Acquisition of gender: Age

- Problematic for L2 adults …

  (e.g. Bruhn de Garavito and White 2002; Carroll 1989; Dewaele and Véronique 2001; Franceschina 2005 on Romance languages; Andersson 1992; Hyltenstam 1992 on Swedish; Rogers 1987 on German)

- … even after considerable exposure
Acquisition of gender: Age

- L2 children better than L2 adults …
  (Andersson 1992; Guillelmon & Grosjean 2001)
- … but L2 / bilingual children also experience problems
  (Blom et al. 2007; Carroll 1989; Gathercole & Thomas 2003; Hulk & Cornips 2006a)
Acquisition of gender: Input

- Acquisition of gender: which grammatical categories involved in gender system? (Carroll 1999: 45)
  - e.g. morphological form of determiner varies depending on (form of) noun

- Learners use available semantic & morphological cues (Carroll 1999)

- No cues? Acquisition of gender on noun by noun basis

- Consequence: sufficient input = necessary (whatever that might be!)
Goals of this talk

- To investigate role of age in L2 acquisition of grammatical gender for new population, i.e. English-speaking L2ers of Dutch
- To examine role of quality and quantity of input to which L2ers are exposed and extent to which this affects linguistic development
Outline

- Background
  - Grammatical gender in Dutch; previous acquisition studies

- Data from new population
  - English/Dutch L2 children and adults

- Discussion
  - Comparison of results with previous findings
Grammatical gender in Dutch

*de muis* ‘the mouse’, *de tuin* ‘the garden’

*het huis* ‘the house’, *het konijn* ‘the rabbit’
Grammatical gender in Dutch

Interpretable

[± neuter] gender feature on noun checks/values
uninterpretable gender features on determiner
(following Carstens 2000)
Limited evidence for gender of neuter nouns

- Gender marking with adjectives = limited
  - Adjectives always marked with schwa ending unless indefinite, singular, neuter N
- Gender marking on relative pronouns = often inconsistent
- De used with plurals; common Ns > neuter Ns (2:1)
  (Van Berkum 1996)
- Het = often phonologically reduced
- Morphological and semantic regularities = limited and often unreliable
  (Donaldson 1987:27-33; Geerts et al. 1984:41-49)
Semantic cues

DE (common)

HET (neuter)
Semantic cues

DE (common) but HET (neuter)
Semantic cues

DE (common)

HET (neuter)

but
Limited evidence for gender of neuter nouns, but ...

- Frequently-occurring, unambiguous cue = diminutive suffix -je
  - *het konijn* → *het konijntje* ‘little rabbit’
  - *de hond* → *het hondje* ‘little dog’
Child L2 acquisition of Dutch gender

- 2L1/L2 ethnic community children in The Netherlands (Cornips and Hulk 2005; Hulk and Cornips 2006a, 2006b; see also Blom et al. 2007, 2008)
- Overgeneralisation of *de* with neuter nouns for longer period than monolingual L1 children (e.g. van der Velde 2003; 2004)
- Fossilisation in overgeneralisation stage (?)
  - Due to qualitatively different input i.e. overgeneralisation of *de* in ‘ethnic Dutch’ input from older members of ethnic communities (Cornips 2002; Hulk and Cornips 2006a)
Input and acquisition of gender

- Delay observed for L2 children = unsurprising
  (see e.g. Gathercole 2002a/b, Montrul & Potowski 2007 for relevant discussion)
- Acquisition of grammatical gender = to a great extent “word learning” (Carroll 1989), especially in Dutch
- Lexical development affected by input
- Reduced input: serious effects on lexical development of bilinguals (Anderson 1999; Umbel & Oller 1995)
Adult L2 acquisition of gender

- Gender is generally problematic
  (e.g. Bruhn de Garavito and White 2002; Carroll 1989; Dewaele and Véronique 2001; Franceschina 2005 a.o.)

- L1 claimed to play crucial role
  - No gender in L1 $\rightarrow$ no gender in L2
    (e.g. Franceschina 2005)
  - Morphological similarity between L1 & L2 = crucial for successful acquisition
    (Sabourin et al. 2006)
Adult L2 acquisition of gender

Representational deficit
(Hawkins and Franceschina 2004; Franceschina 2005; Carroll 1989)

- Adult L2ers unable to acquire uninterpretable gender feature unless in L1
- No gender in L1 $\rightarrow$ acquisition of gender in adult L2 = impossible
- NB: use of morphosyntactic regularities still possible
Adult L2 acquisition of gender

- Mapping problem

(Bruhn de Garavito and White 2002; see also White et al. 2004)

- Problems ≠ restricted to L2ers with [-gender] L1 and L2ers with [-gender] L1 can acquire gender
- Mapping problem between syntax and morphology
  - i.e. problems realising target form ≠ use of default
Research question

Role of age

- Is there evidence for age effects in L2 acquisition of gender?

- Hypothesis: If representational deficit in L2 adults’ grammar, then …
  - Children more targetlike than adults
  - Adults: diminutives > nouns without morphological cue
Research question ❶

Quantity of input

- Is (child/adult) L2 acquisition of gender affected by reduced quantity of input?

- Hypothesis: Yes, it is.
  - L2ers with longer L2 exposure = more targetlike
  - More errors on low frequency nouns
Research question

Quality of input

- Do English-speaking L2ers ‘fossilise’ in overgeneralisation stage?

Hypothesis:
No ‘ethnic Dutch’ input

→ no fossilisation

→ some targetlike L2ers
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Participants

• All spoke English as only L1; resident in The Netherlands

• 4 adults tested on 2 occasions (ca. 1;6 in-between); counted separately in analysis

• 10 native-speaker adults (18 - 52 years; M 28 years)
Method

- Spontaneous data collected using picture description task
- Average no. of tokens per participant: 18.3 common nouns and 12.1 neuter
- Analysis:
  Does determiner match noun with respect to gender?
Group results
Percentage and no. of common and neuter nouns produced with target determiner

Neuter nouns
• All L2 groups signf. different from controls
• Only signf. difference between L2 groups = pre-teens vs. adults
Group results:

Length of exposure

- Subjects divided into 3 (arbitrarily defined) groups...
  - Short: 2 months – 3;6
  - Medium: 3;8 – 8;2
  - Long: 8;5 – 27 years
Group results: Length of exposure

*p < .05
Group results: Length of exposure

** $p < .01$
Group results: Length of exposure

* $p < .05$
Summary: Group results

- All three L2 groups consistently produced *de* with common nouns
- All three L2 groups regularly failed to produce *het* with neuter nouns
- Based on length of exposure (and proficiency) groups: tendency = adults > children (but not always reflected in statistics)
- Widespread failure or some targetlike participants?
Individual results: Response patterns

- Only participants who produced min. 5 tokens for each gender (→ 13 children, 5 preteens & 1 adult excluded)
- ✓ = 20% of nouns in given category produced with target determiner
Summary: Individual results

- Most L2ers overgeneralise *de* with neuter nouns
- Some L2ers (also) overgeneralise *het* with common nouns
- 1 L2 child and 3 L2 adults = targetlike
Diminutives vs. Non-derived nouns

- Are participants (and in particular, L2 adults) more targetlike on diminutives than non-derived nouns?

Analysis …

- Excl. 6 neuter nouns with morpho-phonological cue
- For participants who produce diminutives only
Diminutives vs. Non-derived nouns

% of neuter nouns with het

- L2 children (n=21)
- L2 preteens (n=9)
- L2 adults (n=28)

** p < .01

Diminutives
Diminutives vs. Non-derived nouns

% of neuter nouns with het

- L2 children (n=21)
- L2 preteens (n=9)
- L2 adults (n=28)

*** $p < .001$
Diminutives vs. Non-derived nouns

% of neuter nouns with het

L2 children (n=21)  L2 preteens (n=9)  L2 adults (n=28)

Diminutives
Non-derived nouns
Frequency

- Analysis ...
  - using *Corpus Gesproken Nederlands* ‘Spoken Dutch Corpus’
  - excl. all derived nouns → 61 nouns in total
  - frequency of noun in combination with gender-marked constituent
  - 20 nouns with lowest frequency (0 – 23 tokens)
  - 20 nouns with highest frequency (155 – 868 tokens)
Frequency

% of neuter nouns with het

- L2 children (n=56)
- L2 preteens (n=13)
- L2 adults (n=25)

'Lower' frequency
'Higher' frequency
Outline

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- **Data from new population**
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- **Discussion**
  - Comparison of results with previous findings
Role of age

- Is there evidence for age effects in L2 acquisition of gender?
- Hypothesis: If representational deficit in L2 adults’ grammar, then …
- Prediction (a): Children > adults \( \text{NO} \)
- Prediction (b): Adults: \( \text{NO} \) diminutives > non-derived nouns
Diminutives

- Adults use cue more than children and preteens
  - Result of instruction?
- Crucial: (some) adults ≠ incapable of acquiring gender of noun without such a cue
- L2ers do not use diminutives in same way as L1 children
  (van der Velde 2003; 2004; see Van Ginkel 2006, Cornips & Hulk 2008 for similar findings for Turkish/Dutch bilingual children)
Quantity of input

- Is (child/adult) L2 acquisition of gender affected by reduced quantity of input?
- Hypothesis: Yes, it is.
- Prediction (a): YES
  L2ers with longer L2 exposure = more targetlike
- Prediction (b): More errors on low frequency nouns
  Tendency for preteens & adults
A word of caution ...

- Division into ‘lower’ / ‘higher’ frequency = potentially problematic …
  - arbitrary cut-off point
  - based on relative frequency of nouns produced in task (i.e. not on frequency in general)
- Corpus possibly more relevant to L2 adults (hence no effect with L2 children)?
- Systematic manipulation of frequency needed
Quality of input

- Do English-speaking L2ers ‘fossilise’ in overgeneralisation stage?

- Hypothesis:
  No ethnic Dutch input

- Prediction (a): No fossilisation ???

- Prediction (b): Some targetlike L2ers YES
Why so many non-targetlike learners?

- For some = relatively low proficiency level
- Not necessarily lack of gender in L1 (because some targetlike learners)
Possible explanations for non-targetlike learners

- Failure to reach relevant threshold within age-related timeframe?  
  (Blom et al. 2007; Cornips & Hulk 2008, Hulk 2007; see also Sorace 2005)

- Relevant timeframe (based on L1 results) = by approx. age 6

- Counterevidence: targetlike adults  
  (age of first exposure = age 23 or older)
Possible explanations for non-targetlike learners

- Learners need more exposure?

- Most ± targetlike learners: lengthy (and relatively intensive) exposure $\rightarrow$ importance of input
  (= consistent with previous findings on Welsh (Gathercole & Thomas 2003) and Spanish (Gathercole 2002a))

- Input effect observed in trend in frequency data
  (= consistent with previous findings: Brouwer et al. 2008 and Sabourin et al. 2006 for Dutch)
Possible explanations for non-targetlike learners

- Mapping problem?
  (Bruhn de Garavito & White 2002; Lardiere 2000; see also Brouwer et al 2008 & van der Velde 2003)

- Learners adopt default form due to problems realising appropriate surface form

- Default form in Dutch = common, i.e. [-neuter]
Possible explanations for non-targetlike learners

- Consequences of mapping problem ...
  - [- neuter] feature of common nouns = checked/valued against [- neuter] feature on determiner
    - common nouns appear with *de*
  - [+ neuter] feature of neuter nouns = checked/valued against [+ neuter] or default [- neuter] feature on determiner
    - neuter nouns appear with *de* or *het*
Prediction

- If there is a mapping problem: Comprehension > Production
- Next step: comprehension tasks
Comprehension task I: Grammaticality judgement

Het huis

De huis
Comprehension task II: Picture selection (following White et al. 2004)

Het bruine is ontsnapt!
The brown (one) has escaped
Comprehension task III: Eye-tracking (following Lew-Williams & Fernald 2007)

Kijk naar *het witte huis*!
Look at the white house
Comprehension task III: Eye-tracking (following Lew-Williams & Fernald 2007)

Kijk naar mijn witte huis!
Look at my white house
Diolch!
Thank you!
Dank je wel!


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