The phenomenon in question

In French, both wh-questions with overt movement and wh-in situ are possible as interrogative structures. However, according to Chang (1997), there is a pragmatic difference in use, such that the referent of the wh-phrase in situ must be presupposed in order for the structure to be licensed, a requirement not imposed on overt wh-movement. This is illustrated in the following question-answer pairs, where the question in (1a), contra (1b), appears to presuppose that something has been eaten:

(1a) A: Tu as mangé quoi?
   B: *Rien
   You have eaten what
   Nothing

(1b) A: Qu’est-ce que tu as mangé?
   B: Rien
   What have you eaten
   Nothing

It has been observed that French-speaking language-acquiring children produce more wh-in situ questions than their adult counterparts, even in incongruous contexts, cf. (1a):

<table>
<thead>
<tr>
<th>Language</th>
<th>Corpus</th>
<th>Adult Input</th>
<th>Child Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>Brown (1973)</td>
<td>16%</td>
<td>0.4%</td>
</tr>
<tr>
<td>French</td>
<td>Palais (2010)</td>
<td>13.2%</td>
<td>81.5%</td>
</tr>
</tbody>
</table>

The contrast between English and French in the wh-in situ proportions in Child-Directed Speech and child language production demonstrates that the input is not related to whether children produce wh-in situ in any transparent way.

Establishing Common Ground

Based on Mathieu’s (2004) split DP analysis, viewing wh-phrases in situ as backgrounded referents, Gotowski & Becker (2016) argue that the overproduction of wh-in situ questions in French language acquisition relates to the notion of Common Ground, defined as follows:

“Information that was previously given (or inferred) from the previous discourse or from the extralinguistic context, and which is shared (or assumed by the speaker to be shared) by speaker and hearer.” (Pires & Taylor 2007: 205)

While fronted wh-phrases, cf. (1b), are inherently foregrounded as Focus elements, wh-phrases in situ are backgrounded (or presupposed) material. French children seem to be overattributing of the discourse referents to the Common Ground, resulting in the overproduction of wh-in situ. The question is why?

A question of Theory of Mind

I will argue that the tendency observed in language acquisition detailed here may in fact be more generally related to the development of Theory of Mind (i.e. more specifically, the ability to meta-represent other minds). A strong indicator of a potential causal relation is a dramatic drop in wh-in situ production around the age of 4 (approaching the rate of the adult input) which crucially coincides with the development of meta-representational understanding in social cognition:

| Wh-in-situ production (Gotowski & Becker 2016: 28) |
|----------------|----------------|----------------|
| Corpus         | Age            | WH-in-situ     |
| Geneva (2003)  | 1:8-2:9        | 80%            |
| Palais (2010)  | 2:9-3:10       | 81.5%          |
| Z&H (2001)     | 4:0-5:9        | 18%            |

Development of Theory of Mind (Astington & Dack 2008)

<table>
<thead>
<tr>
<th>Age range</th>
<th>Major development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth – 18 months</td>
<td>Social perception</td>
</tr>
<tr>
<td>18 months – 3 years</td>
<td>Mental-state awareness</td>
</tr>
<tr>
<td>4-5 years</td>
<td>Meta-representation</td>
</tr>
<tr>
<td>6 years onwards</td>
<td>Recursion and interpretation</td>
</tr>
</tbody>
</table>

Hence, there appears to be an inverse correlation between wh-in situ production and meta-representational skills. Due to an underdeveloped Theory of Mind, language-acquiring French children tend to believe that discourse referents that are salient to them are part of the Common Ground.

The interface between syntax and pragmatics

Gotowski & Becker (2016: 30) claim that the problem may reside in the interface relation between syntax and discourse, as “difficulties using syntactic mechanisms to correctly distinguish the discourse status of different referents”, an explanation that would be compatible with Rizzi’s (1993/1994) Truncation Hypothesis.

At the same time, they adopt the concept of joint attention in their account of the overproduction of wh-in-situ, arguing along with De Cat (2009: 236) that children “bank on what is visible to them and their addressee to reduce the amount of information that [they are] needed linguistically”. However, an explanation of the phenomenon with reference to joint attention hinges upon acquired knowledge of what is grammatically encoded (i.e. the discourse function) in the wh-in situ structure. Otherwise, what would be the point of relying on joint attention?

In a similar vein, the Theory of Mind-account proposed here assumes the following developmental sequence in the acquisition of French wh-in-situ:

Syntax > Discourse function (Common Ground) > Theory of Mind

Path for future research

In sum, the underproduction of wh-ex-situ in the acquisition of French can be explained without stipulating Economy, but simply by relating the phenomenon to an independently observed conceptual transition in the development of social cognition (i.e. Theory of Mind).

Whereas children’s reliance on joint attention is difficult to measure, the role of Theory of Mind can be operationalized by means of e.g. false-belief tasks. The suggested inverse correlation between meta-representational skills and wh-in-situ production in the acquisition of French has not yet been examined experimentally, but if it is established in future research, autism will become of particular interest: Autistic children – unlike their typically-developing peers – show deficiencies in joint attention behavior and tend to systematically fail false-belief tasks well beyond the age of 4. They may thus represent an ideal testing ground for investigating the relationship between social cognition and the acquisition of wh-questions in French.

References


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Email: amni@cc.au.dk
Webpage: http://jurne.uk/portal/da/amni/cc.au.dk