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Person and number asymmetries in child Catalan and Spanish*

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This study provides a unified account for the different Number Agreement patterns attested in early Catalan and Spanish. The scarce Person Agreement errors analyzed indicate the existence of a pragmatic rather than a syntactic deficit while, concerning Number, the distribution of plural subjects show that children are sensitive to linear order as in other domains of grammar. As for Number marking, subjects trigger Number Agreement on the verb in preverbal and not in post-verbal position. Following Guasti & Rizzi's proposal (2002) we suggest that the overt movement of the plural DP to a position in which it enters into an agreement relation with V is not realized, yielding the possibility that Agreement features not be checked in the overt syntax and that the verb surfaces without plural marking.

Keywords: acquisition, Catalan, Spanish, agreement, person, number, word order

1. Introduction

In order to discuss how agreement features are realized in child language, this chapter describes and analyzes the different patterns found in Catalan and Spanish data with respect to Person and Number features. Namely, we aim at finding an answer for the question: Do children use Person and Number agreement in an appropriate and consistent way? The present paper focuses on the early acquisition of two languages, Catalan and Spanish, which typically display a very rich morphological paradigm for the expression of tense and, crucially, also person and number.

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Several studies (Bloom 1970, Brown 1973, Hyams 1996, Phillips 1998, among others) have been conducted for studying the acquisition of agreement features in languages such as English. However, since it is a language with very 'poor' verbal morphology, data from English do not constitute a good testing ground for contrasting hypotheses related to the realization of agreement, at least, not as good as the data from the languages we have chosen to analyze here. Although French would, in theory, constitute a more interesting case, it is still not as morphologically rich as Catalan or Spanish. This is especially true in the case of spoken French which, obviously, is the model followed by French-speaking children in their acquisition process (Pierce 1992). The analysis of Italian would, in fact, be more appropriate since, like Spanish or Catalan, it morphologically marks the distinction among the six verbal persons. From her analysis of Italian child data, Guasti (1994) concludes that children do not encounter many problems in the acquisition of agreement and that errors are virtually absent in their production. A possible exception would be the overextension of singular forms to plural contexts, although it constitutes a very limited phenomenon since children seem generally reluctant to using plural. This is also true of the two languages under study here.

From the previously mentioned work, mostly devoted to the analysis of spontaneous data, two facts should be pointed out:

1. The 'Avoid Plural Phenomenon': whatever the language being acquired, children go through an initial stage where they tend to avoid reference to plural; when they do, they usually establish erroneous agreement relationships.
2. The (apparent) paradox according to which the more morphologically rich a language is (in the verb paradigm), the easier it seems to be for children to master agreement (even though they have to learn a larger number of forms)

Few studies have been made of the acquisition of Catalan and Spanish and different conclusions have been reached depending on the theoretical perspective being adopted. While many generative studies of Romance languages (Guasti 1994, Bel 1998) observed that children show early mastery of agreement, Grinstead (1998, 2000) found that Spanish and Catalan children overgeneralize third person singular verbal form. Studies carried out in other frameworks tend to highlight the existence of problems in the establishment of agreement (López Ornat 1994, Serrat 1997, Aguado-Orea & Pine 2005); the high frequency of third person singular forms allows an interpretation whereby these are considered a default option that crucially shows no agreement. Nevertheless, all the studies agree in pointing to the presence of the 'Avoid Plural Phenomenon'.

The goal of this paper is to discuss the following question:

- (1) Do child grammars have adult-like agreement?

To answer the question in (1) we will look at finite and non-finite verbal forms in order to answer more specific questions such as:

- (2) a. Are Person and Number agreement features realized in the initial grammar?
- b. Is the syntax of agreement in child language adult-like?
- c. Is the presence of agreement verbal morphology in early production enough to claim that child grammars have agreement?

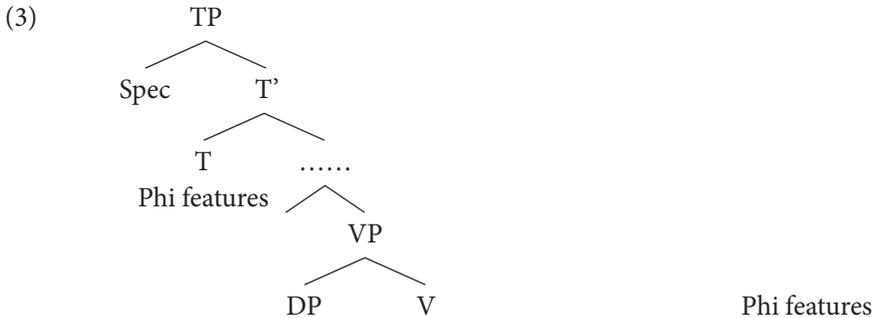
The answer we provide to these questions is based on morphological as well as syntactic evidence. We will interpret the presence of verbal morphology in child language production as morphological evidence. Verbal syntactic evidence related to agreement features manifests itself through the relationship between subjects and verbs, the correlation between null/overt subjects, the finiteness of verbs, and the occurrence of subjects in specific constructions.

Catalan and Spanish, the two languages explored in this paper, constitute a very appropriate domain in which to argue in favor or against the questions in (2) since both display very rich verbal morphology.

2. A note on the verbal functional domain in Spanish and Catalan

In this paper, we adopt the proposal by Guasti & Rizzi (2002: 175) who, in light of child English data, propose that “the overt morphological realization of a feature seems to depend in part on whether the feature has been checked in the overt syntax.” Furthermore, the authors argue that Tense and Agreement features are checked in different syntactic positions in English, with Agr(eement) higher than T(ense), although this issue is not crucial for our analysis of Person and Number agreement features in Spanish and Catalan. What is crucial to our analysis is the actual presence of Agreement features, either in an independent projection (AgrP) or as features associated with the category T. The second proposal, according to which Agreement features of the verb are present in T and checked by a D(eterminer) P(hrase) in the Specifier of T, derives directly from the Minimalist Program originally proposed in Chomsky (1995) and maintained in his subsequent work.

The structure of a finite matrix sentence in both Spanish and Catalan is as follows (we are not concerned here about the CP domain):



Verbs are base-generated fully inflected. Phi-features express person and number. While Phi-features of V(erb) are not interpretable and must be deleted, Phi-features in the DP are interpretable and cannot be deleted in order to be accessible to interpretation at the syntax–semantic interface (LF). In both Spanish and Catalan - basically due to their morphological richness - we assume that V overtly moves from its base position to T in order to have its features checked. We also assume the widely held ‘VP–internal subject hypothesis’: if the DP subject remains *in situ*, the subject will surface in post-verbal position, where default (Nominative) Case is assigned; if the DP moves to [Spec, TP] to check the uninterpretable EPP feature in T, a full DP or *pro* will surface in preverbal position.

The shared idea (for both adult and child grammars) is that V movement in these two languages is obligatory; in other words, Person and Number agreement features are checked in overt syntax because they are morphologically expressed. This is a way of expressing morphological ‘strength’, as present in the earliest versions of the MP. Moreover, agreement is a structure–dependent relation between a DP in [Spec, TP] and the head T, where Person and Number features are hosted.

We adopt the principle (15) formulated in Guasti & Rizzi (2002) that is presented in (4):

- (4) *If a feature is checked in the overt syntax, then it is expressed in the morphology.*

The framework presented so far leads us to make the following predictions:

- (5) a. If the initial grammar of Spanish and Catalan children does not have a TP projection with Person and Number features, in child production data we could expect a majority (if not a totality) of non–finite verbal forms. This would imply that children have not acquired the corresponding features.

- b. On the other hand, if we find an important number of inflected verbal forms, we can reasonably argue that Person and Number features do play a role in the child grammar. (i.e. are present in child grammars).

3. Data collection

We analyze the longitudinal spontaneous production of six children belonging to different corpora (see Table 1). All children were video-recorded either every two weeks or every month depending on the case.

The transcription and coding of the data follow the general criteria of the CHILDES Project (MacWhinney 2000). CLAN programs (COMBO and FREQ) were used to extract all child utterances containing a matrix verb (finite or non-finite) and a subject (null or overt).

4. Overall results

In order to test predictions (5a) and (5b), two types of evidence are considered: the presence of morphology (in the shape of finite verb forms) and the presence of syntactic operations arguably related to the realization of agreement features in adult grammar. We first turn to the examination of morphological evidence.¹

Different predictions are made for finite and non-finite constructions. Let us start with finite verbal forms. For the sake of simplicity, the different stages in the development of the three children recorded have been collapsed and presented in three age periods. Tables 2 and 3 show the distribution of finite verbal forms in matrix clauses for Spanish and Catalan, respectively. The total of forms studied is 3,009, 2,068 from Spanish and 941 from Catalan (agreement errors are indicated in parenthesis).

Table 1. Children and data source

Language	Child	Period	Number of sessions	Database
Catalan	Júlia	1;9-2;6.25	13	Bel (1998)
	Pep	1;6-2;6	11	Serra-Solé (CHILDES)
	Gisela	1;10-2;8	6	Serra-Solé (CHILDES)
Spanish	María	1;7-2;6	12	López Onat (1994)
	Emilio	1;10-2;6	10	Vila (1984)
	Juan	1;9-2;8	8	Linaza (CHILDES)

1. At this point we should recall that, in our analysis, the presence of verbal morphology is a necessary but not sufficient condition for the knowledge of the syntactic properties associated with agreement features.

Table 4. Patterns of morphological realization of (un)checked features (Predictions from Principle (4))

Checking of a feature In overt syntax	Morphological expression of a feature
Yes	Yes
No	Yes/ No

The fact that the form in (7) is not provided by the input can stand as evidence for the claim that children do not learn verbal forms by rote.² The observations in (6) constitute quantitative evidence supporting the idea that children know the morphological realization of agreement. They do not master the whole verbal paradigm from the very beginning –in this domain a gradual acquisition is to be invoked. However, lack of use does not necessarily imply lack of knowledge of the formal notion of agreement.

After the examination of the data on the morphological realization of agreement we have discussed so far, and according to the principle in (4) (Guasti & Rizzi's principle (15)), we can infer that children know the notion of syntactic agreement. The patterns of morphological realization that derive from this principle are included in Table 4.

At this point, a remark should be made in order to interpret Table 4. According to Guasti & Rizzi's principle, if a feature has been checked in the overt syntax then the corresponding agreement morpheme would be present (in the shape of a finite verb form). However, it can be the case that an agreement verbal morpheme has been produced but the corresponding feature might have not been checked in the overt syntax and that would result either in the non production of a morpheme or in the production of an erroneous morpheme. We will first look at the morphological realization of agreement morphemes and later on we will turn to syntactic evidence in order to discriminate cases where feature checking has taken place.

With respect to morphology, only the presence of a great number of agreement errors would constitute evidence supporting the claim that the child grammar lacks Person and Number agreement features. How can we account for the presence of errors? In order to proceed with this line of argumentation, we ask ourselves the following questions:

- (8) a. Is there an initial period in which only non-finite verbal forms are attested?

2. The 1st conjugation marker (thematic vowel) *-a* seems to be the 'unmarked' form; in order to illustrate this point it could be argued that when a new verb is coined in adult language, this always follows the 1st conjugation pattern.

- b. Are the (omnipresent) 3rd person singular verbal forms in child production used erroneously?
- c. From a syntactic point of view, what are the consequences of the presence of Person and Number agreement features?

In order to answer the questions in (8) we will consider null and overt subjects in relation to finite and non-finite verbs. Firstly, the existence of an initial period with no finite verbal forms could be interpreted as evidence of the absence of agreement in child grammars. Secondly, an overproduction of 3rd person singular in 1st and 2nd person contexts would indicate that child grammars lack Person. Moreover, null pronominal subjects in finite clauses will be evidence in favor of the existence of agreement features because Phi-features (Person and Number) identify them in T.

5. Agreement properties of non-finite clauses

The data analysis shows that there is no an initial stage where only non-finite sentences are attested. In fact, we do find some infinitives in finite contexts (i.e. Root Infinitives) that represent 9.4 % of all sentences (see Table 5).

With respect to the analysis of non-finite sentences, in previous work (Bel 1998, 2002) we adopted the ‘Truncation Hypothesis’ (Rizzi 1994) in order to account for children’s root infinitives (RIs); we extended it to Spanish and Catalan and to all non-finite verb forms (infinitives, gerunds and participles). This analysis establishes that a given structure with a non-finite verb root is a truncated structure at the level of the TP (the arrow indicates the place where the structure is truncated):

(9) Rizzi (1994): *Truncation Hypothesis*

$$[_{CP} [_{AgrP} [_{NegP} [_{TP} \nearrow [_{VP} \dots V\dots]]]]]]$$

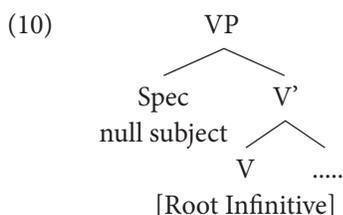
This hypothesis suggests that, if AgrP and TP are not projected, we will not expect to find subjects with a non-finite root form. In fact, in our corpus only 8 infinitives with subjects are attested (out of a total of 119 RIs) and no cases of gerunds or participles with an overt subject are found. In Table 8 the contingency between the presence or absence of an overt subject and finiteness of verb forms (infinitive, gerunds and participles) in root constructions is significant (Chi-square = 50.5588; $p < 0.001$).

Table 5. Overt vs. null subjects in finite and non-finite root constructions of child Spanish and Catalan

	Null subjects	Overt subjects
Finite root constructions	1317	512
Non-finite root constructions	181	8

Lacking tense, RI clauses display certain restrictions while finite clauses do not: 1) auxiliaries cannot appear with RIs because they need to be licensed by tense: they are generated in T or need to raise to T, and, what is more important to our analysis, 2) subjects cannot appear in non-finite clauses. And this is the case in our data as shown in Table 5.

Given that T (and, consequently, Phi features) are absent from the corresponding structures, nothing prevents null subjects from occurring in RI constructions. Null subjects remain in [Spec, VP], since there is not a [Spec, TP] to which the null subject could move. This is illustrated in (10):



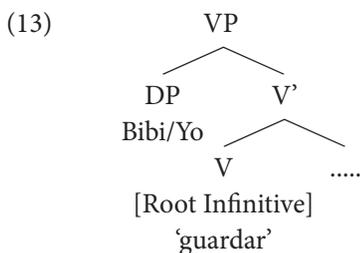
What is the nature of the null subject category occupying this position? Two different types of empty categories could be postulated. Rizzi (1994, 2000) argues that early null subjects with RIs are restricted to the specifier of the root and this is corroborated in our data. They do NOT occur in *wh*- constructions, in negative constructions (note that in Spanish and Catalan Neg is above TP) or in subordinate sentences. Given, then, that null subjects in RI constructions always occur in the specifier of the verbal root, we can propose, adopting Rizzi (1994, 2000) and extending his proposal to our languages, that the empty category in subject position is a *null constant*. Since it occupies the top position of the structure, it can be identified via discourse and licensed in the Specifier of VP. A null constant category is the null counterpart of a full DP.³

3. An alternative analysis would postulate that the empty category is a PRO instead of a null constant, but in that case we should propose a structure different from the one in (13). PRO would be adjoined to VP in order to block government (remember that PRO is an ungoverned category) making it impossible to claim for a unified analysis of RIs, irrespectively of the null or overt value of their subject. Moreover, recall that the MP (Chomsky, 1995) allows for the elimination of PRO from the inventory of empty categories.

The data analyzed so far, then, presents no violations of agreement properties in non-finite clauses. Agreement errors in RI constructions are indicated by the occurrence of an overt subject with a non-finite verb (Root Infinitive, Gerund or Participle). As shown in Table 5, *only* 8 errors of this kind are produced. Some of them are included below:

- (11) *Spanish*
- a. Bibi [muñeco] dormi(r). (María, 1;8)
Baby (toy) sleep-inf
- b. Yo gu(ard)a(r). (María, 1;10)
I keep-inf
- c. Yo ab(r)i(r) la puerta. (María, 2;1)
I open-inf the door
- (12) *Catalan*
- a. A mama colar. [% corria] (Júlia, 2;2)
(The) mommy run-inf
- b. A Júlia se(u)re aquí. (Júlia, 2;2)
(the) Júlia sit-inf here

How should we analyze these instances of overt subjects with RIs? Following the Truncation Hypothesis, RIs are VPs. Similarly, and according to the VP-internal subject hypothesis, DP subjects are generated in the VP. Thus, for instances of a RI with an overt DP we propose the structure in (13):⁴



Two problems arise from the structure in (13):

1. How is Case assigned in RI constructions with overt subjects if the structure lacks T? The answer is that DP subjects have 'default' nominative case. This is what we can overtly observe from the examples (10c–f) ('yo', nominative).

4. Within this analysis, proposing an analogous account of overt and null subjects in RI constructions highlights the parallelism between the two categories in subject position, DP and null constant.

2. What is the case with Agreement features? There is not a category to check Phi-features against. The inherent interpretable features of the DPs 'bibi' (= 'doll') or 'yo' (= 'I') are not deleted so that they can be interpreted (and, then, identified) at LF.

6. Subject agreement in finite clauses

Finite verbs occur with null as well as with overt subjects in early child data. Some agreement errors are attested in the data as we see in Tables 2 and 3 (those in parenthesis). Let us look first at erroneous uses of 1st and 2nd person agreement. There are only 12 cases out of the 3,009 verbs analyzed. Some of the examples are included below:

(14) Spanish

a. *Siento, nene siento.* (María, 1;9)
sit-present-1s, baby sit-present-1s

b. *Yo no sabe tú, yo no sabe tú, yo no sabes.* (María, 2;6)
I not know-3s you, I not know-3s you, I not know-2s

(15) Catalan

a. *A Júlia no tinc.* [esconde la botella detrás de ella] (Júlia, 2;1a)
(The) Júlia not have-1s [hiding the bottle behind her]

b. PAR: *I tu què vas fer quan el vas veure?*
And what did you do when you saw it/ him?
JUL: *Ploraves.* [% polales] (Júlia, 2;3)
Cried-2s

In (14a) and (15a) a 3rd person subject is found where a 1st person subject should be used (in order to agree with the person indicated by the inflection of the verb). However, in both cases the girls use their own names or the generic '(el) nene' ('the baby') to refer to themselves instead of the 1st person pronoun 'yo' (= 'I'). It seems as if they were using third person deixis to identify the speaker. In this sense, these instances rather indicate the existence of a pragmatic deficit and should not be interpreted as true agreement errors. The low number of errors of this kind (7 errors of a total of 796 verbal forms in 1st person singular) also supports this proposal. As for the 2nd person, only 5 errors are found. In some cases (see (14b)), the girl seems to explicitly be looking for the correct form among the different forms in the paradigm. In other cases (see (15b)), the problem arises when the girl is answering a question and has to change person deixis from the 2nd person of the question to the 1st person of the answer (again, it is more a pragmatic problem at the level of deictic expression typical of dialogue).

Table 6. Agreement errors with 1st, 2nd and 3rd person verbal forms (Spanish & Catalan)

	Errors	Total verbal forms
1st person	7	796
2nd person	5	241
3rd person	241	1740

All in all, the total number of errors (see Table 6) in the use of 1st and 2nd person verbal forms is not as significant as those found in the use of the 3rd person singular forms (with $p \leq 0.05$ for 2nd and 3rd person; with $p \leq 0.001$ for 1st and 3rd person).

6.1. Third person verbal forms and overt subjects

Let us turn to the 3rd person verbal forms, which seem to be the most interesting. The number of errors shows high variability, from 20.1% in Maria's data to 7.07% in Júlia's. Table 7 shows the distribution of 3rd person agreement errors.

Dealing first with overt subjects, it is essential to clarify what we understand as instances of true agreement errors. Some examples of overt subjects in 3rd person produced by Júlia are provided in (16):

- (16) a. *la Júlia vol la nina.* (2;1b) [*Non-agreement errors*]
 (the) Júlia want-3s the doll
- b. *a Júlia baixa a pantaló.* (2;2)
 (the) pull-3s down the pants
- c. *això ha esborrat a nena.* (2;3)
 that have-3s erased (the) girl
- d. *a Júlia encén la llum.* (2;6)
 (the) Júlia have-3s turned on the light

However, our analysis does not take these examples as true agreement errors, the reason being that agreement is correct in these sentences. The T projection has a 3rd formal Person feature for a verb like 'vol' (in (16a)), which is taken from the Numeration fully inflected bearing 3rd Person and Number features. Moreover,

Table 7. 3rd person agreement overextensions

1st sg (with null subjects)	1st sg (with overt subjects)	2nd sg	3rd pl	Total errors
72 (30%)	59 (24.5%)	44 (18%)	66 (27.5%)	241

the DP 'la Júlia' shares Person and Number features with those in T and, consequently, can check its interpretable Phi features at LF. As we have suggested before, we believe we are facing a different problem here, not specifically related to agreement. The problem is to be situated at the pragmatic interface and, more specifically, relates to the distribution of deictic expressions of person in dialogue. The child still has to learn that in our languages we refer to ourselves using the first person and not the proper name or a generic like 'la nena' ('the girl'). Adults and parents who sometimes refer to the child using the 3rd person instead of the 2nd reinforce this use. It is worth noting that this behavior, that represents an 80% of the total of non-canonical forms, is not only characteristic of the very early stages. At the age of 2;6 we still find some instances of this kind of 'error' (see (16d)).

In our view, true agreement errors are those in which a mismatch between the formal Person and Number agreement features of the verb and the overt subject is observed. Some agreement errors attested in the data are illustrated below:

- (17) a. *Jo vol.* (Júlia, 2;5) [True agreement errors]
I want-3s
- b. *Yo no sabe tú, yo no sabe tú, yo no sabes* (María, 2;6)
I not know-3s you, I not know-3s you, I not know-2s

Another aspect to be addressed in this section is that of problems with strong nominative pronouns in Spanish and Catalan. Children start using them quite early in their production but they only appear isolated (as short answers to questions: *Qui ha caigut? Jo/La nena*, 'Who has fallen?' 'Me/The baby (girl)'). However, it is necessary to point out how scarce (practically absent) the use of subject pronouns is in early production. This has already been noted in previous works on the acquisition of Spanish (Ezeizabarrena 1996; Grinstead 1998, 2000). In contrast to what happens in English, Spanish and Catalan strong pronouns are basically used for pragmatic (and not grammatical) purposes.⁵ Consequently, the conclusion we reached after considering examples like (17a) is that the acquisition of subject strong pronouns implies, on the one hand, a more elaborated structure than that of (3) and, on the other hand, the definition of the inherent agreement properties of these elements. The child has to build a structure with a preverbal strong pronoun subject in a non-argument position co-indexed with a null pronominal *pro* in argument position. As we can imagine, this implies establishing (and to *be familiar with* the notion of) a chain relationship between them in the sense of Chomsky (2000), where a chain is a set of occurrences of an item in a syntactic structure.

5. We do not discuss here in detail the position that has been postulated for these pronouns; see, among others, Fernández Soriano (1989) or Kato (1999) for Spanish or Rigau (1988) for Catalan, all of them arguing in favor of a peripheral position.

As for the type of error shown in (17b), this indicates that children effectively have trouble with strong pronouns, and that they are looking for the right form among their vocabulary. María seems to *know* that she has not built a correct Numeration and is trying to find the correct one. In any event, in this case the form the girl is looking for is an irregular one ('*sé*' from 'saber'). Note also the relatively advanced age of the two girls.

6.2. Third person verbal forms and null subjects

Another aspect of agreement errors concerns the production of null subjects. In this section we will argue that agreement errors are in this case only 'apparent'. In our view, constructions with null subjects do not constitute a clear piece of evidence for us to conclude that Agreement features do not play a role in child grammars. Let us look at some examples:

- (18) a. PAR: *què vols fer aquí?* ['Apparent' agreement errors]
 what do you want to do here?
 JUL: *vol pujar.* [% *po putxar*] (1;11b)
 Want-3s (to) climb up
- b. MAR: *Júlia, es pot saber què fas?*
 Júlia, what are you doing?
 JUL: *busca a titelles.* (2;2)
 Look-3s for (the) puppets

We claim that this set of examples is similar to those in (16). For these sentences we have argued that they do not imply a problem with agreement but with the distribution of deixis at the discourse (or pragmatic) level. In this case, to propose this line of reasoning turns out to be problematic because of the peculiar nature of the girl's answers in (18). But if we analyze the child utterances in isolation, we can conclude that the null pronoun in subject position is a null category bearing, and thus sharing, Phi-features with the verb [and that they could be interpreted in the same way as the examples in (16): 'la Júlia' or 'la nena']. Consequently, we analyze the null category *pro* in these constructions as having 3rd (and not 1st) Person feature; this is checked against Phi-features in T and identified at LF as bearing this Person feature. This kind of 'error' disappears before real agreement errors with strong pronouns (see (17)).⁶

6. Although in this paper we do not address the nature of overextensions of 3rd person to 2nd person contexts, an anonymous reviewer suggests that they could be accounted for in similar terms to those proposed for those in (18): if parents refer to themselves using the third person, we can reasonably argue that children also use 3rd person with 2nd (intended) person subjects. We kindly acknowledge this observation.

6.3. On number

The third group of errors we considered important is that of number errors, in which 3rd person singular is used instead of 3rd person plural. In this sense, María's data are quite revealing.

- (19) a. *Que se vaya (l)as moscas* [% ve moscas en la terraza].
 (María, 1;11)
 (That) *se go-3s* (the) flies
- b. NEN: *No es tuyos* [% los zapatitos]. (2;1)
 No is yours-pl [the little shoes]
- c. *Sí abe la boca lo(s) bebés.* (2;4)
 Yes open-3s their mouth the babies
- d. *Yo pongo el puente ota vez pa que pase estos.* (2;6)
 I put-1s the bridge again (so that) these pass-3s

Two comments should be made at this point. First, concerning 3rd person plural errors, as suggested earlier, we are facing the well-known 'Avoid Plural Phenomenon' (Hoekstra & Hyams 1995, among others). As we can see in Tables 2 and 3, a very low number of plural forms (163 forms, about 5.5%) is attested. Even if we add the intended plural forms produced in the singular (3rd person singular) the total number of plural occurrences is 210 items and the global percentage is not substantially modified. Thus, we can conclude that, generally speaking, our children are avoiding plural or, alternatively, that they have problems with plural. As a consequence, we could stipulate that the presence of number agreement errors follows from the fact that the Number feature –and not the Person feature as we have seen so far– is initially underspecified in T and that children acquire more features gradually as verbal inflection develops, along the lines suggested in Grinstead (2000).

Our second comment on 3rd person plural errors is that, if we look at the examples in (19), all of them display post-verbal subjects, mostly with unaccusative verbs. In previous literature it has been argued that unaccusative verbs lack a true external argument, the superficial subject being the internal argument. In relation to this, our prediction is that it will be easier to find the subject in the post-verbal internal argument position in these constructions. If that is the case, and since overt movement of the DP subject is not realized, there is a possibility that Agreement

Table 8. 3rd person agreement overextensions of María

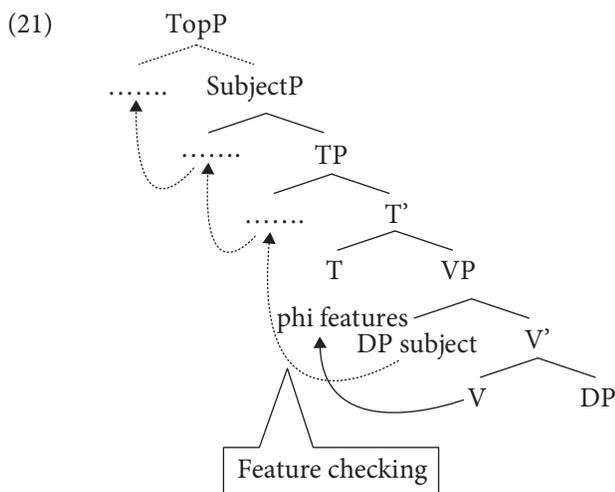
1st sg	2nd sg	3rd pl	Total errors
12 (24%)	21 (42%)	27 (54%)	60

features may not be checked in the overt syntax. According to the principle in (4) (= Guasti & Rizzi's principle (15)), if a feature remains unchecked in the overt syntax (and then is checked in the covert syntax after Spell-Out), a UG principle like (4) offers no guidance as to its morphological expression. The idea put forward by Guasti & Rizzi (2002) is that morphology reads and expresses syntactic specifications.

A possible consequence of this proposal for languages like Catalan or Spanish is that, in post-verbal subject constructions (with unaccusatives), the agreement relationship follows from a language-specific morphological rule. As a consequence, it shows optionality and is subject to dialectal variation. This is true at least for Catalan (Rigau, 1991), in which these constructions show variation across Catalan dialects. Compare:

- (20) a. Per aquest carrer passen moltes persones (Oriental Catalan)
 Through this street pass-3p many persons (=people)
 b. Per aquest carrer passa moltes persones (Occidental Catalan)
 Through this street pass-3s many persons (=people)

As for children, we could claim that they analyze practically any post-verbal subject as having the same properties as unaccusative post-verbal subjects.



The structure in (21) is assumed here for Spanish and Catalan.⁷ In this structure *V* raises to *T* in order to check its Tense feature. If the *DP* subject remains *in situ* (and this applies to unaccusative verbs), the *DP* does not undergo overt movement in the

7. Some authors (Fernández Soriano 1989, Contreras 1991 or Ordóñez & Treviño 1999, for Spanish; Bonet 1990 or Solà 1992, for Catalan) have proposed that all subjects in Spanish and Catalan are generated in a postverbal position. This is not relevant for the purpose of this paper.

syntax. Rather, it occupies a position lower than the agreement layer, does not check its features and surfaces in post-verbal position. According to principle (4), agreement morphology on V may fail to be expressed because of the structural position of the DP and V surfaces as 3rd person singular. This is possible following certain versions of Checking theory (Chomsky 2000), in which uninterpretable features enter the derivation unspecified, particularly, Phi features visible in verbal agreement.

In sentences with (dislocated) preverbal subjects in SubjectP (or, higher in our analysis, in [Spec, TopP]), Phi features are always checked in the overt syntax. Under those circumstances, principle (4) 'forces' the morphological expression of agreement. This is displayed in (22):

- (22) a. DP (...) T_[phi features] ... Obligatory morphological expression of Phi features
 b. T_[phi features] ... DP Optional morphological expression of Phi features

In fact, this alternation between singular and plural is shown in different languages: certain Italian dialects (Belletti (1999) as cited in Guasti & Rizzi (2002)), some constructions in Catalan (see (20)) and also in Spanish (*Se alquila pisos* vs. *Se alquilan pisos*, 'Apartments to rent'). This is the pattern found in Standard Arabic (Benmamoun & Lorimor, 2006):

VS(O)

- (23) a. akal-at T-Taalibaat-u
 eat-3fs the-students-fp-nom
 b. *akal-na T-Taalibaat-u
 eat-3fp the-students-fp-nom

SV(O)

- (24) a. T-Taalibaat-u akal-na
 the-students-fp-nom eat-3fp
 b. *T-Taalibaat-u akal-at
 the students-fp-nom eat-3fs

Optionality, then, is subject to linguistic variation, dialectal variation and, according to the data discussed herein, developmental variation. As a consequence we could expect to find alternation in the use of the two possible patterns. However, no instance of preverbal 3rd person plural subjects –either matching or not matching with the verb– is attested in our data during the same period in which the sentences in (19) are produced: all the 3rd plural verbal forms attested during this period occur with null subjects.

- (25) **Las moscas se va(n)*. [non-attested]
 The flies se go-3p/s

Post-verbal 3rd person plural subjects with matching number agreement (as well as preverbal ones) appear later on in the developmental process of the child and there is even a period when the two patterns co-exist giving rise to optionality.

(26) Catalan

Ui, s'escapen les pomes. (Júlia, 2;5)
Oh, *se-go-3p* the apples

(27) Spanish

- a. No, es que se aguban los dedos del agua. (María, 2;6)
No, (it) is that *se* (your/ the) fingers with the water
- b. (*Las moscas feiyas [%feas] aquí no están.* (2:6)
The flies ugly here not are-3p
- c. *Es pa(ra) que pasen los niños, aquí, aquí sí.* (2:6)
(It) is for that pass-subjunct-3p thechildren, here, here, yes
- d. *Han pasado los niños.* (2:6)
Have passed the children
- e. *Los niños se van en el coche.* (2:6)
The children *se go-3p* in the car

As for the presence of null subjects co-occurring with verbal forms marked for plural, they are to be explained in reference to the nature of *pro*. Contrary to most common analyses, and along the lines of Holmberg's proposal (2005), we assume that *pro* does not receive its Phi-features from T(ense) but rather carries its own [+ interpretable] features which validate the uninterpretable features of V. In order to do so, we might suggest that *pro* raises to TP. We should also bear in mind that (these) null subjects are identified by a DP previously displayed/appeared in the discourse context.

7. Conclusions

After discussing our data, and in relation to our predictions in (5), we are now in a position to conclude that the grammatical notion of agreement seems to be present in the initial grammar of Catalan-speaking and Spanish-speaking children. In this sense, not only are inflected verb forms attested from the very first utterances, but we have also been able to collect different types of evidence to support this claim. There is not an initial period in which only non-finite forms are produced, which implies that a TP layer has been projected. Nevertheless, an RI period has been attested; it has been analyzed in the framework of Rizzi's Truncation Hypothesis providing a unified account of null and overt subjects in RI constructions.

In turn, the analysis of finite constructions reveals that Person and Number agreement features are present in child grammar. This is evidenced by the agreement relationship established between subjects and verbs. Nevertheless, as predicted by principle (4), some agreement errors are detected. This is especially true for the Number feature in the case of post-verbal subjects (due to their structural position). On the other hand, the overwhelming presence of 3rd person singular verb forms does not constitute evidence against the availability of agreement in child grammars for the following reasons: a) 3rd person singular forms remain the most frequent over development, b) many agreement errors are actually problems in finding the appropriate grammatical mechanisms the target languages use in the expression of deixis, and c) instances of null subjects co-occurring with 3rd person singular verb forms do not constitute robust data. As for plural forms, they are very scarce and their acquisition is problematic. Children solve this problem by means of two agreement patterns: VS order (total agreement) and SV order (partial agreement).

In this sense, further analyses could be performed concerning, for instance, the realization of Phi features in copular constructions, in structures with coordinate subjects etc. Similarly, experimental tasks could be designed in order to obtain additional data supporting the findings presented in this paper.

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