1. Introduction

Is there a relationship between child Italian clitic omissions and child Dutch unscrambled objects? This paper presents a uniform analysis of these two phenomena, placing their source at the syntax-pragmatics interface. My analysis provides an alternative to Schaeffer (2000), which I show gives rise to conceptual and empirical problems. The phenomenon of object clitic omission in child Italian (cf. Antelmi 1992; Cipriani et al. 1993; Guasti 1993–1994; Schaeffer 2000; Hyams & Schaeffer 2008) is illustrated here (example adapted from Schaeffer 2000: 78):

(1) (a) Target: La \textit{pettina}. \\
\textbf{ObjCl} combs ‘He’s combing her.’

(b) Child: \textit{Pettina}. \textbf{combs} ‘He’s combing.’

Unscrambled objects in child Dutch (cf. Hoekstra & Jordens 1994; Eissenbeiss 1994; Barbier 2000; Schaeffer 2000) are identified by word order. If the object (in italics) appears to the left of the negative marker (in bold) we assume that it has scrambled (Schaeffer 2000: 73):

\begin{itemize}
  \item \textit{La} \textbf{pettina}.
  \item \textbf{ObjCl} \textit{combs} ‘He’s combing her.’
\end{itemize}

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1 Thanks to Marcel den Dikken for conducting the Syntax Seminars at the CUNY Graduate Center in Fall 2010 that gave rise to this analysis, and for providing extensive feedback and support. Thanks also to Virginia Valian for her valuable input, and to my peers at the Language Acquisition Research Center at Hunter College for support. All errors are mine.

2 I gratefully acknowledge the travel funds provided by the CUNY Graduate Center.

Schaeffer (2000) employs a task that combines elicited production and truth value judgment (TVJ, Crain and McKee 1985; Crain & Thornton 1998) to test Italian children’s production of object clitics and Dutch children’s production of scrambled objects. Schaeffer predicts that, because Italian object clitic placement and Dutch object scrambling have the same underlying syntactic source (Sportiche 1992), the Italian and Dutch children’s performance on her task will be the same. In the task one experimenter manipulates a puppet who the children are told is learning to speak, and another experimenter illustrates an event using props. The puppet then describes the event erroneously, and an experimenter prompts the child to correct the puppet. For example:

(3) Italian (adapted from Schaeffer 2000: 66; “Raja” = the puppet)

Experimenter: Allora, dillo tu a Raja: cosa fa Pluto alla sirenetta?
           ‘OK, now you tell Raja what Pluto is really doing to the Little Mermaid.’

Child:   (la) pettin... (it-ObjCI)         combs
           ‘He’s combing her.’

(4) Dutch (adapted from Schaeffer, 2000: 62; “Tom” = the puppet)

Tom:     Twee ballonnen    gaat Ernie WEL uitknippen.
           two balloons goes Ernie WEL(affirmative) out-cut
           ‘Ernie is going to cut out two balloons’

Experimenter: Nee hē? Wat gaat Ernie echt doen?
              ‘No? What is Ernie really going to do?’

Child:    Ernie gaat (twee ballonnen) niet (twee ballonnen) uitknippen.
            Ernie goes (two balloons) not (two balloons) out-cut.
            ‘Ernie is not going to cut out two balloons.’
As indicated by the parentheses, the children optionally omitted the object clitic in Italian (3) and left the object unscrambled in Dutch (4).

Table 1 shows the overall results of Schaeffer’s experiment.3

Table 1. Object scrambling over negation and clitic placement in obligatory contexts in Child Italian and Child Dutch (adapted from Schaeffer 2000, pp. 69 and 76)

<table>
<thead>
<tr>
<th>ages</th>
<th>Italian</th>
<th>Dutch</th>
</tr>
</thead>
<tbody>
<tr>
<td>2;1-2;11</td>
<td>% omitted clitic*</td>
<td>% unscrambled object</td>
</tr>
<tr>
<td>3;0-3;11</td>
<td>38 (111/290)</td>
<td>27 (18/66)</td>
</tr>
<tr>
<td>4;0-4;11</td>
<td>11 (28/265)</td>
<td>20 (13/66)</td>
</tr>
</tbody>
</table>

*This figure includes instances where an overt DP object was employed.

Table 1 shows similarly high rates for Italian two-year-olds’ omitted object clitics (63%) and Dutch two-year-olds’ unscrambled objects (69%), and a similar trajectory for both groups. Crucially, these results were collected under the same experimental conditions.

Following Sportiche (1992), Schaeffer (2000) proposes a grammatical connection between Italian clitic placement and Dutch object scrambling to explain the pattern of the data. However, her theoretical analysis has both conceptual and empirical problems. Her central claim is that young children lack the pragmatic “concept of non-shared knowledge” between speaker and hearer (p. 90). She proposes that this concept is acquired between the ages of three and four, and its acquisition coincides with a progression toward target-like clitic placement and scrambled objects. She argues that the youngest children do not always register that speaker knowledge and hearer knowledge are distinct, and hypothesizes that this is a pragmatic immaturity that has syntactic consequences. Her analysis posits a close relationship between the semantic notion of referentiality and the pragmatic notion of discourse-relatedness. She proposes that the children’s object clitic omissions and unscrambled objects result from failure to specify the object DP for the feature [referential]. If a nominal expression is referential, its semantics denote an identifiable entity in the world. So while the two-year-olds may have the semantic notion of referentiality, they do not always mark referential DPs with the feature [referential] due to their pragmatic immaturity.

3 For the Dutch data, I have included only the items where definite DPs and proper nouns would obligatorily scramble over negation in Adult Dutch, and have excluded Schaeffer’s adverb condition.
Fig. 1 represents the structure adapted by Schaeffer (2000) from Sportiche (1992). She assumes that object clitics, like the object DPs with which they associate, have the feature [referential], and can be phonologically overt (Italian) or null (Dutch). This feature must be checked in the specifier of the clitic phrase, which she calls Ref(ential)P. She further asserts that the feature [referential] can be one of two values: [referential, discourse-related] or [referential, non-discourse-related]. If [referential, discourse-related], this feature must move beyond spec,RefP to the specifier of a Disc(ourse) Phrase:

\[
\text{[DiscP DP[referential, discourse-related] Disc' ObjCl[referential, discourse-related] TP T [RefP t(DP) [Ref' t(clitic) NegP Neg [ VP V t(DP)]]]]}
\]

As Fig. 1 shows, when an object DP is marked [referential, discourse-related], it moves through the spec of RefP where it agrees with a clitic born in the head of RefP. In this configuration, the inherently referential clitic becomes [discourse-related], a value which was specified lexically on the object DP. Subsequently, the clitic moves to the head of DiscP and the object DP moves to its specifier to check its [discourse-related] feature. If a child does not register that speaker and hearer knowledge are not shared, then she does not specify her DP for the feature [referential, discourse-related], and movement out of VP does not occur.

Schaeffer’s (2000) approach has several conceptual problems. First, she assumes that discourse and pragmatics are external to syntax (p. 8), yet her analysis inexplicably posits a syntactic Disc(ourse) P(hrase). Second, to connect the phenomena in question to pragmatic immaturity, she posits an inextricable link between the feature [referential] and discourse-relatedness. However, these two concepts are clearly distinct: referentiality is a semantic concept, but discourse-relatedness is not. Third, an analysis in which referential DPs can be lexically specified for discourse-relatedness entails that pragmatic features reside in the lexicon. According to López (2009) this should not be possible in a framework that assumes grammar is modular (Chomsky 1995):

Fig. 2. Modular Grammar

In a modular grammar, there is no discourse-lexicon interface. Schaeffer, however, does not explain how the discourse interacts with the lexicon and relates
to a referential DP prior to the syntactic derivation. To illustrate, under Schaeffer’s proposal the object pro in (3) is specified as [referential, discourse-related]. However, the lexical item pro is not inherently discourse-related. This pro, which co-references with the object clitic, is only discourse-related because it has established a relationship with a discourse antecedent. In other words, lexical items such as pro become discourse related by relating to the discourse. Therefore, under Schaeffer’s model, it must be the case that the discourse interacts directly with the lexicon, in violation of modularity.

Schaeffer’s (2000) proposal also faces empirical problems. She proposes that the feature [referential] is lexically valued as either discourse-related or non-discourse-related. If an object is not specified for the feature [referential], then it cannot be specified for discourse-relatedness. Subsequently, movement through spec,RefP to spec,DiscP is not motivated, resulting in a lack of object scrambling in Dutch and in clitic omission in Italian. In Italian, the clitic cannot be spelled out if it is not specified for [referential], and it becomes so via spec-head agreement with a [referential] DP. This hypothesis predicts that if the feature [referential] is not present, no movement should occur. This prediction is not borne out in Schaeffer’s data: bare nouns (which would have a determiner in adult language) were in fact scrambled over negation 11% of the time. If D (the head of the noun phrase) is the locus for the feature [referential], and if bare nouns lack a D head (as assumed by Schaeffer), then bare nouns should be categorically unscrambled, but they are not.

Schaeffer’s (2000) analysis also implicitly predicts that Dutch children’s unscrambled DPs will be bare nouns. If the feature [referential] motivates scrambling, and determiners mark referentiality, then unscrambled DPs should not have determiners. This prediction is also not borne out: 70% of the Dutch children’s unscrambled objects were DPs with an overt determiner. Schaeffer claims that the presence of an overt determiner does not entail the presence of the feature [referential], and that referentiality is only marked if discourse-relatedness is marked. However, if these unscrambled DPs with overt determiners do not refer to identifiable entities, then it is unclear how the children are using them.

Because Schaeffer’s (2000) proposal gives rise to empirical and conceptual problems, I will pursue an alternative way of modeling these interesting data.

### 3. A Phase-based Approach

My alternative analysis borrows heavily from López’s (2009) proposal that the pragmatic module interacts with the syntax derivationally, at the level of the
phase. López effectively argues that Topic and Focus are useful only as descriptive terms and do not play a role in the narrow syntax. Instead, he proposes that the only two pragmatic primitives relevant for syntax are “contrast [+c]” and “strong anaphoricity [+a]”. Contrast is defined as the opening of a domain of quantification. Because in the data to be analyzed the feature [+c] does not play a significant role, I focus only on strong anaphoricity (for which I use the more explicit term “discourse anaphoricity”).

A discourse anaphor must satisfy three conditions. First, it must depend on a sentence-external antecedent from within the immediate discourse. Second, the antecedent must be local. Third, the anaphor must be structurally subordinate to its antecedent. López (2009) adopts Asher and Lascarides’s (2003) Segmented Discourse Representation Theory. This third condition thus excludes narrative discourse structures and restricts the dependence of an anaphor on an antecedent to contexts in which the previous idea is expanded, elaborated on, or supported. With that definition, we see that the experimental conditions in Schaeffer’s experiment provide an antecedent in the immediately preceding discourse. In example (3) it is “The Little Mermaid”, and in (4) it is “two balloons”. In each case, the antecedent is both local and accessible, and the child is expected to elaborate on a previous statement.

López adopts a phase-based approach to syntactic derivations. Phases are syntactic objects that are propositional (vP) or introduce Force (CP) (Chomsky 2001). Because only the edges of phases are visible to the interpretive modules (i.e., the Phase Impenetrability Condition (PIC) applies), it is at the edges of phases where the pragmatics, a separate grammatical module, can interact with the syntax. Note that, as distinct from Schaeffer’s (2000) proposed DiscP, this system explains how pragmatics interacts with syntax in a modular grammar.

The assignment of [+a] takes place at the edge of the vP phase. López asserts that clitics such as la in (1&4) are the overt realization of a feature matrix X that is merged on the head of v. X includes phi-features as well as a syntactically active (=unvalued) version of the feature [f] (called [uf], where u stands for unvalued), akin to Case. Unvalued features must be valued before a derivation is sent to the interpretive modules. An unvalued feature in the syntax will therefore probe downward until it finds a matching feature that is valued (a goal). When a probe Agrees with a goal its unvalued feature is valued.

Under López’s system both the object DP and the feature bundle X enter the derivation bearing [uf]. These two [uf]s must therefore be valued through

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4 Because the syntax of clitics varies crosslinguistically (cf. Tortora, in press), and because any analysis of pragmatic phenomena requires a controlled context, my analysis applies only to the data in Schaeffer (2000) and not to data from spontaneous speech. Whether the analysis applies to other languages and to L2 acquisition is addressed briefly in section four.
Agreement with their valued counterpart [f]. Crucially, v is merged with an inherently valued feature [f]:

**Fig. 3. X, with [utf], is merged on v; DP is also merged with [utf]**

Because X resides on v, and as such is closer to v than the object DP, X and v enter into an Agree relation. The unvalued phi-features on v are therefore valued by X’s phi set, and X in turn values its [utf]. In this configuration, v’s phi-features do not probe the object DP because v’s phi-features are already valued. The object must therefore find another way to value its [utf]. López proposes that the object DP raises and adjoins to vP, where its [utf] can probe downward to Agree with the X+v complex. (Arrows indicate Agree relations, not movement.)

**Fig. 4. The object DP moves to the edge of vP and Agrees with X+v**

Recall that the edges of phases are visible to the pragmatic module, and that the edge of vP is the locus for [+a] assignment. Because it is positioned at the edge of vP, the object can now be assigned [+a].

I now turn to my analysis of Schaeffer’s (2000) data, beginning with Italian. As distinct from Schaeffer, López (2009) proposes that the object clitic overtly realizes the feature bundle X merged on v. This feature bundle is merged with [utf], which is valued through Agreement with v. The object, in this case a pro (à la Sportiche 1992), also enters the derivation with [utf]. The diagram in Fig. 5 represents the structure I propose for the child’s vP with an omitted clitic. I propose that the underlying bundle of features X, which provides the phonological matrix for the clitic, is crucially missing from the structure, because the children do not
specify \( v \) for the feature bundle \( X \) at the level of selection. Fig. 5 illustrates the syntactic consequences of this proposal.

**Fig. 5: Child Italian with omitted clitic (cf. examples (1) and (3))**

As Fig. 5 shows, if \( X \) is not present on \( v \) then it does not take up the feature \([f]\) residing there, nor does it value \( v \)’s \([\text{uphi}]\). As such, \( v \)’s \([\text{uphi}]\) must probe down into VP, finding a match on the object DP. In this configuration, the \([uf]\) on the object is valued in situ and movement to the edge of \( vP \) is not motivated. Recall that only the edges of phases are visible to the pragmatics, and that \([+a]\) is only assigned at the edge of \( vP \). From its \( vP \)-embedded position, the object is therefore invisible to the pragmatic module and cannot be assigned \([+a]\).

I now turn to the Dutch data. Recall that in Dutch, scrambled objects appear to the left of negation (as in (2) and (4)). I propose the following structure for the \( vP \) phase with a scrambled object:

**Fig. 6. Dutch object scrambling (cf. the target response in example (2))**

As Fig. 6 shows, the Dutch structure is the same as the Italian structure except that the object DP is overt. Furthermore, following Sportiche (1992) and Schaeffer (2000), I assume that the Dutch clitic (which I propose is \( X \)) is phonologically null. As in Italian, the Dutch object DP scrambles to the edge of \( vP \) where it probes downward to Agree with \( X+v \) and value its \([uf]\). This movement positions the object where it can be assigned \([+a]\). Subsequently, this newly discourse anaphoric object DP linearizes to the left of negation.

For the Dutch children’s non-scrambled objects, the analysis is the same as that of the Italian children’s clitic omissions. I again propose that \( X \) is not selected:
Fig. 7. Child Dutch with unscrambled object (cf. examples (2) and (4))

As Fig. 7 illustrates, when X is not merged on v, the object remains within VP, where it cannot be assigned [+a]. Because it has remained below the negative marker, it linearizes to the marker’s right yielding the unscrambled word order.

4. Discussion and Conclusion

My analysis provides an alternative to Schaeffer (2000) and lends support to López’s (2009) view of the syntax-pragmatics interface. I have argued that because they do not select the feature bundle X, the children’s objects can remain in situ, yielding an utterance that is missing an object clitic (Italian), or that has an unscrambled object (Dutch). A recent study by Gavarró et al. (2010) provides some cross-linguistic support for this analysis. Gavarró et al. carried out Schaeffer’s experimental procedure with children acquiring Catalan, and found that the Catalan two-year-olds omitted clitics at a rate of 78% in simple present and present perfect contexts. Unsworth (2005) conducted a version of Schaeffer’s experiment with older English speaking children (ages five and up) and adults acquiring Dutch as a second language. She found that proficiency, and not age, was a predictor of performance: the more proficient L2 learners performed better on the scrambling task than the less proficient learners. Because English is a VO language and Dutch is OV, we cannot assume the analysis applied to Schaeffer’s L1 learners applies identically to Unsworth’s L2 learners. However, as noted by Unsworth (2005: 252), the fact that L2 adults and children alike display optional scrambling indicates that its source may not be pragmatic immaturity, contra Schaeffer’s proposal.

5 The Spanish-speaking children in the Gavarró et al. (2010) study have much lower rates of clitic omission (only 8% for the two-year-olds and 1% for the three-year-olds), a fact which the authors explain by appealing to a maturational feature-checking constraint specific to child language. A discussion of their hypothesis and its relationship to my proposal is beyond the scope of this paper.
The remaining important question is why children would fail to select the feature bundle X. Unfortunately there is no obvious answer. We can probably reject the possibility that because X is phonologically simple and unstressed (in Italian) or phonologically null (in Dutch), learners do not always register its presence for the following reason: studies of children acquiring French, in which the determiner is homophonous with the object clitic, show that object clitic omissions are more frequent and persist much longer than determiner omissions (cf. Hamann 2003). The question merits further investigation, but my analysis accounts for the data uniformly, and provides an explicit explanation of how the syntax interacts (or fails to do so) with the pragmatics in child Dutch and Italian.

I conclude by articulating precisely how my account differs from Schaeffer’s. Note first that there is a strong similarity: both accounts propose that the Italian and Dutch children’s non-target-like behaviors have their source at the level of selection. Schaeffer proposes that the feature [referential] is not selected, and I propose that the bundle of agreement features X is not selected. The first difference is that while Schaeffer proposes that failure to select the feature [referential] results from an immature pragmatic system, I make no such claim. In section 2 I discussed the ways in which this claim, and its accompanying analysis, is both conceptually and empirically problematic. The second and crucial difference between our proposals lies in the syntactic structures they propose. Unlike Schaeffer’s account, my account does not entail that the discourse relates directly with the lexicon, nor does it suggest that discourse relatedness is a syntactic primitive. Instead, it capitalizes on the principled architecture of the syntax-pragmatics interface in López (2009) and successfully applies it to data from child language.

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