Patterns of copula omission in Italian child language

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This paper concerns the production of the copula *Essere* and of the auxiliaries *Essere* and *Avere* in Italian child language. A relevant omission phenomenon emerges from the data, robust in declarative contexts but absent in Wh interrogative contexts. This pattern indicates the operativity of a strong syntactic constraint and perfectly matches the distribution of Root Infinitives as analysed in Rizzi (1993/19994). It then seems that Child Italian copular data can be accounted for in terms of Rizzi's Truncation hypothesis, thus supporting the idea that child grammar is a full fledged UG constrained system. Data on morphological selection within the copular domain further support this hypothesis, showing that even the choice of "non adult like" morphological forms is syntactically constrained.

1. Introduction

The presence of functional projections in child grammar is currently under debate. It is uncontroversial that young children do not speak like adults and that they tend to omit functional elements. Despite those facts, it seems possible to assume (different degrees of) continuity in language development. Under continuity assumptions, child language should comply with UG Principles as much as the adult language, despite the fact that a single child language might apparently differ under significant respects from the target adult language. All the facts of language development that might differ from the target adult language are thus expected to be grammatically based.

The aim of this work is to present and analyse data concerning the production of the copula *Essere* and of the auxiliaries *Essere* and *Avere* in Italian Child Language, in order to detect and quantify omission of those functional elements. In a continuity framework, omissions are not expected to occur at random, and syntactically constrained patterns are expected to emerge from the data.[1] Copula omission will therefore be assessed and patterns in its distribution will be detected.

The pattern emerging from the data will be analysed along the lines of a specific account on the nature of child grammar known as the Truncation Hypothesis.[2] This

hypothesis, originally formulated in Rizzi (1993/1994) to account for child language Root Infinitives, predicts the presence of functional verbs omission in child language and a specific pattern in its distribution. In Rizzi's most recent analysis the missetting of the Root Parameter is interpreted as an useful tool for reducing the computational load in the earlier stages of child development by drastically reducing the syntactic structure.[3] If Truncation is a syntactically driven option helpful for computational purposes in the early stages of child development, it should apply cross-linguistically, while its use should always be syntactically regulated.[4] The aim of the present study is to test whether such a syntactically constrained option for reducing structure is available in Child Italian.

The second section of the paper briefly summarises the Truncation Hypothesis main assumptions and expectations regarding the distribution of functional verb omission.

Copular data and auxiliary data are presented in the third section: copula omission is shown to be a relevant phenomenon in Child Italian, both considering the general picture (Section 3.1) and analysing different stages of development (Section 3.1.1). In Section 3.1.2 the distribution of copula omission across different sentence types will be analysed, comparing declarative and Wh-interrogative data within the copular domain.

In Section 3.2.1 copular data will be compared with auxiliary data, in order to check whether the omission phenomenon so far described is limited to the copular domain or emerges in the domain of other functional verbs. The presence of different patterns of omission in declarative versus Wh-interrogative data will be checked for in auxiliary contexts in Section 3.2.2.

In the domain of functional verbs the data indicate a robust phenomenon of omission constrained to specific syntactic contexts. A syntactically based account of the facts being observed will be provided in Section 4.1. Section 4.2 integrates predictions made by the Truncation Hypothesis and by the Full Competence Hypothesis with regard to children's ability to project a full "adult like" structure and to select the appropriate member of the morphological paradigm of the copula.

2. The Truncation Hypothesis

The Truncation Hypothesis is a specific hypothesis on the structure of child grammar that seems to hold cross-linguistically.[5] It was originally formulated to account for child language Root Infinitives (RI), that is for the presence of non finite verbal forms in children's main clauses.[6]

(1) a. *Maman faire boum sur le camion* (Philippe 2;01 – Child French)
Mum DO bum on the truck

b. *Aller dedans moi* (Grégoire 2;03 – Child French)
GO inside me

c. *Pas marcher toboggan* (Philippe 2;02 – Child French)
Not WORK toboggan[7]

In Rizzi's (2004) proposal it is possible to analyse data as in (1) as the result of the missetting of the Root Parameter which is supposed to regulate the choice of the main projection of the root. In many adult languages the root is the highest node of the CP field – that is ForceP – and a missetting of that parameter will allow the choice of any node lower than ForceP as the root. Crucially, if a node lower than T is selected as the root, the possibility arises of producing a main clause with an untensed verb, a RI. RIs are typically limited to the domain of lexical verbs. In the domain of functional verbs RIs are not expected; if truncation applies below Tense omission of functional verbs should be detected.

The Truncation Hypothesis is consistent with a continuity framework. Children are allowed to reduce the structure under restricted circumstances, i.e. never violating existing pieces of their grammatical knowledge.[8] Therefore they are always expected to respect UG constraints. Crucially, they should be able to project the whole syntactic structure (Full Competence Hypothesis) and should do so when this is required by syntactic constraints (Continuity). More specifically, in Rizzi's terms, the presence of any element in the CP field should force the projection of a full "adult like" clausal structure and the production of full inflected forms, even at earlier stages of acquisition, when truncation is widely attested. As a consequence of that, truncation will never apply when an element in the CP field, such as a preposed Wh, requires the whole structure to be there. This prediction is borne out in Wh-preposed contexts, where RIs almost disappear.

Truncation phenomena appear to be regulated both by UG constraints and by language specific constraints. As for Child Italian, given the nature of Italian verb syntax (rich morphology and V-to-I movement for all tenses), truncation is expected not to apply in the case of lexical verbs. As shown in Guasti (1993/1994), RIs are almost never attested in Italian Child Language. The present study will analyse functional verbs data in child Italian in order to detect functional verbs omission as an indicator of the missetting of the Root Parameter. The first aim of the study is to detect functional verbs omission and to assess its robustness. Subsequently, distribution patterns in functional verbs omission are detected and described. More specifically, if omission is the result of truncation, it is expected to be banned in contexts of preposed Wh-elements. Declarative contexts will be contrasted against Wh-contexts in order to evaluate this prediction. A third part of the study aims at assessing children's Full Competence, in the presence of Truncation. If children do master the full syntactic structure, as claimed by the Hypothesis here assumed, they will be expected to always choose the correct copular form, when they are forced to use it.

3. The data

3.1 Copula omission

The data taken into consideration for the present analysis were drawn from the CHILDES corpus.[9] Production data were compiled from three monolingual Italian children, their ages ranging from 1 year and 7 months (1;7) to 3 years and 3 months (3;3). 1587 utterances were coded that could be analysed as copular constructions. The most relevant non-adult like phenomenon detected was omission of copula. In (2) through (4) examples are provided of copula omission in Realised Subject contexts, identified as Subject-Predicate sequences (SP) and in Null Subject contexts, identified as bare Predicate sequences (P).

(2) (SP) *quello* *pezzo* Martina (1;08.02)
DEMONSTR-MASC.-SING ØBe piece-MASC.-SING
(P) *un* *pezzo*
Null Subject ØBe DET-MASC.-SING piece-MASC.-SING

(3) (SP) *Pallo* *butto* Raffaello (1;11.25)
Paolo ØBe ugly-MASC.-SING
(P) *glossa*
Null Subject ØBe big-FEM.-SING

(4) (SP) *ette* *bee* Rosa (2;10.14)
DEMONSTR-FEM.-PLUR ØBe sheep
(P) *zucchero!*
Null Subject ØBe sugar

As the Null Subject examples in (2) through (4) show, bare predicates such as *un pezzo* or *zucchero* counted as instances of copula omission, despite the obvious fact that they could count as legitimate ellipses in the target adult language.

A first problem that emerged from the data was how to quantify the relevance and the role of bare predicates. In a system like Child Italian where both copula drop and subject drop are allowed, bare predicates have an ambiguous reading, since they can be analysed both as instances of omission and as ordinary ellipses (as in the adult language).

(5) Interaction between Realised vs. Null subject and copula omission.
a. *Il cappotto è verde.* (SCP: Subject-Copula-Predicate)
The coat is green
b. *Il cappotto verde.* (SP: Subject-Predicate)
The coat ØBe green.
c. *pro è verde.* (CP: Copula-Predicate)
pro is green.
d. *pro verde.* (P: Predicate)
pro ØBe green.

Table 1. Number of omissions in Realised Subject contexts (SP/S(C)P), in Null Subject contexts (P/(C)P) per child

	SP/S(C)P	P/(C)P	n. total
Martina 1;7–2;7	68/200	71/167	139/367
Raffaello 1;7–2;11	30/113	92/218	122/331
Rosa 1;7–3;3	136/382	310/507	446/889
Total	234/895	473/892	707/1587

Table 2. Omission rate in Realised Subject contexts (SP/S(C)P), in Null Subject contexts (P/(C)P) per child

	%SP/S(C)P	% P/(C)P	% total
Martina 1;7–2;7	34%	43%	38%
Raffaello 1;7–2;11	27%	42%	37%
Rosa 1;7–3;3	36%	61%	50%
Total	34%	53%	45%

Given that bare predicates like *verde* are legitimate fragments in standard adult Italian in some contexts such as question-answer pairs, we can be sure that the copula has been omitted in child productions only with sequences such as (5b). However, given the ambiguous reading of bare predicates in Child Italian, those contexts were not excluded from the analysis. The omission rate was thus assessed by dividing the number of omissions in realised subject contexts by the number of all realised subject contexts requiring a copula. As for null subject contexts, in order to asses the percentage of omission, the number of omissions in null subject contexts was divided by the number of all null subject contexts requiring a copula (the relevant data are presented in Table 1 and in Table 2).

In order to draw a complete picture of the phenomenon, omissions both in Realised Subject and Null Subject contexts were considered. More specifically, data from the two contexts as a whole were analysed in order to get the general picture, but only Realised Subject contexts (where only omissions are certainly found) were considered for a more detailed analysis. Data in Table 1 and Table 2 show that omission of copula is relevant in Italian Child Language, considering all data and selecting only omissions in Realised Subject contexts.

3.1.1 *Stages of acquisition*

The analysis of development along the temporal line was based exclusively on Realised Subject contexts, that is genuine omission data.[10] The analysis of the longitudinal data for each child indicates a non-linear decrease of omissions. Two stages can be identified in the development of copula production. As the graphs in Figures 1 through 6 indicate, the beginning of the second stage of development emerged at different ages in the three children and was marked by a sharp and sudden decrease in the omission rate. In the present study the beginning of the 2nd stage is marked by the first file

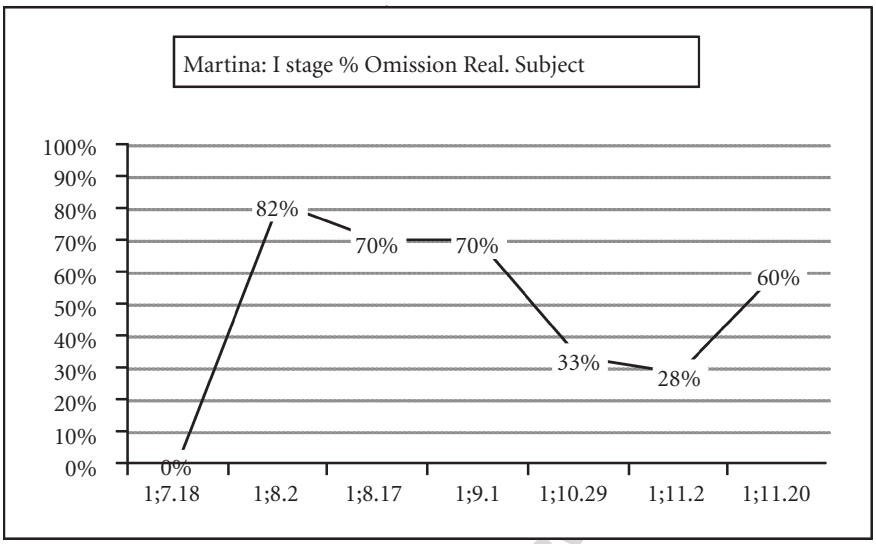

Figure 1. Rate of copula omission in realised subject contexts in Martina's first stage of acquisition

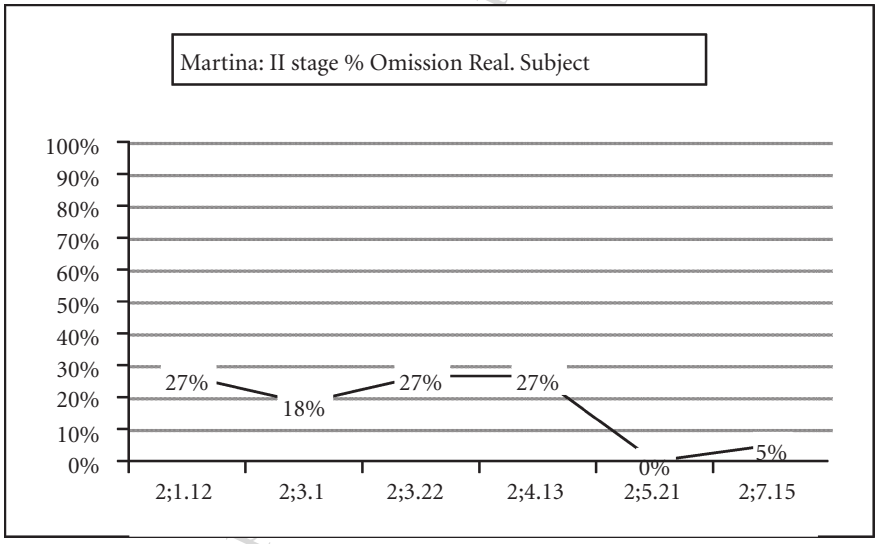

Figure 2. Rate of copula omission in realised subject contexts in Martina's second stage of acquisition

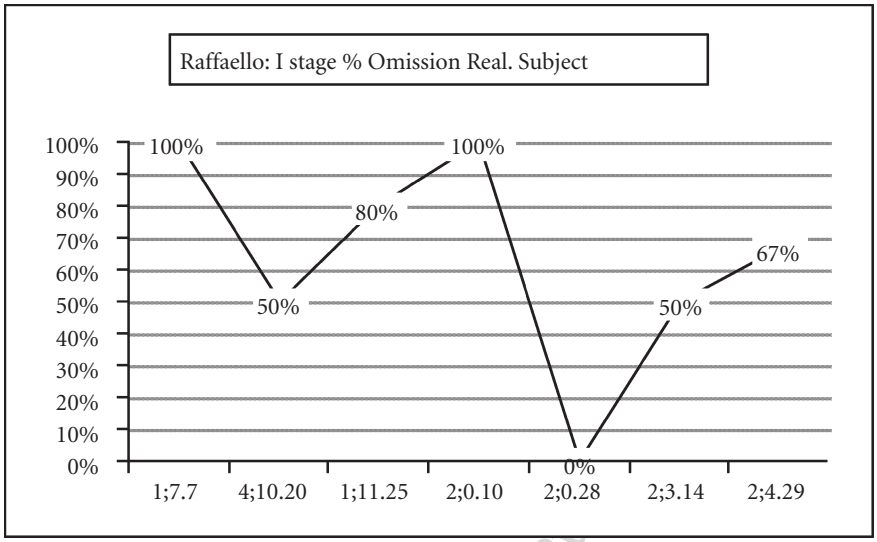

Figure 3. Rate of copula omission in realised subject contexts in Raffaello's first stage of acquisition

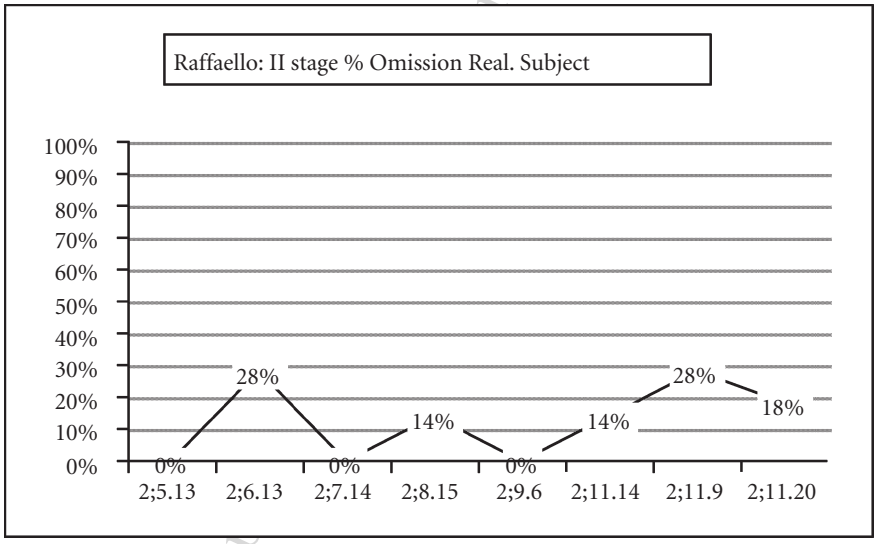

Figure 4. Rate of copula omission in realised subject contexts in Raffaello's second stage of acquisition

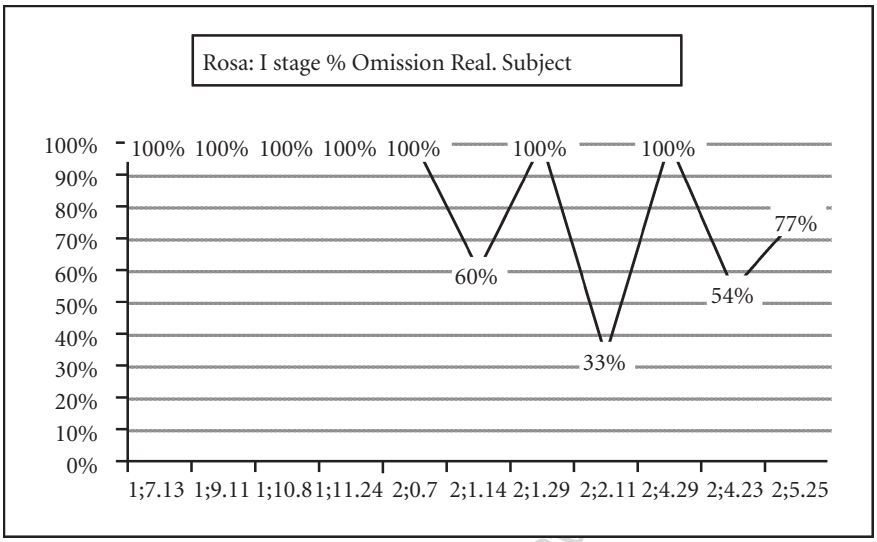

Figure 5. Rate of copula omission in realised subject contexts in Rosa's first stage of acquisition

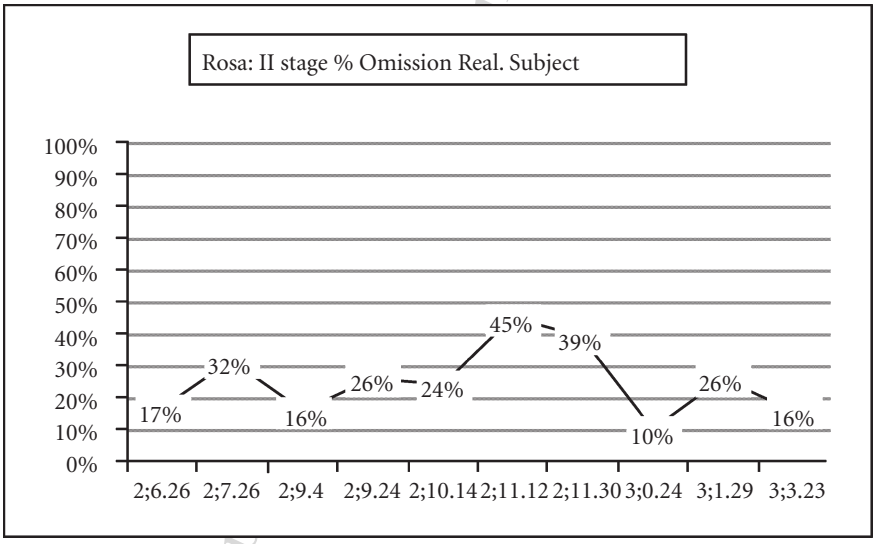

Figure 6. Rate of copula omission in realised subject contexts in Rosa's second stage of acquisition

Table 3. Age span of the 1st stage of acquisition with number of omissions and omission rate in realised subject contexts

I stage	Age range	n. Ø	% Ø
Martina	1;7–1;11	52/106	49%
Raffaello	1;7–2;4	15/23	65%
Rosa	1;7–2;5	54/67	81%

Table 4. Age span of the 2nd stage of acquisition with number of omissions and omission rate in Realised Subject contexts

II stage	Age range	n. Ø	% Ø
Martina	2;1–2;7	16/94	17%
Raffaello	2;5–2;11	15/90	17%
Rosa	2;6–3;3	82/315	26%

where the omission rate is below 50% if and only if it also remains under 50% in all subsequent files.[11]

The 1st stage of development that emerges from the analysis of longitudinal data indicates that copula omission in Italian Child Language is even more relevant than it seems from the overall picture (Table 3 and Table 4).

The relevance of the phenomenon in the first stage of acquisition for all the three children and its sharp decrease over time, seems to suggest that omitted copula sentences are indeed grammatical in early stages of Child Italian. The data seems to indicate the availability of a grammatical option, no longer available in the adult grammar.

3.2 The Wh-constraint

The possible influence on the omission pattern of declarative versus interrogative Wh-contexts is now taken into account. 419 Wh-contexts were isolated in the three corpora. Only two cases of omission were found, with an omission rate of 0,48% (Table 5). The percentage of omissions in Wh-copular contexts thus differs significantly from that found in declarative copular contexts. In the declarative data some variation was found among the three children in the omission rate (see Tables 1 and 2) and developmental changes along the temporal line were detected. In the Wh-data, as shown in Table 5, neither inter individual variation nor evolution along the temporal line emerges.

Table 5. Number of Wh-contexts and omission rate per child

Copular Wh	n. contexts	n. omissions	% omissions
Martina (1;7–2;7)	48	1	2,00%
Raffaello (1;7–2;11)	79	0	0,00%
Rosa (1;7–3;3)	290	1	0,34%
Total	419	2	0,48%

The distinction between declarative and interrogative Wh-contexts within the copular domain appears to be a relevant one. One possible way to explain the facts just described could be to correlate them to a peculiar phonological property of the Italian sequence Wh+3rd person singular copula. Italian sequences such as *Dove è?* (Where is) or *Cosa è?* (What is) are normally pronounced as *Dov'è?* and *Cos'è*. The elision of the final vowel of the Wh-element thus makes the two elements sound like a single phonological unit. Given this fact, one might suspect that at this early stage of development the children have not yet been able to parse the speech stream into separate words. If this was the case, the copula that appears in Wh-sentences like those reported in (6) through (8) could be a non-analysed form, clustering as such with the Wh-element and forming with it – in the early grammar – one single word.

(6) *Chi è?* Martina (1;11.20)
Who BE-3rd-SING
'Who is it?'

(7) *Cos' è là?* Raffaello (2;3.14)
What BE-3rd-SING there
'What is it there'

(8) *Ov' è?* Rosa (2;7.26)
Where BE-3rd-SING
'Where is it?'

The hypothesis of a non-analysed Wh+copula cluster could explain the presence of the 3rd person singular copula in Wh-contexts but, crucially, it would also predict absence of productive use of the two elements separately. The distribution of Wh-elements with the copula, the auxiliary and lexical verbs was therefore considered. Relevant data are summarised in Tables 6 through 8. As the numbers indicate, in the 1st stage of development the number of Wh-elements in copular sentences equals that of Wh-elements in sentences headed by a lexical verb. Their use seems therefore productive at this early stage of development even outside the possible non-analysed Wh+copula cluster.

Table 6. Distribution of Wh-elements in copular, auxiliary and lexical verb contexts, in the 1st and 2nd stage of acquisition: Martina[12]

Martina	WH+Copula	WH+Aux	WH+V Lex
I stage	1/12	0	10
II stage	0/36	0	9

Table 7. Distribution of Wh-elements in copular, auxiliary and lexical verb contexts, in the 1st and 2nd stage of acquisition: Raffaello

Raffaello	WH+Copula	WH+Aux	WH+V Lex
I stage	0/7	0	8
II stage	0/72	1/10	46

Table 8. Distribution of Wh-elements in copular, auxiliary and lexical verb contexts, in the 1st and 2nd stage of acquisition: Rosa

Rosa	WH+Copula	WH+Aux	WH+V Lex
I stage	1/30	0/1	33
II stage	0/260	0/2	93

Evidence for the independent use of Wh-elements is also indicated by the examples in (9) through (12), where Wh-elements are productively used outside copular contexts, in ellipses (9), with lexical verbs (10) and with auxiliaries (11) and are also used with other forms of the copula that do not create a phonological unit with them (12).

(9) Bare Wh-elements (ellipses)

a. *cosa?* Martina (1;08.02) (1st stage)
what?

b. *penchè?* Raffaello (2;04.29) (1st stage)
why?

(10) Wh-elements with lexical verbs

a. *cosa fa?* Martina (1;11.20) (1st stage)
what DO-3rd-SING
'What does she do?'

b. *chi chiama mamma?* Raffaello (2;01.15) (1st stage)
who CALL-2nd-SING mum
'Who is mum calling?'

c. *cosa mangiate?* Raffaello (2;04.29) (1st stage)
what EAT-2nd-PLUR
'What are you eating?'

d. *basta uno come?* Rosa (2;01.29) (1st stage)
suffices one-MASC-SING how

(11) Wh-elements with auxiliaries

a. *cosa hai fatto?* Raffaello (2;07.14)
what HAVE-2nd-SING done
'What have you done?'

b. *cosa ha detto?* Rosa (1;10.08)
what HAVE-3rd-SING said
'What has she said?'

(12) Wh-elements with non 3rd person singular forms of *Essere*

a. *dove sei Pongo* Raffaello (2;11.14)
where Be-2nd-SING Pongo
'Where are you, Pongo?'

b. *dove sono?* Raffaello (2;11.14)
where Be-3rd-PLUR
'Where are they?'

c. *che sono?* Rosa (2;11.30)
what Be-3rd-PLUR
'What are they?'

d. *dove sei?* Rosa (2;11.30)
where Be-2nd-SING
'Where are you?'

A more detailed picture of the phenomenon under discussion comes from the comparative analysis of the evolution over time of Wh and declarative copular contexts with realised subject in longitudinal data.[13] The developmental pattern of Wh-copular sentences sharply contrasts with the pattern emerging from longitudinal declarative data. When longitudinal Wh-data are considered, no developmental changes along the temporal line are detected. Two out of the three children produce one Wh-clause with copula omission each in the first stage of development. The omission rate detected in this case (8,3% for Martina and 3,3% for Rosa) sharply contrasts with the omission rate detected in declarative contexts, which rises as much as 49% for Martina and 81% for Rosa. On the other hand, if only the 2nd stage of acquisition was considered relevant for the present discussion, still the 100% rate of realised copula in the three children would contrast with the average 77% rate of realised copula that emerges at that stage in declarative contexts.

As the longitudinal data presented in Figures 7 throuh 12 indicate, when the frequency of declarative and Wh-copular sentences is not drastically different, a sig-

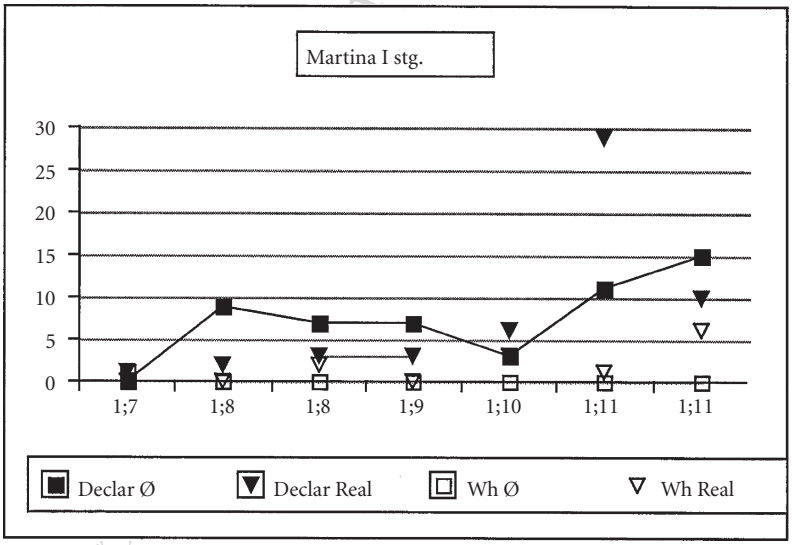

Figure 7. Number of declarative and Wh-contexts with omitted and realised copula: Longitudinal data from Martina's 1st stage[14]

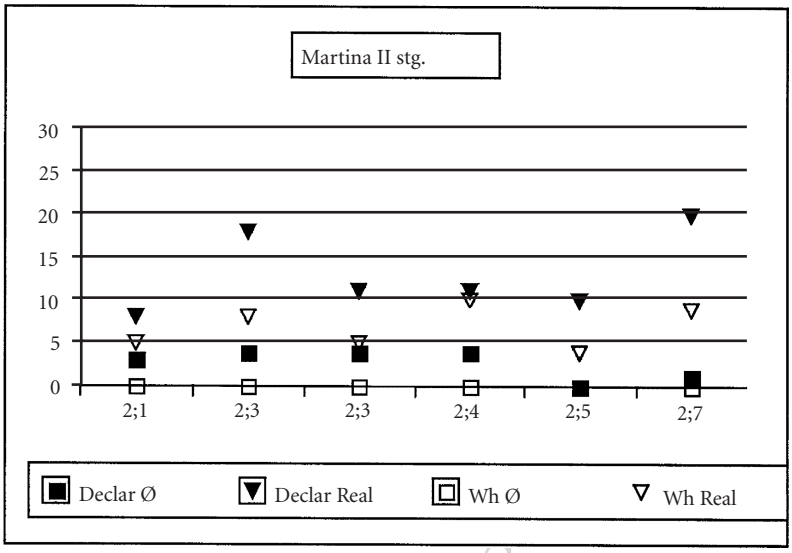

Figure 8. Number of declarative and Wh-contexts with omitted and realised copula: Longitudinal data from Martina's 2nd stage

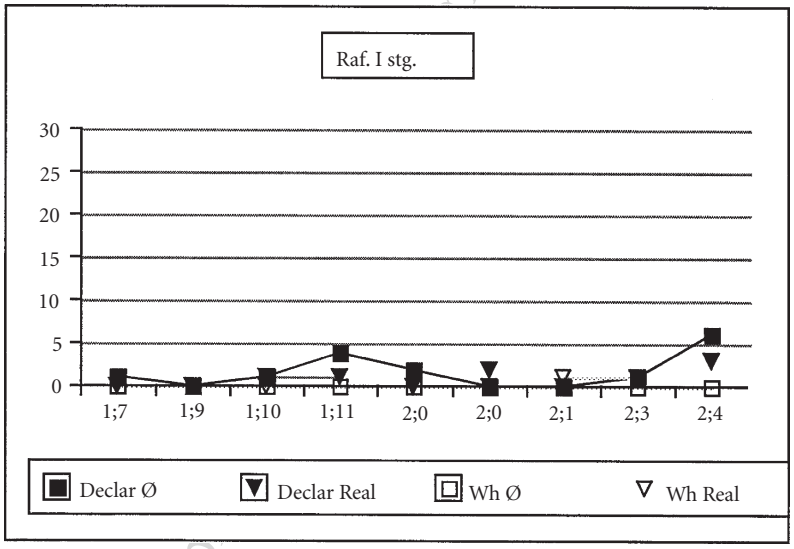

Figure 9. Number of declarative and Wh-contexts with omitted and realised copula: Longitudinal data from Raffaello's 1st stage

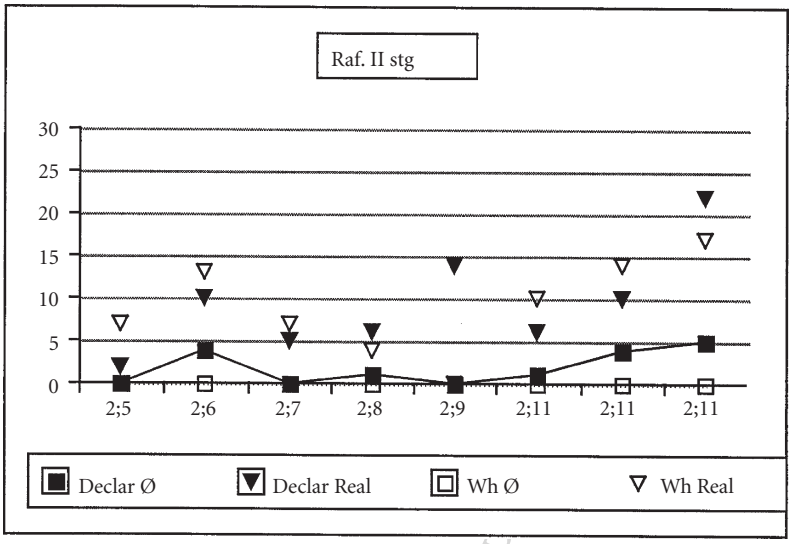

Figure 10. Number of declarative and Wh-contexts with omitted and realised copula: Longitudinal data from Raffaello's 2nd stage

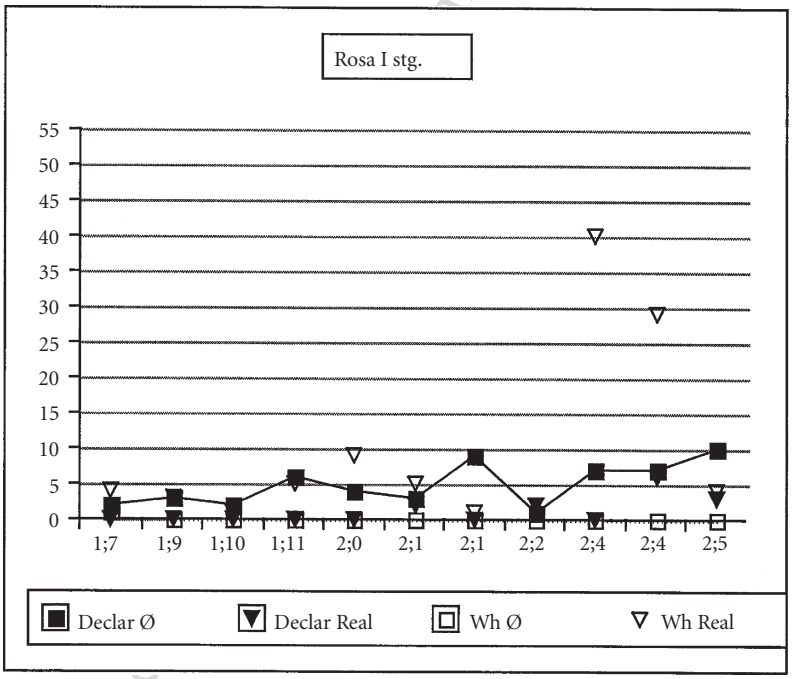

Figure 11. Number of declarative and Wh-contexts with omitted and realised copula: Longitudinal data from Rosa's 1st stage

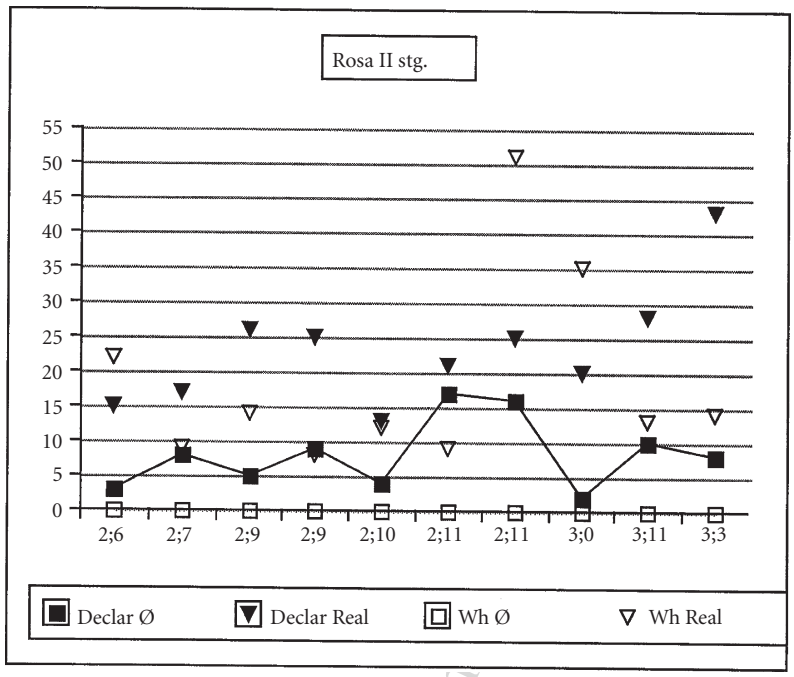

Figure 12. Number of declarative and Wh-contexts with omitted and realised copula: Longitudinal data from Rosa's 2nd stage

nificant difference in the omission rate still emerges. In the 1st stage of development, when both declarative and Wh-structures are relatively rare in the data, the pattern of omission in the two contexts differs significantly. Later on, when the overall frequency of Wh-contexts rises significantly, the frequency of omission in Wh-copular contexts remains zero. Even when the number of Wh-contexts equals or exceeds that of declarative contexts, still no omission is detected.[15] Despite the fact that individual differences emerge from the data with respect to the number of Wh-contexts produced, no such differences emerge with respect to omission in Wh-contexts. In the 2nd stage of development the number of Wh-elements is significant enough to assume them to be productively used, but no omission is detected at that stage, even though it is still relevant in declarative contexts.[16]

A sharp and relevant difference between declarative and Wh-interrogative contexts seems then to emerge from the copular data. Apparently, the very same grammar that allows a null copula in declarative contexts at a given time of development, seems to force a realised copula with Wh-elements. The strong correlation observed between Wh-elements and realised copula seems to express a syntactic constraint. The presence of omission in declarative contexts and its absence in Wh-contexts, as well as the different course of development of the omission phenomenon in the two conditions,

Table 9. Omitted auxiliaries: Absolute numbers per child and in total

	Essere Aux n. contexts	**Avere Aux n. contexts**
Martina	2/9	26/48
Raffaello	9/30	23/69
Rosa	28/70	33/87
Total	39/109	82/204

Table 10. Omitted auxiliaries: Omission rate per child and in total

	Essere Aux % omission	**Avere Aux % omission**
Martina	22%	54%
Raffaello	30%	33%
Rosa	40%	38%
Total	36%	40%

seems to suggest that omission is generally allowed in Child Italian by a grammatical option that is banned in specific syntactic contexts.

3.3 Auxiliary data

The auxiliary acquisition pattern was analysed using data gathered from the same files considered for the copular data. Auxiliary constructions were taken into account both as a whole, grouping together the two Italian auxiliaries, *Essere* and *Avere*, and separating the two auxiliaries, in order to draw a direct comparison between copula and auxiliary *Essere*.

3.3.1 *Auxiliary omission*

Data gathered from the three children concerning both *Avere* and *Essere* auxiliary indicate that their omission is also a relevant phenomenon in Italian Child Language (see Table 9 and Table 10).[17]

A direct comparison between the omission rate of copula and auxiliary *Essere* (see Figure 13) indicates a fairly homogeneous pattern of omission in the two contexts.[18] The omission phenomenon detected in the copular domain appears then to be a more general phenomenon in Child Italian that marks the whole domain of functional verbs.

3.3.2 *The Wh-constraint*

In order to draw a complete comparison between the omission pattern in the auxiliary and in the copular domain, auxiliary omission in Wh-contexts is now considered. Wh-auxiliary contexts are very rare in the three corpora, not only with respect to the copular data, but also in absolute numbers.

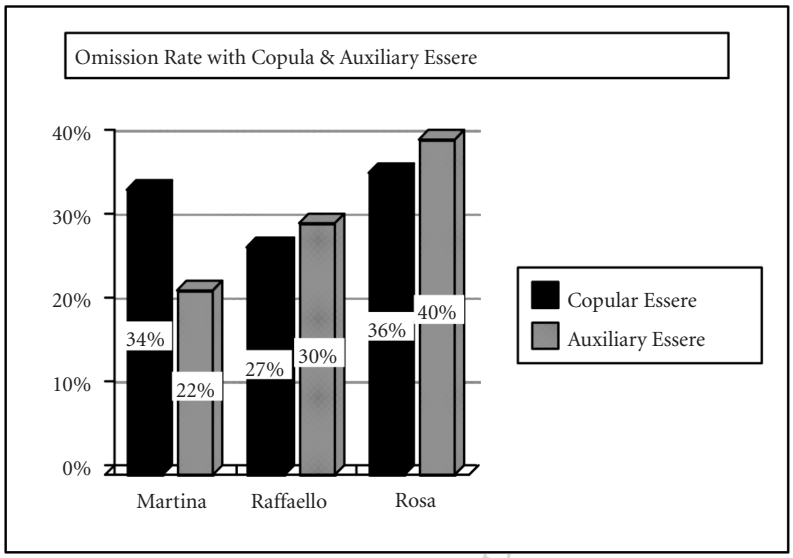

Figure 13. Omission rate with *Essere* copula and auxiliary

One child, Martina, never produces Wh-auxiliary constructions in the time period here considered. Data from the other two children are reported in (13) and (14).

(13) Raffaello

a. *o@p ha fatto?* (2;5.13)
what have-3rd-SING done
'What has s/he done?'

b. *o@p sei andata?* (2;5.13)
where be-2nd-SING gone
'Where are you gone?'

c. *penchè ha usato lui.* (2;6.13)
because have-3rd-SING used he
'Because he has used (it)'

d. *cosa hai fatto?* (2;7.14)
what have-2nd-SING done?
'What have you done?'

e. *chi suonato?* (2;8.15)
who ØAUX rang
'Who has rang?'

f. *sà dove stai andare.* (2;11.14)
yes where be-2nd-SING going
'Where are you going?'

g. *e quando è ritornata?* (2;11.9)
When be-3rd-SING returned
'When has she returned?'

h. *dove sei sconde, dove sei sconde mamma!* (2;11.14)
Where be-2nd-SING hidden mum
'Where are you hidden, mum?'

i. *chi è stato?* (2;11.14)
Who be-3rd-SING been
'Who has done it?'

(14) Rosa

a. *cosa ha detto?* (1;10.08)
what HAVE 3rd-SING said
'What have you said?'

b. *pecchè sei nato così cinino e quetta è grande.* (2;9.24)
because BE 2nd-SING born small
'because you were born small'

c. *pecchè hai fatto caccare?* (3;3.23)
why HAVE 2nd-SING made drop
'Why have you dropped (it)?'

As the examples in (13) and (14) show, only 12 cases of Wh-auxiliary contexts are found in the three corpora and auxiliary omission is virtually absent. Some instances of Wh-elements are produced well into the 1st stage of development in Rosa (see (13a)) or at the very beginning of the 2nd stage of development in Raffaello (see the examples in (13a) and (13b)). Thus, even in the earlier stages of their development, when they are allowed to omit the auxiliary, children seem already able to produce realised forms of the auxiliary in specific syntactic contexts. The specific pattern of omission found in the case of copular constructions does not seem to be restricted to copular *Essere*. Indeed, the same pattern of significant omission in declarative sentences versus no omission in Wh-contexts, seems to emerge both with the copula and with the auxiliary. The data thus seem to suggest the presence of a strong syntactic constraint regulating the omission of functional verbs in Italian Child Language.

Table 11. Absolute numbers of copula and auxiliary omissions in Wh-contexts

Structure	Martina	Raffaello	Rosa
Copular WH	1/49	0/79	1/290
Auxillary WH	–	1/9	0/3

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4. Discussion

4.1 Omission as evidence for truncation

Two main facts emerge from the data that must be accounted for: on the one hand, functional verbs omission seems to be a grammatical option allowed in Italian Child Language; on the other hand, the very same grammar does not seem to allow random omission of functional verbs, which is banned in Wh-contexts.

Such a phenomenon reminds very closely well known facts of child language such as Root Infinitives and Early Null Subjects, where a similar restriction to Wh-contexts emerges from the data. The copular data discussed so far will therefore be discussed following the predictions made by the Truncation Hypothesis, independently formulated to account for those well known phenomena.[19] Within the Truncation Hypothesis it seems possible to predict the omission of functional verbs and specific restrictions on its distribution. If the auxiliary can be analysed as being base generated in Tense, its omission should be expected whenever truncation applies below Tense.[20] Along similar lines, if the copula can be analysed as the spell-out of Tense features, it will require the presence of Tense to be realised, and truncation below Tense will lead to its omission. Copula and auxiliary omission can then be interpreted as the correlate of Root Infinitives for functional verbs, the result of a truncation phenomenon allowed in natural languages by the (missetting of the) Root Parameter. Copula (and auxiliary) omission in Italian Child Language occur indeed at the same age as RIs, they are robust at early stages, undergo a sharp and abrupt decrease over time and, crucially, never occur with preposed Wh-elements. Under the Truncation Hypothesis, it is possible to account for all those facts in a unified way. The possibility of generating truncated structures would account for both omission of functional verbs and its restrictions, crucially predicting obligatory presence of a realised copula (and auxiliary) in cases of Wh-preposing. Child Italian data in the copular domain seem to pattern well with those predictions.

4.2 Truncation & full competence

The data considered so far seem to strongly argue for the children's full competence. Children have the option of generating a reduced structure under highly restricted conditions, and they show perfect mastery of the whole syntactic structure in specific contexts. Thus, the full forms children produce in Wh-contexts are evidence not only that they are sensitive to a syntactic constraint, but also that they can project the full syntactic structure when required to do so.

Given the crucial role played by the Full Competence Hypothesis in the analysis of the data discussed so far, it seems now worth considering how complete the children's competence might be in the copular domain by looking at the morphological forms they select when they do not omit the copula.

Table 12. Agreement errors in copula selection

	Errors/Total	**%**
Martina	1/387	0,27%
Raffaello	3/331	0,91%
Rosa	13/889	1,46%
Total	17/1587	1,07%

Table 13. Plural context errors within the copular domain per child and in total

	Errors/Plural	**%**
Martina	1/26	3,85%
Raffaello	3/43	6,98%
Rosa	13/101	12,87%
Total	17/770	10,00%

The copular data considered for this study suggest indeed a full competence in the morphological domain as well as in the syntactic domain. Children use the correct morphological form 99% of the time (Table 12).

A more detailed analysis of the few errors detected indicates that those are all restricted to plural contexts, as shown in Table 13.

More specifically, as the data in (15) show, the few errors detected are all related with the production of the 3rd person plural form of the copula. In fact, the only incorrect form children produce is a 3rd person singular form *È* with a 3rd person plural subject, when this is post verbal.

(15) Plural forms errors within the copular domain: examples.

a. *s'è* *i gatti* Martina (2;03.22)
there is the cats

b. *cos'è* *quelle?* Raffaello (2;11.09)
what is those

c. *tuo* *c'è* *e@p* *macchine* *intanto* Rosa (2;9.04)
yours there is the cars meanwhile

The "errors" detected in the three corpora do not seem to emerge as randomly chosen incorrect forms, but display a highly constrained distribution. If errors were randomly emerging in plural contexts, one could suspect the children not to control the use of the plural forms of the copular paradigm. In contrast, the fact that plural forms are indeed correct 90% of the time shows that children do master the full morphological paradigm of the copula. Moreover, the distribution of the non-target forms in post verbal subject contexts suggests the presence of a syntactically regulated option made available by UG.

A cross-linguistic analysis on post-verbal subjects with respect to morphological agreement seems indeed to suggest a special status of this structure. As shown in Guasti and Rizzi (2002), a post verbal subject does not always require morphological

agreement to be expressed on the verbal form cross-linguistically. Some examples are presented under (16).

(16) Agreeing and non-agreeing forms with post verbal subject cross linguistically:

a. Three girls are in the garden.
a'. There are three girls in the garden
b. *Trois filles sont arrivées.*
Three girls-FEM.PLUR are arrived-FEM.PLUR
b'. *Il est arrivé trois filles.*
It is arrived-MASC.SING three girls-FEM.PLUR
c. *Questo, i bambini lo fanno sempre*
This, the-MASC.PLUR kids-MASC.PLUR it-ACC do-PLUR always
This, the kids do it all the time.
c'. *Questo, lo fa sempre i bambini*[21]
This, it-ACC do-SING always the-MASC.PLUR kids-MASC.PLUR
d. *ci sono troppi soldi*
there are too much-MASC.PLUR money-MASC.PLUR
d'. *c'è troppi soldi*[22]
there is too much-MASC.PLUR money-MASC.PLUR

In order to explain data like those in (16), Guasti and Rizzi (2002) assume that "If a feature is checked in the overt syntax, then it is expressed in the morphology", the implication being that when the Φ-Features are checked at LF, UG leaves the choice of morphological agreement open to parametric variation.

As for the Italian case, if the subject is base generated within the VP Shell, the post verbal subject can be assumed to remain in situ and to check its agreement features at LF. In that case, it would be both possible to morphologically express agreement and not to do so. In the latter case, a default non-agreeing verbal form will be selected.

Given this analysis, although the non-agreeing form is ungrammatical in the standard version of the Adult Language the children are exposed to, it still seems to be a legitimate option within UG. Then, the agreement "errors" found in copular constructions in the morphological domain are not errors at all, but instances of an option made available by UG and exploited both in child and in adult language.

5. Conclusions

A systematic omission of the copula has emerged from the present analysis of Child Italian copular data. Although the phenomenon appears to be significant in all the three corpora considered, it seems limited to declarative contexts and it is virtually absent in Wh-interrogative contexts. The sharp contrast between systematic omission in declarative contexts and absence of omission in Wh-interrogative contexts emerges also in the domain of auxiliaries. Then, functional verb omission seems to

be a grammatical option in Child Italian, but it also appears not to be allowed in cases of Wh-preposing. Such a range of facts closely reminds analogous to patterns emerging in other domains of child language, namely as in the Root Infinitives phenomenon. The Truncation Hypothesis, independently formulated to account for child language Root Infinitives, makes precise predictions with regard to the domain of functional verbs. Those are born out in detail in the copular data presented here. Child Italian copular data seem thus to suggest that it is possible to give a unified account of various child language facts on a structural basis. The phenomenon does not occur at random but appears to be syntactically regulated, highly constrained and therefore predictable within the theory. Indeed, the data once more indicate that children do not "make errors". Rather, they explore specific possibilities made available by UG. They do so when they apply truncation only in the domain of declarative copular structures and when they choose not to express morphological agreement in specific syntactic contexts. According to the line of reasoning adopted here, such a predictable behaviour should indicate that the children are exploiting a syntax driven option and that child grammar is highly structured and UG constrained as any other full fledged adult grammar.

Notes

1. See among others Borer and Rohrbacher (2003).

2. Rizzi (1993/1994) and Rizzi (2004).

3. Rizzi (2004).

4. On theoretical grounds, even if it is not (yet) possible to test the prediction with data from all Early Grammars, truncation is expected to hold cross-linguistically. Indeed, if, as suggested in Rizzi (2004), the missetting of the Root Parameter in the early stages of development helps to reduce the computational load, one should expect children to exploit that possibility at different degrees and with different limitations according to the different languages they are acquiring.

5. See Rizzi (1993/1994) but also Rizzi (2004) for further refinements of that proposal.

6. As the few examples in (1) indicate, RIs are compatible with both pre- and post-verbal subjects and compatible with non-nominative subjects and occupy a position lower than *pas* in French. In Rizzi's (1993/1994) terms these facts are expected if the non-finite forms the children produce are analysed as genuine non-finite forms, rather than finite forms lacking the appropriate morphology.

7. Data from Rizzi (1993/1994).

8. See Rizzi (2004).

9. The Childes Database, November 2002, but see also MacWinney and Snow (1985).

10. The evolution along the temporal line of Realised Subject omissions should accurately describe how the omission phenomenon decreases and disappears. In contrast, such a clear picture could neither emerge from the bare predicate data nor from the data as a whole, since in both cases the picture would be blurred by the presence of ellipses, whose frequency cannot be predicted.

11. Thus file 1;10.29 in Martina is still included in the first stage of acquisition. The omission rate is below 50% in this file and in the following one, but it rises again over 50% later on. On the other hand, file 2;1.12 seems to genuinely mark the beginning of a new stage of development, since the omission rate is constantly under 50% from then on.

12. The number to the left of the slash indicates omissions, where the number to its right indicates the total number of Wh-contexts.

13. Realised Subject declarative contexts have been selected for the comparison because they can genuinely indicate the evolution over time of the omission phenomenon in declarative contexts.

14. Data in Figures 7 to 12 are in absolute numbers.

15. Moreover, a Cluster Hypothesis would predict a bell shaped curve to emerge from the analysis of longitudinal data: no omission should be expected in the "non analysed cluster stage" but then presence of omission should emerge in the 2nd stage of acquisition, at least at the same rate as in declaratives, that is around 20%, and then a slow decline towards zero. The absence of any development along the temporal line rules out this hypothesis.

16. This fact is especially visible in the case of Rosa. She is the one in which the omission phenomenon lasts longer and with the higher rate. Still her behaviour with respect to omission in Wh-contexts perfectly matches that of the other two children. No omission is found in Wh-contexts in her 2nd stage, despite the high frequency of Wh-contexts and the persistence of a high rate of omissions in declarative contexts.

17. The omission rate with the two Auxiliaries seems fairly homogeneous. Only one child, Martina, shows a relevant difference in the omission rate between *Essere* and *Avere* auxiliaries, but the fact needs further investigation, given the very few forms of Auxiliary *Essere* found in her corpus.

18. The auxiliary data is here compared to the Realised Subject copular data.

19. Early Null Subjects data will not be mentioned here, but see Rizzi (1992) and Rizzi (2000a, 2000b) for relevant discussion.

20. That would hold even if the auxiliary was base generated in a dedicated position related to Tense. See Rizzi (1993/1994) for relevant discussion.

21. Examples from Guasti and Rizzi (2002).

22. In dialects such as Langhe and Piedmont (cf. Revelli 1977) the structure is in fact very common in many other local varieties of Italian.

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