 3, 2, or 4 forms

Generalisation 1a: plural has one form

Exception: 2nd person plural

map 2

Generalisation 1a: exception [2plu] continued

2nd person plural does not count as an exception to generalisation 1a

Generalisation 1b: the morphological form of plural = the default form of verbs

{-en} (n=215/229) or –t (n=14/229)

Plural forms represent the default spell out of verbs:
- infinitives: leven (to live)
- nominalisations: het leven (the life)

Notation for describing the organisation of features

<table>
<thead>
<tr>
<th></th>
<th>1st person</th>
<th>2nd person</th>
<th>3rd person</th>
<th>rest/default</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[1]</td>
<td>[2]</td>
<td>[3]</td>
<td>[-]</td>
</tr>
</tbody>
</table>

Organisation of features

With these notations, the paradigms with maximum spell out look like this: [1], [2], [3], [-]
Strategies for reduction of forms in paradigms

A) enlarging the default
B) syncretisms of [1], [2], [3]

Strategy A: enlarging the default
Predicts the following organisations of features:

<table>
<thead>
<tr>
<th>Forms</th>
<th>3pl</th>
<th>2pl</th>
<th>1pl</th>
<th>3sg</th>
<th>2sg</th>
<th>1sg</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>[1/2/3, -]</td>
<td>A4</td>
<td>[1, -]</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>A2</td>
<td>[1/2/3, -]</td>
<td>A5</td>
<td>[1, -]</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>A3</td>
<td>[2/3, -]</td>
<td>A6</td>
<td>[3, -]</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>A4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>A5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>A6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Paradigms with 3 forms

<table>
<thead>
<tr>
<th>A1</th>
<th>B1</th>
<th>C1</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1/2/3, -]</td>
<td>[1, -]</td>
<td>-</td>
</tr>
<tr>
<td>[1/2/3, -]</td>
<td>[1, -]</td>
<td>-</td>
</tr>
<tr>
<td>[2/3, -]</td>
<td>[3, -]</td>
<td>-</td>
</tr>
</tbody>
</table>

Paradigms with 2 forms

<table>
<thead>
<tr>
<th>A2</th>
<th>B2</th>
<th>C2</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1, -]</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>[1, -]</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Strategy B: examples II

<table>
<thead>
<tr>
<th>B4</th>
<th>[1/2/3, -]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2, -]</td>
<td>-</td>
</tr>
<tr>
<td>[3, -]</td>
<td>-</td>
</tr>
</tbody>
</table>

Strategy C: examples I

<table>
<thead>
<tr>
<th>A3</th>
<th>[1/2/3, -]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1, -]</td>
<td>-</td>
</tr>
<tr>
<td>[1, -]</td>
<td>-</td>
</tr>
<tr>
<td>[2/3, -]</td>
<td>-</td>
</tr>
</tbody>
</table>

Strategy C: enlarging default + syncretisms
2 strategies in 1 paradigm predicts the following organisations of features:

<table>
<thead>
<tr>
<th>C1</th>
<th>C2</th>
<th>C3</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1/2, -]</td>
<td>[1/3, -]</td>
<td>[2/3, -]</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>-</td>
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<td>-</td>
</tr>
</tbody>
</table>

In all Dutch dialects the spell out for third person is -t.

Generalisation 2: violation

paradigms with [3sg] = [3]

- B3 (n=6)
- B4 (n=11)
- C3 (n=5)

Generalisation 2 overrules generalisation 3

Generalisation 2: solution

-t-deletion: Process that deletes word-final -t

Assumption: dialects that violate generalisation 2 undergo -t-deletion: they occur in areas where 
t-deletion takes place (Goeman 1999)

Thus, underlyingly -t is present in [3]

Generalisation 2: solution continued

B3

1sg

3pl

2pl

1pl

3sg

2sg

Generalisation 3:

[1] = a unique form in the paradigm

- In paradigms with 4 forms: 100%
- In paradigms with 3 forms: 85% (125/146):
  - Most frequent paradigms:
    - A2 (n=54): [1, [3], [2]]
    - B1 (n=64): [1, [2/3], [-]]
  - Violation in:
    - A3 (n=17): [2], [3], [-]
    - B2 (n=5): [1/2], [3], [2]

But:
- [1/2] and [1/3] do not occur: B3, C1 and C2

Generalisation 4:

[2] = a unique form if there’s -st inflection

- In 67% (154/229) [2] has a syncretism with [1], [3] or [-]
  if not - [2] = -st
- Paradigm A5: [2, [-]] does not occur

Generalisation 5:

syncretisms and natural classes

- [2/3] is found in the most frequent paradigm, B1 (n=54): [1], [2/3], [-]
- C3 (n=9): [2/3], [-]
- [1/2] occurs 11 times: B4

But:
- [1/2] and [1/3] do not occur: B3, C1 and C2

Generalisation 3:

[1] = a unique form in the paradigm continued

- Paradigms with 2 forms: 41% (13/32)
  - Violation
    - A6 (n=3): [2], [-]
    - B4 (n=11): [1/2/3], [-]
    - C3 (n=5): [2/3], [-]
- Generalisation 2 overrules generalisation 3
**Generalisation 5:** syncretisms and natural classes continued

- [2/3] is a natural class
- [1/2/3] is a natural class
- [1/2] is not a natural class
- [1/3] is not a natural class

**Hypothesis:**

The relevant phi-features are not [1], [2], [3] but [+ speaker] and [+ addressee]

\[
\text{phiF} \\
\begin{array}{c}
  [+sp] \\
  [-sp] \\
  [+ad] \\
  [-ad]
\end{array}
\]

**Hypothesis:** continued

Only [-sp] and phiF are natural classes for syncretisms

Violation: B2 (n=5) [1/2], [3], [-]

**Variflex project**

Generalisation 1 and 2 are strong and show little variation. → Predicts little variation for inflection of plural and third person in L1/L2 acquisition data

Generalisation 3 and 4 are weaker and show more variation. → Predicts more variation for inflection of first and second person in L1/L2 acquisition data

**To sum up I:**

- There are verbal paradigms with either 2, 3 or 4 forms
- There are 2 strategies to reduce the number of forms in the paradigm

**To sum up II:**

1. Plural has one default form
2. The spell out for [3] is stable
3. [1] is a unique form in the paradigm
4. [2] is a unique form iff there’s -st inflection
5. [-sp] and phiF are natural classes for syncretisms

**Variation in Verbal Inflection:**

_Dutch Dialects_

_Alix MacLean & Hans Bennis_

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