1. Reference tracking devices added to argument frames

Language acquisition begins with learning predicate frames by means of situation-bound clauses, since such clauses are naturally supported by gesture-sustainable referents (‘physically given’ referents, Ariel 2001). The reference tracking devices are at first mainly 1st and 2nd p. pronouns, demonstratives, bare nouns as quasi proper names and 3rd p. pronouns/clitics, but the latter only in as far as they are accompanied by a gesture or gaze that brings in focus a referent in the situation. As soon as a minimal amount of predicate subcategorization frames has been acquired and stacked up in the lexicon, a completely new development sets in. Child language starts adding the devices that perform reference tracking in (linguistic) discourse. There is a rise in the use of articles and 3rd p. pronouns/clitics. Due to this development, the language and its user become more situation-free (Van Kampen 2004).

The reference tracking devices are learned from the adult input. They indicate whether an argument is newly introduced or has already been referred to earlier. This at least is the contribution of the West-European article and pronoun system. The Dutch and French story fragments show how dense the reference tracking devices can be.

(1) a. [De kleine beer]i ging de trap op [naar de zolder]k. Daar k zag hij [een meisje]m. Hij was stomverbaasd. Die m had hij nog nooit gezien. Ze m lag in zijn, bedje. Ze m sliep.
b. [Le petit ours]i grimpa l’escalier jusqu’[au grenier]k. Là k, il, vit [une jeune fille]m. Il, était stupéfait. Elle m/[cette fille]m, il, ne l,m’avait jamais vu. Elle m s’était couchée sur le petit lit. Elle m dormait.

“The little bear went upstairs to the attic. There he saw a girl. He was flabbergasted. He had never seen her. She was lying in his bed. She was asleep”
The reference tracking anaphoric pronouns in (1) are indicated with subscripts under the italics. In addition to that system there is a superimposed discourse device marked by **bold** face in (1). These are the specific anaphors that have a topic-shift function. (Van Kampen 2004) They indicate that the new clause offers one of its arguments as a new point of orientation, different from the orientation point of the preceding sentence. The choice of the antecedent is not free. It has to be the argument marked as prominent in the preceding clause. The ‘focus’ of the preceding clause is turned into the topic of the new sentence. These anaphors are in principle sentence-initial (A-bar) and topic-shifting, see (2)

\[
\text{(2)}
\]

Previous discourse

\[
\text{DP}_i
\]

\[
\text{FOCUS}
\]

\[
\text{sentence-initial A-bar anaphor}_i
\]

\[
\text{remnant}
\]

\[
\text{+-topic-shift}
\]

Germanic V2nd languages (Dutch/German/Swedish) use a demonstrative variant to indicate the topic-shift device. These \(d\)-pronouns, derive from the article or from the demonstrative paradigm. The use of the \(d\)-pronoun is a stylistically smooth option. Romance languages, by contrast, are more restrictive. In case of topic-shift, they may use a full, strong, personal pronoun in adjunct position, but more often they use a full DP in adjunct position. The option of the \(d\)-pronoun is not open to Romance languages.

The use of the \(d\)-pronoun contrasts with the use of the 3\(^{rd}\) p. pronoun in A(rgument)-position. The latter maintains the topic (aboutness phrase) of the preceding sentence. Romance languages use in case of \(<\text{-topic-shift}>\) a 3\(^{rd}\) p. clitic (or subject pro). The discourse relation for \(<\text{-topic}>\), the pronouns and clitics marked in plain *italics* in (1), is expressed in (3)
2. The acquisition of the referential system (Dutch/French)

Both 3rd p. pronouns and topic *d*-pronouns are referential signs D\(^o\) (determiners) that may be used anaphorically to refer to a previously mentioned antecedent. Acquisition graphs of articles and anaphoric 3rd person pronouns show that these are acquired simultaneously (see for the graphs Van Kampen 2004). The simultaneous acquisition demonstrates that the real acquisition step is the introduction of a referential system added to argument structure in the sense of Williams (1994).

Both Dutch and French children establish first the finite verb as a clause identifier. Articles and discourse anaphors are lacking in early child language. We make a rough division between two phases of child language. A situation-bound system before D\(^o\)-marking, and a situation-free system after D\(^o\)-marking. The acquisition of D\(^o\)-marking realizes within half a year the introduction of articles, 3rd p. clitics and pronouns, at least for the two languages considered here.

<table>
<thead>
<tr>
<th>Early child: situation-bound</th>
<th>Later child: discourse-bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>No &lt;± topic-shift&gt; device - No D (φ)</td>
<td>&lt;± topic-shift&gt; device - D (φ)</td>
</tr>
<tr>
<td>all anaphors are gesture-sustained</td>
<td>anaphors need not be gesture-sustained</td>
</tr>
<tr>
<td>No {articles, agr, clitics, pronouns, pro}</td>
<td>{articles, agr, clitics, pronouns, pro}</td>
</tr>
</tbody>
</table>

Early child Dutch is characterized by an abundant use of 1\(^st\) and 2\(^nd\) p. pronouns and demonstratives. This seems reasonable. The 1\(^st\)-2\(^nd\) p. pronouns express a <±speaker> opposition and the demonstratives a <±proximate> opposition, all situation-bound oppositions. Articles, 3rd p. pronouns and discourse-related *d*-pronouns are acquired in a following step. The acquisition of the referential system for articles and pronouns is simultaneous with the discourse use of <± topic-shift> by means of A-bar devices. See Van Kampen & Pinto (2007) for an analysis.

The French child uses at first a dislocated noun or demonstrative doubled by a ‘shadow’ clitic. Most of the time, the dislocations are to the right, as in *elle roule, la voiture* (‘she goes, the car’). The preference of right-dislocations seems an effect of the presence of a situation-bound gesture-sustainable referent (Van Kampen 2004). Since there is a situational context only, each sentence in the language of the child names its own topic. The same type of evidence comes from elicited narratives with picture sequences in Hickmann & Hendriks (1999). French children up to the age of 7 use dislocated nouns doubled by a clitic for the first mentions of a new discourse topic. It shows that even older children heavily rely on a situational context simulated by pictures.
There is a twist, though, in acquiring the French system. The French acquisition of 3rd p. clitics follows the acquisition of articles, see Table 1 for Grégoire (CHILDES). The gray area in Table 1 indicates that at the acquisition point of articles (>80%) there is a sudden rise of single (non-doubled) subject clitics and object clitics. This sudden rise of single clitics can be characterized as the acquisition of discourse structure.

<table>
<thead>
<tr>
<th>weeks</th>
<th>a articles</th>
<th>b shadow clitic</th>
<th>c single clitic</th>
<th>d single clitic</th>
</tr>
</thead>
<tbody>
<tr>
<td>94-98</td>
<td>5%</td>
<td>14 78%</td>
<td>0 4</td>
<td>0</td>
</tr>
<tr>
<td>105</td>
<td>14%</td>
<td>19 95%</td>
<td>0 0</td>
<td>0</td>
</tr>
<tr>
<td>112</td>
<td>53%</td>
<td>3 ---</td>
<td>0 0</td>
<td>0</td>
</tr>
<tr>
<td>117</td>
<td>60%</td>
<td>8 61%</td>
<td>2 4</td>
<td>0</td>
</tr>
<tr>
<td>125</td>
<td>97%</td>
<td>11 37%</td>
<td>19 0</td>
<td>9</td>
</tr>
<tr>
<td>127-129</td>
<td>100%</td>
<td>51 35%</td>
<td>66 28</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 1: French Grégoire: articles, ‘shadow’ clitics and single clitics

Unlike the pronouns in Dutch, French anaphoric clitics do not appear simultaneously, but right after the determiners. This is probably, because clitics imply the acquisition of a different argument placement in addition to the argument pronominalization. Table 1 shows no difference between the acquisition of subject and object clitics as such. It rather seems that subject clitics are more frequent. A simultaneous acquisition of subject and object clitics supports the idea that the underlying condition of this acquisition step is the presence of the argument frame of the verb.

There are some instances of a single clitic in the speech of Grégoire before week 125. In such instances a gesture or a gaze may accompany the clitic. It is the gesture/gaze that brings in focus the intended referent, not the unstressed clitic (Van Kampen 2002, Going Romance presentation).

3. PF saliency for LF function

West-European languages use articles to distinguish arguments as <±previously mentioned>. Besides articles there are personal pronouns that are to be indexed with a discourse antecedent. Superimposed on that system there are additional devices to indicate whether a clause has the same or a different element as its topic. Topic is an argument the sentence is ‘about’. If a sentence takes a topic different from the topic of the preceding sentence, there are devices with enhanced saliency to mark the sentence as <+topic-shift>. These <+topic-shift> devices vary with the type of language. Germanic V2nd languages use a d-pronoun in sentence-initial A-bar position. This d-pronoun refers to an argument in the
preceding sentence that had a focus-kind of saliency. Romance languages mark the +topic-shift by a dislocated argument further supported by a sentence-internal clitic. This can be projected on Ariel’s (2001) saliency hierarchy for pronominal elements. The more salient pronoun signals +topic-shift. It refers to the preceding focus saliency. The less salient pronoun signals −topic-shift. It refers to the preceding topic.

\[
\begin{array}{c|c|c|c|c}
\text{null} & \text{clitic} & + & \text{pronoun} & + & \text{d-pronoun} \\
\hline
\text{<±topic-shift>} & \text{French} & & & & \text{PF saliency} \\
\end{array}
\]

Germanic and Romance use the same accessibility hierarchy to express the ±topic-shift relation, but they exploit the scale in a different way. Dutch opposes A-bar d-pronouns +topic-shift versus pronouns −topic-shift. French opposes full pronouns +topic-shift versus clitics −topic-shift.

The acquisition of ±topic-shift devices takes place more or less simultaneously with the acquisition of other pronominal devices. All these devices make the language more situation-free. The switch from the situation-bound early child language to the situation-free later child language does not take place before the discourse units, the successive sentences, have acquired an internal coherence due to argument frames of the verb and the opposition between ±finite verb (after the “Root Infinitive” stage). There is a common point in the acquisition of the ±topic-shift devices. Both Dutch and French children start with sentences marked by situation-bound device for +topic-shift. In the beginning, each utterance in the language of the child stands on its own and establishes its own topic. Later on, the child’s speech enters the linguistic discourse of an actual or presupposed continuing discourse.

References


