Interpretation strategies of anaphoric pronoun by second language learner

Instructor: Saveria COLONNA, PhD
Student: Ching-chun WANG
INTERPRETATION STRATEGIES OF ANAPHORIC PRONOUN

◆ Pro-drop Romance language

Spanish

El barrendero se reunió con el cartero. Después, (pro) se fue a casa. →N1

El barrendero se reunió con el cartero. Después, él se fue a casa. →N2

The streetsweeper met the postman. Then he went home.

◆ Non pro-drop Romance language

French

Le balayeur a rencontré le facteur. Puis, il est rentré à la maison. →N1
**INTERPRETATION STRATEGIES OF ANAPHORIC PRONOUN**

<table>
<thead>
<tr>
<th>Subordinate clause-first</th>
<th>French native speaker</th>
<th>Chinese native speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>N1?(resolve the cataphor as soon as possible)</td>
<td>N1(Grammatical prediction)</td>
<td>N1/N2?</td>
</tr>
<tr>
<td>Subordinate clause-last</td>
<td>N2(Hemforth et al. 2010)</td>
<td>N1(Grammatical prediction)</td>
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</table>

-[Pierre a giflé Jean] [avant qu'il ramasse son sac] 
-[avant de ramasser son sac] frequent unambiguous alternative structure

-[Avant qu'il ramasse son sac] [Pierre a giflé Jean]
-[Avant de ramasser son sac]
**INTERPRETATION STRATEGIES OF ANAPHORIC PRONOUN**

◆ **L2 learner**

  Transfer their L1 preferences?
  Acquire L2 strategy?
  Learner-specific strategy? (N1, sensitive to “discourse-salient” referent)
METHOD

◆ Materials

• Experimental items

main clause + subordinate temporal clause

2 factors:
  • The presence of pronoun: With-pronoun (avant qu ’il/Overt-pronoun), Without-pronoun (avant de/Null-pronoun)
  • The position of subordinate clause: Subordinate-clause-last, Subordinate-clause-first

• Fillers

Sentence containing a subject relative pronoun
  Jean entend le professeur du garçon qui chante.
  L'écrivain regarde la tante de la fille qui jongle.
### Method

#### Materials

<table>
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<tr>
<th>Conditions</th>
<th>Examples</th>
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<tbody>
<tr>
<td>1: Subordinate-clause-last/with-pronoun</td>
<td>Pierre a giflé Jean avant qu'il ramasse son sac. 书豪打了力宏耳光，在他捡袋子前</td>
</tr>
<tr>
<td>2: Subordinate-clause-last/without-pronoun</td>
<td>Pierre a giflé Jean avant de ramasser son sac. 书豪打了力宏耳光，在捡袋子前</td>
</tr>
<tr>
<td>3: Subordinate-clause-first/with-pronoun</td>
<td>Avant qu'il ramasse son sac, Pierre a giflé Jean. 在他捡袋子前，书豪打了力宏耳光</td>
</tr>
<tr>
<td>4: Subordinate-clause-first/without-pronoun</td>
<td>Avant de ramasser son sac, Pierre a giflé Jean. 在捡袋子前，书豪打了力宏耳光</td>
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## Method

### Materials

Latin Square design/random order

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<thead>
<tr>
<th></th>
<th>List 1</th>
<th>List 2</th>
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<tbody>
<tr>
<td>Sentence 1-7</td>
<td>Condition 1</td>
<td>Condition 4</td>
<td>Condition 3</td>
<td>Condition 2</td>
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<tr>
<td>Sentence 8-14</td>
<td>Condition 2</td>
<td>Condition 3</td>
<td>Condition 1</td>
<td>Condition 4</td>
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<tr>
<td>Sentence 15-21</td>
<td>Condition 3</td>
<td>Condition 2</td>
<td>Condition 4</td>
<td>Condition 1</td>
</tr>
<tr>
<td>Sentence 22-28</td>
<td>Condition 4</td>
<td>Condition 1</td>
<td>Condition 2</td>
<td>Condition 3</td>
</tr>
</tbody>
</table>
METHOD

Participants

- French native speakers (N=47, mean age 40)
- Chinese native speakers (N=48, mean age 29)
- Chinese high-intermediate learners of French (N=41, mean age 30)
METHOD

Procedure

Ibex farm/on-line questionnaire

Éric a observé Albert avant qu'il range ses affaires.

_______ range ses affaires.

书豪打了力宏耳光，在他捡袋子前。

_______捡袋子。
RESULTS - COMPARE LEARNER OF FRENCH WITH FRENCH NATIVE SPEAKER

Mixed linear model

p<0.001***
French: Strong N2 preference because of the presence of the alternative structure

p = 0.081295
Both have preference to resolve the cataphor as fast as possible

[Avant qu'il ramasse son sac, Pierre a giflé Jean.]
[Pierre a giflé Jean avant qu'il ramasse son sac.]
Chinese native speaker                               Chinese learners of French

N1         N1 N1 N1
80%       92%                   68%       91%

N1          N1 N1/N2 N1
82%        98%                  43%        98%

p=0.782372
Both have preference to resolve the cataphor as fast as possible

Chinese: N1 preference because of no unambiguous alternative structure like French (but not as strong as without-pronoun condition)
Learner: Between Chinese and French. Haven’t completely acquired L2 strategy

RESULTS - COMPARE LEARNER OF FRENCH WITH CHINESE NATIVE SPEAKER

Mixed linear model

p<0.001***

[在他捡袋子前，书豪打了力宏耳光][Avant qu'il ramasse son sac, Pierre a giflé Jean.]
[书豪打了力宏耳光，在他捡袋子前][Pierre a giflé Jean avant qu'il ramasse son sac.]
RESULTS - COMPARE LEARNER OF FRENCH WITH CHINESE NATIVE SPEAKER

Mixed linear model

p<0.001***, with<without
Chinese shows a difference between null- and overt-pronoun as in pro-drop Romance languages
RESULTS

• French natives: lower N1 choice in “Avant qu’il”
  → effect of the unambiguous alternative structure

• Learners of French do not show an effect of the alternative structure as strong as French natives

  Transfer of L1(Chinese) preferences(N1)?
  Learner-specific strategy(N1)?
  Both of them drive more N1 preference..

→ Examine the interpretation strategy of French leaners of Chinese
METHOD

Participants

• French native speakers (N=47, mean age 40)

• Chinese native speakers (N=48, mean age 29)

• Chinese high-intermediate learners of French (N=41, mean age 30)

• French high-intermediate learners of Chinese (N=17, mean age 30)
RESULTS - COMPARE LEARNER OF CHINESE WITH CHINESE/FRENCH NATIVE SPEAKER

Mixed linear model

Learner of Chinese: Between Chinese and French. Haven’t completely acquire L2 strategy (N1). Transfer of L1 preference

p<0.001***

N1: 80% 92%
N1: 68% 91%
N1: 85% 93%
N1/N2: 45% 62%
N1: 71% 99%
N2: 13% 99%

Chinese native speaker
French learners of Chinese
French native speaker
RESULTS - COMPARE LEARNER OF CHINESE WITH CHINESE/FRENCH NATIVE SPEAKER

Mixed linear model

Learner of Chinese: N1 choice is lower than other 3 groups. Do not know how to treat the Chinese “ambiguous” null-pronoun since the null-pronoun sentence in Chinese is not equivalent with “avant de” in French (unambiguous).

But it seems that they are acquiring the pro-drop feature in Chinese because they show distinction between null- and overt-pronoun (p<0.05*) like Chinese natives.
CONCLUSIONS

• All participants have N1 preference in Subordinate-clause-first condition: The preference to resolve the cataphor as fast as possible is observed in both French and Chinese.

• In “avant qu’il” condition, French native speakers are influenced by the presence of an unambiguous alternative structure: N2.

• Chinese natives’ N1 choice in overt-pronoun condition is less than null-pronoun condition, as in pro-drop Romance languages.

• Both groups of learners are influenced by transfer of L1 preference. They have not completely acquired L2 pronoun resolution strategy. No learner-specific strategy was found.
THANKS FOR YOUR ATTENTION!