# Acquisition of nonmanual adverbials in Hong Kong Sign Language (HKSL) by deaf children in the Jockey Club Sign Bilingualism and Co-enrolment in Deaf Education Programme

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### Nonmanual adverbials (NMA)

- √ Co-occur with manual predicates
- ✓ Carry adverbial information
- ✓ Spread over signs they modify (Liddell, 1980; Neidle et al., 2000)

### Previous acquisition studies

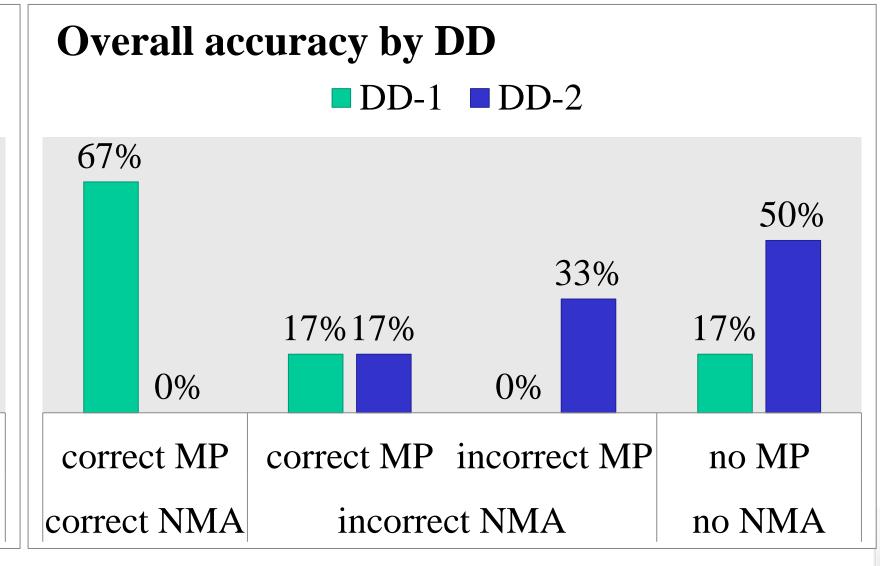
Data: Naturalistic; Elicited (sentence repetition)

Subjects: DD with ASL as their native language

### Findings:

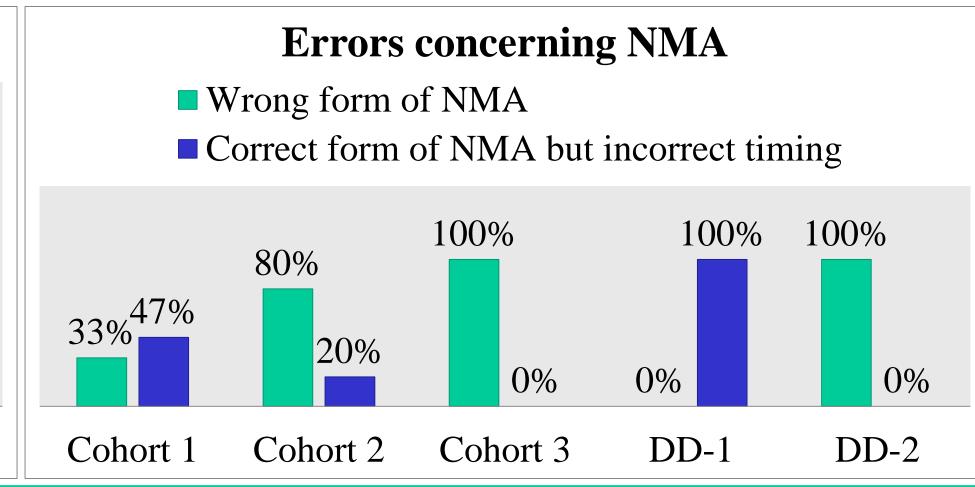
- NMA are acquired independently from the manual predicates they modify.
  - ✓ DD initially produce bare manual predicates before adding the co-occurring facial morphology
  - ✓ DD mastered and used a broad range of adverbials by the age of 3;6
- DD acquired free lexical adverbials (e.g. GOOD, YUCKY) before bound NMA (e.g. "th", "mm").
- (Anderson & Reilly, 1999; Reilly & Anderson, 2002; Reilly, 2006)

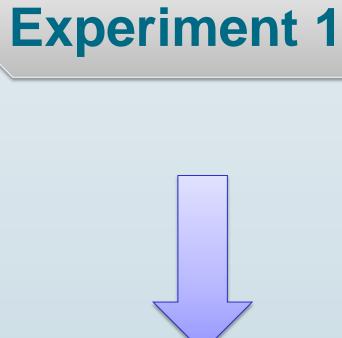
#### Overall accuracy by DH ■ Cohort 1 ■ Cohort 2 ■ Cohort 3 46% 42% 4%0% correct MP incorrect MP no MP incorrect NMA correct NMA no NMA



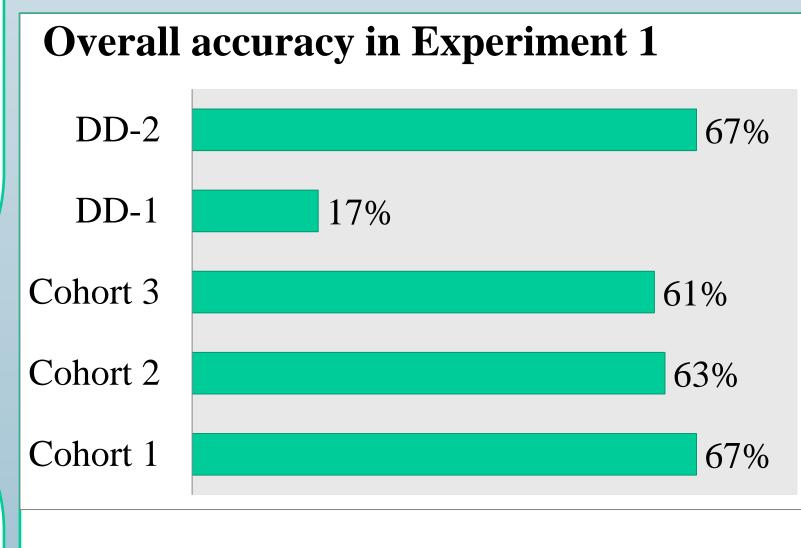


#### Presence of manual adverbs 100% 75% 50% 0% 0% Cohort 1 Cohort 2 Cohort 3 DD-1 DD-2

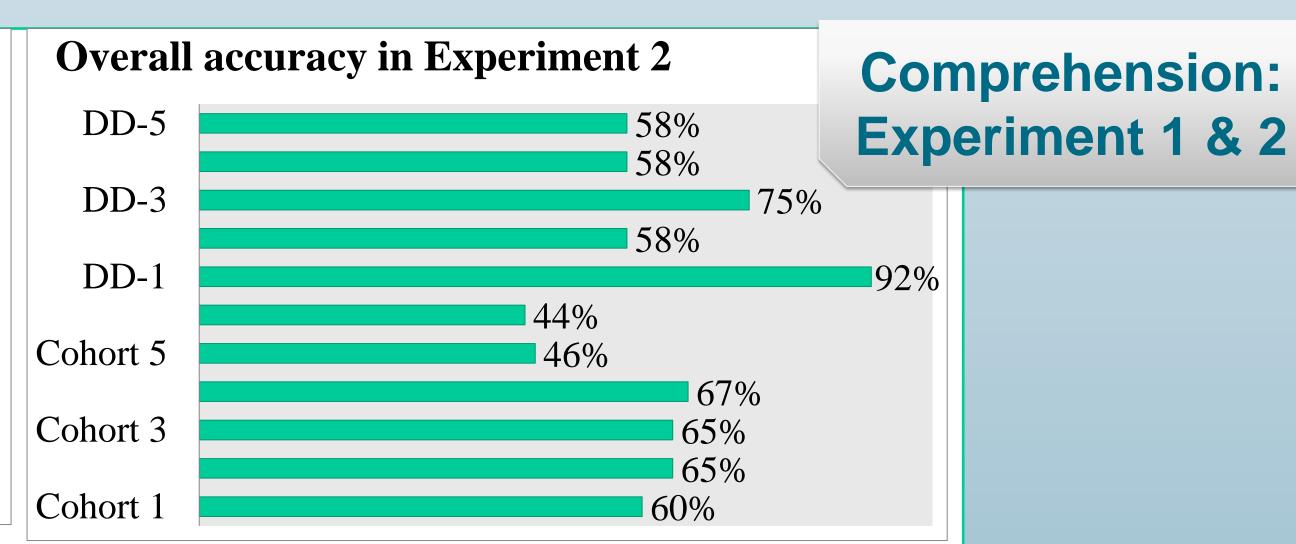




**Production:** 

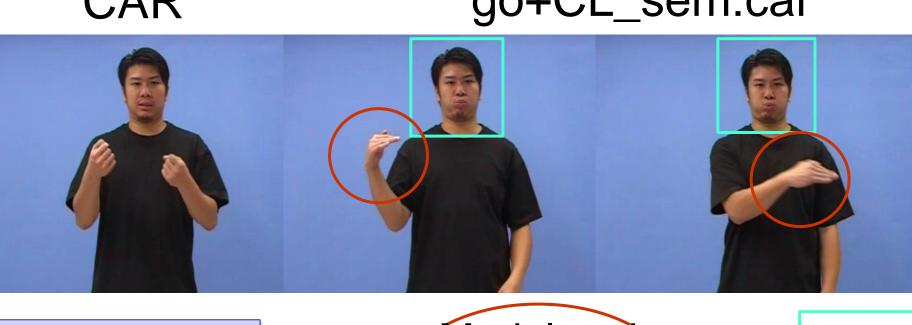


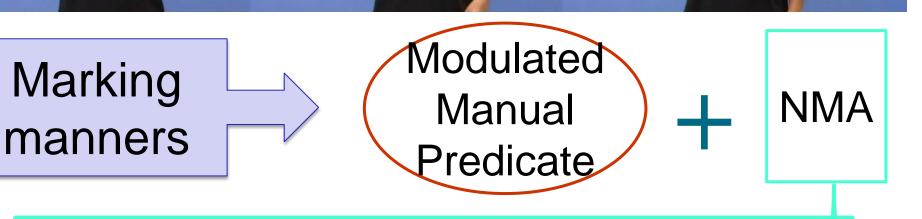
Accuracy of grammatical &

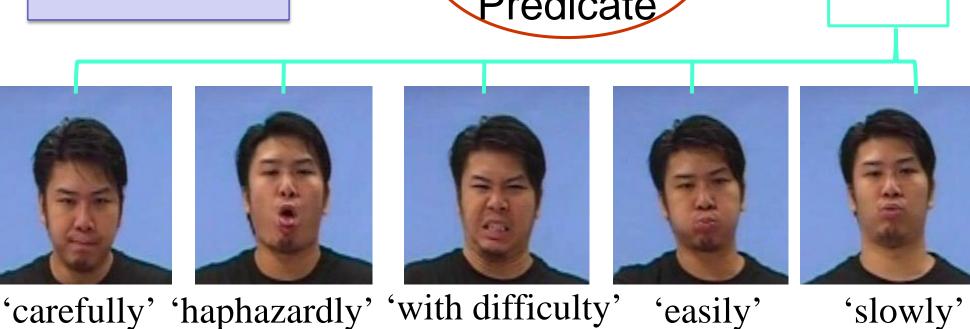


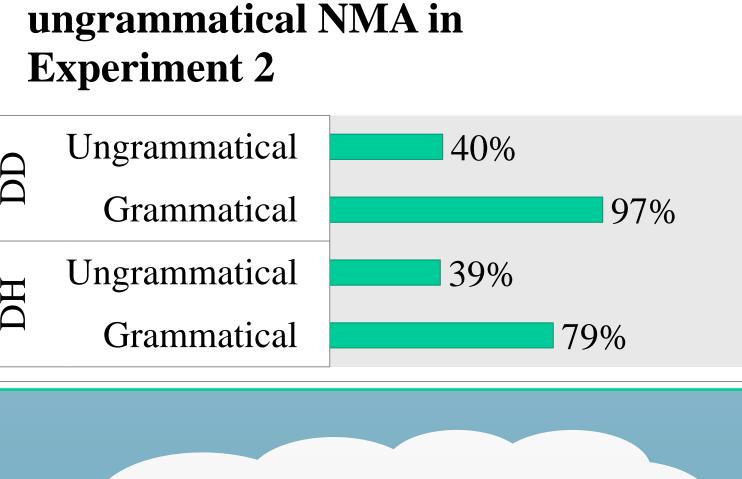
#### **NMA in HKSL**

E.g. 'A car goes quickly'. nma:puffed cheeks go+CL\_sem:car CAR



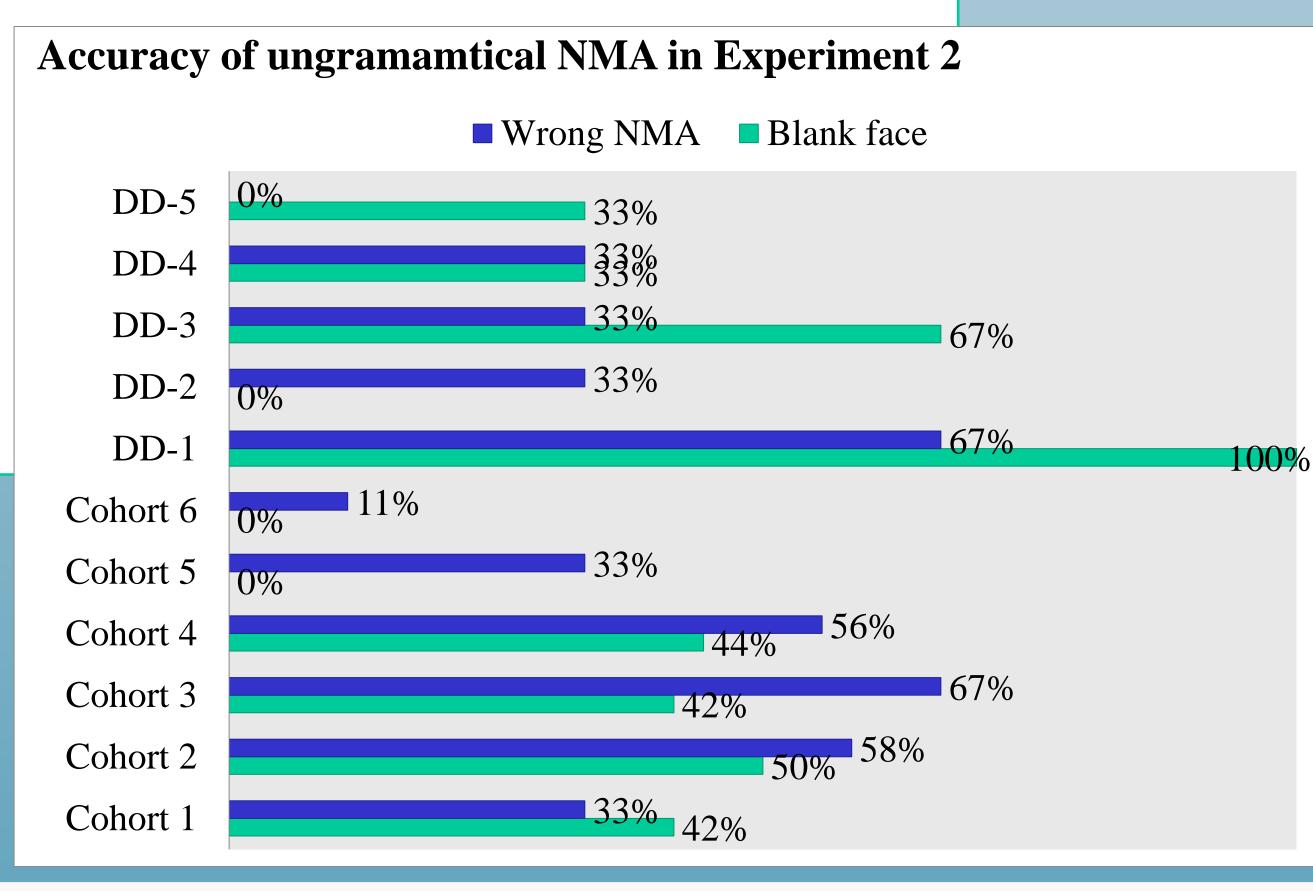






### Concluding remarks

- 1) Developmental stages:
- □Stage I: Do not have the knowledge of either MP or **NMA**
- □Stage II: Learn the use of MP
- □Stage III: Acquire the co-
- occurrence of MP and NMA
- □Stage IV: Master the correct form and timing of NMA



- 2) Deaf participants who have more years of HKSL exposure performed better than those who have fewer years of HKSL exposure.
- 3) Generally DH and DD perform better on comprehension than production.
- 4) Instead of using NMA, DH may use manual adverbs cooccurring with manual predicates. However, DD did not use such strategy.

### Grammaticality **\*** Video-signing judgment matching

## **Production**

Experiment 2

#### Comprehension **Video elicitation**

### Method

✓11 DH: 3 cohorts

- ♦ Years of exposure to HKSL: 2;5  $\rightarrow$  1;5  $\rightarrow$  0;5
- ♦ Years of exposure to
- Experiment 1 ✓ 20 DH: 6 cohorts
- ✓ 2 DD:
- HKSL:  $6;10 \rightarrow 5;9$
- $\Rightarrow$  Years of exposure to HKSL: 5;5  $\Rightarrow$  4;5  $\Rightarrow$  $3;5 \rightarrow 2;5 \rightarrow 1;5 \rightarrow 0;5$
- ✓ 5 DD:
  - $\Rightarrow$  Years of exposure to HKSL: 9;9  $\Rightarrow$  8;9  $\Rightarrow$  $7;1 \to 6;11 \to 5;4$

### Acknowledgment

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