# Early Catalan OV Sequences: Empirical Evidence for the Poverty of Stimulus Argument\*

SUSAGNA TUBAU

#### **Abstract**

After all the criticism Pullum and Scholz (2002a) have received, the best way of contributing something new to the debate of the Poverty of Stimulus (POS) argument and linguistic nativism was to discuss some empirical evidence of the kind these authors claim to be missing in the generative literature. In this paper, I explore the idea that, as suggested by other authors (Rosselló, Llinàs and Bel, in press), OV sequences occurring with telic verbs in early Catalan (Llinàs-Grau 1998; Llinàs-Grau and Coll-Alfonso 2001) constitute robust evidence for the POS argument. OV sequences do not have an observable adult counterpart. Yet, they happen to be systematically produced around 2 years of age, as confirmed by the data of four Catalan children which parallel other existing data on the same issue. The adult input has also been analysed to see to what extent OV sequences could be claimed to be inexistent in the data the children were exposed to.

#### 1 Introduction

Pullum and Scholz's (2002a) article questions the empirical validity of the Poverty of the Stimulus argument (POS henceforth), which has been extensively quoted in the generative linguistics literature as evidence for the innateness of the human linguistic ability. While Pullum and Scholz (2002a) grant logical validity to the POS argument, they claim that it is not empirically corroborated in the literature. They review some research conducted on the acquisition of plurals in N-N compounds (Gordon 1986), auxiliary sequences (Kimball 1973), anaphoric *one* (Baker 1978) and auxiliary-initial clauses (Chomsky 1971) and they conclude that any of the four different cases hold up (Pullum and Scholz 2002a: 9) as examples of the POS argument.

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This paper does not aim to be an exhaustive review of Pullum and Scholz (2002a). Since most of the articles in the volume 19 of *The Linguistic Review* aim to counterargue Pullum and Scholz's (2002a) claims, the purpose of the present piece of research is to show that, contrary to what these authors argue, there *is* empirical evidence to maintain the POS argument and, therefore, to support linguistic nativism.

The structure of the paper is as follows. First of all, I summarise some of the major objections that have been made to Pullum and Scholz (2002a) both in *The Linguistic Review* 19 and in other academic sources. In addition, I also consider Pullum and Scholz's (2002b) response to the criticisms received. In section 3, I report Llinàs-Grau and Coll-Alfonso's (2001) data on preverbal objects in child Catalan and show how these data go through the APS¹ specification schema Pullum and Scholz (2002a: 19) dissect the POS argument into. In section 4, I analyse the data of four subjects, three Catalan monolingual children (Jordina, Eva and Pep) and a Catalan-Spanish bilingual (Caterina), which show that OV sequences with telic verbs are not isolated cases but a quite common phenomenon. The final section of the paper contains some concluding remarks.

#### 2 Criticisms of Pullum and Scholz (2002a)

The failure to consider other researchers' central points or to acknowledge the significance of their findings, together with the misinterpretation of certain analyses or results, are among the main flaws other scholars have pointed out when discussing Pullum and Scholz's (2002a) article. For instance, Thomas (2002) points out that Crain's (1991) central point is not addressed in Pullum and Scholz's (2002a) paper. Crain (1991), who discusses how children seem to obey various linguistic constraints both when producing and comprehending different kinds of constructions, claims to have demonstrated that infants are sensitive to ungrammaticality despite the lack of negative evidence in the input. Likewise, according to Lasnik and Uriagereka (2002), the findings of Freidin (1991), who investigated English children's acquisition of auxiliary fronting with special emphasis on to what extent such knowledge follows from the input the child is exposed to, are also ignored in Pullum and Scholz (2002a). Lasnik and Uriagereka (2002: 148) treat those findings as an instantiation of an extreme form of the POS argument, which means that children reach the right conclusion despite positive evidence being insufficient. Crain and Petroski (2002) also make general remarks on the fact that Pullum and Scholz (2002a) fail to consider the data that nativists'

<sup>&</sup>lt;sup>1</sup> APS stands for 'Argument of the Poverty of Stimulus'. It is equivalent to 'POS argument', the abbreviation I used throughout the paper.

claims rest on. They also note that the patterns of unique child constructions that appear in the acquisition data are left unaccounted for. Crucially, these patterns might contravene the adult particular languages being acquired, but they never violate the principles of Universal Grammar.

Concerning the analysis of real acquisition data, Legate and Yang (2002) unveil the fact that Pullum and Scholz (2002a) only consider a very small subset of them and ignore most part of the corpus where these data have been taken from. In addition, Legate and Yang (2002) show that Pullum and Scholz (2002a) do not establish the sufficiency of the disconfirming data they claim to have found in the input. In their review, the former analyse indirect ways to test for data sufficiency which consist in comparing two phenomena that are acquired around the same age and finding out if they require the same amount of linguistic experience. By analysing two corpora of child language, they show that the frequency of occurrence of evidence disconfirming the first auxiliary hypothesis (vs. the structure-dependence hypothesis) for English question formation is extremely low (and thus negligible) compared to the evidence required to disconfirm subject dropping in English, which is replaced by adult-like structures at roughly the same age the child masters auxiliary inversion. The conclusion is that the principle of structure-dependence is innate, i.e. not learned on the basis of data, but part of some previous linguistic knowledge.

One of Fodor and Crowther's (2002) main points against Pullum and Scholz (2002a) concerns the fact that the latter exclude negative evidence from their discussion. According to the former, both the insufficiency of positive evidence and the lack of negative evidence lead to underdetermination, which is something that has to be overcome by innate principles. Concerning the lacunae of data children are exposed to, Fodor and Crowther (2002: 109) note that, contrary to what Pullum and Scholz (2002a) seem to assume, adults use a distinctive style to speak to children which involves phonological clarity and shortness of sentences. Under this view, then, certain structures that are frequent in adult speech might be rare when children are addressed.

In their response to the criticisms received, Pullum and Scholz (2002b) argue that, in general, there is no uniform definition of the terms 'innate' and 'poverty of stimulus argument' in the generative literature, which induces to confusion. In relation to Thomas's (2002) claim that Crain's (1991) work is somehow neglected, the authors acknowledge the relevance of the data, but highlight that "it does not bear on the questions of inaccessibility (sparseness of evidence in experience)", which are taken to be crucial for the POS argument (Pullum and Scholz 2002b: 194), and continue to leave the data undiscussed. Likewise, Freidin's (1991) data, which according to Lasnik and Uriagereka (2002) have not been treated as deserved, are not revisited. Rather, Pullum and Scholz (2002b) evaluate whether

the gap between input and knowledge of syntactic structure can really be assumed or not and criticise that generativist linguists seem to assume it *a priori*.

Pullum and Scholz's (2002b) alleged selectivity when treating Nina's data in CHILDES, is clarified by saying that the intention was not to survey the whole corpus, but to see how soon relevant input was found for a certain structure to be acquired. In relation to not addressing negative evidence (Fodor and Crowther 2002), Pullum and Scholz (2002b) argue that it does not conspire with positive evidence as Fodor and Crowther (2002) claim, and mathematically formalise that it is actually possible to learn without negative evidence. Finally, Fodor and Crowther's (2002) observation that adults address children with a distinctive style is counterargued by Pullum and Scholz (2002b) by correctly noting that children do not only acquire language from the instances that are explicitly aimed at them, but also from a variety of all other sources. As Pullum and Scholz (2002a) themselves acknowledge, though, the ideal task of keeping track of every single linguistic input the child is exposed to is not feasible for the time being and constitutes a limitation any theoretical model is faced with when conducting language acquisition studies.

Other scholars apart from the ones contributing to *The Linguistic Review* 19 have also attacked Pullum and Scholz (2002a). Rosselló, Llinàs and Bel (in press) argue that another problem in these authors' assessment of the POS argument stems from the misunderstanding of Hornstein and Lightfoot's (1981) position concerning the availability of positive evidence in the input during the process of acquisition. According to Rosselló *et al.* (in press) Hornstein and Lightfoot (1981) refer to knowledge of laboratory linguistic data. That is, the ambiguity of certain data that the child finds in the input is lost when imposing a laboratory condition. Rosselló *et al.* (in press) argue that it is implausible that every speaker in a community has had the chance to experience that the ambiguity disappears with such a condition. For example, 'Peter has seen his mother' is ambiguous in that 'his mother' might be understood as Peter's mother or might be bound by an external entity not mentioned in the sentence ('Peter has seen X's mother'). However, if we introduce a binding condition between 'Peter' and the pronoun 'his' ('Peter; has seen his; mother'), no ambiguity is possible.

# 3 Preverbal objects in child Catalan: Some empirical data that fulfil Pullum and Scholz's (2002a) APS schema.

Llinàs-Grau and Coll-Alfonso (2001) report the existence of an early stage in the process of acquisition of Catalan where children produce preverbal objects (OV sequences henceforth). Such a pattern is not found in adult language, which only implements postverbal objects unless these are focused or left-dislocated. OV sequences occur with both finite and nonfinite transitive verbs in child Catalan

around the 2 years of age. The authors further observe a correlation between these kind of constructions and telicity: the data of two<sup>2</sup> monolingual Catalan children statistically show that OV sequences consistently co-occur with telic verbs most of the time. The two studied corpora correspond to videotaped spontaneous longitudinal data produced between the ages of 1;7 and 2;4 (years; months). The authors collected every instance of transitive verbs in the corpora and classified it according to whether it was [+/- telic], [+/- finite] and displayed OV or VO word order. Only transitive verbs with explicit objects were taken into account, and only adult-like inflected verbs were considered finite. Non-adult like inflected forms were grouped together with infinitives, gerunds and participle forms. When crossing the data for each child and as a whole in order to determine which variable was relevant for the deviant word order under investigation, finiteness and telicity proved to be significant with respect to word order to different extents (finiteness and word order p = 0.04; telicity and word order p = 0.005), while the relation between telicity and finiteness was not found to be significant (p=0.60).

Llinàs-Grau and Coll-Alfonso (2001) account for the facts in terms of object movement and optional verb raising. Telic verbs project an ASP(ect) Phrase whose specifier can be used as a landing site for the moved object. In addition, following Roeper's (1999) proposal that, at early stages, various different grammars might co-exist in child languages, OV sequences crucially follow from the fact that child grammar contains two conflicting values for the formal feature AGR(eement), which results in the lack of obligatoriness of verb raising. I will adopt Llinàs-Grau and Coll-Alfonso's (2001) account of the data for two main reasons. First, the purpose of the present piece of research is primarily to evaluate whether child Catalan OV constructions hold up as confirmation for the POS argument, rather than to assess a particular theoretical approach. Second, the main points of such an analysis are supported by independent evidence in current syntactic and acquisition research.

Data on OV sequences seem to be ideal to go through Pullum and Scholz's (2002a) type of test, since in not having an observable grammatical adult counterpart in the input, their acquisition cannot be argued to follow from exposure to the relevant data. However, one important aspect about these data should be clarified at this point: namely the fact that OV sequences occur consistently during the early stages of acquisition of Catalan -as well as in other languages such as English (Radford 1990; Powers 2000)— but seem to end up disappearing at later stages. Obviously, if a structure disappears, it means that it does not belong to adult grammar and the child should not try it out in such a consistent way during the

<sup>&</sup>lt;sup>2</sup> Even though the data of three monolingual Catalan subjects (Mireia, Eva and Júlia) were considered in Llinàs-Grau and Coll-Alfonso's (2001) paper, only the data of two of the children (Mireia and Júlia) were statistically analysed.

acquisition process if learning was truly data-driven. However, non-adult structures do systematically appear (and eventually disappear) and should be accounted for in acquisition studies. These data, then, are closely related to Crain and Pietroski's (2002) criticism to Pullum and Scholz (2002a) of not providing any account of unique child patterns. In the present case, nonetheless, it will not be claimed that OV sequences only exist in child language. Rather, as will be clarified later on, they are assumed not to surface in adult language due to subsequent syntactic operations.

Below I reproduce Pullum and Scholz's (2002a) POS argument specification schema or, in other words, the five steps needed to support that children acquire some knowledge without having access to the relevant evidence. The evaluation of whether the case of OV sequences empirically qualifies as an instance of the POS argument or not will be organised according to these five points.

#### (1) APS specification schema

- a. ACQUIRENDUM CHARACTERIZATION: describe in detail what is alleged to be known.
- b. LACUNA SPECIFICATION: identify a set of sentences such that if the learner had access to them, the claim of data-driven learning of the acquirendum would be supported.
- c. INDISPENSABILITY ARGUMENT: give reason to think that if learning were data-driven then the acquirendum could not be learned without access to sentences in the lacuna.
- d. INACCESSABILITY EVIDENCE: support the claim that tokens of sentences in the lacuna were not available to the learner during the acquisition process.
- e. ACQUISITION EVIDENCE: give reason to believe that the acquirendum does in fact become known to learners during childhood. (Pullum and Scholz 2002a: 19)

#### 3.1 Acquirendum characterisation

As I suggested before, the phenomenon under study might resemble a unique child construction, which would raise the question of how to characterise an acquirendum that is not part of the adult grammar. However, I assume that OV sequences *are* part of adult grammar though no longer observable in adult Catalan due to the fact that object raising to ASP(ect) P(hrase), the syntactic operation dealt with in this paper, is masked by verb raising.

Llinàs-Grau and Coll-Alfonso (2001) assume that telic<sup>3</sup> verbs project an ASPP whose specifier serves as a landing site for a moved object. What decides whether an OV sequence surfaces as such or not is the analysis of the functional category AGR(eement)S(ubject) as strong or weak. While a strong AGRS forces verbs to raise overtly across the object, a weak AGRS does not. OV sequences in early Catalan, therefore, are taken to be a consequence of the telicity of the verb and a weak AGRS (Llinàs-Grau and Coll-Alfonso 2001: 76).

The idea that children misanalyse the values of functional categories before they fully acquire them is found in various authors (Platzack 1996; Gavarró 1998; Zuckerman 1998). For instance, Platzack (1996), who considers data in Swedish, argues in favour of a very early stage in the process of acquisition where all formal features are weak, and only covert movement is required. Crucially, he claims that traces of this early stage can be seen at later stages, where children misanalyse strong features as weak, thus blocking overt movement. This idea is also supported by Hebrew data (Zuckerman 1998). Roeper (1999), which is the analysis Llinàs-Grau and Coll-Alfonso (2001) adopt, proposes multiple grammars at early stages of acquisition, resulting from conflicting values of functional categories, whose features have not been fully acquired yet.

That telic verbs project an ASPP in adult grammars is suggested by several authors such as Borer (1993) or Adger and Tsoulas (in press). The former deals with a variety of inversion phenomena in Hebrew, and the latter adapt other authors' proposals (McClure 1995; Borer 1998a, b; van Hout 1996) to Chomsky's (2000) ideas in order to account for manner adverbials and locative licensing. The standard analysis found in the literature (Pollock 1989; Haegeman and Guéron 1999; among others) to account for word order differences across languages establishes that there is overt movement (i.e. before Spell-Out) of the verb from its base-generated position to the specifier of AGRS if the features of AGRS are strong, and covert movement (i.e. after Spell-Out) if AGRS has weak features. In technical terms, therefore, the acquirendum is that objects move to SpecASPP when the verb is telic in Catalan.

#### 3.2 Lacuna specification

Assuming the characterisation of the acquirendum that has been proposed above in terms of the projection of an ASPP and the strength of AGRS, the lacuna has to be a set of OV sequences whose verb is telic. If the two conditions (OV word order and telicity) do not occur together, children would be expected to produce preverbal objects with atelic verbs to the same extent they do with telic verbs. This has been shown not to be the case, as OV sequences occur predominantly with telic

<sup>&</sup>lt;sup>3</sup> A verb is considered to be telic if it has an intrinsic completion point.

verbs. Moreover, if, as has been pointed out above, the correlation between telicity and word order surfaces depending on whether the verb raises covertly or overtly, the only way of getting OV sequences in adult language that could serve as input for the child to acquire such a structure on the basis of experience, would be to have a set of sentences containing a telic verb and a weak AGRS preventing the movement of the verb to a higher functional position. From a theoretical point of view, this seems implausible in a language with strong agreement.

# 3.3 Indispensability argument

Catalan is typically analysed as a language with strong or rich AGR (Gavarró 1998; Bel 2003; among others), which means that verbs always raise overtly thus ruling out OV word order in adult grammar in unmarked sentences. OV word order in Catalan is only possible in focus fronting and left-dislocation structures (Vallduví 1992; Llinàs-Grau and Coll-Alfonso 2001) such as the ones in (2). Note that focus fronting is associated with emphasis, and left-dislocation involves the use of clitics. In addition, supposing that the child used these data as evidence for the existence of OV constructions in adult Catalan, it is still hard to see how the child should work out the correlation with telicity since, as shown below, focused and dislocated structures are not sensitive to these aspectual characteristic of verbs.

(2) Examples of focus-fronted/left-dislocated objects with telic/atelic verbs

# Focus fronting:

- a. Els MITJONS es treu la Maria (telic) The SOCKS reflexive takes-off the Maria
  - "Maria is taking off her SOCKS"
- b. SABATES porta la Maria (atelic) SHOES wears the Maria
  - "Maria is wearing SHOES"

#### Left-dislocation:

- a. Aquesta cadira l' ha portada l'Eva (telic) This chair obj.cl. has brough the Eva
  - "Eva has brought this chair"
- b. Aquest llibre el té tothom (atelic)

This book obj.cl. has everyone

"Everyone has this book"

# 3.4 Inaccessibility evidence

This is taken to be the most important point in the schema Pullum and Scholz (2002a) propose, since it amounts to proving that there is no input for the child to have acquired the acquirendum that has been described in former sections. I evaluated that for Eva, Jordina, Pep and Caterina, the subjects whose data I analysed in section 4. The task consisted in browsing the adult interactions in the children's files to check whether any OV constructions, including related to focus or dislocation structures occurred in the data. The results are shown in section 4.3, after the discussion of the new acquisition data.

#### 3.5 Acquisition evidence

The final step of the schema consists in providing evidence that "the acquirendum does in fact become known to learners during childhood". Given that OV sequences occurring predominantly with telic verbs seem to 'disappear' as soon as the child masters inflection (Llinàs-Grau and Coll-Alfonso 2001: 77) they shed light to the assumption that verbs overtly raise to AGRS in adult language. In order to see how general among Catalan children this phenomenon is, I contributed more data that support Llinàs-Grau and Coll-Alfonso's (2001) findings. The evidence seems to show that early OV sequences should be considered a common step in the acquisition of Catalan.

#### 4 New data on preverbal objects in child Catalan

Videotaped data from four longitudinal studies from three Catalan monolingual children, (Jordina<sup>4</sup>, Eva and Pep) and a Catalan-Spanish bilingual child<sup>5</sup>, (Caterina) were considered to see if they further supported the results obtained by Llinàs-Grau and Coll-Alfonso (2001). The data reflect spontaneous speech interaction of the children with adults and other older children, as well as context specifications. The analytic procedure was the same as in Llinàs-Grau and Coll-Alfonso (2001): all transitive verbs with overt objects were collected and coded with respect to their telicity, finiteness and word order. The data have also been crossed to find out how

<sup>&</sup>lt;sup>4</sup> Jordina and Eva's data were videotaped and transcribed as part of the project "El desarrollo de las categorías gramaticales: Análisis contrastivo de la adquisición lingüística temprana del inglés, castellano y catalán" [The development of grammar categories: Contrastive analysis of the early linguistic acquisition of English, Spanish and Catalan] (BFF2000-0504) funded by the Ministerio de Cultura, Educación y Deporte, Spain. The data of Jordina, Pep and Caterina are currently available at the CHILDES database.

<sup>&</sup>lt;sup>5</sup> Catalan predominates over Spanish in the data that have been analysed.

significant the correlation between telicity and word order was in these four children. The results have been tabulated in section 4.1.

#### 4.1 Results

(3) *Table 1*. Transitive verb utterances

	Telicity		Finiteness		Word Order	
	Telic	Atelic	Finite	Nonfinite	OV	VO
Jordina	23 (39%)	36 (61%)	47	12 (20.3%)	8 (13.6%)	51
or arra			(79.7%)			(86.4%)
Eva	46	10	40	16 (28.6%)	8 (14.3%)	48
Lva	(82.1%)	(17.9%)	(71.4%)			(85.7%)
Pep	21	38	35	24 (40.7%)	7 (11.9%)	52
ТОР	(35.6%)	(64.4%)	(59.3%)	, ,	, ,	(88.1%)
Caterina	30	22	41	11 (21.2%)	6 (11.5%)	46
Catorina	(57.7%)	(42.3%)	(78.8%)			(88.5%)

Total number of Jordina's transitive verbs found in transcripts corresponding to ages 1;7.16-1;11.6 = 59

Total number of Eva's transitive verbs found in transcripts corresponding to ages 1;10.5-2;3.6 = 56

Total number of Pep's transitive verbs found in transcripts corresponding to ages 1;8.0-2;2.2 = 59

Total number of Caterina's transitive verbs found in transcripts corresponding to ages 1;9.15-2;1.10 = 52

# (4) Table 2. Telicity and word order

	OV	VO	
Telic	22	109	
Atelic	7	98	
(Fisher Exa	ct test: $p = 0.009$ )		

# (5) *Table 3*. Telicity and finiteness

	Finite	Nonfinite
Telic	76	44
Atelic	85	21
(Fisher Exact tes	st: $p = 0.002$ )	

# (6) Table 4. Finiteness and word order

	Finite	Nonfinite	
OV	9	20	
VO	154	43	
(Fisher Exact te	st: $p = 0.00003$ )		

#### 4.2 Discussion

As can be seen in the tables above, the correlation between telicity and OV sequences proved to be highly significant in the case of the four children, thus supporting Llinàs-Grau and Coll-Alfonso's (2001) findings and confirming that the children in their study are not isolated cases. Likewise, the relation between finiteness and word order is significant as well. There are some differences in our findings with respect to Llinàs-Grau and Coll-Alfonso's (2001) results, however, that should be pointed out: (i) in the case of the four children I studied, the correlation between finiteness and word order seems to be more significant than the one with telicity; (ii) the correlation between telicity and finiteness, which is nonsignificant in the data Llinàs-Grau and Coll-Alfonso (2001) analysed, is significant in my case. Similarly the relation between (non)finiteness and OV sequences is the most significant in our case, while in the case of Mireia and Júlia, the subjects Llinàs-Grau an Coll-Alfonso (2001) studied, the index, though significant, is not as clear as the one for telicity and word order. The full implications of these differences for the analysis of preverbal objects will be left as further research, as they might be extremely relevant to the study of the acquisition of T(ense) and AGR(eement).

Strong emphasis has to be put on the fact that preverbal objects were found to predominantly occur with telic verbs in the four Catalan two-year-olds. The striking similarities that appear between the data of Mireia and Júlia and the data of the four children in the present study strengthen the claim that there is a salient relation between telicity and word order in child Catalan. These data strongly support the claim that the acquirendum becomes known to the learners during childhood. In addition, the present data and the data in Llinàs-Grau and Coll-Alfonso's (2001) paper, show how acquisition data can contribute empirical support to theoretical accounts. In the present case, preverbal objects in child Catalan are evidence both for (i) postulating the projection of an ASPP in telic verbs and (ii) a syntactic operation by which the object raises across the verb to the specifier of ASPP before the verb raises to AGRS to check its strong agreement features.

In the following section, the issue of inacessibility will be considered, as it still remains to be shown that the children acquired the operation of object raising with telic verbs in the absence of observable input in the adult language, which I understand as an extreme version of the POS. Actually, to be accurate, recall that the claim is not that there is no input in the adult language, as it has been assumed that object raising also takes place in adult language. Rather, the claim is that the input is not observable or visible to the child because it is masked by subsequent syntactic operations such as verb raising.

# 4.3 Inaccessibility evidence revisited

The adults' utterances (and in some cases, older children's utterances) that appear in the studied children's files were also examined. The results are reported below in the table in (4). As can be seen, the percentages of occurrence of left- dislocation structures, focus fronting constructions and OV sequences are relatively low compared to the number of utterances that constitute the adult corpora. A very small percentage of OV sequences were found in the corpora of three of the children. However, all of them bear a close relationship to wh-movement in exclamative sentences and indirect questions (see footnote 6). Moreover, the verbs that appear in these constructions are both telic and atelic, with none of the two types being predominant over the other.

(7) *Table 5*. Adult corpora

	Left dislocation		Foc	Focus fronting		OV sequences*	
Jordina's files	11	(0.3%)	7	(0.2%)	2	(0.06%)	
Eva's files	None	(0%)	Nor	ne (0%)	1	(0.06%)	
Pep's files	5	(0.1%)	3	(0.06%)	3	(0.06%)	
Caterina's files	3	(0.2%)	1	(0.06%)	No	ne (0%)	

Total number of transcribed tiers corresponding to adults or older children in Jordina's files = 3,495 Total number of transcribed tiers corresponding to adults or older children in Eva's files = 1,542 Total number of transcribed tiers corresponding to adults or older children in Pep's files = 4,580 Total number of transcribed tiers corresponding to adults or older children in Caterina's files = 1,730 \*See notes 7 and 8

(2) Quin vestit més maco portes avui!
What dress more nice you-wear today
'What a nice dress you are wearing today'

<sup>&</sup>lt;sup>6</sup> Rather than counting every single utterance, the tiers corresponding to contributions made by adults or older children were counted. Since each tier might contain more than one utterance, the results are orientative rather than absolute. However, as the transcripts that have been considered only represent a fragment of all the data the child is exposed to, I do not think it is possible to obtain absolute results anyway.

<sup>&</sup>lt;sup>7</sup> Two OV sequences were found in Jordina's files. They correspond to exclamative sentences with a fronted wh-phrase. While in standard Catalan, exclamative sentences with a fronted wh-phrase involve the use of the complementiser *que*, as in *Quin vestit més maco que portes avui!* (What a nice dress that you are wearing today!) in some dialects spoken in the area of Barcelona the complementiser is dropped. Notice, however, that the verb in the first quoted sentence is telic, but the one in the second sentence is atelic.

<sup>(1)</sup> Quins petons ha donat! What kisses has-she given

# 5 Concluding remarks and prospects

In this paper I have tried to show that data on OV sequences with telic verbs in early Catalan can be regarded as an instantiation of the POS argument. First of all, it is a phenomenon that typically occurs in the speech of two-year-olds. Secondly, after collecting and analysing the data of four Catalan children, I found a significant correlation between word order and telicity, which supports Llinàs-Grau and Coll-Alfonso's (2001) previous findings on the same issue. Thirdly, after surveying the adult utterances in the acquisition data files, it has been found that the percentage of sentences that could be taken as input for the children to learn this construction in case acquisition was data-driven is extremely low, with all the apparently relevant data being associated with wh-movement and distinguishing between telic and atelic verbs. Therefore, the inaccessibility evidence, which is the main point of the schema that Pullum and Scholz (2002a) propose to establish the empirical validity of any alleged instance of the POS argument, has been sufficiently well-established, thus providing strong evidence against these authors' criticism that the POS argument lacks empirical validity.

In addition, the data in the present paper contribute further evidence for the theoretical claim that objects raise to an aspectual phrase when the verb is telic before the verb moves, across the object, to the functional category AGRS by virtue of it being strong in a language like Catalan. In sum, apart from counterarguing Pullum and Scholz's (2002a) main criticism through the analysis of data, which is exactly what they seem to regard as needed in acquisition studies, I have also contributed more data that can be really useful when supporting abstract theoretical claims about the adult language.

Such a phenomenon is also attested in Pep's files, which contain three OV exclamative sequences: 2 have a fronted wh-phrase, and 1 contains an embedded exclamative sentence.

Perquè en Miquel i en Pol vegin (3) quina torre fas So that the-Miguel and the-Pol see-subjunctive what tower you-make 'So that Miguel and Pol can see what a tower you make'

(continued)

(4) Ouin bany farem! What bath we-will do 'What a bath we will do' (5) Quanta aigua ha begut! How much water has-he drunk 'How much water he has drunk'

(6) Pantalons trec Trousers I-take off

<sup>&</sup>lt;sup>8</sup> The utterance is an exact repetition of the child's words. As the mother was videotaping, she probably repeated what Eva had just said to make sure it remained clearly stated in the transcripts.

Another line of research that could be followed in the future is the study of the other two correlations that are mentioned in this paper: the relation between finiteness and word order, and between finiteness and telicity. As has been noted before, the results were not exactly as expected, as they interestingly differ from the ones obtained in Llinàs-Grau and Coll-Alfonso (2001). Even though I concentrated on the correlation between word order and telicity, which seemed to be the phenomenon that best illustrated a quite extreme version of the POS argument, these other results deserve special attention, as they could be crucial for the study of the functional categories AGR and ASP.

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