

# Object Clitics as Last Resort Implications for language acquisition\*

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## 1. Aim

Various studies dealing with the emergence of Accusative direct object clitics (ADOCs) have revealed that they are not used in an adult-like fashion from the first observable stages. The data show either a relative late emergence and gradual target-like use or early emergence followed by a period of non-target-like use. For example, ADOCs have been argued to emerge later than determiners or other object pronominal clitics (Dominguez 2003) and also later than subject clitics (Hamann, Rizzi and Frauenfelder 1996; Hamann 2002). Clitics seem to be randomly omitted during the early stages (Jakubowicz et al. 1998; Haegeman 1996; Schaeffer 2000, Avram and Coene 2003; Wexler et al. 2004; Costa and Labo 2005; Perez-Leroux et al. 2006; Pîrvulescu 2006). In addition, *phi*-features and/or case errors have also been reported for French (Jakubowicz et al. 1998), Romanian (Avram 2001), and Spanish (Dominguez 2003). Such results clearly indicate that ADOCs are problematic across languages.

The present paper investigates the acquisition of ADOCs in Romanian. The novelty of the analysis derives both from the type of investigated data and from the research method. This is the first study which investigates the acquisition of ADOCs in Romanian on the basis of longitudinal data starting from the identification of the obligatory ADOC contexts in the adult system. A similar method was used for the study of early Accusative clitics in French (Pîrvulescu 2006). The present study, though, starts from the identification of the *obligatory* ADOC contexts, rather than from the *permissible* ones. This restriction is required by the properties of clitic doubling constructions in Romanian.

## 2. Assumptions with respect to language acquisition

Our analysis builds on the assumption that language is an optimal solution to legibility conditions (Chomsky 2000), i.e. only legible elements should be present in the expressions spelled out by the computational system. We adopt the view that language acquisition is a form of theory construction which implies selection and valuation of (a small inventory of) features. Parameter setting may reduce to a very small number of valued features, since valuation of one feature may lead to a cascade-like setting of parameter values (Avram and Coene 2005). A key feature is

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Person (Schaeffer and Ben Shalom 2004, Coene and Avram 2004). In accordance with Longobardi's (2004) *Revised Denotation Hypothesis* we assume that "individuals are denoted by association with a (specified or default) person feature", the feature responsible for the projection of D. A positive setting for Person entails denotational uniqueness, i.e. a unique referent that has been previously introduced into the discourse or that is part of the (common) knowledge of the speaker/hearer. A similar proposal was advanced in Chomsky (1999) where the elimination of categorial features leads to interpreting Person as playing the role formerly assigned to [D] or [N] features. In earlier studies, D was associated with referentiality, therefore we infer that the referential property is taken over by the Person feature. The motivation for such a proposal goes back to Postal (1966), where it is argued that determiners and pronouns are expressions of the same Person feature, i.e. personal pronouns and determiners are in fact variants of the same category. Since clitics are D-elements, we expect the valuation of the Person feature to be an important ingredient in the acquisition of clitics.

Person is also relevant for the acquisition of Inflection. A positive setting, for example, will indicate the availability of Inflection-licensed null subjects (Coene and Avram 2004). The value of the Person feature in a particular language affects both the D-domain and the I-domain. The general idea is that a single feature can play an important part in a variety of constructions. Identifying correlations among the emergence and acquisition of all these functional domains may offer the starting point for a unified account of what might seem, at first sight, a bundle of unrelated phenomena.

On this approach, it is possible to account for the acquisition of clitics in terms of the valuation of the Person feature in the target language. One can also explain the obvious asymmetry between the complexity of clitic constructions and the speed with which they are acquired. There is one single feature which requires valuation and evidence in favour of a positive (or negative) setting can come from a variety of constructions. This means that there are numerous cues in the input with respect to the value of the Person feature.

Summing up, our analysis starts from the assumption that the Person feature is a key ingredient in the acquisition of pronominal clitics. The present study investigates its relevance for the emergence and development of ADOCs in Romanian.

### **3. ADOCs in Romanian**

#### **3.1 Obligatory ADOC contexts: the rationale**

In this section we focus on the identification of obligatory clitic contexts in Romanian in an attempt at finding out what they tell the child about the properties of ADOCs in the target language, i.e. we analyze ADOCs in Romanian building on what is available in the input which the child receives.

### 3.2 ADOCs and overt antecedents

In Romanian, the presence of ADOCs is required whenever there is a putatively dislocated direct object DP, surfacing at the left periphery of the sentence, while the post-verbal complement position is empty. This is the case of (i) left dislocation structures with dislocated D-linked<sup>1</sup> direct objects (1); (ii) relative clauses (introduced by *care* ‘which, who’) (2); (iii) D-linked *wh*-questions (with *care* ‘which, who’) (3); (iv) right-dislocation structures (4):

- (1) Cartea, am dat \*(-o).  
book.the have given - Acc clitic 3<sup>rd</sup> sg fem  
“I have given the book away.”
- (2) Mărul pe care \*(l-) am mâncat.  
apple.the *pe* which Acc clitic 3<sup>rd</sup> sg masc have eaten  
“The apple which I have eaten.”
- (3) Pe care \*(l-) ai ales?  
*pe* which Acc clitic 3<sup>rd</sup> sg masc have chosen  
“Which one have you chosen?”
- (4) \*(L-) am mâncat # mărul.  
Acc clitic 3<sup>rd</sup> sg masc have eaten # apple.the  
“I have eaten the apple.”

In all these cases the clitic and its (overt) antecedent occur in the same clause. Importantly, following Cinque (1990), we adopt the view that in these structures the antecedent is base-generated in a left peripheral position<sup>2</sup>. They contain a D-linked topic base-generated in a position at the left-periphery of the clause. One could analyze these constructions as predication structures, as suggested in Chomsky (1977), where topicalized arguments are base-generated in a left-dislocated A-bar position and licensed by rules of predication<sup>3</sup>.

To sum up, the data presented in this subsection show that the ADOC is obligatory when the left peripheral position (presumably SpecTopP) is occupied by a D-linked overt constituent co-indexed with the direct object and the post-verbal complement position is phonetically null. The antecedent is base-generated in this peripheral position.

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<sup>1</sup> D-linking is used in the sense of Pesetsky (1987).

<sup>2</sup> Arguments in favour of a non-movement analysis include scope reading, sensitivity to strong islands, parasitic gaps, intonation. They all point to a systematic contrast between non-D-linked *wh*-phrases and D-linked *wh*-phrases. It is for the latter that one can argue in favour of a non-movement analysis.

<sup>3</sup> We thank Jacqueline van Kampen for pointing this out to us.

### 3.3 ADOCs and null antecedents

ADOCs are also obligatory when the post-verbal complement position is phonetically empty but the null direct object has a (salient) antecedent in the preceding discourse (5):

- (5) A: Ce-ai făcut cu mărul?  
“What have you done to the apple?”  
B: \*(L-) am mâncat.  
Acc clitic 3<sup>rd</sup> sg masc have eaten  
“I have eaten it.”

The ADOC is referentially anchored to an antecedent; it has *no choice* reference, i.e. the choice of a legitimate value for the variable which they introduce is narrowed down to one single entity (Farkas 2000). An ADOC has unique reference.

In 3.2 we saw that ADOCs must surface whenever the direct object position is empty and an overt antecedent surfaces in the left periphery of the clause. We have no reason to believe that ADOCs in such contexts are different from those in clitic constructions with no overt “associate” in the same clause. Following Delfitto<sup>4</sup> (2002), we assume that all clitic constructions contain both a clitic and the antecedent of the clitic, i.e. the reference of the clitic is mediated by a sentence-internal topic, placed in the left periphery, plausibly in SpecTopP<sup>5</sup>. In the clitic constructions discussed in 3.2 the topic is overt. In single clitic constructions, it is a sentence-internal phonetically null topic placed in the same root position, SpecTopP, which cannot be c-commanded; consequently, its identification will occur through discourse. The advantage of this analysis is that it captures the uniformity of ADOCs across all the identified obligatory contexts. They all show that the ADOC is obligatory when its clausal antecedent (null or overt) is a referentially stable topic and the direct object position is null. The antecedent of the null direct object is salient, and theoretically retrievable at the interface. However, the derivation does not converge with null objects. This indicates that Romanian bans null objects which are referentially stable topics.

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<sup>4</sup> It is important to mention that Delfitto’s own analysis builds on results on the acquisition of clitics reported in Baauw (2000).

<sup>5</sup> According to Delfitto (2002), there is an inherent link between pronominal clitics and clitic resumption of left-dislocated topics. The same line of investigation is taken for Greek clitics in Androulakis (2001), where it is argued that clitics in dependencies should be analyzed in the same way as simple clitics.





### 3.5 Clitics as Last Resort

The data analyzed in the previous subsections show that referential null objects are illicit in Romanian. The question is what exactly bans such null objects, requiring the presence of the clitic. Like any null element, they require licensing and identification. They are licensed by syntax<sup>6</sup>, they are the internal argument of a transitive verb. Agreement object is not pronominal in Romanian, so the null object cannot be locally identified through Agreement. In this it differs from *pro* in subject position, which can be identified via Spec-head agreement with Agreement subject. The null object occupies the internal argument position, also a case marking position. Case assignment at Merge in Romanian has been proposed in various studies (Avram and Coene 2000, Alboiu 2002). A tension is created between the case-assigning properties of the structural position and the null status of the internal argument. As a Last Resort strategy, the features of the null object are spelled-out by the clitic, becoming visible for the computation. In a nutshell, the clitic is the spell-out of the features of a null object, created in the derivation. What actually becomes visible is the Person feature, spelled-out as a clitic which, like any pronominal element, inherits the features of the R-expression whose substitute it is. It obviously follows that, being a copy of the null object, the clitic also inherits its referential stability as well as its topic feature.

The question which arises at this point is how the system identifies the *phi*-features (number and gender) of the null object, its complete Person index. We saw that the antecedent of the clitic is in an A' position, at the left periphery of the clause, where it can be linked into discourse. The identification of the null object requires Person feature matching with its antecedent. But matching is possible only if there is no intervening Person feature. In Romanian the Person feature of Inflection is strong (Agreement is pronominal), allowing *pro* subjects; there will always be a potential barrier between the features of the antecedent in the left periphery and those of the null object<sup>7</sup>. The Person feature of Inflection disrupts the feature matching relation between the antecedent and the null object. That is why the clitic will have to move to a position higher than the intervening blocking feature; it moves to Top for identification reasons, i.e. so that the referential index of the null object be rescued via matching with its antecedent.<sup>8</sup> In finite constructions, ADOCs must surface at

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<sup>6</sup> Pîrvulescu and Roberge (2005) argue that the direct object position is always projected. It merges to all verbs in the syntax as a property of Universal Grammar. This position can be occupied by an overt constituent or it can be phonetically null. For Romanian, the position must be occupied by an overt constituent when the direct object has *no choice* reference.

<sup>7</sup> Compare the ban on null objects in Romanian to the availability of a restricted set of null objects in English, otherwise a non null object language. In the so-called recipe context, English allows null objects (Massam and Roberge 1989) but only when the subject is omitted. English does not have pronominal Inflection; but the Person features of the overt subject would block feature matching between the null object and its antecedent.

<sup>8</sup> A reviewer correctly points out that this analysis leaves the structures with the feminine clitic *o* placed in post-verbal position (illustrated in 1) unaccounted for. In Avram (2000) the

the left periphery of the clause. In non-finite constructions Inflection does not have a strong Person feature, i.e. it is not pronominal, so it will not intervene between the antecedent in the left periphery and the clitic, making movement to a higher projection unnecessary.

It is also important to stress that the clitic is created across two phases: vP and CP. Case is checked *in situ*, making the feature Person visible, but gender and number features can be “copied” only after the identification of the referential index of the null object, i.e. after movement to the Topic projection.

To sum up, we propose an approach to ADOCs as a syntactically created copy of features. This bundle of features receives case inside the null DP whose copy it is and a referential index (reflected in number and gender agreement) in a higher projection at the left periphery. Both feature spell out and movement are related to the value of the Person feature.

#### 4. Predictions for acquisition

Following our analysis of ADOCs in Romanian we can say that what children are required to know in order to acquire clitics is that the target language bans D-linked null objects. This ban is enforced by the value of the Person feature in the language. It means that valuation of the Person feature across domains is a prerequisite for the acquisition of clitics. The prediction is that before the full valuation of the Person feature, the early grammar can contain target-deviant clitics. An unvalued Person feature allows the identification of the null object via direct recourse to discourse (very much along the line of Schaeffer 2000), resulting in clitic drop. It also allows a target-deviant grammaticalized Person index, leading to gender and number substitutions and possibly non-moved clitics. The identification of the Person index of the null object implies movement to the left periphery. This indicates that target-like clitics presuppose the existence of an active C-domain, as

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exceptional behaviour of the singular feminine clitic (which remains in post-verbal position in the periphrastic past tense with the auxiliary *avea* ‘have’ but surfaces in pre-verbal position in all the other finite constructions) is argued to be due to a coalition of factors. One of them is phonological. Avram (1986) points out that sandhi is optional with the masculine clitic when it precedes the lexical verb *avea* ‘have’ (i) whereas in front of the auxiliary verb *avea* ‘have’ the sandhi variant (the one which is also used in post-verbal position) is the only one which is allowed (ii) :

- (i)  $\bar{i}$  am /  $\bar{i}$  -am  
 Acc clitic 3<sup>rd</sup> sg masc have/ Acc clitic 3<sup>rd</sup> sg masc have  
 “I have it.”
- (ii)  $\bar{i}$  -am văzut / \* $\bar{i}$  am văzut  
 Acc clitic 3<sup>rd</sup> sg masc have seen  
 “I have seen him.”

Building on this observation, Avram (2000) suggests that the impossibility of placing the feminine clitic *o* in front of the auxiliary may indicate that it lacks a sandhi variant. *O* is the only pronominal which does not have different forms for the class of weak pronouns and for that of clitics within the tripartition proposed in Cardinaletti and Starke (1995).

already argued in the literature for weak pronouns in languages such as Dutch (Haegeman 1996) within a truncation approach (Rizzi 1995).

In the analysis which we adopt, clitics are Last Resort elements<sup>9</sup>. Last Resort operations are costly, language specific and consequently subject to delayed acquisition.

On the other hand, one of the properties which make clitics a special class is their contribution to the meaning of the structure in which they occur. The analysis which we propose takes clitics to be associated with D-linked topicality. In terms of acquisition, interpretable features are available at the interface and can be important facilitators. Previous acquisition studies showed that children are sensitive to information partitioning at an early age (see, for example, de Cat 2002, Okada and Grinstead 2003). If ADOCs have a D-linking function we can predict that children might identify their role early, and consequently we expect early emergence. Moreover, the presence of ADOCs in the input may represent an important clue with respect to the non-availability of null objects. ADOCs in Romanian could be important triggers in the setting of the null object parameter.

We have also seen that in the so-called clitic doubling constructions the presence of the clitic is optional with most DPs. There is variation in the input; the clitic may or may not surface with the same co-indexed DP. The immediate question is whether such variation in the input is helpful or, on the contrary, a delaying factor. Actually, only 3<sup>rd</sup> person Accusative clitics are subject to optionality. 1<sup>st</sup> and 2<sup>nd</sup> person ADOCs cannot be omitted, because they can only have a pronominal “double”<sup>10</sup>:

- (13) a. \*(Te-)            a    văzut și pe    tine        la teatru.  
 Acc clitic 2<sup>nd</sup> sg ) has seen    and *pe* you.Acc at theatre  
 “He saw you too at the theatre.”  
 b. \*(Mă)            cunoaște numai    pe mine.  
 Acc clitic 1<sup>st</sup> sg knows        only    *pe* me  
 “He knows only me.”

The acquisition pattern will be different because the two classes of clitics are subject to different licensing conditions. 3<sup>rd</sup> person ADOCs are dependent for

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<sup>9</sup> The proposed unifying view of Romanian ADOCs as Last Resort elements across all the identified obligatory clitic contexts may lead to the prediction that all these clitic constructions are acquired simultaneously. This is actually the claim in Torrens and Wexler (2000) for Spanish. But our analysis does not imply that all the obligatory clitic constructions involve the same underlying structure and by no means do they involve the same degree of computational complexity. Nothing in our analysis forces the prediction that all the structures emerge simultaneously. Actually, if one assumes that computational complexity matters in the acquisition process, being intricately related to phase derivation and phase memory (Chomsky 1999), we do expect to find non-simultaneous emergence of these constructions. In the present study, we do not verify this prediction.

<sup>10</sup> The difference between a clitic doubling and a single clitic construction in the case of 1st and 2nd person clitics is one of contrast; only the former will display a contrastive effect.

referential indexicality on a linguistic antecedent and are licensed syntactically; they inherit the Person feature of the null object whose Person index they spell out. Only 3<sup>rd</sup> person clitics are Last Resort copies of a D-linked null object created in the derivation. They are the only “determiner pronouns” (Kayne 2000). Identification of the Person index in their case is achieved via feature matching. The valuation of the Person feature in Inflection, which may disrupt the feature matching relation, is relevant in their case. This predicts delayed acquisition. 1<sup>st</sup> and 2<sup>nd</sup> person ADOCs are weak pronouns whose reference is determined by changing discourse roles. We take 1<sup>st</sup> and 2<sup>nd</sup> person clitics in Romanian as the weak variants of 1<sup>st</sup> and 2<sup>nd</sup> person pronouns when surfacing in a functional projection. Since they are pronouns, they do not have an antecedent in their local domain. Whether the child has or has not valued the Person feature of Inflection is not directly relevant for their referential index because they are inherently discourse licensed. This is why we predict a low omission rate in the case of 1<sup>st</sup> and 2<sup>nd</sup> person clitics. 1<sup>st</sup> and 2<sup>nd</sup> person ADOCs also display a lower number of specified features; unlike 3<sup>rd</sup> person clitics, they lack gender specification. The data suggest that morphological complexity might also play a part. This is why we expect agreement errors with morphologically complex clitics but no or very few errors with 1<sup>st</sup> or 2<sup>nd</sup> person ADOCs.

In a nutshell, our analysis of ADOCs makes at least the following predictions with respect to acquisition: (i) ADOCs emerge early; (ii) emergence is followed by a stage with a significant omission rate in the case of 3<sup>rd</sup> person ADOCs but low omission rate in the case of 1<sup>st</sup> and 2<sup>nd</sup> person ADOCs; (iii) (gender and number) substitution errors should be attested only in the case of 3<sup>rd</sup> person ADOCs.

## 5. The emergence of ADOCs

### 5.1 The Data

The data used in the analysis come from two longitudinal corpora of monolingual Romanian in electronic format. The two children, a girl (B.) and a boy (A.), are both monolingual speakers of Romanian. The data were collected for a period of 20 months at the children’s home on a weekly basis. Each session lasted approximately 60 minutes. The data were transcribed according to the CHAT format (as described in MacWhinney 2000). The recordings include situations of free interactions with the mother (or, occasionally another caretaker) and the investigator. The overall number of files examined for the analysis of ADOCs are given in Table 1:

Child	Number of files	Age
B.	26	1;05 - 2;10
A.	11	1;09 - 3;05

Table 1: Longitudinal data used in the analysis

## 5.2 Procedure

A detailed examination of each file was conducted in order to identify all the obligatory clitic contexts on the basis of the findings in section 3. For the structures with a null topic, the presence/absence of the clitic was evaluated on the basis of discourse situation. The presence of the clitic was evaluated as obligatory if the antecedent was mentioned in the previous 5 lines. Clitic structures with no overt antecedent in the same clause evaluated as target-like are illustrated in (14) and illicit clitic omissions are illustrated in (15):

(14) Am luat creion. Uite-l.  
“I have taken pencil. Look at it.” [B. 2; 6.08]

(15) Adult: Da’ ce-ai făcut cu ea?  
“But what did you do to it?”  
Child: Am dezlipit \*[o] așa.  
have taken off [ ] like this  
“I have taken [ ] off like this.” [A. 3;5.04]

Clitic omission with left dislocated direct objects was counted as illicit:

(16) uite, pe tati nu \*[-l] împuşc.  
look *pe* daddy no [ ] shoot  
“Look, I’m not shooting daddy.” [B. 2;7.20]

In the case of (the rare) relative clauses with a relativized direct object, clitic omission counted as illicit:

(17) Adult: ăsta ce e?  
“What is this?”  
Child: Un brăduţ care \*[-l] a adus Moş Crăciun.  
a tree.diminutive which [ ] has brought Santa Claus  
“A little tree which Santa Claus has brought .” [B. 2;7.20]

The omissions which involved a definite pronoun antecedent (clitics included) were the only ones counted as deviant in the analysis of clitic doubling constructions. All the other situations (proper names included) were evaluated as adult-like even when the same structure in the input (sometimes in the immediately preceding or following line) contained a clitic:

(18) Child: a luat pe babă.  
has taken *pe* old woman  
“He has taken the old woman.”

Adult: a luat- o pe babă?  
 has taken clitic 3<sup>rd</sup> fem sg *pe* old woman  
 “Has he taken the old woman?” [B. 2;3.23]

Clitics occurring in imitations or poetry lines, clitics occurring in formulaic structures as well as cases where the verb was not clear or null (even though, in principle, retrievable from the context) did not enter the countings.

Omission rates as well as rates of used clitics were calculated against the number of identified obligatory clitic contexts. Erroneous substitutions (gender, number) were calculated against the total number of used clitics.

### 5.3 Results and discussion

#### 5.3.1 Early emergence and clitic drop

We examined the data with a view to testing the predictions of our analysis (subsection 4). The general results concerning ADOC emergence and early omission are given in Figures 1 and 2:

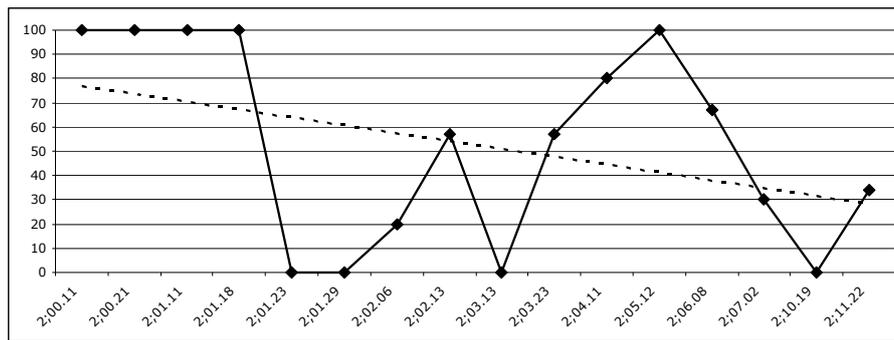


Fig. 1: ADOC omission in Romanian: the B. corpus

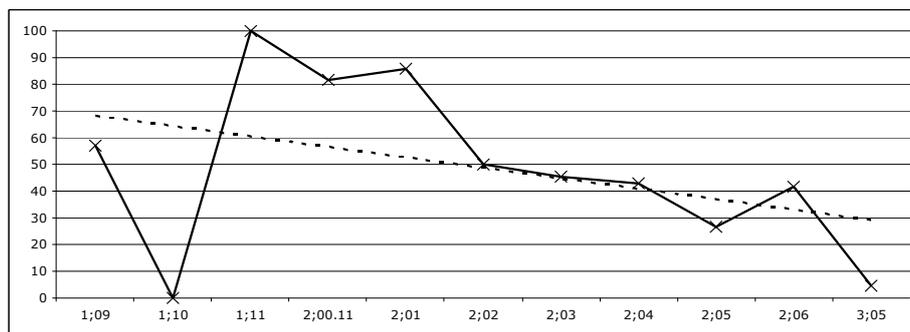


Fig. 2: ADOCs in Romanian: the A. corpus

The data indicate (i) early emergence of clitics followed by (ii) a high rate of omissions in obligatory contexts, just as predicted. In the B. corpus (Figure 1), where the recordings began early enough, at 1;3, there is a very short stage when clitics are completely absent. The first ADOC is attested at 2;0.03. In the A. corpus ADOCs are attested from the first recording session, at 1;9 (Figure 2). But in both corpora early emergence is followed by a clitic omission stage.

The Romanian data are comparable to previous findings with respect to the existence of an omission stage in the acquisition of ADOCs. The reported omission rates differ from one language to another, or from one study to another, but omissions have been reported for many languages (French, Italian, Spanish, Catalan, European Portuguese, Dutch). The data also reveal that as early as 2;3, both in the B. corpus and in the A. corpus, there is growing evidence that the children know that D-linked null objects are banned in the target language. Omissions are still attested but the number of target consistent constructions gradually increases, reaching a rate of over 90% at 2;10 in the B. corpus and at 2;11 in the A. corpus. The number of agreement errors is practically null. In this, our findings are again similar to those reported for other languages for which clitic omission in early language has been attested with 2 year olds (Schaeffer 2000, Ticio and Reglero 2002, Hamann 2002, Rasetti 2003, van Kampen 2004, Pîrvulescu 2006). One has to mention that, unfortunately, percentages are usually difficult to compare across languages, because of the different procedures adopted for the countings in the various studies. However, if we compare the developmental path of the two Romanian children in our study to the data reported for the French children Max and Anne (the York corpus) in Pîrvulescu (2006) (where a similar counting methodology was used), the percentages for the early recording sessions reveal a low rate of used ADOCs with all the children. The French children reach a minimum rate of used ADOCs of 50% at around 2;4 and 2;5, respectively, when their MLU is higher than 3. The Romanian children reach a 50% rate slightly earlier, when their MLU is lower than 2. The increase in ADOC use coincides with the improvement/growth of the MLU. The Romanian children reach an adult-like rate of correct use in obligatory context of minimum 90% at around 2;10, when their MLU is still lower than 3, whereas the French children reach this rate at 2;5 and 2;10, respectively, when their MLU is approximately 3;5. It is not irrelevant to add that in some cases the MLU can be misleading. B.'s omission rate drops to 50% at 2;2.13, when her MLU is 1.819. According to MLU5, though, at this stage B. is already in the multi-word stage. The recording contains utterances which are at least 5 free morpheme long:

(19) vreau să                    strig la rața #    rața!  
       want subj. marker shout at duck.the duck.the  
       "I want to call the duck # hey, duck!"

These differences, if real, indicate different acquisition speed for various languages, which may reflect the different status of clitics in the two systems.

### 5.3.2 Substitution errors

The first attested clitic is, in both corpora, the feminine singular clitic *o* ‘her’ placed in postverbal position:

- (20) Adult: ce-ai făcut cu ligheanul?  
 “What have you done to the bowl?” (bowl = **masc**)  
 Child: spart- **o**.  
 broken Acc clitic 3<sup>rd</sup> sg **fem** [A. 1;9]

A closer look at the distribution of clitics reveals that actually postverbal *o* is the only one which is used until 2;3.14 in the A. corpus and until 2;1.23 in the B. corpus, irrespective of the features of the antecedent (see Tables 2 and 3).

Age	1;9	2;0	2;1	2;2	2;3	2;4	2;5	2;6	2;6.30	2;7
Total ADOCs	6	4	2	2	11	5	6	7	21	23
Post-verbal <i>o</i>	6	4	2	2	8	5	5	2	9	9
Post-verbal other than <i>o</i>	0	0	0	0	0	0	1	0	0	0
Pre-verbal	0	0	0	0	3	0	5	5	12	14

Table 2: Romanian: pre- and post-verbal ADOCs in the A. corpus

Age	2;0	2;0.21	2;1.11	2;1.23	2;1.29	2;2	2;3
Total ADOCs	2	4	2	5	1	2	2
Post-verbal <i>o</i>	2	4	2	0	0	0	0
post-verbal other than <i>o</i>	0	0	0	1	0	0	0
Pre-verbal	0	0	0	4	1	2	1

Table 3: Romanian: pre- and post-verbal ADOCs in the B. corpus

The fact that *o* is exceptional among the other Romanian ADOCs (it is the only one which can occur in postverbal position in a limited number of finite constructions), corroborated with the exclusive use of *o* in (canonical) argument position during this early stage, might indicate that this has to be taken as a language specific phenomenon, rooted in the properties of the feminine clitic *o*. However, a similar phenomenon is discussed in Dominguez (2003). She observes that the Spanish child Maria goes through a stage when one clitic is used as a “substitute”; the masculine *lo*<sup>11</sup> is used instead of the feminine *la*, instead of the plural *los*, and even when no clitic is required. Dominguez reports that at 2;3 Maria uses 21 clitics *lo*, out of which 8 are substitutes. The data coming from Romanian and Spanish are very similar in this respect. One has to notice that the corpus which Dominguez

<sup>11</sup> *Lo* is the default form in adult Spanish as well.



pronominals) we also analyzed the available data with a view to testing whether their different properties are reflected in their acquisition pattern. Tables 4 and 5 below compare the early omission rate in the case of 1<sup>st</sup> and 2<sup>nd</sup> person clitics against the general omission rate in the two corpora.

Age	2;1.18	2;1.23	2;1.29	2;2.13	2;3.13	2;4.11	2;5.12	2;5.18
1 <sup>st</sup> -2 <sup>nd</sup> person ctx	5	5	1	1	3	4	6	3
1 <sup>st</sup> -2 <sup>nd</sup> omissions	0	0	0	0	0	0	0	0
General omissions	0	57.14 %	80%	50%	30%	25%	18.75 %	21%

Table 4: General ADOC omission vs. omission of 1<sup>st</sup> and 2<sup>nd</sup> person ADOCs: the B. corpus

The data reveal an obvious difference between the acquisition pattern of 1<sup>st</sup>/2<sup>nd</sup> person ADOCs and 3<sup>rd</sup> person ADOCs.<sup>13</sup> While the omission rate in the case of the latter is relatively high in the early files and gradually decreases, the rate of attested omissions in the case of 1<sup>st</sup> and 2<sup>nd</sup> person ADOCs is almost 0. Our results are not singular. They confirm previous findings in the literature. van Kampen (2004) argues, on the basis of data coming from Dutch and French, that 1<sup>st</sup> and 2<sup>nd</sup> person pronouns are acquired earlier because they do not require a linguistic antecedent in the discourse; they have a referent in the speech situation.

### 5.3.5 Summing up

The data indicate that the acquisition of ADOCs in Romanian comprises three stages: (i) a very short ‘no clitic’ stage; (ii) early emergence of clitics [1;9 in the Antonio corpus, i.e. from the first recording session, and 2;0 in the Bianca corpus] used first as “fillers” or default forms; (iii) after the emergence of clitics, children randomly omit them at a rate higher than 50%, they make (very few) agreement or case errors, and there is an obvious asymmetry between the omission rate of 3<sup>rd</sup> person clitics, on the one hand, and 1<sup>st</sup> and 2<sup>nd</sup> person clitics on the other hand. The attested agreement errors refer only to 3<sup>rd</sup> person clitics. The rate of clitic omission gradually decreases with age. At about 2;10 (MLU still < 3) in the B. corpus and at approximately 3 (MLU<3) in the A. corpus, the omission rate decreases significantly, dropping below 10%.

<sup>13</sup> Notice that this may be one of the reasons for which omission rates in elicited production studies are higher. The only elicited form is the 3<sup>rd</sup> person singular, which is omitted at a higher rate in the naturalistic data as well (vs. 1<sup>st</sup> and 2<sup>nd</sup> person clitics).

## 6. Conclusions

In the present paper the hypothesis that ADOCs reflect a ban on null D-linked direct objects in Romanian has been put forth. This property of Romanian has been argued to derive from the pronominal nature of Inflection. The Person feature of Inflection blocks identification of the Person index of a null object in postverbal position via feature matching with the antecedent placed in SpecTopP. 3<sup>rd</sup> person ADOCs have been defined as Last Resort elements created in the derivation, which have to move to a position higher than Inflection in order to allow the identification of the Person index of the null D-linked object. Such an analysis allowed us to make several predictions with respect to acquisition. ADOCs are associated with referential stability and topicality: they are obligatory when the antecedent of the null object has been previously mentioned, either in the same clause or in the preceding discourse. Since children seem to be sensitive to discourse information at an early stage, we predicted that this property will be helpful in the acquisition process and lead to early emergence of clitics. This prediction has been shown to be on the right track. ADOCs emerge very early (1;9 in the case of A., 2;0 in the case of B.,  $MLU < 2$ ).

On the other hand, the analysis of clitics as Last Resort elements makes the prediction that their acquisition requires investigation of the input, being a language specific property. This predicts delayed acquisition. This prediction, again, is borne out by our data. The early emergence is followed by non-target ADOCs: (i) an early stage, extremely short, when a default clitic is placed exclusively in postverbal position; (ii) a stage when other clitics, placed both in pre- and post-verbal position are attested but when children randomly omit these pronominal elements. It is also during this stage that rare substitution errors are attested. ADOCs begin to be used in a target-like way at the age of approximately 3;0, when the MLU is almost 3. The data reported in Avram and Coene (2006) provide evidence that for Romanian, the activation of the C-system seems to be a prerequisite for the acquisition of ADOCs, which emerge only after the emergence of those elements which indicate the availability of an active C-domain. This is also predicted by our analysis, since the valuation of the Person feature is only possible when the C-domain is active. The specification of Person features (the *phi*-features on T) is inherited from C (Chomsky 2005).

Our analysis made one more important prediction, which built on the difference between various ADOCs. Only 3<sup>rd</sup> person clitics can be defined as Last Resort copies of a D-linked null object created in the derivation. It is only in their case that the identification of the Person feature is achieved via matching. The reference of 1<sup>st</sup> and 2<sup>nd</sup> person pronouns is determined by changing discourse roles. Whether the child has or has not valued the Person feature of Inflection is not directly relevant for their referential index because they are inherently discourse licensed. This predicts delayed acquisition of 3<sup>rd</sup> person ADOCs, but not of 1<sup>st</sup> and 2<sup>nd</sup> person ADOCs. The prediction has been borne out by the data. There is practically no omission rate in the case of 1<sup>st</sup> and 2<sup>nd</sup> person clitics and there are no gender/number substitutions in their case. This finding may shed light on why clitic acquisition

studies relying on experimental data report a higher rate of omissions than those relying on longitudinal data. The former usually look only at the use of 3<sup>rd</sup> person clitics, whereas the latter examine all types of ADOCs.

The data examined in the present study indicate that the acquisition of ADOCs is problematic and hence delayed in Romanian. Children's use of clitics is not constant for all stages and not comparable to that of adults until the age of 3. One has to mention though that, in spite of the obvious delay, when one looks at the emergence and acquisition of ADOCs against the complexity of the construction, the accomplishment seems extraordinary. Around the age of 3 Romanian children use ADOCs correctly in over 90% of the obligatory clitic contexts.

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