

Referring Expressions in Early Italian

A study on the use of lexical objects, pronouns and null objects in Italian pre-school children

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1. Introduction

This paper discusses the results of an experimental study investigating the use of lexical objects, object clitics and object omissions in monolingual Italian-speaking children of different ages and adult controls.

Recent studies have tested the hypothesis that the integration of syntax and discourse-pragmatic knowledge affects production in early stages of development (see Serratrice, Sorace and Paoli 2004; Rizzi 2002; Schaeffer 2000; Roeper 1999; among others). This paper focuses in particular on pre-school children's sensitivity to discourse cues and on the influence of discourse-pragmatics on the realization/omission of syntactically obligatory material (specifically the omission of syntactic objects). I discuss different hypotheses about the way syntax and discourse are integrated in early stages of language development. I address the proposal that omission of obligatory syntactic material, typical of child language, results from difficulties in integrating syntactic information within the appropriate discourse framework (Avrutin 1999; Serratrice, Sorace and Paoli 2004; Serratrice 2005; among others), together with the claim that children rely on discourse for the interpretation of missing syntactic material. In this respect, the phenomenon usually known as clitic omission is reconsidered in light of recent findings about argument drop in early Italian (Serratrice, Sorace and Paoli 2004). I take into account previous findings about object clitic omission in Italian child language. In particular, I discuss Schaeffer's (2000) proposal, in which clitic omission is seen as a syntax-pragmatics interface phenomenon. I compare Schaeffer's methodology and results to the findings of the present experiment. I suggest that competition of syntactic and pragmatic requirements in young children results in over-reliance on (linguistic and extra-linguistic) discourse for the encoding of information. Over-reliance on discourse is proposed to be the reason for the phenomenon of clitic/object omission. Children are thus expected to omit when the referents are salient and highly accessible in the discourse. The results of the experiment partially confirm this hypothesis. They show that children are sensitive to discourse cues in their use of referring expressions from very early on.

In the next sub-section, I will present data about clitic omission in early Italian, together with some proposals that have been made to account for this phenomenon. Section 2 introduces some hypotheses about the integration of syntax and discourse-pragmatics in early stages of development. In the third section I will present and discuss the results of the present experiment, followed by the conclusions.

1.1 Clitic omission in early Italian

In this paper I investigate to what extent children are sensitive to discourse factors in their use of referring expressions from very early on. This implies children's ability to choose referring expressions based on the accessibility status of the referents in discourse¹. Among the options that children have in their choice of referring expressions, the choice of a null element is also present. If the "null" option is ungrammatical in a certain language, the dropped element (in our case the object) can be considered as an omission. In Italian, a language that does not allow object *pro*, object clitics are often omitted in early stages of development (Antelmi 1997; Cipriani et al. 1993; Guasti 1993/94; Schaeffer 2000). Examples of omissions are given in (1) and (2) below, from the Calambrone corpus (Cipriani et al. 1989), available on the CHILDES database (MacWhinney 2000). In the examples, "0w" indicates that a pre-verbal (direct) object clitic has been omitted.

(1) penchè penchè 0w ha usato lui .
because because has used he
"because he has used"
(Raffaello, 2;6.13)

(2) poi 0w metto qua
Then put here
"then I put here" (while playing with toys)
(Diana, 1;11)

Object omission in child Italian is optional. When children produce clitics, they place them correctly (Guasti 1993/94; Schaeffer 2000; Cardinaletti and Starke 2000). Acquisition research has mostly focused on structural properties of clitics (Wexler, Gavarró and Torrens 2004; Hamann, Rizzi and Frauenfelder 1996; Jakubovicz et al. 1998; among others). However, recent accounts view the interaction of syntax and discourse-pragmatics as a crucial factor affecting omission (see Guasti 1993/94, Schaeffer 2000 and Serratrice this volume for Italian).

It is commonly assumed that children differ from adults because they optionally produce constructions that are obligatory in adult language. According to Schaeffer (2000), this phenomenon is due to the optional marking of syntactic features, driven by the immaturity of children's pragmatic system. Schaeffer provides a new approach for the phenomenon of clitic omission, relating her findings to children's capacities in other cognitive domains. In particular, she relates children's poor performance in production to the development of the pragmatic knowledge. Schaeffer claims that at early stages, children may ignore the distinction between discourse-related and non-discourse related referentiality. The reason for this would

¹ I adopt the term 'accessibility' from Ariel (1990). According to Accessibility theory, the choice of a referring expression depends on the degree of activation of its antecedent, i. e. on the ease with which its antecedent can be retrieved from memory.

be that at this stage they lack a particular pragmatic rule, the Concept of Non-Shared Knowledge. Children do not always realize that speaker and hearer knowledge are distinct entities. When they fail to do so, they do not make a distinction between discourse-related and non-discourse related referentiality. As a consequence, referentiality is optionally marked in early grammar. Schaeffer predicts that syntactic processes driven by referentiality (such as direct object clitic placement in Italian) will not always take place in early child language. The shift from optionality of syntactic referentiality marking to adult-like grammatical marking in her study is found to take place around the age of 3. Although three-year olds do not show a perfect adult-like behaviour, there is a clear developmental difference when they are compared to the two-year olds (62% vs 22 % overt object clitics).

Schaeffer's approach places the phenomenon of clitic omission at the syntax-discourse interface. When children do not mark referentiality in syntax, they refer directly to an entity in the (model of the) world, similarly to what adults do when knowledge is shared between speaker and hearer. However, as I will discuss later, in some studies children were found to be sensitive to the level of saliency and accessibility of the referents in the discourse when using referring expressions, including null objects in Italian (see Serratrice, Sorace and Paoli 2004). Some discourse-pragmatics abilities seem to be present from very early on. For example, children seem to drop arguments only in contexts that respect some pragmatic requirements. This suggests an alternative explanation of children's omission in early stages of development from a pragmatic point of view. Omission of obligatory material could in fact follow from competition between syntactic and pragmatic requirements, where discourse "wins". Rather than lacking a pragmatic principle, it is possible that children over-rely on one. Two possible explanations for how this phenomenon occurs are presented in the following section.

1. The integration of syntax and discourse in early stages of development

2.1 Features of Informativeness and argument realization

The hypothesis that omission of obligatory syntactic material follows from competition of syntactic and pragmatic requirements has been discussed in work by Serratrice et al. (2004), Serratrice (this volume) and Avrutin (2004, 2006) among others. The claim is that, in early stages of development, children rely on discourse licensing for the interpretation of missing obligatory morpho-syntactic material.

Based on previous studies about the effects of discourse-pragmatics on argument realisation (see Allen 2000 and Skarabela and Allen 2004 a. o.), Serratrice et al. (2004) tested the hypothesis that information in early utterances tends to be linguistically encoded for aspects of an event that are not highly accessible to the hearer. According to Allen (2000), children tend to omit arguments when the referents are maximally clear from the discourse and situational context, but not when the referent of an argument is in doubt. Children are thus claimed to be highly sensitive to the dynamics of information flow in discourse. In conversations, potential uncertainty regarding the referents they are talking about tends to be

reduced. Allen mentions a set of binary features that have been shown to influence argument representation in previous works by Clancy (1993, 1997) and Greenfield and Smith (1976), among others. These *informativeness features* are claimed to establish “how informative the speaker should be in representing in speech the referent at hand” (Allen 2000: 487). Informativeness features are binary. They have a ‘high’ informative value, which makes the identity of the referent less certain, and a ‘low’ informative value, which makes it more certain.

Serratrice et al. (2004) explored the influence of Informativeness features on the patterns of omissions of referential subjects and objects in the spontaneous speech of six monolingual Italian, six monolingual English and one Italian-English bilingual child. The data about the Italian monolingual children were collected using the Calabrone corpus in the CHILDES database. The features taken into consideration were Absence (referent absent from physical context), Contrast (contrast emphasized between potential referents), Differentiation (two or more potential referents in the preceding discourse), Query (referent subject of or answer to query) and Activation (referent associated with a completely new referent or with topic shift). According to their results, object omission follows a predictable pattern, where null objects are almost exclusively associated with uninformative features. They claim that there is “competition... between the syntactic requirement of an overt object and the pragmatic principle of Informativeness that allows null arguments when their informative status is low” (p. 200). They conclude that “a discourse pragmatics approach is necessary for a comprehensive understanding of the phenomenon of argument omission in child language” (p. 199). Their results show that children drop objects in uninformative contexts. This finding confirms the hypothesis that children rely on discourse when they omit objects. Reliance on the linguistic or extra-linguistic discourse allows the recovery of missing information.

Based on Serratrice et al.’s results, it is possible to establish a link between clitic omission and the pragmatically uninformative contexts in which clitics are used in adult language. In fact, from a discourse point of view, clitic pronouns have highly accessible antecedents (Ariel 1990). Italian object clitics can only refer to a prominent antecedent in the discourse (Cardinaletti and Starke 1999, 2000), and they are associated with [-focus] interpretation (Serratrice, Sorace and Paoli 2004). Thus, the use of Italian clitic pronouns is associated with referent maintenance. The fact that clitic pronouns refer to a prominent antecedent favours the hypothesis that when a clitic is omitted, discourse can in principle provide the required information. Moreover, since conversations between young children and adults tend to focus on referents that are physically present and perceptually available to both interlocutors (Van Kampen 2004, Van Kampen and Pinto this volume; Serratrice in press), the referent of a clitic is often available in the extra-linguistic context. The examples in (1) and (2) are clear cases of omissions in a context where the referent of the clitic is present in the situation. Based on Serratrice et al.’s findings, I propose an investigation of object drop in different pragmatic contexts. In section 4, I will present an elicited production task aimed at investigating how pre-school children encode the distribution of lexical object, object clitics and object omissions in different discourse conditions.

2.2 Weak syntax

According to Avrutin (2004, 2006), the optional omission of functional elements (telegraphic speech) can be accounted for by the fact that the missing information is encoded through the ‘context’. Information is encoded through a “non-syntactic channel,” instead of being encoded through syntax. Avrutin’s approach is modular in nature, in the sense that syntactic computations are encapsulated with respect to meaning. Avrutin calls this narrow syntax. Narrow syntax is in charge of combining lexical items in an order allowed by a given language through symbolic operations, and the output of such operation must be interpretable. Avrutin (2006) makes a distinction between linguistic discourse (also known as Conceptual-Intentional interface, or Information structure) and the context. Linguistic discourse only includes purely linguistic operations. It is the level where topic, focus, specificity and pronominal anaphora are encoded. The context is a non-linguistic system of thought that can be modified by both linguistic and non-linguistic means. Narrow syntax and discourse communicate through the syntax-discourse interface.

Avrutin proposes a discourse model to explain how the units of the narrow syntax are translated into discourse units. Linguistic discourse operates on units consisting of a *frame*, introduced by functional projections from the narrow syntax, and a *heading*, introduced by lexical projections from the narrow syntax. Frames separate the information units from each other, and headings provide the information necessary for interpretation. In general, the units of linguistic discourse must contain both a frame and a heading in order to be interpretable. However, according to Avrutin, certain contextual conditions can take over the function of functional categories, specifically to introduce a frame. The author underlines the fact that telegraphic speech is typical of two populations, children and aphasics, characterized by reduced processing capacities. A connection is hypothesized between the phenomenon of telegraphic speech in the two populations and their lack of processing resources. This hypothesis is not based on the idea of a pragmatic deficit, as a lack of pragmatic knowledge could hardly explain the data of adult aphasics. The poor performance of these two populations is thus explained as a processing deficit. Avrutin claims that in populations with lower than normal brain activation, such as children (Kolk 2001), syntax is weakened (syntactic operations consume more resources). By contrast, reliance on the context is a less or equally expensive option for encoding information. The occasional use of the syntactic or non-syntactic “channel” explains the optionality of omissions.

Despite some noticeable differences, both Serratrice et al.’s and Avrutin’s proposal predict that children should omit obligatory syntactic material in cases in which information is recoverable from the linguistic and extra-linguistic discourse (the ‘context’, according to Avrutin). In the case of object drop/clitic omission, both accounts predict omissions should be associated with a high level of salience and accessibility of the referents in the discourse. In the following sections I suggest a way to test these predictions in an elicited production task, based on studies

investigating the distribution of lexical, pronominal and null subjects in the production of English pre-school children.

2. Experiment: Referring expressions in early Italian

This section contains the results of an experiment investigating pre-school children's sensitivity to discourse cues in their use of referring expressions. More specifically, the discourse cue under consideration was the type of question asked by the experimenter. The language investigated is Italian.

A number of recent studies have investigated the relative contribution of perceptual and discourse cues to children's choice of subject referring expressions in pre-school and older children (see Matthews et al. 2006; Serratrice submitted, a. o.), showing that some sensitivity to the discourse appropriateness of referential expressions begins to emerge around the age of two. In the above mentioned studies one discourse manipulation consisted in asking (i) *general questions* like "What happened?", and (ii) *specific questions* like "What did the clown do?". In response to the discourse manipulation, English pre-school children produced significantly more nouns in response to general questions than in response to specific ones. On the other side, specific questions were associated with the use of subject pronouns or with null subjects. These findings suggest that also for objects there should be a correlation between the type of question asked and the choice of a referring expression (lexical object, object pronoun, object omission).

In the present experiment, children of different ages and adult controls answered general questions (such as *what happens?*) and specific questions (such as *what is X doing to Y?*) about a set of pictures. Responses were coded for the use of object referring expressions, namely lexical objects, object pronouns and object omissions. A different use of lexical objects and object pronouns was expected depending on the type of question asked by the experimenter, i. e. depending on whether the referents had been mentioned (specific questions) or not (general questions) in the immediately preceding discourse. When the referents were not introduced in the preceding discourse, subjects were expected to produce more lexical objects than pronouns. By contrast, when the antecedent had been mentioned in the immediately preceding discourse, a less informative expression (usually a clitic pronoun) was expected. An investigation of the contexts of object omission was instantiated in order to address the question whether object drop (an ungrammatical option in adult Italian) can be accounted for as a syntax-discourse interface phenomenon. The contexts in which children dropped objects were thus expected to be syntactically ungrammatical but pragmatically acceptable.

3.1 Participants

Eleven children (aged 2;6 – 6;5) and six adults (age 27 – 31) took part in the experiment. Children were divided into groups depending on age, as illustrated in table 1 below.

Group 1 (N = 3)	Age: 2;6 – 2;11 (m. a. 2;9)
Group 2 (N = 5)	Age: 3;6 – 4;1 (m. a. 3;9)
Group 3 (N = 3)	Age: 5;5 – 6;5 (m. a. 5;11)
Group 4 (N = 6)	Age: 27 - 31

Table 1: Participants divided according to age

Originally, five more children participated in the experiments, but they were excluded because they did not understand the task or because their answers were unintelligible. All the children who were excluded belonged to the group of two-year olds, suggesting that the task is particularly demanding for younger children. Children were tested in one or more sessions of 10 - 15 minutes at the day-care centre “San Giuseppe” in Corporeno, Italy. Adults were tested at their homes or at the experimenter’s home.

3.2 Procedure

A few days before starting the test, the experimenter spent some time at the day-care centre in order to familiarize with the children. A hand puppet called “Lumachina” was introduced to the children. The toy was presented as a shy, silly animal that wanted to talk with children, but not with adults. During the experimental sessions, children were presented with pictures and they were asked to describe them to the puppet by answering a generic question (such as “What happens in this picture?”) or a specific question (such as “What is X doing to Y?”) about each picture. Only positive reinforcement was given during the task. Data were recorded on a CF portable recorder. They were transcribed and coded by the experimenter. For details about the coding of data, see section 3.4 below.

3.3 Materials and methods

Each child was presented with 48 pictures. 32 of these were experimental items (16 required answering a generic question, the remaining 16 required answering a specific question) and 16 were fillers. The pictures depicted a man or a woman performing an action on one or two other characters (the agent and the patient/s always differed in gender). Each picture depicted new characters. The actions performed were ‘pettinare’ (to comb), ‘lavare’ (to wash), ‘salutare’ (to greet) and ‘toccare’ (to touch). Pictures were presented in a randomized order (the same order for all participants). All direct object clitics (singular - plural, masculine - feminine) were targeted.

Figure 1 gives an example of the pictures used for the test. In this particular picture, a man is combing a girl.

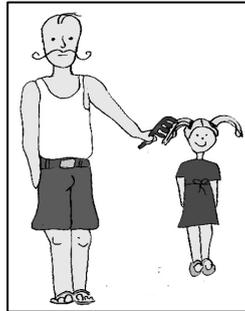


Fig. 1: Example of the pictures used for the experiment

Examples of general and specific questions are given below, together with their expected answers, in (3) – (4).

(3) Answering a general question

Question: Cosa succede in questo disegno?
 “What happens in this picture?”
 Answer: Un/il papà pettina una/la bimba
 “A/the dad combs a/the child”

(4) Answering a specific question

Question: Cosa fa il papà alla bimba?
 “What is the dad doing to the child?”
 Answer: la pettina
 “(He) cl-her combs”

To summarize, the following results were expected: 1) in response to generic questions, in which there was no mention of the referents in the preceding discourse, an “informative” referential expression (a full DP) was expected; 2) in response to specific questions, in which the referents were introduced in the immediately preceding discourse, a “less informative” referential expression was expected (an object clitic).

Moreover, since we know from previous literature that Italian children omit objects/clitics in early stages of development, the following results were expected for dropped objects: 1) low rates of omissions in response to generic questions; 2) higher rates of omissions in response to specific questions than in response to generic questions. These predictions reflect Serratrice et al.’s claim that arguments are dropped when the informative status of the referents is low (when they are salient and highly accessible).

3.4 Coding the data

The data were calculated on the base of the number of transitive and ditransitive verbs produced by each subject. Therefore, answers with intransitive verbs or with no verb were excluded. In total, 10% (55/544) of the answers were missing or discarded as irrelevant. The percentage of discarded answers was higher in the groups of two- and three-year olds (21% and 16% respectively). As mentioned above, sometimes the participants answered with ditransitive verbs. This especially occurred with pictures depicting the actions of touching and kissing (to touch someone's shoulder, to give a kiss to someone). Answers with verbs other than the expected ones were included if they were relevant for the description of the pictures. "Out of the blue" answers, i. e. cases when children described a picture without waiting for the question, were included in the "general question" condition since the referents were not introduced in the immediately preceding discourse ("out of the blue" answers amounted to 1%). Sentences with topicalized objects and clitic left dislocations were counted as lexical objects (such cases amounted to 2% of the answers). In general, the first answer given was counted, except when the child corrected herself. In this case, the correct answer was counted. Unclear cases were discussed with a linguist, a native speaker of Italian.

3.5 Results and discussion

The number of lexical objects (Full DPs), direct/indirect object clitics and null objects was counted. The results are presented in tables (2) – (5) below.

Gen. quest. Full DP	Gen. quest. Obj. pron.	Gen. quest. Omission	Spec. ques. Full DP	Spec. ques. Obj. pron.	Spec. ques. Omission
92/92	0/92	0/92	7/91	78/91	6/91

Table 2: Adult use of referring expressions in response to general and specific questions

As shown in Table 2 above, adults used more full DPs in response to generic questions than in response to specific questions. Moreover, they mostly used pronouns (object clitics) when answering specific questions. The different distribution of lexical objects and clitic pronouns in response to general and specific questions reached statistical significance ($\chi^2 = 147.239$, $df = 1$, $p < 0.001$). A low number of omissions (6.6%) were found in the adults' answers to specific questions.

Table (3) below illustrates the choice of referring expressions in the group of two-year olds.

Gen. quest. Full DP	Gen. quest. Obj. pron.	Gen. quest. Omission	Spec. ques. Full DP	Spec. ques. Obj. pron.	Spec. ques. Omission
14/38	16/38	8/38	1/38	29/38	8/38

Table 3: Use of referring expressions in response to general and specific questions in the group of two-year olds

The results indicated that the group of two-year olds showed sensitivity to discourse requirements in their choice of referring expressions in response to generic and specific questions. More lexical objects were used in response to generic questions than in response to specific ones, and more pronouns were used in response to specific questions than in response to generic ones. The difference reached statistical significance ($\chi^2 = 14.106$, $df = 1$, $p < 0.001$). Children dropped objects to the same extent in both conditions (21%). A partially different result was found for the group of three-year olds.

Gen. quest. Full DP	Gen. quest. Obj. pron.	Gen. quest. Omission	Spec. ques. Full DP	Spec. ques. Obj. pron.	Spec. ques. Omission
34/72	30/72	8/72	12/63	29/63	22/63

Table 4: Use of referring expressions in response to general and specific questions in the group of three-year olds

As shown in Table 4 above, the distribution of lexical objects and pronouns varied significantly depending on the type of question asked by the experimenter ($\chi^2 = 4.849$, $df = 1$, $p = 0.028$). However, although children used more lexical objects in response to generic questions than in response to specific questions, almost the same amount of pronouns was used to answer generic and specific questions. With respect to the proportion of omissions, a noticeable difference was found. Children omitted 11% objects when answering generic questions and 35% objects in their answers to specific questions. However, the difference did not reach statistical significance (Wilcoxon Signed Ranks $z = -1.826$, $p = 0.068$) The different use of pronouns and null objects in the group of three-year olds with respect to the group of two-year olds might reflect a different strategy in answering questions in the two groups. While two-year olds tend to encode specific information by using clitic pronouns, three-year olds tend to omit more objects when answering a specific question.

A developmental trend is noticeable when comparing the two-and three-year olds with the five-year olds. The results for the group of five-year olds are given in Table 5 below.

Gen. quest. Full DP	Gen. quest. Obj. pron.	Gen. quest. Omission	Spec. ques. Full DP	Spec. ques. Obj. pron.	Spec. ques. Omission
47/47	0/47	0/47	8/48	37/48	3/48

Table 5: Use of referring expressions in response to general and specific questions in the group of five-year olds

The results show that children in the group of five-year olds showed sensitivity to discourse in their use of referring expressions. They used more lexical objects in response to generic questions than in response to specific ones. Moreover, they did not use pronouns in response to generic questions, but only in their answers to specific questions. In this respect, their behavior is adult-like. Like the adult controls, and contrary to two- and three-year olds, they used pronouns only when the referents had been introduced in the immediately preceding discourse.

The results presented above indicate that all groups were sensitive to discourse requirements in their choice of referring expressions. More lexical objects were used in response to generic questions than in response to specific questions. More pronouns/null objects were used in response to specific questions than in response to generic questions. Predictions were thus born out. A developmental trend was found in the three groups of children: while two- and three year olds used a high proportion of pronouns in response to generic questions, five-year olds did not use a single pronoun in when answering questions in which the referents had not been introduced. The use of pronouns in response to generic questions, a pragmatically inappropriate option in adult language, might have been triggered by the fact that the referents were visually introduced in the physical context.² The influence of the extra-

² The use of clitic pronouns without a linguistic antecedent has already been documented for early French by Belzil, Pirvulescu and Roberge (2007) and by Van Kampen (2004), among others, and for early French and Italian by van Kampen & Pinto (this volume). Based on previous work by Cornish (1999), Belzil et al. define this phenomenon as exophoric use of clitics (contextual anaphora). They observe that in children's early production endophoric (i. e. with a linguistic antecedent) and exophoric anaphora coexist, although the use of endophoric anaphora increases with age. By contrast, Van Kampen and Pinto assume that all clitics produced in early stages of development are not instantiations of discourse anaphora but situation bound pronouns, as their use is always associated with the presence of a gesture-sustainable antecedent. In the beginning, children only have a situation bound device for encoding topic shift: each utterance is considered as a separate entity associated with its own topic. Anaphoric clitics appear in a later step, when the child has acquired the ability of reference-tracking in discourse. Clearly, the identification of exophoric and endophoric (adopting Belzil et al.'s terminology) uses of clitics in children's utterances is a complicated issue. Even in the presence of linguistic antecedents, the referents are very often physically present and perceptually available in the situation. However, an endophoric use of clitics in the present experiment cannot be excluded a priori. If clitic use was only situation-bound, one would expect a random choice of lexical objects and clitics in the two conditions. On the contrary, the fact that two-year olds used more clitic pronouns in response to specific questions than in response to generic questions indicates that children preferred the use of a pronoun when the referent had already been introduced in the linguistic discourse rather than

linguistic context on argument realization was not directly tested in the present experiment. It is anyway arguable that the physical presence of the referents in the context can be a sufficient requirement for younger children to assume that the referents are accessible to the hearer. In fact, in the experiment the referents were in the simultaneous physical focus of attention of both speaker and hearer. In such a context, joint attention between speaker and hearer is commonly assumed (Serratrice 2005). As illustrated in section 2.1, above, ‘absence’ can be considered as feature of ‘Informativeness.’ This feature has been found to be a good predictor of argument realization. When the referents are present in the physical contexts, objects are dropped more than when the referents are absent. It is thus possible that the presence of the referents in the pictures had a strong influence on children’s responses, making the referents salient and accessible enough to use a less informative referring expression where adults would have used a more informative one. Following this line of reasoning, the results suggest that both linguistic discourse and extra-linguistic discourse (the ‘context’ in Avrutin’s terms) can influence children’s use of referring expressions in early stages of development. Differently from two- and three-year olds, older children and adults instead rely on linguistic discourse rather than on the extra-linguistic context.

With respect to object omission, predictions were partly born out. With exception of the two-year olds, all groups omitted more objects in response to specific questions than in response to generic ones. In particular, five-year olds and adult controls never omitted an object when answering generic questions. In both groups, omissions only occurred in response to specific questions, and at very low rates (around 6%). The group of three-year olds omitted in response to both types of questions, but children omitted more objects when answering specific questions. However, the difference was not statistically significant. The group of two-year olds did not show any sensitivity to the discourse cue under consideration in their rates of omissions. Children in this group omitted to the same extent in both conditions. However, two-year-olds showed sensitivity to the discourse cue under consideration by using more clitic pronouns in response to specific questions than in response to generic ones. Surprisingly, the children in the youngest group made large use of clitic pronouns, and they omitted at lower rates than expected on the base of previous studies (21% of omissions in the present experiment vs. 64% in Schaeffer 2000). A possible explanation for this finding is presented in the next section.

3.6 Further considerations about object omission

The remainder of this chapter will focus on the data concerning object omission. The results are compared with previous findings about clitic omission in early Italian. First of all, the data show a lower percentage of omissions than found in Schaeffer’s results in the group of two-year olds. One reason for the discrepancy between

when the referent was new in discourse. Hence, at least to some extent, clitics were instantiations of discourse anaphora. The effects of “presence vs. absence” of the referents in the physical context will hopefully be the object of further research.

Schaeffer's findings and the results of the present experiment could be the difference in the age of the tested groups. The mean age is respectively 2;5 and 2;9 for the two-year olds of Schaeffer's study and the present one. Moreover, the age range differs (2;1 – 2;11 vs. 2;6 – 2;11). The phenomenon of object/clitic omission seems to decrease dramatically with age, and 'late' two-year olds appear to be already closer to adult performance. The hypothesis that a difference of a few months can make the difference is confirmed also by longitudinal studies on the acquisition of Italian morpho-syntax (see Cipriani et al. 1993; Antelmi 1997; Guasti 1993/94). In these studies, the omission rates decrease noticeably during the second year of life.

A second difference between Schaeffer's study and the present one concerns the methodology used. In the present study we made use of pictures depicting transitive actions involving two characters, an agent and a patient. The participants were asked to answer a question about each picture. Schaeffer's experiment was more elaborate. It consisted in a mixed truth - value judgment/elicited production task. Children interacted with Raja, a silly puppet that makes mistakes. Children were encouraged to correct her whenever she said something wrong.

An example of Schaeffer's scenarios (English translation) is given in (5) below.

- (5) - *Experimenter*: "Look, here we have a rabbit, a puppet with pink hair, and a comb. Look, the puppet has long hair, and it's a bit of a mess. Therefore, the rabbit is combing the puppet".
 - *Raja*: "The rabbit is washing the puppet!"
 - *Child*: "No!"
 - *Raja*: "Why? Isn't the rabbit washing the puppet?"
 - *Experimenter*: So, say it to Raja: What is the rabbit doing to the puppet?
 - *Child*: (He)'s combing her (clitic her-ACC combs)

Schaeffer also reports some examples of children's answers (English translation):

- *Raja*: The rabbit is washing the puppet!
 - *Child*: No, (she) is combing!

To explain the different results in the two elicited production studies, I would like to suggest that 1) in a specific question of the type "what is X doing to Y", the referents are introduced in the discourse and the agent and the patient roles are already established. The focus is on the action and not on the characters involved; 2) in Schaeffer's scenario the child is required to correct the puppet. Such an experimental setting implies a contrast between the verb used by the puppet and the one used by the child. I suggest that the use of specific questions, and even more the presence of a contrast, triggered a number of elliptical responses in Schaeffer's experiment.

To summarize, object omission in Italian seems to be more restricted than previously claimed, in both time and quantity.

3. Conclusion

In this paper, I presented the results of a study aimed at investigating the use of different referring expressions in early Italian. In particular, I tested the influence of the discourse cue “general vs. specific question” on children’s use of lexical objects, object clitics and object omissions. Predictions were based on the assumption that the integration of syntactic and discourse requirements in early stages of development would affect children’s production. The results of the experiment favoured the hypothesis that children are sensitive to both linguistic discourse and the context in early stages of development, as indicated by the fact that even for the youngest children the use of referring expressions differed depending on the type of question asked by the experimenter. All subjects used more pronouns/omissions when the referents had been introduced in the linguistic discourse than when the referents were new. By contrast, they used more lexical objects when the referents were new in the linguistic discourse than when they had been previously introduced. However, with exception of the five-year olds, children often used clitic pronouns to refer to an antecedent that had not been mentioned in the immediately preceding discourse. In this respect, the influence of extra-linguistic discourse (the ‘context’) on children’s performance was addressed as a possible cause of the non adult-like behaviour of two- and three-year olds. The different distribution of omissions found in response to generic and specific questions is in line with theories that view syntactic and discourse requirement as competing factors in early grammar, claiming that children rely on discourse for the interpretation of missing syntactic material.

The results of the present experiment were compared to data from previous studies on the phenomenon of clitic omission in early Italian. In particular, I discussed Schaeffer’s proposal that omission follows from the lack of a pragmatic principle. I observed that the findings of the present experiment could not be predicted by Schaeffer’s approach. In particular, the fact three-year olds and older children omitted more objects in response to specific questions than in response to general questions, and the fact that children used different referential expressions depending on the discourse status of the referents (including two-year olds). Whether this phenomenon can be accounted for by hypothesizing an overuse of pragmatic abilities, as suggested by Serratrice et al. (2004), or if processing capacities also come into play (as proposed by Avrutin 2006), remains an open question. Moreover, the question arises whether the phenomenon should be addressed as clitic omission, or if, following Serratrice et al.’s, the focus should be shifted to argument realization and argument drop. Further data are needed, in order to know more about the ways and the extent to which two- and three year olds show sensitivity to different discourse factors. Moreover, further research should be aimed at defining the status of missing objects from a grammatical point of view.

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