The boundaries between child L2 and (2)L1: 
DO-support in child Dutch

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I. Introduction

Spontaneous production data monolingual Dutch children

(1) We gaan allemaal ete (3;1) (Jordens 1990: 1433-34)
We go/do all eat

(2) ik doe ook praten (S. 3;5.2) (Van Kampen 1997: 46)
I do also talk

Experimental data monolingual children (Zuckerman): root/non-root asymmetry

Questions to be addressed

• Do children acquiring Dutch as 2L1/L2 go through the same stage as their monolingual peers?
• Do they show the same root/non-root asymmetry as their monolingual peers?
• If not, how can we explain these differences? (cross-linguistic influence/transfer?)

Dutch syntax

Head final word order: SOVI

V2 in roots -> S-Vf-O-Vi / XP-Vf-S-O-Vi

(3) a. Ik heb een appel gegeten
   I have an apple eaten

   b. Toen heb ik een appel gegeten
      then have I an apple eaten

No V2 in non-roots ->S-O-Vi-Vf

(4) Zij zegt dat ik een appel gegeten heb
   She says that I an apple eaten have
II. Zuckerman’s (2001) experiment

Analysis
DO-support in child language: result of realization of finite features in I [merge]
More economical than Move (in roots), but less economical than base-generation Vf (in non-roots) ⇒ Economy explains root/non-root asymmetry

Subjects
10 (monolingual) Dutch children, age 3;0 - 3;11: 5 from Limburg (south) and 5 from Groningen (north).
14 (monolingual) Dutch children, age 4;8 -5;0, all from Limburg

Methodology
A sentence completion test, describing 34 picture-pairs

Root
(5)  Experimenter:
Dit is de man die het brood snijdt en dit is de man die de tomaat snijdt.
Dus deze man snijdt het brood en deze man ...
[subject: snijdt de tomaat: VfO]

This is the man who cuts the bread and this is the man who cuts the tomato. So, this man cuts the bread and this man....
[subject: cuts the tomato: VfO]

Non-root
(6)  Experimenter:
Deze man snijdt het brood en deze man snijdt de tomaat. Dus dit is de man die het brood snijdt en dit is de man die ....
[subject: de tomaat snijdt: OVf]

This man cuts the bread and this man cuts the tomato. So, this is the man who cuts the bread and this is the man who ...
[subject: the tomato cuts: OVf]

Results

Table 1: The distribution of the tokens of DO-support (numerator) and all utterances (denominator), (taken from Zuckerman 2001: 127)

<table>
<thead>
<tr>
<th></th>
<th>Dutch L1 children N=10</th>
<th>Dutch L1 children N=14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>3;0 – 3;11</td>
<td>4;8 - 5;0</td>
</tr>
<tr>
<td>Language</td>
<td>Dutch (from Limburg and Groningen)</td>
<td></td>
</tr>
<tr>
<td>Non-root</td>
<td>4/141</td>
<td>0/210 0%</td>
</tr>
<tr>
<td>Root</td>
<td>33/145 23%</td>
<td>6/210 3%</td>
</tr>
<tr>
<td>Signif.</td>
<td>t=2.583 df=18, p&lt;0.05</td>
<td>--</td>
</tr>
</tbody>
</table>
III. Our 2L1/L2 experiment

Methodology
See Zuckerman

Subjects
14 children, age 3;0 - 5;2 at three different schools

- **2L1/L2**, age 3;0 - 3;10
  N=6   age L2/2L1
  Youssra 3;0  Moroccan Arabic/Berber
  Joseph 3;2  Moroccan Arabic/berber
  Romy 3;2  Sranan
  Anthony 3;5  Sranan
  Nicole 3;6  French
  Stefano 3;10  Sranan

- **L1** Dutch, age 3;5 - 3;9
  N=2   age monolingual
  Patrick 3;5  Dutch
  Joyce 3;9  Dutch

- **2L1/L2**, age 4;11 - 5;2
  N =3   age L2/2L1
  Daphne 4;11  Akan/Ewe
  Serwa 5;0  Akan/Ewe
  Damien 5;2  Russian-Sranan

- **L1** Dutch, age 5;2
  N =3   age monolingual
  Ravian 5;2  Dutch
  Thom 5;2  Dutch
  Jesse 5;2  Dutch

Results

Root
(7)  
  Experimenter:
  En deze vrouw +...
  And this woman

  Youssra (3;0)
  ++ gaat de sokken aantrekken.
  goes the socks put_{inf} on
Non-root
(8) Experimenter:
Juist dus dit is de kat +...
right thus this is the cat

Nicole (3;6)
++ die gaat die mevrouw helpen
that goes that madam help

Table 2: The distribution of the tokens of DO-insertion (numerator) and all utterances (denominator), age 3;0 - 3;10

<table>
<thead>
<tr>
<th></th>
<th>Dutch monolingual</th>
<th>2L1/L2</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Age</td>
<td>3;5 – 3;9</td>
<td>3:0 - 3;10</td>
</tr>
<tr>
<td>Language</td>
<td>Dutch</td>
<td>Moroccan Arabic/Berber, French, Sranan</td>
</tr>
<tr>
<td>Non-root</td>
<td>1/68</td>
<td>1%</td>
</tr>
<tr>
<td>Root</td>
<td>12/73</td>
<td>16%</td>
</tr>
<tr>
<td>Signif.</td>
<td>$x^2=9.39$, df=1, $p&lt;.01$</td>
<td>----</td>
</tr>
</tbody>
</table>

Table 3: The distribution of the tokens of DO-insertion (numerator) and all utterances (denominator), age 4;8 - 5;2

<table>
<thead>
<tr>
<th></th>
<th>Dutch monolingual</th>
<th>2L1/L2</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Age</td>
<td>5;2</td>
<td>4;11 - 5;2</td>
</tr>
<tr>
<td>Language bakground</td>
<td>Dutch</td>
<td>Akan, Ewe / Sranan -Russian</td>
</tr>
<tr>
<td>Non-root</td>
<td>0/69</td>
<td>0%</td>
</tr>
<tr>
<td>Root</td>
<td>0/74</td>
<td>0%</td>
</tr>
</tbody>
</table>

Summary
• DO-support only in younger kids => like monolingual (and 2L1?) Dutch
• No root/non root asymmetry
• non-Dutch word order in non-roots => like (child?) L2 Dutch
IV. A quick look at the literature

Bilingual first language acquisition (2L1)

theory
Meisel (1989), Genesee & Paradis (1995), De Houwer (1994) and many others:
- very early separation of the two grammars
- autonomous development of the two grammars, similar to monolingual L1 development

Hulk & Müller (2000), Müller & Hulk (2001):
(syntactic) cross-linguistic influence possible if
- seemingly ambiguous input
- vulnerable domain
- syntax/pragmatics interface

data
Leopold (1949), Taeschner (1983), Müller (1998), Döpke (1998): data bilingual children having problems with the word order in German embedded clauses, during a certain period:

(9) Ich habe ein Buch wo die Name ist Struwpeter Hildegard 4;6
I have a book where the name is Struwpeter

(10) Das ist eine Puppe die ist wie Nonna Tina Giulia 2;8
That is a doll who is like Nonna Tina

(11) sagen wir mal dass das ist ein Baum Ivar 3;10,25
say we PART that this is a book

(12) Ich moechte tragen dich CW 3;2
I want carry you

Gavarro (2003): … setting of the IP as head initial by these children…

Child L2 acquisition

* initial transfer from L1
Hazdenar (1997) influence of Turkish L1 on English child L2

(13) Investigator: Shall we play with your toys?
Erdem: Yes, toys play

Unsworth (2002) influence of English L1 on Dutch child L2

(14) Nijntje gaat niet plukken de bloem
Nijntje goes not pick the flower
- *no transfer*: similar to monolingual child L1 acquisition
  Weerman (2002) adjective inflection in child L2 Dutch

- Schwartz (2003):
  *morphology* similar to child L1 acquisition
  *syntax* similar to adult L2 acquisition

**Back to our data**

**V. frequency** *DO-support: Nicole versus the other 2L1/L2 children*

**Table 4: DO-support (compare with Table 2)**

<table>
<thead>
<tr>
<th></th>
<th>2L1/L2 the others N=5</th>
<th>2L1/L2 Nicole N=1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>3;0 - 3;10</td>
<td>3;6</td>
</tr>
<tr>
<td><strong>Language background</strong></td>
<td>Moroccan Arabic/Berber, Sranan</td>
<td>French</td>
</tr>
<tr>
<td><strong>Non-root</strong></td>
<td>3/144 2 %</td>
<td>15/31 48%</td>
</tr>
<tr>
<td><strong>Root</strong></td>
<td>6/168 3.6%</td>
<td>10/26 38%</td>
</tr>
<tr>
<td><strong>Signif.</strong></td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

**Nicole**

- Just as the monolingual children, Nicole uses *gaan*+ infinitive instead of the simple present in roots. However, she uses it more frequently (38%) than the monolingual children (Zuckerman’s 23%, ours 16%)

- Contrary to the monolingual children, Nicole also frequently uses *gaan*-support in non-root sentences (48%), always with the wrong word order:

  (15)  
  *Experimenter:*
  Juist dus dit is de kat +...
  right thus this is the cat

  *Nicole:*
  ++ die *gaat* die mevrouw *helpen*
  that goes that lady help


No root/non-root asymmetry => violation of Economy?
No: deviant word order in embedded clause -> use of DO-support does not violate Economy

The other bilingual children

- These bilingual children use gaan-support only in 3.6% of their root-clauses and in 2% of their non-roots.

However, they also produce it in spontaneous speech:

(16) **Experimenter:**
Dus deze jongen, dit is de jongen die de hond aait. En dit is de jongen +...
Thus this boy that is the boy who the dog strokes. And this is the boy …

**Stefano:**
++ van de eh poes.
of the cat

**Experimenter**
Wat doet ie met de poes?
What does he with the cat

**Stefano:**
Die gaat aaien.
that one goes stroke

VI. Word order problems in non-roots: all bilingual children

Nicole uses a non-Dutch word order in embedded clauses:
always in her sentences with gaan (15), (17) and frequently in embedded clauses without gaan (18)

Missetting Head Parameter, IP/VP?

- IP head initial + VP head final (SIOV) + DO-support example (15)

-IP head initial + VP head initial (SIVO) + DO-support example (17)
(17) *Experimenter*
   Juist en dit is het meisje +...
   right and this is the girl

   *Nicole:*
   ++ die **gaat** teken een bloem
   that goes draw a flower

Example (18) **without DO-support** is ambiguous between SIVO and SIOV:

(18) *Experimenter:*
   Dus dit is het meisje +...
   thus this is the girl

   *Nicole:*
   ++ die **teken** een huisje
   that draw a house

*Table 5:* Nicole's distribution of the tokens of SIVO and SIOV **with DO-support** [column 1 & 2], and **without DO-support** [column 3], in non-root clauses (numerator) and all possible occurrences (denominator), age 3;6

<table>
<thead>
<tr>
<th></th>
<th>Nicole's word order</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age 3;6</td>
</tr>
<tr>
<td></td>
<td>Language background</td>
</tr>
<tr>
<td><strong>DO-support</strong></td>
<td><strong>DO-support</strong></td>
</tr>
<tr>
<td>S-Vf-Vi-O</td>
<td>S-Vf-Vi-O</td>
</tr>
<tr>
<td>Non-root</td>
<td>5/20</td>
</tr>
<tr>
<td></td>
<td>7/20</td>
</tr>
<tr>
<td></td>
<td>7/8</td>
</tr>
</tbody>
</table>

**The other children**

Both the younger and the older ones use a non-Dutch S-Vf-O word order in a (large) number of embedded sentences

(19) a. *Experimenter: *Juist dit is het meisje +...
       right this is the girl

       Stefano: ++ **gooit** de stok
       throws the stick

b. *Experimenter:* Dus dit is de man +...
   so this is the man

       Stefano: ++ **die** **strijk** de broek
       who irons the trousers
Table 6: The distribution of the tokens of S-Vf-O order (without DO-support) in non-root clauses (numerator) and all and all possible occurrences (O-Vf/Vf-O) (denominator), age 3;0 - 3;10 and age 4;11 – 5;2

<table>
<thead>
<tr>
<th>Age</th>
<th>2L1/L2 N=5</th>
<th>2L1/L2 N=3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-root</td>
<td>11/54 20%</td>
<td>7/34 21%</td>
</tr>
<tr>
<td>Language</td>
<td>Moroccan Arabic/Berber, Sranan</td>
<td>Akan, Ewe / Sranan -Russian</td>
</tr>
</tbody>
</table>

Word order problems: Transfer or Interlingual Economy?

VIII. Conclusion
IX. References


Hulk, A.C. J. en N. Müller 2000 'Bilingual first language acquisition at the interface between syntax and pragmatics' *Bilingualism: Language and Cognition* 3 (3), 227-244.


Weerman, F. 2002 *Dynamiek in taal en de explosie van de neerlandistiek*. Amsterdam: Vossiuspers UvA.

Zuckerman, S. 2001 *The acquisition of “optional” movement* PhD Groningen University.