On the acquisition of polarity items: 11-12-year-olds’ comprehension of German NPIs and PPIs

Juliane Schwab (Osnabrück University), Mingya Liu (Humboldt University of Berlin), and Jutta L. Mueller (University of Vienna)

RTG Computational Cognition

On the acquisition of polarity items:
11-12-year-olds’ comprehension of German NPIs and PPIs

Juliane Schwab (Osnabrück University), Mingya Liu (Humboldt University of Berlin), and Jutta L. Mueller (University of Vienna)

RTG Computational Cognition

Background

- Existing work shows that 2-5 year-olds are already sensitive to the restricted distribution of highly frequent NPIs like English any (Tieu & Lidz, 2016) or Dutch hoeven (Lin, Weerman & Zeijlstra, 2015).
- Still, we know surprisingly little about the time course for the acquisition of less frequent NPIs or about the acquisition of PPIs. The distributional restriction of PPIs may be particularly difficult to acquire given the absence of a lexical element as licenser and PPIs’ ability to appear under metalinguistic negation.
- The present study investigates children’s comprehension of four German polarity-sensitive expressions (PSIs), aiming to provide new insight on the developmental pathway to adult-level PSI comprehension.

Audio material

Anna hat der Spielplatz in der Innenstadt (*jemals*/so recht/absolut/durchaus) gefallen.

Anna has the playground in the city-center (*ever*/really/absolutely/indeed) liked.

Anna hat kein Spielplatz in der Innenstadt (*jemals*/so recht/absolut/durchaus) gefallen.

Anna has no playground in the city-center (*ever*/really/absolutely/indeed) liked.

Anna has fla Spielplatz in der Innenstadt (*jemals*/so recht/absolut/durchaus) gefallen.

Anna has fla playground in the city-center *fla* = nonsense syllable

Adults (N = 36, Item N = 32, Filler N = 16)

- Obvious distinction between licensed and unlicensed PSIs (𝔼(μ) = -2.19, CI = [-2.54, -1.87], P(δ < 0) = 1)
- Unlicensed ‘absolut’ and ‘so recht’ not rejected as strongly (absolut vs. durchaus: 𝔼(μ) = 1.15, CI = [0.63, 1.69], P(δ > 0) = 1; so recht vs. jemals: 𝔼(μ) = 1.38, CI = [0.93, 1.85], P(δ > 0) = 1)

Conclusions

- 11-12-year-olds are not at adult-level comprehension for some German PSIs
- Corpus frequencies alone do not predict this data
- Neither PPI is categorically rejected under negation, hinting that the PPI acquisition is incomplete at age 11-12
- Distributional restrictions of polarity-sensitive degree modifiers (absolut ‘absolutely’ and so recht ‘really’) might be particularly challenging to acquire
  - higher acceptance for unlicensed uses even in the adult data

Corpus data

<table>
<thead>
<tr>
<th>Source</th>
<th>jemals</th>
<th>so recht</th>
<th>absolut</th>
<th>durchaus</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHILDES child-directed speech</td>
<td>18</td>
<td>40</td>
<td>36</td>
<td>32</td>
</tr>
<tr>
<td>CHILDES child speech</td>
<td>0</td>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>DeReKo tagged-t written language</td>
<td>9.341</td>
<td>6.688</td>
<td>34.100</td>
<td>89.311</td>
</tr>
</tbody>
</table>

Experiment

Wie natürlich ist dieser Satz?

11-12-year-olds (N = 21, Item N = 32, Filler N = 16)

[Data collection incomplete due to ongoing Covid-19 pandemic]