Investigating Object Drop in Child French and English: A Truth Value Judgment Task

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1. Introduction

It has been observed at least since Clark (1985: 714) that “clitic object pronouns are a fairly late acquisition” in the development of French (e.g., Hamann et al. 1996, Kaiser 1994). It is only recently, however, that attention has been drawn to a particular error type occurring in these contexts, namely the omission of both the object and the clitic, as illustrated in (1).

(1) a. il met dans le bain
he puts in the bath
‘He is putting it in the bath.’ (target: il le met dans le bain) (Lou, 2;5, from Jakubowicz et al. 1996)

b. les trois petits cochons ont brûlé
the three little pigs have burnt
‘The three little pigs burnt it/the wolf’s tail.’ (target: les trois petits cochons l’ont brûlé) (Mrn, 3;6, from Grüter 2006)

Under the standard assumption that French is not a null-object language (e.g., Huang 1984, Raposo 1986) the children’s utterances in (1) are ungrammatical. Yet recent studies have shown that such utterances, missing a referential direct object, continue to occur in the speech of normally developing, monolingual French-speaking children until at least age four. For example, Chilier Zesiger et al. (2001, 2003) report an object omission rate of 21.0% from a group of children aged between 3;5 and 4;5 (mean age=4;0, n=18) on an elicited production experiment. Similarly, van der Velde (2003) observed object omission rates between 15.6% (animate referents) and 23.9% (inanimate referents) in two groups of French-speaking three-year-olds.

By contrast, object omission in child English – another non-null-object language – is typically reported to occur only very infrequently and only at very early stages in development (e.g., Valian 1991, Wang et al. 1992). Moreover, a comparative analysis, presented in Grüter (2006: chapter 5), between the English-speaking children studied by Wang et al. (1992) and an age- and language-matched group of French-speaking children indicates that object omission occurs substantially more often in the (spontaneous) speech of French-speaking children (mean omission rate: 11.2%, mean age 3;7) than in that of their English-speaking peers (3.7%, mean age 3;6).

Thus object omission appears to be a well-attested and persistent error type in child French, but not in the development of another non-null-object language, English. This empirical observation raises a theoretical question with regard to French: are null objects allowed in the grammar of child French? In other words, is there a stage in the development of French during which the grammar sanctions a representation containing a null object (without a clitic)? Several proposals have been made in this regard in the recent literature, which I will review briefly in section 2. Until now, the data relevant to these proposals have come uniquely from language production, although, at least some of them, lead to

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1 However, see Cummins and Roberge (2005), Lambrecht and Lemoine (2005), and references cited there for evidence of null objects in adult French in some contexts.

clear predictions with regard to children’s expected performance on receptive tasks. Yet evidence from
such tasks bearing on the status of null objects in child language has not been available so far. In
section 3, I will present data from a novel truth value judgment task designed precisely to fill this gap.
As I will show, the results do not appear to be compatible with any of the proposals discussed in
section 2. In section 4, I will therefore suggest an alternative developmental approach.

2. Null Objects in Child Romance: Previous Proposals

In an extension of an account originally developed to explain the phenomenon of optional
infinitives in child language, Wexler and colleagues have proposed that the Unique Checking
Constraint (UCC, Wexler 1998) is responsible for the delayed acquisition of object clitic constructions
in (some of) the Romance languages (Tsakali and Wexler 2004, Wexler et al. 2004). In particular,
Wexler and colleagues suggest that in an attempt to satisfy the UCC, the functional projection hosting
the object clitic (see 4.1 below for syntactic analysis) may be eliminated from the syntactic
representation in the child’s grammar, leading to a clause containing *pro* in the canonical object
position without a corresponding object clitic. It is this representation that is proposed to underlie
children’s utterances such as those in (1). However, two limitations of this approach become apparent
in the present context: first, it is not clear to what extent the UCC approach applies to language
comprehension, and thus predictions for the present experiment cannot be derived. Secondly, the UCC
is assumed to be a maturational constraint that ‘withers away’ in the course of development. In order to
capture the phenomenon of optional infinitives, it was proposed that by age three at the latest, the UCC
must disappear. However, as shown above, object omission in child French continues to occur well
beyond this age. Thus it seems doubtful whether an account in terms of the UCC can capture this
phenomenon in child French even in language production (see also Hamann 2003).

Schaeffer (1997, 2000) also suggested that the syntactic representation underlying utterances such
as (1) contains object *pro* in the absence of an object clitic projection, yet for entirely different reasons.
Assuming that the clitic projection is related to the marking of referentiality, she proposed that this
projection may be lacking from children’s early representations, due to the absence of a pragmatic
constraint related to referentiality. Based on developmental evidence from Italian and Dutch, she
concluded that this pragmatic constraint is learnt or acquired by age three. Thus with regard to the
French evidence, this proposal encounters the same problem as that by Wexler and colleagues, in that
in seems unable to capture the persistency of object omission well past age three in the development of
French.

An account that appears capable of integrating object omission at later stages in deve lopment is
that by Müller et al. (1996), who suggested that early French allows discourse-licensing of null objects,
alogous to what has been proposed for (adult) Chinese (Huang 1984). Within their approach, object
omissions at later stages in development are seen as “the (now) residual importance of an earlier stage
of language acquisition” (Müller and Hulk 2001: 9). Importantly, the assumption within such an
approach is that the grammar of child French sanctions a representation containing null objects, just as
the grammar of Chinese does. In consequence, the prediction for a receptive task is that as long as
object omissions – seen as Chinese-style null objects – are observed in production, null objects in a
receptive task should be accepted, as the child could be expected to access the same Chinese-style
representation in a receptive context. This prediction will be tested in the experiment presented in
section 3.

Recently, Pérez-Leroux et al. (2006) have put forward an alternative account of object omission in
child French, which appears to lead to the same prediction as the approach of Müller and colleagues.
Relying on syntactic analyses by Cummins and Roberge (2004, 2005), Pérez-Leroux et al. (2006)
propose that French-speaking children may overextend a null cognate object found in generic contexts,
such as *Elle mange* $\emptyset$ (‘She is eating $\emptyset$’), to specific, or clitic, contexts. This null object is assumed to
consist of a null bare noun (N). If the assumption is that the grammar of child French permits such null
bare nouns to refer to specific objects, then the prediction follows: as long as object omission – seen as
the overuse of null bare nouns – is observed in production, null objects in a receptive task should be
accepted.
These predictions with regard to receptive tasks have remained untested until now. Before proceeding to the relevant evidence, however, I would like to address the rate of acceptance that the proposals by Müller et al. and Pérez-Leroux et al. may predict for null objects in a receptive task. One might argue that if a null object construction is sanctioned by the grammar, it should always be accessible, and thus an acceptance rate of near 100% would be predicted. Alternatively, given that null objects typically occur alongside target-like clitic constructions in production, one could argue that if this variation is due to competing grammars, the prediction would be for acceptance rates in a receptive task to approximate omission rates in production. Thus acceptance rates in the 10-20% range only might be predicted. Given the possibility for such alternative scenarios, it will be difficult to draw any conclusions based on the rate of acceptance for null objects found in a group of French-speaking children alone. In order to circumvent this potential impasse, I will therefore rely on an observation made earlier, namely the fact that object omission is characteristic of child French, but not of child English. Given this evidence from language production, accounts positing a null object representation in child French grammar will presumably not extend to child English. Thus based on this difference between child French and child English, the minimal and most conservative prediction of the accounts under investigation with regard to a receptive task will be that French-speaking children should accept null objects at least more often than English-speaking children. The results of the experiment presented in the following section will be interpreted in light of this prediction.

3. The Experiment

3.1 Method

The aim of this task was to investigate whether French- and English-speaking children accept null objects. For this purpose, the experiment relies on the potential ambiguity of optionally transitive verbs, illustrated in (2) and (3) for English and French respectively. Crucially, the verbs were chosen such that their transitive interpretation (2b, 3b) does not entail the intransitive interpretation. For example, in a context where Caillou is hiding a truck under the sofa, Caillou himself does not need to hide.

(2) a. Caillou is hiding under the sofa.
   b. Caillou is hiding the truck under the sofa.

(3) a. Dora monte sur le rocher.
   ‘Dora is climbing up onto the rock.’
   b. Dora monte le sac sur le rocher.
   ‘Dora is pulling the bag up onto the rock.’

Using verbs with these properties, sentences differing minimally by the presence or absence of an object can be created. In the present experiment, the crucial condition (NULL OBJECT CONDITION), consists of an utterance without an (overt) object (2a, 3a) coupled with a picture illustrating the transitive use of the verb (Figures 1 and 2). These utterances were presented to the child by a puppet. After describing a preceding picture showing the agent (Caillou/Dora) performing another action on the object (truck/bag), the puppet would offer a description of the experimental picture. The learner’s task was to indicate whether this description was true (by feeding the puppet a cucumber), or not (by feeding him a lemon). For example, in the NULL OBJECT CONDITION, the puppet’s description of Figure 2 would be the utterance in (3a). In a grammar that disallows null objects (including adult French), this utterance is false. However, if the child’s grammar sanctions null objects, the utterance is expected to be judged true.

2 The verbs used in the English version of the task were hide, roll, swing and slide. Those in the French version were plonger (intr. ‘to dive’, tr. ‘to plunge’), sortir (intr. ‘to come out’, tr. ‘to move (sth) out’), monter (intr. ‘to climb up’, tr. ‘to move (sth) up’), and descendre (intr. ‘to climb down’, tr. ‘to lower’).
In addition to simple clause utterances such as those in (2a) and (3a), the French version of the experiment also contained potential null objects in an embedded clause, illustrated by the utterance in (4) and the picture in Figure 3. The potential null object in this clause would have to be coreferential with the matrix subject in order for the utterance to be a true description of the picture. However, under a topic-drop analysis of null objects, such as that of Huang (1984) for Chinese, such coreference is ruled out (as it incurs a strong crossover violation). Thus if learners’ grammars sanction a Chinese-type representation of null objects, as proposed by Müller et al. (1996), these utterances should be judged false, in contrast to the simple clause utterances shown above, which should be accepted.

(4) Le chien jappe quand Dora monte (Ø?) sur le rocher.
‘The dog barks when Dora climbs/(pulls him?) up onto the rock.’
Table 1. Summary of experimental conditions

<table>
<thead>
<tr>
<th>condition</th>
<th>example</th>
<th>expected judgment</th>
</tr>
</thead>
<tbody>
<tr>
<td>NULL OBJECT</td>
<td>picture: Dora pulling bag up with a rope.</td>
<td>NULL OBJECT: true if Ø obj. √</td>
</tr>
<tr>
<td></td>
<td>utterance: ‘Dora monte sur le rocher.’</td>
<td>NULL OBJECT: false if Ø obj. *</td>
</tr>
<tr>
<td>TRANSITIVE (CLITIC)</td>
<td>picture: Dora pulling bag up with a rope.</td>
<td>true</td>
</tr>
<tr>
<td></td>
<td>utterance: ‘Dora le monte sur le rocher.’</td>
<td></td>
</tr>
<tr>
<td>INTRANSITIVE</td>
<td>picture: Dora climbing up. (bag remains on ground)</td>
<td>true</td>
</tr>
<tr>
<td></td>
<td>utterance: ‘Dora monte sur le rocher.’</td>
<td></td>
</tr>
<tr>
<td>SUPERFLUOUS PRONOUN/CLITIC</td>
<td>picture: Dora climbing up. (bag remains on ground)</td>
<td>false</td>
</tr>
<tr>
<td></td>
<td>utterance: ‘Dora le monte sur le rocher.’</td>
<td></td>
</tr>
<tr>
<td>SUPERFLUOUS DP</td>
<td>picture: Dora climbing up. (bag remains on ground)</td>
<td>false</td>
</tr>
<tr>
<td></td>
<td>utterance: ‘Dora monte le sac sur le rocher.’</td>
<td></td>
</tr>
</tbody>
</table>

The English version of the task consisted of a single block of 20 simple clause items (four in each condition). For the French experiment, two different versions were compiled. The first version (French-1), comprised a block of 20 simple clause items analogous to the English task, as well as an additional block of 10 embedded clause items (four in the NULL OBJECT CONDITION, one or two in each control condition). In a second version of the French task (French-2), simple and embedded clause items were mixed, and items in the SUPERFLUOUS DP CONDITION were replaced with unrelated distractors.

3.2 Participants

Ten monolingual English-speaking children aged between 3;4 and 5;6 (mean age 4;4) participated in the English version of the task. Nine monolingual francophone children (3;6-4;10, mean age 4;4) completed the French-1 version, while eight monolingual francophone children (3;11-4;11, mean age 4;6) completed the French-2 version.

3.3 Results

The results from the English task are presented in Table 2, those from the two French versions in Tables 3 and 4 respectively. As expected, the English-speaking children performed with high accuracy rates in all five conditions. (The slightly depressed overall rejection rate in the SUPERFLUOUS PRONOUN CONDITION turned out to be an item effect.) Crucially, they rejected items in the NULL OBJECT CONDITION at a mean rate of 90.0%, which I will take as the comparative baseline for the analysis of the French results.

<table>
<thead>
<tr>
<th>condition</th>
<th>judgment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NULL OBJECT</td>
<td>90.0% rejection</td>
<td>(36/40)</td>
</tr>
<tr>
<td>TRANSITIVE</td>
<td>92.1% acceptance</td>
<td>(35/38)</td>
</tr>
<tr>
<td>INTRANSITIVE</td>
<td>97.5% acceptance</td>
<td>(39/40)</td>
</tr>
<tr>
<td>SUPERFLUOUS PRONOUN</td>
<td>80.0% rejection</td>
<td>(32/40)</td>
</tr>
<tr>
<td></td>
<td>(93.3%, corrected for item effect)</td>
<td></td>
</tr>
<tr>
<td>SUPERFLUOUS DP</td>
<td>97.5% rejection</td>
<td>(39/40)</td>
</tr>
</tbody>
</table>

Table 2. Results from the English task

On the first version of the French task (Table 3), participants performed with accuracy rates of 85% and above in all five conditions, both on simple clause and embedded clause items. Most notably, they rejected items in the NULL OBJECT CONDITION at mean rates of 85.7% (simple clause) and 86.1% (embedded clause).
The results from the second version of the French task (Table 4) on the whole confirm the findings from the first version. Although for reasons that are not entirely clear, children’s performance decreased in the SUPERFLUOUS PRONOUN/CLITIC CONDITION when compared to the results from the first version, rejection of items in the NULL OBJECT CONDITION remained high at 96.9% (simple clause) and 70.0% (embedded clause). Interestingly, while no difference was observed between null objects in simple versus embedded clauses on the French-1 task, participants in the second version appeared to reject null objects somewhat less frequently in embedded clause compared to simple clause contexts. While the source of this difference remains unclear, I would like to point out that the contrast is exactly in the opposite direction from what would be expected if a topic-drop representation of the Chinese type was available to these learners. As pointed out above (3.1), such a representation would predict acceptance of null objects in simple clauses, and rejection in the complex clause contexts presented here. A pattern in the opposite direction was found on the French-2 task, suggesting that a Chinese-type analysis of null objects is highly unlikely to be part of these children’s grammars.

<table>
<thead>
<tr>
<th>condition</th>
<th>judgment simple clause items</th>
<th>embedded clause items</th>
</tr>
</thead>
<tbody>
<tr>
<td>NULL OBJECT</td>
<td>96.9% rejection (31/32)</td>
<td>70.0% rejection (21/30)</td>
</tr>
<tr>
<td>TRANSITIVE (CLITIC)</td>
<td>73.3% acceptance (11/15)</td>
<td>86.7% acceptance (13/15)</td>
</tr>
<tr>
<td>INTRANSITIVE</td>
<td>93.7% acceptance (15/16)</td>
<td>100% acceptance (14/14)</td>
</tr>
<tr>
<td>SUPERFLUOUS PRONOUN/CLITIC</td>
<td>50.0% rejection (8/16)</td>
<td>66.7% rejection (10/15)</td>
</tr>
<tr>
<td>accuracy on distractors</td>
<td>92.5%</td>
<td>72.7%</td>
</tr>
</tbody>
</table>

Table 4. Results from the French-2 task

Returning to the prediction under investigation (see section 2), namely that French-speaking children will accept null objects more often than their English-speaking peers, a comparison between results from the English and the French tasks is required. The closest comparison for this purpose will be the one between the English task (Table 2) and the simple clause items on the French-1 task (Table 3), for which the procedures were identical. No statistical analysis is necessary to confirm that there is no difference between the performance of the English- and the French-speaking children on these items. In particular, the difference between the rejection rate in the NULL OBJECT CONDITION found in the English group (90.0%) versus that in the French group (85.7%) is minimal, and clearly not significant on a one-way ANOVA with number of acceptances as the dependent variable ($F(1, 17) = .117, p = .74$).

3.4 Discussion

The results presented here show that French-speaking children aged three and four reject interpretations requiring a null object at equally high rates as their English-speaking peers. This finding runs counter to predictions arising from the proposals by Müller et al. (1996) and Pérez-Leroux et al. (2006). These accounts posit a null object representation in the grammar of child French, based on the observation that French-speaking children continue to omit referential direct objects in their speech. However, I have argued that if such a representation were available, French-speaking children at the relevant age would be expected to accept null objects at least more often than English-speaking children (for whom object omission in production is extremely rare). This prediction was not
confirmed in the novel experiment presented here. I therefore conclude that object omission in child French production is unlikely to be due to a null object representation in early French grammar.

In sum, the empirical data presented and discussed here suggest that an adequate account of object omission in child French must fulfill two criteria: (i) it must allow for continued omission past age three, and (ii) it must explain children’s consistent rejection of null objects in a receptive task. At present, I am not aware of any account in the literature that meets both of these criteria. In the following section, I will therefore suggest an alternative approach to the empirical puzzle at hand.

4. An Alternative Approach: Feature Decay and Default Spell-out

Before outlining my approach to the developmental problem (4.2), closer analysis of the syntactic phenomenon under investigation, object clitic constructions, is required. Section 4.1 contains a summary of the syntactic analysis adopted here.


The syntactic analysis of object clitic constructions adopted here relies on the seminal proposal by Sportiche (1996), with two further assumptions inspired by developments in more recent minimalism (Chomsky 2000, 2001) and Distributed Morphology (Halle and Marantz 1993, 1994). (For a more detailed account of this minimalist adaptation, see Grüter 2006: chapter 3). Sportiche (1996) proposed that object clitics are base-generated as heads of their own projections (called ‘Clitic Voices’, here CIP) located high in the functional architecture of the clause. In object clitic constructions, the canonical object position (the complement of V0) is assumed to contain pro, which is required by the Clitic Criterion (5) to move to the specifier of ClP for the purpose of feature checking, with the relevant feature being specificity (of the direct object). 3

(5) Clitic Criterion
i. A clitic must be in a Spec-head relationship with a [+F] XP at LF.
ii. A [+F] XP must be in a Spec-head relationship with a clitic at LF.

(Sportiche 1996: 236)

Importantly, the Clitic Criterion applies not just to object pro, but to any object requiring checking of the relevant feature ([+F] = specificity). Thus the analysis entails that any [+specific] direct object must move to Spec-CIP by LF. In the case of overt lexical objects in French, this movement must take place covertly, and – French not being a clitic-doubling language – the clitic head will remain silent, i.e., spelled out by the zero morpheme.

Relying on this general framework, I make two additional assumptions. First, I assume a relation AGREE (e.g., Chomsky 2000: 122), which allows for two terms α (a probe) and β (a goal) to enter into an agreement, i.e., feature checking, relation within a certain domain without movement. I therefore restate the Clitic Criterion as in (6), with the crucial consequence that the object (pro or lexical) no longer needs to move to the specifier of CIP, as feature checking will take place at a distance.

(6) Clitic Criterion – minimalistic version
i. A clitic must be in an AGREE relation with a [+F] XP.

(Grüter 2006: 52)

Second, I adopt a late insertion view of morphology, using the framework of Distributed Morphology (Halle and Marantz 1993, 1994). Thus I assume that morphosyntactic features lack phonological content during syntactic computation, with a process of Vocabulary Insertion (VI) applying in a post-syntactic morphological component (MS). During VI, features on a terminal head are matched against

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3 Whether specificity is exactly the right property is not entirely clear (see e.g., Sportiche 1998: 13, note 4, Sportiche 1999: 701), yet for the present purpose this is not directly relevant.
an ordered list of underspecified ‘vocabulary items’, which make up the ‘vocabulary entry’ for the terminal node in question. Furthermore, I assume that the features relevant in this case are [specificity], [case], [number] and [gender]. As illustrated in (7), object pro is assumed to enter the derivation with valued specificity, number and gender features, as well as an unvalued case feature, which will be checked in an AGREE relation with the accusative case assigner (AgrO). The clitic head, on the other hand, is assumed to enter the derivation with only an unvalued specificity feature (see (7), where ‘~’ is used to indicate an unvalued feature). As soon as Cl⁰ is merged, it will probe for an AGREE relation with pro for the purpose of specificity checking. Due to general feature sharing in AGREE relations, Cl⁰ will, in addition to checking specificity, also acquire the valued gender, number and case features from pro, as shown in (8). Thus on exiting the narrow syntax, Cl⁰ will bear values for specificity, number, gender and case. Based on this set of features, Vocabulary Insertion will apply, and the appropriate item from the proposed vocabulary entry in (9) will be chosen for insertion.

(7) ClP

(8) ClP

(9) Vocabulary Entry for Cl⁰

a. [+specific], [ACC], [pl] <-> /les/
b. [+specific], [ACC], [fem] <-> /la/
c. [+specific], [ACC] <-> /le/
d. [+specific] <-> Ø

Note that (9) ensures that the clitic will be spelled out by an overt morpheme (a.-c.) if and only if a case feature [ACC] is present. I have argued that this must be the case whenever the object is silent (pro), assuming that a valued case feature must be associated with an overtly realized element before it can be erased (Grütter 2006: 55). In consequence, the case feature on pro must remain visible at least until the merge of Cl⁰. In the case of lexical objects, I follow Chomsky (1995: 280) in the assumption that case features are erased immediately after checking. Thus by the time a lexical object enters an AGREE relation with Cl⁰, it will no longer bear [ACC]. Consequently, [ACC] will not be copied onto the clitic head, which will always lead to the selection of item d., the zero morpheme, in the case of lexical objects, correctly capturing the lack of clitic doubling in French.

4 Potentially, [person] is also relevant, yet for expository purposes, it will not be included here.
4.2 Limitations of the ‘Workspace’ and Feature Decay in Child Language

Relying on the syntactic analysis presented in the previous section, I now return to the developmental issue, namely object (clitic) omission in child French production. Note that in the syntactic analysis adopted here, there is a clear dependency relation between the clitic (Cl\textsubscript{0}) and the empty category (pro) in the complement of V, and thus a requirement for the (relevant) features of pro to remain accessible until Cl\textsubscript{0} is merged. It is clear, however, that these two elements are merged at a considerable distance: after the merge of pro, the merge of Cl\textsubscript{0} occurs only after a number of intermediate computational operations, and after at least one phase boundary (\textsc{vP}). The relevant features on pro must therefore remain in what Chomsky has called ‘the workspace’ (e.g., Chomsky 2000: 106), presumably a component of working memory, for a relatively long period. I would like to suggest that this is precisely where the source of children’s difficulties might lie. It is generally assumed (e.g., Gibson 1998: 68), and supported by empirical research (see e.g., Baddeley 1986, Vance et al. 2005), that the general capacity of working memory in young children is more limited than in the average adult. It therefore seems plausible that children may also evidence limitations in the ‘workspace’ relevant for syntactic computation. If this is the case, the specific requirement imposed by the derivation of clitic constructions, namely keeping the syntactic features of pro active in the workspace until Cl\textsubscript{0} is merged, may prove to exceed children’s capacities. As a result, features of pro may have ‘decayed’, in the sense of the Decayed Features Hypothesis formulated in (10), by the time they are needed in the AGREE relation with Cl\textsubscript{0}.

(10) The Decayed Features Hypothesis (DFH)

Under limited working memory capacity, a syntactic long-distance AGREE relation between two elements \(h_1\) and \(h_2\) may be computed incompletely, due to the activation level of (some of) \(h_1\)’s features having decayed below the required threshold level by the time \(h_2\) is merged. This may result in the underspecification of \(h_1\) and/or \(h_2\), and thus affect the choice of the relevant vocabulary item(s) selected at MS.

(Grüter 2006: 178)

In what follows, the potential effects of ‘decayed features’ in the sense of the DFH on the phonetic realization of object clitics will be discussed. The minimal requirement for a derivation to pass the interfaces is convergence, i.e., the valuation of all unvalued interpretable features, and the elimination of all uninterpretable features (see e.g., Chomsky 2000: 95). In the case of clitic constructions, what is required for convergence is (a) the checking of the case feature on pro, and (b) the valuation of the specificity feature on Cl\textsubscript{0}. If either of these fail, the derivation will crash, and will not make it past the interfaces, thus, strictly speaking, it should not be able to be pronounced. This means that in the extreme case where all features of pro, including its specificity value, have decayed completely by the time the clitic is merged, the specificity feature on Cl\textsubscript{0} will remain unvalued, leading the derivation to crash, and the utterance to remain unpronounced. This scenario, then, appears uninformative for the investigation of language production.

Consider now what might happen if only those features decay that are not directly relevant for any checking purposes. In the present case, these are the number and gender features on pro. The derivation in the narrow syntax will remain entirely unaffected if these features have disappeared by the time Cl\textsubscript{0} is merged. The only difference will be that Cl\textsubscript{0} does not receive number and gender specifications as a result of its feature sharing with pro. This makes no difference in the narrow syntax, yet it will have an effect in the morphological domain, namely on the process of Vocabulary Insertion. If Cl\textsubscript{0} is specified for only [+specific] and [ACC], the Vocabulary Entry shown in (9) above mandates that the item chosen for insertion must be item c., that is, the phonological realization of Cl\textsubscript{0} will be /le/. Thus under this scenario, the expected realization of the clitic is le, regardless of number and gender of the referent of the direct object.

This scenario presents an unexpected explanation for another phenomenon observed in studies on child French, namely that when gender and number errors occur on object clitics, they are almost entirely unidirectional, that is, they consist of the substitution of (masc. sg.) le for (fem.) la or (pl.) les (Chillier Zesiger et al. 2003, Jakubowicz and Nash, to appear). Under a DFH approach, this error can
be seen as the result of decayed gender and/or number features, leading to the insertion of a less specified item, le, in the morphological domain. Errors in the opposite direction, however, are not expected, since feature decay can never lead to the insertion of a more specified item (such as la or les). Thus the DFH approach offers an unexpected explanation for this error, which so far has only been stated in descriptive terms.

As pointed out above, for a derivation including an object clitic construction to be convergent, the specificity feature on Cl₀ must be valued, and the case feature on pro must be checked. In the scenario outlined above, I assumed that case on pro was checked and subsequently copied onto Cl₀ as a result of feature sharing in an AGREE relation. As a further instance of feature decay, however, we might expect that after the case feature is properly checked in AgrOP, it subsequently decays by the time Cl₀ is merged. Note that after checking, the case feature is no longer relevant to the derivation. Thus let us consider a derivation where both gender and number, as well as case features (after checking) have decayed by the time Cl₀ is merged. The only feature for which Cl₀ will be specified in this case is [+specific], the immediate result of its AGREE relation with pro. If this is the only specification on Cl₀ when VI applies, the winning candidate will be item d. in (9) above, whose phonetic realization is the zero morpheme. In other words, feature decay of gender, number and case is predicted to lead to an utterance with a null clitic, that is, an utterance characterized by object (clitic) ‘omission’.

The scenario outlined in the previous paragraph is precisely what I would like to suggest might underlie the observed ‘object omissions’ in the speech of French-speaking children. If this suggestion is on the right track, it will mean that the underlying syntactic representation of these utterances can be considered target-like in every respect, including the Clitic Projection. The only difference with respect to the adult target would be that the functional clitic head receives fewer features from its AGREE relation with pro, due to the fact that these features (i.e., gender, number, case) have decayed by the time Cl₀ is merged. The resulting underspecification of Cl₀ then crucially affects the choice of vocabulary item in the morphological domain, with the zero morpheme presenting the best match for the underspecified clitic head.

So far, the analysis presented here has made reference to language production only. Yet in light of the experiment presented in section 3, it needs to be considered whether this approach is capable of meeting criterion (ii), namely whether it is able to explain children’s consistent rejection of null objects on a receptive task. In particular, the question that needs to be addressed is whether a listener with limited memory/workspace capacity is expected to entertain a representation with a null object (i.e., null clitic) when hearing an utterance such as (3a) above. I contend that this is not likely, for the following reason. Recall that the developmental approach proposed here makes the assumption that the child’s grammatical competence is entirely target-like. Relying on the target French grammar, the child will know that object pro is sanctioned if and only if the clause contains an overt object clitic. Thus when the (child) listener perceives the finite verb in a clause like (3a) without having perceived an object clitic prior to it, s/he knows at that point that the clause being perceived cannot contain object pro. In other words, unless an overt clitic is perceived, the (child) listener will not entertain the possibility of positing object pro as part of the syntactic representation of that clause. In consequence, the child, relying on the target French grammar, is expected not to be able to construct a representation containing a null object, a representation that would be required in order to obtain an interpretation that would make experimental items in the NULL OBJECT CONDITION true. This is supported by the French-speaking children’s consistent rejection of items in this condition in the truth value judgment experiment reported above.

5. Conclusion

This paper has presented evidence from a novel truth value judgment task designed to investigate whether French- and English-speaking children accept interpretations requiring a referential null object. The experiment presented in section 3 demonstrated that French- and English-speaking children aged three and four reject such interpretations at equally high rates (85-90%). These findings constitute counter evidence to developmental analyses of object (clitic) omission in child French production which attribute such omissions to a (non-target) null object representation sanctioned by the child grammar (Müller et al. 1996, Pérez-Leroux et al. 2006). The results from the experiment
presented here, together with the well-attested observation that French-speaking children continue to omit object clitics in their speech beyond age three, are not compatible with any previous hypotheses in the developmental literature. In consequence, I have outlined an alternative approach which locates the source of the problem in limitations within a grammar(UG)-external domain (cf. Chomsky’s (2005) ‘third factor of language design’), namely in the capacity of the ‘workspace’, a domain that presumably lies within the more general realm of working memory. Further investigation of this specific domain, and its role in language development, will present a challenging yet potentially promising direction for future research.

References


