Cantonese Maintenance in the U.S. Context: Referential Development in narratives by Cantonese-English Bilingual Children in Bilingual and English-only Schools

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Objectives:

- To document the maintenance of Cantonese by bilingual children in the U.S.,
- To revitalize Cantonese as a heritage language.
Cantonese-English Bilingual Children:

<table>
<thead>
<tr>
<th>Gender</th>
<th>Mean Age (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls (n=20)</td>
<td>5;7 (.44)</td>
</tr>
<tr>
<td>Boys (n=5)</td>
<td>5;5 (.23)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School Type</th>
<th>Kindergarten</th>
<th>Grade 1</th>
<th>Grade 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transitional Bilingual</td>
<td>20</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>English-only</td>
<td>5</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>
Method:

- The 25 children tested twice each year from kindergarten to Grade 2:
- Vocabulary tests:
  - Peabody Picture Vocabulary Tests in English (Dunn & Dunn, 1997) and in Chinese (Lu & Liu, 1998)
- Story generation:
  - Once in Cantonese and in English
  - “Frog, Where are You?” (Mayer, 1969)
- 10 adult Cantonese immigrants as controls
Elicited Narratives:

- 85 Cantonese narratives audio-taped, transcribed, and coded for:
  - referential types
  - clause count
  - distance of the antecedent
  - potential interference from other referents
  - degree of specification: over vs. under

- Narratives scored according to the narrative scoring scheme (Heilmann, Miller, & Nockerts 2010)
Research Questions:

- How well do Cantonese-English bilingual children acquire referential forms and develop the ability to perform referential functions?
- Is there evidence of transfer from English, specifically, do the bilingual children provide more subject and object pronouns than their monolingual peers?
- Does school type affect the children’s referencing development?
Cognitive Processes & Referential Functions

Cognitive Processes
- Whether a referent has been introduced,
- If introduced, whether it is still activated,
- Whether there are competing referents

Referential Functions
- Introduction
- Maintenance
- Re-introduction
Referential Forms in Cantonese:

- The indefinite existential structure
  - *yáuh (yat) jek chīngwā* “have (yat) CL frog”

- Nominal classifiers: classifier + Noun

- The Noun Phrase in Cantonese:
  
  Pronoun + demonstrative + numeral + classifier + modifier + associative + noun
  
  *
  
  ngóh  gó  léuhng  jek  jūngyi  wáan  ge  gáu
  
  my  those  two  CL  like to  play  ASSO  dog

  “those two dogs of mine which like to play”

- Word order: *preverbal-definite; postverbal-definite/indefinite*
Research on Referencing Development:

- Early appearance of referential forms but late acquisition.

- Expressions for introducing new referents difficult to acquire:
  - Languages with an article system: between 6 and 7 years of age.
  - Non-article languages: 7 or older
Research on Monolingual Cantonese Children:

- Wong and Johnston (2004)
  - Form: the indefinite existential expression used at least 40% of the time by 5- and 7-year-olds
  - Function: Order of difficulty (most to least): Re-introduction > Introduction > Maintenance

- To (2006)
  - Forms for referent introduction: around age 5
  - Forms for referent maintenance: from age 7
Major Findings:
Forms for Referent Introduction

Referent Introduction

Kindergarten Grade 1 Grade 2

Frequency

Grade

Noun
Personal Pronoun
Null Pronoun

0.00% 20.00% 40.00% 60.00% 80.00% 100.00%
Major Findings: Nouns for Referent Introduction

Syntactic Structures for Nouns used for Referent Introduction (n=25)

<table>
<thead>
<tr>
<th>Syntactic Structure</th>
<th>Kindergarten</th>
<th>Grade 1</th>
<th>Grade 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preverbal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postverbal: Existential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postverbal: Non-Existential</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

個狗仔同個男仔睇啲個青蛙。
“The dog and the boy look at that frog.”
### Major Findings: Using Definite forms for Referent Introduction

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>17%</td>
</tr>
<tr>
<td>Grade 1</td>
<td>7%</td>
</tr>
<tr>
<td>Grade 2</td>
<td>6%</td>
</tr>
</tbody>
</table>

*That boy found a frog.*
Major Findings: Anaphoric Choices

Frequency Distribution of Anaphoric Choices

K significantly different from Gr. 1: Noun: F (2, 72) = 7.70, p < .001;
Pronoun: F (2, 72) = 4.06, p < .05;
Null: F(2, 72) = 3.26, p < .05
## Major Findings: Over-specification

<table>
<thead>
<tr>
<th>Level</th>
<th>Total # of Anaphoric Tokens</th>
<th>Frequency of Over-specified Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>K (25)</td>
<td>848</td>
<td>7.19%</td>
</tr>
<tr>
<td>Gr. 1 (25)</td>
<td>967</td>
<td>7.45%</td>
</tr>
<tr>
<td>Gr. 2 (25)</td>
<td>965</td>
<td>8.60%</td>
</tr>
<tr>
<td>Adults (10)</td>
<td>943</td>
<td>7.42%</td>
</tr>
</tbody>
</table>

個 青蛙 又 唔 嘅 對 鞋 度．
Go chīngwā yauh m̀h-hái deui-haaih douh
CL frog also not at CL shoe LOC

青蛙 又 唔 嘅 呢度．
Chīngwā yauh m̀h-hái nīdouh
frog also not at here

“The frog was not in this pair of shoes.
The frog was also not here.”
Major Findings: Under-specification

<table>
<thead>
<tr>
<th></th>
<th>Referent Maintenance</th>
<th>Referent Re-introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>kindergarten</td>
<td>7.19%</td>
<td>16.98%</td>
</tr>
<tr>
<td>Grade 1</td>
<td>5.89%</td>
<td>8.27%</td>
</tr>
<tr>
<td>Grade. 2</td>
<td>5.70%</td>
<td>9.74%</td>
</tr>
</tbody>
</table>

CHI: 喑個 狗仔嘅罐 入邊睇緊.
Gó go gáujái hái gun yahpbihną táí-gán
that CL boy at can inside look-progressive
“the dog is looking inside the can.”

INV: uh-huh.

CHI: 個 男仔叫佢．
Go nàahmjái giu kéuih
CL boy call 3-sg
“The boys called it (=frog).”
NSS Scores for Cantonese Narratives

Narrative Scoring Scheme Scores for Cantonese Narratives

NSS Score

<table>
<thead>
<tr>
<th>Grade</th>
<th>Bilingual Programs (n=14)</th>
<th>English-only Programs (n=4)</th>
<th>Transferred to English-only Programs at Gr. 1 (n=6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>15.00</td>
<td>10.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Grade 1</td>
<td>20.00</td>
<td>15.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Grade 2</td>
<td>20.00</td>
<td>15.00</td>
<td>10.00</td>
</tr>
</tbody>
</table>
Conclusions: Referential Functions

Similar to the monolingual Cantonese children studied by Wong and Johnston (2004):

<table>
<thead>
<tr>
<th></th>
<th>Maintenance</th>
<th>Introduction</th>
<th>Re-introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>kindergarten</td>
<td>7.19%</td>
<td>16.88%</td>
<td>16.98%</td>
</tr>
<tr>
<td>Grade 1</td>
<td>5.89%</td>
<td>7.25%</td>
<td>8.27%</td>
</tr>
<tr>
<td>Grade 2</td>
<td>5.70%</td>
<td>5.64%</td>
<td>9.74%</td>
</tr>
</tbody>
</table>
Conclusions: Referential Forms

- Lower production rate of the indefinite existential structure than the monolingual children’s in Wong and Johnston (2004). The presence of mutual knowledge plays a role in the discrepancy (Kail & Hickmann, 1992).
Conclusions: Transfer

- No convincing evidence was found.
- Over-specification is not related to the [-pro-drop] property of English.
- An example of over-specification by an over-user:
  
  嗰個 boy 訓覺 xx. 嗰個 boy 起身 xx.  
  "That boy slept xx. That boy got up."

  that CL sleep that CL boy get-up

  “That boy slept xx. That boy got up.”
Conclusion: School Type

- Berman (2001): “children with various native languages, from immigrant to established families, of bilingual and monolingual backgrounds, rely on largely similar strategies for global discourse production in the conceptualization, planning, and organization of their narrations” (p. 421).

- Narrative samples illustrating different types of code-mixing: vocabulary and discourse connectors
Language Maintenance & Revitalization

- Heightened input of linguistic input at the discourse level, e.g. story grammar
- Explicit instruction in certain syntactic structures and semantic properties, e.g. nominal classifiers
- Revitalization of Cantonese within the broader discourse on Chinese as a heritage language
References

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