

The Acquisition of Cantonese Container Classifiers by native Cantonese children

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Introduction

Classification of Cantonese Container Classifiers (Chu & Wong, 2007)

1. Comparison between 條 *tiu4*, 筒 *tung4*, 碌 *luk1* and 枝 *zi1**

Features	條 <i>tiu4</i>	筒 <i>tung4</i>	碌 <i>luk1</i>	枝 <i>zi1</i>
Shape	[+ long] [+ narrow]	[+ long] [+/- narrow] [+/- cylindrical]	[+ long] [+/- narrow] [+ cylindrical]	[+ long] [+ narrow] [+ cylindrical]
Flexibility	[+/- rigid]	[+/- rigid]	[+ rigid]	[+ rigid]
Size	[+/- big]	[+/- big]	[+ big]	[+/- big]

2. Comparison between 枝 *zi1*, 樽 *zeon1*, 罐 *gun3* and 桶 *tung2*

Features	枝 <i>zi1</i>	樽 <i>zeon1</i>	罐 <i>gun3</i>	桶 <i>tung2</i>
Shape	[+ narrow] [+/- cylindrical]	[+/- narrow] [+/- cylindrical]	[+/- narrow] [+/- cylindrical]	[+/- narrow] [+/- cylindrical]
Material	Plastic, glass	Metal		
Size	[+/- big]	[+/- big]	[+/- big]	[+big]

3. Comparison between 盒 *hap6* and 包 *baau1*

Features	盒 <i>hap6</i>	包 <i>baau1</i>
Shape	[+ prism shape]	
Material	Paper, plastic, metal	Paper, plastic
Flexibility	[+ rigid]	[+ rigid]

4. Comparison between 包 *baau1*, 排 *paai4*, 袋 *doi6* and 'pack'

Features	包 <i>baau1</i>	排 <i>paai4</i>	袋 <i>doi6</i>	'pack'
Shape	[+/- organized] [+/- further individual items inside the package]	[+ organized] [+/- further individual items inside the package]	[- organized] [+ further individual items inside the package]	[+/- organized] [+ further individual items inside the package]
Material	[+/- further individual packages inside the item]	[+/- further individual packages inside the item]	[+/- further individual packages inside the item]	[+ further individual packages inside the item]
Flexibility	[+/- rigid]	[+ rigid]	[- rigid]	[+/- rigid]

Proposed hierarchy for the classification of Cantonese container classifiers
Shape (level 1) → Material (level 2) → Flexibility (level 3) → Size (level 4)

Remarks: The numbers represent the Cantonese tones

Research Question

- Investigate the developmental pattern of Cantonese container classifiers
- To investigate whether acquisition of the container classifiers were age related according to the proposed hierarchy

Methodology

- Participants: 35 Cantonese-speaking children (13 boys, 22 girls)
Ages 2-4 (n=5), age 5 (n=11), ages 6-7 (n=9), ages 8-9 (n=10)
- Task: Object counting task
- Stimulus items: 12 items (6 snacks, 6 beverages) varying in shapes, materials, flexibility and size.
- Procedures: (1) Real Object identification by the children
(2) Interviewer asked the children to count the number of objects that are shown on a sheet of paper
(3) Children answered in the form of 'Number-Classifier' or 'Number-Classifier-Noun' construction

List of Stimulus Items (items not shown in scale)

Items	Classifier*	Properties	Sample
1. Toblerone Chocolate Bar	條 <i>tiu4</i> (58%) 筒 <i>tung4</i> (18%) 排 <i>paai4</i> (18%)	long, triangular, paper wrap	
2. Crunch Chocolate Bar	排 <i>paai4</i> (58%) 包 <i>baau1</i> (30%)	rectangular	
3. M&Ms chocolate	包 <i>baau1</i> (96%)	flexible, contains individual items	
4. Digestive Biscuits	筒 <i>tung4</i> (62%) 包 <i>baau1</i> (28%)	long, cylindrical	
5. Koala Biscuits	盒 <i>hap6</i> (84%) 筒 <i>tung4</i> (14%)	box, paper wrap	
6. Frutip Candies	筒 <i>tung4</i> (72%) 條 <i>tiu4</i> (20%)	long, cylindrical	
7. Yakult	支 <i>zi1</i> (78%) 樽 <i>zeon1</i> (22%)	plastic, bottle shaped	
8. Coca Cola	罐 <i>gun3</i> (98%)	metallic, cylindrical	
9. Sprite	支 <i>zi1</i> (64%) 樽 <i>zeon1</i> (34%)	plastic, bottle shaped	
10. Mr. Juicy	包 <i>baau1</i> (94%)	irregular shape, flexible	
11. Lemon Tea	盒 <i>hap6</i> (58%) 包 <i>baau1</i> (42%)	box, rectangular, paper wrap	
12. Chocolate Milk	盒 <i>hap6</i>	box, paper wrap	

Remarks: The percentages shown next to the classifiers are the percentage of adult Cantonese speakers who use that classifier for the corresponding object based on a previous study. Only classifiers used by more than 10% of the people are shown. We do not have the adult data for item 12. The classifier listed there is the most frequent one used by native speakers based on the intuition of the authors.

Results

The tables below show the children's response for individual items across each age group. Shaded areas represent the adult usages of the classifiers.

Ages 2-4 (n=5)

Items	個 <i>go3</i>	盒 <i>hap6</i>	包 <i>baau1</i>	條 <i>tiu4</i>	樽 <i>zeon1</i>	支 <i>zi1</i>	罐 <i>gun3</i>	排 <i>paai4</i>	種 <i>zung2</i>	塊 <i>faai3</i>	卷 <i>gyn2</i>	筒 <i>tung4</i>	隻 <i>zek3</i>	杯 <i>bui1</i>	舊 <i>gau6</i>	片 <i>pin3</i>	missing
1. Toblerone Chocolate Bar	80%												20%				20%
2. Crunch Chocolate Bar	40%																
3. M&Ms chocolate	20%		20%														20%
4. Digestive Biscuits	60%									20%							20%
5. Koala Biscuits	60%																20%
6. Frutip Candies	60%		20%									20%					
7. Yakult	20%		20%		20%	20%											20%
8. Coca Cola	20%	20%					20%				20%						
9. Sprite	40%				20%	20%											20%
10. Mr. Juicy	60%		20%														20%
11. Lemon Tea	20%		40%		20%												20%
12. Chocolate milk	40%	40%															20%

Age 5 (n=11)

Items	個 <i>go3</i>	盒 <i>hap6</i>	包 <i>baau1</i>	條 <i>tiu4</i>	樽 <i>zeon1</i>	支 <i>zi1</i>	罐 <i>gun3</i>	排 <i>paai4</i>	種 <i>zung2</i>	塊 <i>faai3</i>	卷 <i>gyn2</i>	筒 <i>tung4</i>	隻 <i>zek3</i>	杯 <i>bui1</i>	舊 <i>gau6</i>	片 <i>pin3</i>	missing
1. Toblerone Chocolate Bar	82%	9%										9%					
2. Crunch Chocolate Bar	64%		18%					9%									9%
3. M&Ms chocolate	64%		18%										9%				9%
4. Digestive Biscuits	73%		27%														
5. Koala Biscuits	55%	18%	9%		9%							9%					
6. Frutip Candies	73%		9%				9%					9%					
7. Yakult	55%				9%	18%	9%	9%									
8. Coca Cola	64%		9%			9%	18%										
9. Sprite	55%				9%	27%	9%										
10. Mr. Juicy	73%	9%	18%														
11. Lemon Tea	55%		45%														
12. Chocolate milk	73%	18%	9%														

Ages 6-7 (n=9)

Items	個 <i>go3</i>	盒 <i>hap6</i>	包 <i>baau1</i>	條 <i>tiu4</i>	樽 <i>zeon1</i>	支 <i>zi1</i>	罐 <i>gun3</i>	排 <i>paai4</i>	種 <i>zung2</i>	塊 <i>faai3</i>	卷 <i>gyn2</i>	筒 <i>tung4</i>	隻 <i>zek3</i>	杯 <i>bui1</i>	舊 <i>gau6</i>	片 <i>pin3</i>	missing
1. Toblerone Chocolate Bar	33%	11%	11%	11%		33%											
2. Crunch Chocolate Bar	33%	11%	44%			11%											
3. M&Ms chocolate	22%		78%														
4. Digestive Biscuits	33%		56%			11%											
5. Koala Biscuits	22%	33%	44%														
6. Frutip Candies	33%			11%		22%						33%					
7. Yakult	22%		11%		33%	22%											11%
8. Coca Cola	33%				11%		56%										
9. Sprite	22%				44%	33%											
10. Mr. Juicy	44%	11%	44%														
11. Lemon Tea	11%	44%	33%														11%
12. Chocolate milk	22%	22%	44%		11%												

Ages 8-9 (n=10)

Items	個 <i>go3</i>	盒 <i>hap6</i>	包 <i>baau1</i>	條 <i>tiu4</i>	樽 <i>zeon1</i>	支 <i>zi1</i>	罐 <i>gun3</i>	排 <i>paai4</i>	種 <i>zung2</i>	塊 <i>faai3</i>	卷 <i>gyn2</i>	筒 <i>tung4</i>	隻 <i>zek3</i>	杯 <i>bui1</i>	舊 <i>gau6</i>	片 <i>pin3</i>	missing
1. Toblerone Chocolate Bar	30%			10%		10%		10%				30%					
2. Crunch Chocolate Bar	10%		40%					30%		10%						10%	
3. M&Ms chocolate	10%		90%														
4. Digestive Biscuits	30%		30%									40%					
5. Koala Biscuits	30%	60%	10%														
6. Frutip Candies				10%		20%						70%					
7. Yakult					50%	40%	10%										
8. Coca Cola					10%	30%	60%										
9. Sprite					30%	70%											
10. Mr. Juicy			60%			10%	30%										
11. Lemon Tea		30%	50%		10%	10%											
12. Chocolate milk		40%	30%		10%		10%							10%			

Discussion

1. Omission of classifiers

There is a general trend for younger children to omit the container classifier, producing the illegal response format 'Number' or 'Number-Noun' in Cantonese, when they have not fully acquired the need for an obligatory use of it. When the children become older, they generally realize that there is a noun-classifier mapping and the percentage of the children using the null classifier drops. For the age group 8 to 9, no omissions of classifiers are observed.

2. The use of the general classifier *go3*

The use of the general classifier *go3* is inappropriate for all these items. However, children tend to use this classifier to replace the more appropriate classifiers. The use of this general classifier is also reported in Tse et al. (2007) in the acquisition of other types of Cantonese classifiers. The percentage of using the classifier *go3* to substitute the correct classifiers decreases over time as the children become older. For the age group 8 to 9, the use of *go3* is only restricted in the food items where there are more variations in the use of classifiers by Cantonese adults with these food items.

3. Overgeneralization in the use of classifiers

The classifiers *hap6*, *baau1*, *zeon1*, *zi1* and *gun3* were overgeneralized to many other items.

At the ages 6-7, the children overgeneralize the classifier *zi1* to many items which are long in shape.

For the classifier *hap6*, the children overgeneralized this classifier to items which have a prism or rectangular box shape. This shows that properties related to the shape or the packaging materials are prominent features for the children to identify.

For the classifier *baau1*, the children overgeneralized it to many different items. This may be due to the fact that no particular shape is associated with the specification of this classifier, so the children overgeneralized the usage of this classifier to items of various shapes.

The classifiers *tiu4*, *paai4* and *tung4* were used correctly with few or no overgeneralization to other items.

Summary

There is a general tendency that children will omit the classifier when they have not fully acquired the need for an obligatory use of it when counting objects. In the next stage, they tend to use the general classifier *go3* before they realize there is a need for the cognitive mapping of particular noun phrases with their pair of classifiers. When using classifiers for a particular item, children tend to focus on features higher in the hierarchy (shape and packaging materials) and these may sometimes lead to overgeneralization in the use of classifiers.

Selected References

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