LEARNABILITY ORDER IN THE FRENCH PRONOMINAL SYSTEM*

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1. *The claim*

The present paper will reconsider the acquisition of free anaphors in French.[1] Hamann et al. (1996) have pointed out that object clitics do not appear as easily in French child language as subject clitics. When the amount of object clitics is compared with the total amount of object phrases, there is delayed rise in the use of object clitics. The phenomenon is less marked for subject clitics. Further study by Jakubowicz et al. (1998) was directed at SLI children. The acquisition delay for object clitics was clearly reaffirmed. Since subject/object asymmetries have been a concern for some time in the theory of syntax, Hamann et al.'s original observations led to proposals that derive the acquisition delay from the argument licensing of clitics. French subject and object clitics do not form a homogeneous class. Kayne (1975:86f) assumes the subject pronoun cliticized to the head Vfin at at PF, whereas object clitics move from the canonical object position to a position in front of the VP. Jakubowicz et al. (1998) argue that the subject/object asymmetry in acquisition follows from that syntactic difference. The subject clitic would not only express the subject's D-features (person/number/gender), but also the verbs I-feature 'finite'.[2] This additional I-function would enhance the learnability of the subject and so explain the comparitively delayed rise of object clitics.

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[1] The free anaphors are (full/weak/clitic) pronouns as opposed to bound anaphors (reflexives).
[2] The identification of the subject clitic with the I-marking of finiteness makes sense in the specific analysis of Jakubowicz et al. They have no clitic movement, but consider finite verb and associated clitics as the result of a merge operation. French would be a pro-drop language, since its verbal paradigm needs support of additional person agreement (cf. Hulk 1986, Nash & Rouveret 1997). For some critical notes on the merger analysis of Jakubowicz et al. and a defense of a movement analysis, see Rouveret (to appear).

Interesting though this proposal is, my own research on the rise of free anaphors in Dutch child language (Van Kampen 1997, 2001) suggests an alternative explanation. It turns out for Dutch that the acquisition graph for all free anaphors coincides with the acquisition graph for systematic D-marking on argument structure (determiners before nouns). The distinction between +/– clitic pronoun or between +/–subject anaphor is irrelevant. I will argue below that almost the same holds for French. The use of free anaphors depends on the previous acquisition of D-marking. There is no acquisition difference between object and subject clitics. The early rise of subject clitics is apparent only. The early subject clitics that spoil the game are *shadow pronouns* supported by a local subject adjunct (*papa$_i$, il$_i$ fume une pipe*).[3] The crucial distinction is not subject clitic versus object clitic, but shadow pronoun versus free anaphor. This leads me to the claim that French exhibit the learnability order in (1).

(1) Systematic I-marking and shadow pronouns   *precede*
     Systematic D-marking and free anaphors.

Let me add a few terminological points. I-marking is the marking of a predicate by a factor <+I>. This factor generalizes over a variety of devices {copula, auxiliary, modal, finite morphology}. D-marking is the marking of arguments by a factor <+D>. This factor also generalizes over a variety of devices {article, demonstrative, possessor, quantifier}.

Throughout, I make a sharp distinction between the situational context of a sentence versus its (linguistic) discourse context. The situational context is in principle available to the child, without additional grammatical devices. The discourse context is in my view not accessible to the child until there is the systematic application of D- and I-marking (cf. Schaeffer 1997). These are deictic devices of anaphoric marking. They may relate the sentence to previous utterances.

1.1 *Previous studies*
     The present paper makes use of several distinctions from previous generative acquisition studies. In the present perspective they construe the learnability hierarchy in (1).

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[3] The term 'shadow pronoun' was used by Perlmutter (1972) and is due to the Arabian grammatical tradition. The term 'resumptive pronoun' is nowadays generally used for the relation between a pronoun and an antecedent in relativization and wh-movement. Some people like to use the term 'shadow pronoun' for the pronoun that is bound by a dislocated topic (Ray Mestrie p.c.).

(i)   *Situation-bound child language*. Pronouns in child language are at first situation-bound only. Pronouns that refer to arguments in previous utterances appear much later (Lyons 1977/1979, Atkinson 1979, Hickmann 1982).

(ii) *Clitics* (French subject/object clitics) refer in a way different from full pronouns. They do not refer deictically and gesture-sustainable in a situation-bound way. They refer to highly presupposed structure that becomes available due to previous discourse. The discourse context-depending referring property of clitics has been used in Avrutin (1994) and Baauw & Cuetos (to appear) for their analysis of the acquisition of binding. I will argue here that this context dependency of clitics explains their position in the learnability hierarchy.

(iii) *Full pronouns* Dutch introduces the situation-bound 3rd person preferably by the gesture-sustainable demonstrative pronoun *die*. The use of the 3rd person pronoun *hij/hem* ('he/him') is more discourse-oriented. Haegeman (1996) notices that Dutch children at first make an almost unexceptional use of the (situation-bound) demonstrative. I will show by longitudinal graphs that the acquisition of the 3rd person pronouns *hij/hem* coincides with the acquisition of D-marking.

(iv) *D-marking on nouns* (determiners in French and Dutch) and *free anaphors* (clitics in French, strong/weak pronouns in Dutch) represent the same syntactic category <+D> as argued by Postal (1966). Within that line, Heim (1982) has proposed that the <+D> elements are the anchoring points of discourse grammar. She lists the D-marked arguments in a stack of elements that will further count as presupposed in the immediate discourse. The acquisition of determiners and 3rd person pronouns can be seen as the acquisition of the Heim-stack. The parallel acquisition has been argued for by Hoekstra & Hyams (1995) and Schaeffer (1997). My graphs show that the device of discourse-bound 'free' anaphors does not get into operation, unless a reference stack as postulated by Heim (1982) has been build up by systematic D-marking.

(v) *French subject dislocations*. In adult French, subject DPs are predominantly dislocated topics doubled by a subject clitic (Lambrecht 1981, Ashby 1988). Ferdinand (1996) and De Cat (2002) argue that French child language uses the dislocated topic + subject clitic from early on. The subject clitic is not a free anaphor, it is locally bound to the topic noun, as a 'shadow pronoun'. It is the dislocated topic that is the referent in these constructions, not the subject clitic (cf. Hickmann & Hendriks 1999: ftn. 6).

1.2 *Dutch data that reveal an acquisition order*
    The Dutch child data reveal four marvellously ordered acquisition facts of
subjects and objects. They are listed in (2) and (3). The corresponding
longitudinal graphs reflect a rise to the adult level of I-marking and D-marking.

(2) *Parallel acquisition of*:
     a. <+fin> marked predication
     b. subjects with inherent (non D-marked) reference

(3) *Parallel acquisition of*:
     a. systematic D-marking of arguments
     b. discourse anaphora

Phenomenon (2a)/(2b) cannot be a mere coincidence. They represent the
acquisition of the 'Extended (I-) Projection Principle' (EPP: Rothstein 1983),
the subject obligation for standard sentences. The EPP requires a subject in
Spec,I for grammatically marked predicates IP. Phenomena (3a)/(3b) are no
coincidence either. They can be seen as the acquisition of discourse grammar
as based on a stack of referential points <D> (Heim 1982, cf. Hoekstra &
Hyams 1995).
    The acquisition of the EPP in Dutch child language (2) precedes the
acquisition of discourse reference (3). The longitudinal graph for I-marking
precedes the one for D-marking.[4] See the graphs in section 2.1.

(4) *Acquisition order in Dutch child language* (Van Kampen 2001)
     I-marking (2) precedes D-marking (3)

Although both the EPP and the free anaphors are based on φ-chains, i.e. on the
D-features of person/number/gender/definiteness, the EPP is a matter of
sentence grammar, whereas the free anaphors are a matter of *discourse
grammar*.
    Arguments need to be licensed in syntax. The licensing devices
(determiners and/or morphological case) are language specific and have to be
acquired. The aim of the grammatical licensing is that each argument relates a
theta role to a reference marking. See for this relation Williams (1994),
Rouveret (2002) and for its acquisitional relevance Van Kampen (1997:130f).

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[4] The present analysis considers I-marking (<+/–finite> oppositions) rather than T(ense)-
marking (<+/– past> oppositions). The Tense opposition appears at a later stage in acquisition
(Evers & Van Kampen 2001).

The acquisition order in (4) implies that the subject in early child language will lack D-marking. It will be based on nouns and pronouns with situation-bound reference, like proper names and demonstratives. This will be supported empirically in section 4.2.

The initial evidence for the basic acquisition order in (4) follows from my research of Dutch (Van Kampen 1997, 2001). It now raises the questions in (5).

(5) a.   Do the correlations (2a/b) and (3a/b) and the acquisition order between them in (4) hold for French child language as well?
    b.   How can we explain the delay of object pronominalization in French?

I will answer these questions in the following way.

(6) a.   I-marking precedes D-marking holds for French child language as well.
    b.   (i) The acquisition of free anaphors in French makes no distinction between subjects and objects. (ii) Free anaphors appear right after systematic D-marking (iii) Subject clitics in child French that appear before systematic D-marking are *shadow pronouns* doubled by a topic.

In order to get empirical support for the statements in (6), I have to partly re-interpret the acquisition data in Hamann et al. (1996), Jakubowicz et al. (1998). I will proceed as follows.

The next section will review the acquisition of Dutch I-marking and D-marking and the simultaneous acquisition of D-marking and free anaphors. Section 3 will consider the almost simultaneous acquisition of systematic D-marking and free anaphors in French child language. Section 4 will argue that systematic I-marking precedes systematic D-marking in French as well. Section 5 will conclude that the I-marking of predicates and the D-marking of arguments is the watershed between proto-grammar and real grammar. It interprets the acquisition of I-marking and D-marking as adding deictic markers that enable the sentence to relate to the discourse rather than to the immediate situation.

All French child data are derived from the Grégoire files (Champaud corpus) and all Dutch data from the Sarah files (Kampen corpus), both available in CHILDES.

2.   *Pronoun acquisition in Dutch*

2.1 *Systematic I-marking and reference marking of subjects*

The reference marking of subjects for the EPP in Dutch child language is at first a matter of nouns and pronouns with situation-bound deictic reference, like demonstratives and proper names for persons, animals, places and toys (cf. (2b)). The appearance of these subjects coincides with the rise of I-marked predicates ((2a/b)). However, apparent cases of null subjects in finite sentences in the language of the child seem to contradict this point of view. The same holds for early French child language. I will deal with this issue in section 4.

Simple counts for Dutch show that the (2a/b) I-marking of the subject precedes (3a/b) D-marking of argument structure (cf. (4)). The acquisition order (I-marking precedes D-marking) was argued for in Van Kampen (2001) by means of the graphs in (7). Graph A establishes the rise of Sarah's use of <+I> {copula, auxiliary, modal, finite morphology} in predications. Since Dutch is a V-2nd language, the <+fin> verb appears in C^o-position. Graph B establishes the rise of Sarah's use of <+D> {article, demonstrative, possessor, quantifier} before nouns.[5] In Dutch, the use of a D^o is obligatory with singular count nouns and definite plural nouns only. I counted the +/− oppositions in these contexts.[6]

(7)   *Sarah* (Dutch): Acquisition of I-marking and D-marking (Van Kampen 2001)
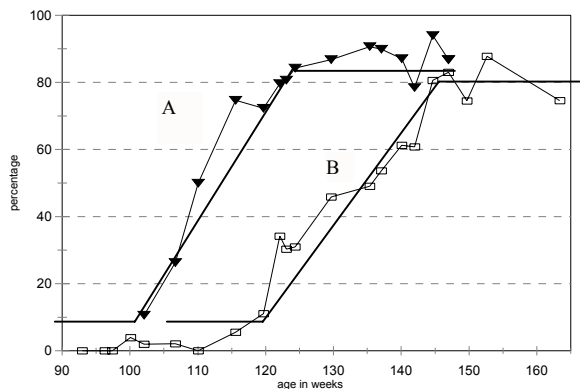
Graph A: *Sentences that realize V<+fin> in ≥ two-word utterances*
Graph B: *Noun Phrases that realize D^o in obligatory contexts in ≥ two-word utterances*

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[5] The graphs for D-marking and I-marking are based on ≥ two-word utterances only. One-word utterances may invite adult over-interpretation (Evers & Van Kampen 2001).

[6] In French, the use of an explicit D^o is obligatory with all nouns, except for certain predicative uses (*il est matelot*). Moreover, the French D-system has phi-oppositions of <+/− gender>, <+/− number>. The difference between the French and Dutch D-system may affect starting point and speed of the acquisition graph, but that is irrelevant for the present argumentation.

The acquisition lines in (7) are parallel (20 weeks). The straight lines have been added to the graphs. They underline the fact that the graphs represent a kind of parameter setting (Evers & Van Kampen 2001). The graphs in (7) nicely show that D-marking follows I-marking In Dutch.

This leaves us with the last point, the simultaneous acquisition of discourse anaphora (3b) and the D-marking of argument structure (3a). Section 2.2 for Dutch and section 3 for French child language present simple quantifications that show the dependency.[7]

2.2   *Systematic D-marking and discourse anaphora*

Before she uses D-marking systematically, Sarah uses demonstrative pronouns (*die/dat/deze/dit* 'that/this'), but no 3rd pers. pronouns (strong pronouns *hij/zij/ hem/haar/het* or weak ones *ie/ze/'m/d'r/'t* 'he/she/him/her/it'). The primary selection of the demonstrative was observed by Haegeman (1996) for the Dutch child Hein.

The early demonstrative *die* is situation-bound.[8] After I-marking, the early pronoun *die* appears almost exclusively in the Spec,C position of Dutch. This can be confidently asserted, since Dutch is a V-2nd language. The I-marking of root predicates by <+fin> coincides with the C-marking of root predications by some <+fin>. No matter how one prefers to analyze this fickle coincidence, the finite verb of root sentences appears in the C^o-position. The Spec,C position is thereby identified. The early pronoun *die* is a demonstrative ('that one'). It has been characterized by Van Kampen (1997: 92f) as an *A-bar pronoun*. The function of the demonstrative A-bar pronouns versus the personal A-pronouns can be characterized as 'referent highlighted' versus 'referent presupposed'. The highlighted referent of the A-bar pronoun in child language is a perceptually salient and gesture-sustainable topic in the speech situation.[9] The demonstrative A-bar pronoun opposes to the personal pronoun *hij/hem*

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[7] They generalize a result already pointed out for object clitics in Hamann et al. (1996) and Jakubowicz et al. (1998).

[8] Dutch highly prefers the use of a general demonstrative *die* for pronominaized topics. It applies to <–animate> as well as to <+animate> objects and subjects. *Die* replaces *dat/dit/deze*, which are specified for (and/or) gender, proximity, number. The gender variant *dat* is disregarded by Sarah. She uses the demonstrative *die* as a situation-bound topic (in non-copula contexts) in more than 90% of the cases.

[9] Later, in the adult language, the A-bar d-pronoun may also refer to an antecedent in the previously uttered discourse. It announces that its referent constitutes a change of topic w.r.t. the previous sentence. The value 'presupposed' of the A-pronouns means that its referent is known like the <+D, +def> marked nouns, either because they are sufficiently situational salient, or because they have been identified in the previous discourse.

('he/him'). The personal pronoun does not appear naturally in the Spec,C position. It is an A-pronoun and its referent is presupposed.

The child's selection of the A-bar demonstrative pronoun *die* fits the picture of early child language as situation-bound. The same holds for the child's avoidance of the A-pronouns. These tend to need discourse grammar and discourse grammar is still absent as long as the grammatical device of anaphoric D-marking has not been acquired. By constructing a graph for the rise of 3rd person pronouns as a percentage of the amount of referential expressions, I could measure Sarah's growing ability in the reference anchoring of arguments. The rise of free anaphors with A-pronoun status coincides with systematic D-marking in a striking way (Van Kampen 2001). The ratio DP<+pro> / DP<+/–pro> reaches the ratio of her adult conversation partner in less than a half year. The same period and the same speed is shown for Sarah's systematic D-marking on nouns, the ratio <+D [— NP]> / <+/–D> [— NP]. The parallel graphs B and C in (8) below reveal how Sarah's use of 3rd person pronouns reaches the level of her adult conversation partner at the same week that she acquires systematic D-marking of nouns. From that point on, she consistently applies D-marking for 80%-90%.

(8)   *Sarah* (Dutch): Acquisition of D-marking and pronouns (3rd person)
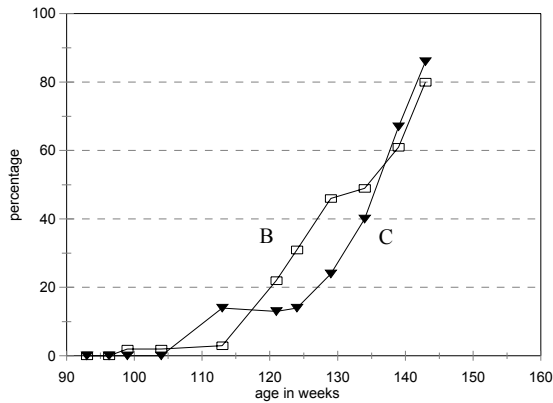
Each measuring point in the graphs represents 2 consecutive files.
Graph B: *Noun Phrases that realize D^o in obligatory contexts in ≥ two-word utterances*
Graph C: *Ratio of 3rd person pronouns w.r.t. nouns measured as a percentage of the ratio in the speech of the mother within the same files.*

The parallel acquisition of systematic D-marking and discourse anaphora in Dutch suggests the universal points in (9).

(9) a.   Systematic D-marking of argument structure selects and temporarily stacks the passing referential expressions, as proposed by Heim (1982).
     b.   Items in the stack can be referred to by discourse anaphora.
     c.   The device of discourse-bound 'free' anaphors does not get into operation, until such a reference stack has been build up by systematic D-marking.

Systematic D-marking takes place due to D^o-labeled articles or due to $Case^o$-labeled case-endings (Van Kampen 1997:130f). Systematic D-marking is the grammatical key to discourse grammar. If so, one expects empirical evidence for an analysis of the French pronominal system along the lines already mentioned under (6). Discourse anaphors are based on systematic D-marking and there is no acquisitional distinction between subject and object in this respect.

3.   *Child French and D-marking*

The points in (6) above imply a far reaching parallel between acquisition hierarchies in Dutch and French. I-marking of the predicate would precede D-marking of the arguments in both languages (6a). Further, (6b) (i) there is no acquisition difference between subject free anaphors and object free anaphors; (ii) free anaphors appear after systematic D-marking; and (iii) statements to the contrary rely on shadow pronouns, a characteristic of French in general and highly preferred in child French. The present section will discuss this triple claim (6b). The next section will argue for claim (6a) that I-marking precedes D-marking for child French. All empirical arguments below are based upon figures derived from the files of Grégoire.[10] I will first establish Grégoires acquisition point for systematic D-marking, i.e. the point in time from whereon he consistently satisfies the adult D-marking for some 80%-90%. Subsequently, I will relate systematic D-marking to the acquisitional order for the various types of anaphors {shadow pronouns, A-bar pronouns, subject clitics, object clitics}. The clitic free anaphors (subject clitics as well as object clitics) should appear after systematic D-marking, since they rely on discourse presupposition. The anaphors that appear well before systematic D-marking should be anaphors that belong to early child language. They are gesture

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[10] When I wrote this paper, the CHILDES database offered no more than two longitudinal corpora for French (Grégoire and Philippe). The Grégoire corpus was the only one that covered the period for the rise of I- and D-marking. Philippe is already too old at the first session. The same holds for the group 1 children in Jacubowicz & Rigaut (1997). They have a mean age of 2;4.10. Fortunately, a new corpus of 3 French speaking children has been added to CHILDES (York corpus, Plunkett 2002) recently.
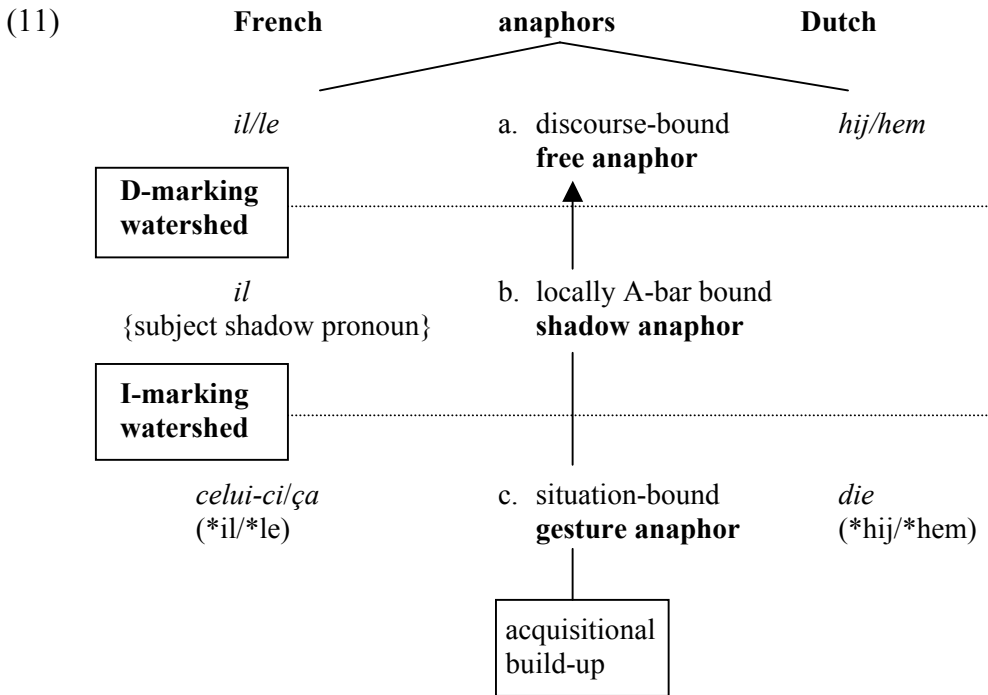
sustainable and they can be used directly in the speech situation. These are the A-bar pronouns <+C, +pro, +/–wh>, like the Dutch *wie, die* (cf. section 2.2) or the French *qui, ça*.[11] A third group of anaphors are the shadow pronouns, see the examples in (10) below. They appear in the French topic construction. The topic is dislocated and the argument position is filled in by the shadow pronoun (Lambrecht 1981). The shadow pronoun is in an A-position and bound by a DP-topic in the nearest A-bar position. See for such locality considerations (De Cat 2002: 92).

(10) a.   *ce_i voisin, il_i est guéri de son rhumatisme*
         "This neighbor, he is recovered from his rheumatism"
         il_i danse le sirtaki sur la table, ce_i voisin
         "He dances the sirtaki on the table"
    b.   *ce_i voisin, je l_i'ai vu danser le sirtaki sur la table*
         "This neighbor, I have seen him dancing on the table"
         je l_i'ai vu danser, ce_i voisin
         "I have seen him dancing, this neighbor"

Adult French allows topic-dislocation of the subject (10a), as well as topic-dislocation of the object (10b). However, child French overwhelmingly prefers the A-bar dislocated topic for subjects only. The following may hold. The root sentences for early child language are mostly without further discourse relations. Such sentences need an explicit topic and this is overwhelmingly done by doubling the subject. Hence, the French child may initially take doubling as the hallmark of subjecthood. The shadow pronouns are not discourse dependent, but sentence dependent. They may appear and do appear before systematic D-marking. Root sentences within discourse will in general not re-affirm the running topic. They do not need the dislocated subject topic. Discourse opens the way for a running topic and a single subject clitic (*il dort*). Discourse grammar also opens the way for object clitics, both topic-bound (shadow variant) and single (discourse presupposed). The dislocated object topic (*je le vois, l'ours*) marks a change of the running discourse topic. Hence, it functions in discourse. As a matter of fact, Gregoire's dislocated object topics appear later than his single object clitics (single *le* > topic-bound *le*). This is the reverse acquisition order of subjects (topic-bound *il* > single *il*). This will be shown in the tables (12) and (13) below.

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[11]   Before I-marking, <+C>/A-bar means 'non-argumental position'. The structural consequences will come in after I-marking. See Van Kampen (1997:chap.4/7).

Let this suffice for the three types of anaphors relevant in the present context. Their acquisitional hierarchy for French and Dutch is diagrammed in (11).

(11)   **French**   **anaphors**   **Dutch**

         il/le   a. discourse-bound   *hij/hem*
                            free anaphor

D-marking watershed

         il   b. locally A-bar bound
   {subject shadow pronoun}   **shadow anaphor**

I-marking watershed

     celui-ci/ça   c. situation-bound   *die*
     (*il/*le)   **gesture anaphor**   (*hij/*hem)

acquisitional build-up

Quantitative evidence in the Grégoire files confirms the acquisition scheme in (11). Consider the table in (12). In column (12)d the gray area marks the period immediately following the acquisition of systematic D-marking. Systematic D-marking in (12)d coincides with a dramatic drop in the use of topic-bound *il*, see (12c). There is a fall from 89% to 37/35% of the topic-bound shadow pronoun *il*. The percentages in (12c) give the proportions between subject clitics as shadow pronouns and subject clitics as free anaphors. One might even argue that the rare, and only, occurrences of *elle* before 2;3.0 is stressable and not necessarily a clitic and is better brought into column (12a). Be this as it may, the quantitative jump of D-marking at 2;5.1 in (12)d shows that the distinction *il*/free anaphor and *il*/shadow pronoun is justified for acquisition.

(12) *Grégoire* (French): Rise of D-marking and subject clitics (3rd person)

age	**a.** single subj. noun		**b.** single subj. clitic		**c.** subject clitic + topic noun (in % w.r.t single clitic)		**d.** D-marking
	N	prop N	*il*	*elle*			
1;9.18-28	0	0	0	1	8	89%	7%
1;10.20	0	0	0	2	7	78%	6%
1;11.22	0	0	0	2	7	78%	3%
2;0.5	1	1	0/2*	0	19	95%	14%
2;1.25	1	1	0	0	3	--- **	53%
2;3.0	0	2	2	4	8	61%	60%
2;5.1	0	1	19	0	11	37%	97%
2;5.13-27	4	6	66	28	51	35%	100%

↓ D-marking acquired

* ∂ fait? (imit. of 'qu'est-ce qu'il fait?') ** too small numbers

The other indication of the relation between discourse anaphors and systematic D-marking is the first appearance of object clitics. Objects are not used as topics in child French as long as the 'topic noun + shadow pronoun' appears to be the hallmark of subject-hood. See column (12a) for the marginal presence of subject nouns in Spec,I. Object clitics are unambiguous free anaphors in child French. They cannot be used to refer directly in the speech-situation, and they have no function yet as shadow pronoun. This leads to the expectation that object clitics will appear just after and not before the systematic D-marking of argument structure. Consider now the figures for object-clitics in (13).

(13) *Grégoire*: Rise of D-marking and appearance of object clitics (3rd person)

age	in weeks	**a.** D-marking	**b.** object cliic 3rd person *le/la*	
			single	+ topic noun
1;9.18-28	89-91	7%	0	0
1;10.20	94	6%	0	0
1;11.22	98	3%	0	0
2;0.5	105	14%	0	0
2;1.25	112	53%	0	0
2;3.0	117	60%	0	0
2;5.1	125	97%	9	0
2;5.13-2;5.27	127-129	100%	10	4

↓ D-marking acquired

The object clitic appears in the Grégoire files for the first time at 2;5.1, when D-marking is acquired (cf. Van der Velde et al. 2002: fig.1). At that moment, clitics may function as free anaphors. That is the way Grégoire begins to use

them, as 'bare' discourse anaphors not doubled by a topic noun. See the gray area in (13b).

There is a difference between the acquisition of free anaphors in Dutch and French. The rise of 3rd person free anaphors in Sarah's conversations is simultaneous to the rise of D-marking, see (7). Grégoire's acquisition of clitic arguments, whether subject or object, is not simultaneous with D-marking, but follows systematic D-marking, see (12)/(13). The acquisition difference between the French clitic free anaphors and the Dutch non-clitic free anaphors is a side issue in the present context. It is plausibly related to the further grammaticalization of clitics in French, as compared to the Dutch non-clitic pronouns. The Dutch positions for subject and object are not sensitive to the +/− anaphor status. That is different for French. Both subject and object clitic imply the acquisition of a different construction in addition to the pronominalization.

Systematic D-marking of the argument structure is a watershed in language acquisition anyway.

(14) a.   Theta-marking gets tied up with sets of referential slots.
     b.   D-marked arguments become accessible as antecedents of discourse anaphors.

It is attractive to speculate that systematic D-marking and discourse anaphors mark the point where language becomes "human" in the sense of being discourse-related and hence situation-free.

4.   *Child French and I-marking*
4.1 *I-marking precedes D-marking*

I now return to the claim (6a) I-marking precedes D-marking. This acquisition order is shown in (15). Grégoire applies systematic I-marking half a year earlier than systematic D-marking. I-marking is almost instantaneous (>80% at 1;10.20).

(15) *Grégoire*: (French*)*: Acquisition of I-marking and D-marking

age	in weeks	**a.** I-marking	**b.** D-marking
1;9.18-28	89-91	67%	7%
1;10.20	94	80%	6%
1;11.22	98	83%	3%
2;0.5	105	79%	14 %
2;1.25	112	82%	53%
2;3.0	117	88%	60%
2;5.1	125	98%	97%

The time gap between the acquisition of I-marking and D-marking has also been observed for Dutch, cf. (7). It can be maintained that the acquisition of $<+fin/I^o>$ marked predication manifests the acquisition of the EPP, if the obligatory presence of the subject is relativized as in (16).

(16) $<+fin/I^o>$ marked predication $<==>$ a.   situation-bound subjects
          b.   mode-implied subjects
          c.   discourse D-marked subjects

The $<+D>$ marked subjects (16c) are the regular case in adult language, but not in early child language before systematic D-marking. The situation-bound subjects (16a) (proper names and demonstratives) and the mode-implied subjects (16b) characterize early child language. They appear only marginally in adult language.

4.2 *Situation-bound subjects*

Before the acquisition of D-marking, child language realizes the EPP in situation-bound contexts when the subject is the topic of the sentence ((16a)). Child Dutch mainly applies its d-pronoun *die* and nouns as quasi proper names.

(17) a.   *die heb bal*   (that (one) has ball)   (S. 1;10.13/week 98)
     b.   *muisje slaap(t)*   (mouse sleeps)   (S. 1;11.15/week 102)

French child language at first realized the $<+fin>$ subject by the demonstrative *ça* (18a) or by a construction of a dislocated topic + shadow pronoun (18b). The shadow pronouns appear before systematic D-marking.

(18) a.   *ça tourne*   (that (one) turns)   (G. 1;9.18/week 89)
     b.   *crocodile, il mange*   (crocodile, he eats)   (G. 1;9.28/week 91)

It must be noticed that in root infinitive subjects need not appear at all, not even situation-bound. Root infinitives may have no more than topic announcers (cf. Hoekstra and Hyams 1995).

(19) a.   *rangE tout seul, Grégoire*   (tidied/tidy up all alone, G.)   (G. 2;1.25)
           (as far as G. is concerned, he 'tidy' up everything by himself)
     b.   *die niet lachen*   (that (one) not laugh)   (S.   2;0.17)
           (as far as that one is concerned, he is not laughing)

The stress pattern in type (19b) betrays the topic status. Its subject status is dubious and probably an adult overinterpretation. The topic status in child French is clear from the fact that (the rare) non-finite sentences in early child French appear almost exclusively with a right-dislocated topic as in (19a). Root infinitives like *je mettre lunettes* do not, or hardly, appear (see Ferdinand 1996:167 for some exceptions). The pronouns *je*, *tu*, *il* do not appear before I-marking, since they fit the Spec,I only (Pierce 1989, Hoekstra & Hyams 1995). The present perspective is that subjects become obligatory by the EPP after the grammaticalization of predication by I-marking (Van Kampen 1997:36). This departs from a far more common view that simply postulates the EPP and derives the obligatory presence of subjects, lexicalized or empty, as an a priori (Sano & Hyams 1994, among others). That view fails to predict the longitudinal quantifications that have been presented here.

4.3 *Mode-implied subjects*

Before the acquisition of discourse grammar, subjects are sometimes absent in I-marked predicates (Rizzi 1994, among others). I have identified the subject-less utterances as representations of situation-bound operator modes (16b) (Van Kampen 1997: 105f). The best example in the adult language is the imperative. The situation-bound modes have a $<+fin/I^o>$ verbal form, but they lack a subject. I propose, following De Haan (1987), that these early $<+fin>$ forms are modal operators. They express modes that imply the presence of a specific person. Unlike the real subjects, mode-implied subject cannot vary in person, i.e. *veux* is inherently 1st person. Moreover, they are situation-bound. The modes are listed in (20) (see Palmer 1986 for intentional (dynamic) versus deontic modality in adult language).

(20) *Modes in early child language*
    a.   wish/ability of the child   *intentional mode* (for 1st p.)
    b.   command by the child   *deontic mode*   (for 2nd p.)
    c.   decision about naming/characterizing *constative mode* (for 3rd p.)

None of these modes have a syntactically expressed subject. The subject *je* (*veux*) as in (21a) below and *il* (*est*) as in (21c) is pragmatically implied rather than being present syntactically. The mode-implied subject gaps appear not only in the early speech of Grégoire, but also in early child Dutch and English. They are probably a characteristic of early child language in general. This crucially differs from previous analyses, like Rizzi (1994) who argues that null subjects in child language arise in discourse-bound contexts. My claim is that the discourse-bound contexts are not available for the child before the acquisition of D-marking.

(21) *Mode-implied subj* <u>English</u>   <u>French</u>   <u>Dutch</u>
    a. 1st pers.   *wanna bear*   *veux partir*   *wil beer/kan doen*
    b. 2nd pers.   *take doll*   *mets voiture*   *doe ogen dicht*
    c. 3rd pers.   *is X/goes there* *est tombE/est ours* *is beer/moet zo*

One may speak about operators and 'mode-implied' subjects, because the <+fin> forms in these constructions (*est/veux/mets* 'is/want/put') are highly frequent and serve as major pragmatic oppositions in standard situations. It is a matter of fixed operators. Except for the constative mode, there are no substantial examples in child French of 3rd person 'drop' like in (22), at least not for Grégoire.[12]

(22) a. *lit un livre   (reads a book)
    b. **marche dans la rue*   (walks in the street)

The strong influence of the subject implying <+fin, mode> is also demonstrated by the fact that the 1st and 2nd person pronouns *je/tu* do not, or hardly, appear in the Grégoire files until D-marking has become systematic. 1st and 2nd person were at first taken care of by the subject implying modes of (21). Hamann et al. (1996:table 4) show the same acquisition delay for *je/tu*,

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[12] Parallel examples like (22) do appear in child Dutch. These are examples of discourse-implied null topics. Discourse-implied null topics concern null 3rd person d-pronouns only. Topic-drop is restricted to Spec,C and appears after the acquisition of V-2nd. See Van Kampen (1997:chap.4) for topic-drop in adult and child Dutch.

attributed here to the subject-implying modes of child language. The need for 1st and 2nd person pronouns follows from the growing predominance of the EPP-type of predication.

5.   *Conclusion*

The following conclusions have now been reached.

(23) a.   I-marking precedes D-marking in both child Dutch and child French.
     b.   D-marking opens the way to discourse-oriented language. This again holds for child Dutch as well as for child French
     c.   The French *il* appears before systematic D-marking, but as a shadow pronoun not as a free anaphor
     d.   The EPP in child Dutch as well as in child French is realized before systematic D-marking. To that end, early child Dutch makes use of proper names and demonstratives, and early child French makes use of *ça* and a dislocated topic + shadow pronoun.

The learning steps in (23) suggest a general acquisition strategy that turns a proto-grammar for situation-bound structures into a truly human grammar for discourse-oriented structures that are systematically situation-free.

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