CLITIC AND AUXILIARY OMISSIONS IN ITALIAN CHILDREN'S PARTICIPLE CONSTRUCTIONS

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1.0 Introduction

Wexler, Gavarro and Torrens (2004) adopt Wexler's (1998) *Unique Checking Constraint* to account for clitic omission in child Catalan, illustrated in (1).

(1)   Ara tallo.   now cut.1sg   'Now (I) cut (it).' Guillem 2;2

The UCC is an economy constraint that restricts the checking domain in early grammar to a single functional projection.   One way to satisfy the UCC is to omit superfluous projections, for example CliticP. The UCC is coupled with an additional economy principle, *Minimize Violations* (MV), which requires that the chosen derivation violate as few grammatical properties as possible. If two derivations are minimal violators either may be chosen, yielding optionality. Importantly, on this view the locus of omission is arbitrary: any functional category can be dropped as long as one projection is left standing in the checking domain.

Wexler (1998) also proposes the UCC to account for the omission of aspectual auxiliaries *have/be* in participle constructions in language like Italian and French, as in (2a,b), respectively.
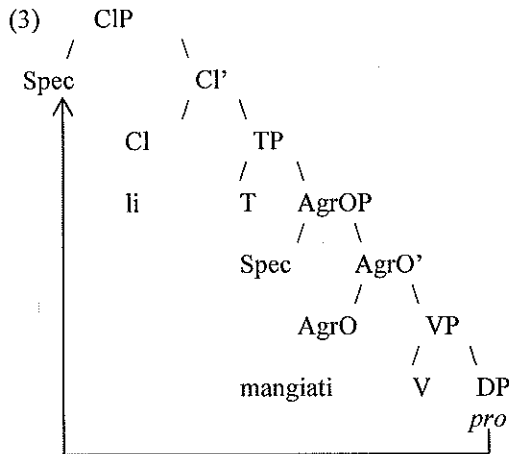
(2)   a.   Papa comprato tanti giocattoli.   (Antinucci and Miller 1976)
             daddy bought-part. lots of toys
             cf. Papa ha comprato tanti giocattoli.   (adult version)
             'Daddy has bought lots of toys.'
      b.   Fini café Madeleine.   (Pierce 1989)
             finished coffee Madeleine
             cf. Madeleine a fini le café.   (adult version)
             'Madeleine has finished the coffee.'

In this paper we show that when fully articulated, the predictions of the UCC are not confirmed for clitic or Aux omission. We propose the

Targeted Omissions Hypothesis (TOH), which says that omission or underspecification is is sensitive to the semantic content of categories and not arbitrary. The TOH, based on the *Optional Specificity Hypothesis* (OSH) (Hyams 1996; Schaeffer 2000), holds that discourse-linking functional categories such as T and D can be underspecified resulting in root infinitives (RIs) in the verbal domain and bare, unscrambled, or null arguments in the nominal domain.

2.0 Clitic Omission: the UCC and TOH accounts

We first consider the predictions of the UCC and the TOH with respect to clitic omission. By way of background, we follow Sportiche (1996) in assuming that clitics head their own projection in a structure roughly as in (3) (cf. also Wexler et al., 2004;, Schaeffer, 2000). According to Sportiche, the base-generated clitic comes paired with a null object *pro*. *Pro* must raise to the specifier of Clitic P where it licenses the clitic under spec-head agreement.(the "Clitic Criterion").

(3)   ClP
      /   \
  Spec   Cl'
   ↑   /   \
         Cl   TP
         | /   \
         li   T   AgrOP
                       /   \
                    Spec   AgrO'
                            /   \
                         AgrO   VP
                                  /   \
                       mangiati   V   DP
                                         pro

In Italian and other languages with object agreement, *pro* also lands in the specifier of AgrO (see (3)) and triggers object agreement on the participle, typically for number/gender, as illustrated in (4). [1]

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[1] In languages like Spanish without object agreement on participles, proposed in Wexler (2000) the UCC predicts that clitics will not be dropped because there is only one relevant head to check, ClP. The results with respect to clitic omission in

(4)   (Gli gnocchi), Maria **li** ha mangiati tutti.
       the gnocchi, Maria them.m.pl.-has eaten.m.pl. all.

Turning now to acquisition , the UCC predicts that in object agreement languages like Italian or Catalan the child will optionally omit clitics because she (obeying the UCC) checks the features in AgrO to the exclusion of the features of the clitic. The unchecked, uninterpretable features in ClP will cause the derivation to crash. One option to save the structure is to omit ClP, descriptively as in (5a). According to this model, when a clitic is dropped to satisfy the UCC the resulting structure violates the competing constraint, MV. Alternatively, the child can opt to satisfy MV in which case all heads are checked resulting in an adultlike structure, but one which violates the UCC, as in (5b).

Importantly, under the UCC *any* functional head can be targeted for omission, as in for example, Wexler's (1998) UCC account of RIs in which either AgrS or T may be dropped. This "free choice" prediction of the UCC should also apply to the clitic / AgrO case (cf. 5c). A second prediction follows from MV: Because violations must be minimal, if one head is omitted the other (assuming only two in the numeration) should remain. In the case at hand, if the clitic drops object agreement should be visible (and vice versa), hence (5d). Wexler et al. (2004) found no relation in Catalan between clitic drop and object agreement: Clitics were dropped whether the participle showed agreement or not. But this result is not unexpected in Catalan because participle agreement is optional in that language (also in French). Italian participle agreement with accusative clitics is obligatory (cf. 4), so this is a better test of the UCC.

The optional omission of ClP and AgrOP yields the four logical possibilities in (5).

(5)   a.   **[-Cl, +AgrO]**   e.g.   ho <u>visti</u>   ok
                                       (I) have seen-m.pl.
      b.   **[+Cl, +AgrO]**   e.g.   **li** ho vis<u>ti</u>   ok
                                       (I) them.m.plu. have seen.m.pl

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child Spanish are quite mixed. See Wexler et al. (2004), Lyczskowski (1999), De la Mora et al. (2004), Fujino and Sano (2002) and Eisenchlas (2003).
Babyonyshev and Marin (2004) claim that Rumanian conforms to the predictions of the UCC but the rate of clitic drop in this non-agreeing language is 60% among two-year-olds (cf. also Avram 1999). Clearly, more cross-linguistic studies need to be done before the facts are established.

    c. **[+Cl, -AgrO]**   e.g. <u>li</u> ho visto   ok
                                   (I) them-m.pl have seen

    d. **[-Cl, -AgrO]**[2]   e.g. ho visto   *
                                   (I) have seen .

Schaeffer (2000) in an account of clitic omission consistent with the TOH, argues that for children, the direct object *pro* in (3) is either marked or unmarked for referentiality. When marked, it raises through Spec AgrO to Spec ClP (cf. 3), triggering participle agreement and clitic realization under spec-head agreement, as proposed by Sportiche for adults. When unmarked for referentiality – an option available to children - *pro* does not raise (assuming elements move only when they have to) and hence, neither participle agreement nor the clitic is realized. Two patterns are predicted, the adultlike (5b) with both the clitic and agreement specified and (5d), where neither Cl nor AgrO is realized, while (5a) and (5c) are not expected We tested the predictions of the UCC and TOH against the elicited production data of 35 Italian-speaking children between the ages of 2;1 and 5;11[3] (Schaeffer, 2000). Children were presented with a scenario and a non-matching description by a puppet, which they were then asked to correct, as illustrated in (6). Note that the child's sentence in (6) is an example in which the clitic is omitted.

(6)   Puppet: Mamma Orsa ha picchiato le rane!
                      mommy bear has slapped the frogs
                      'Mommy Bear slapped the frogs.'
       Child: No, ha lavato!   (M, 2;1)
                      no, has washed
                      'No, (she) washed (them)!'

Table 1 shows the rate of clitic omission and agreement. Clitic omission in Italian stops after age 3. For the 3-year olds the vast majority (98%) of sentences have adultlike overt clitic and participle agreement, as illustrated in (7) (from Schaeffer, 2000).

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[2] A similar point can be made with respect to the analysis of RIs under ATOM (Schütze and Wexler 1996) which results from the omission of T or AgrS or both. The omission of both AgrS and T is not predicted by the UCC. See also Ud Deen (2005) who shows that in child Swahili approximately 30% of non-adultlike verbs are specified [-T, -Agr].

[3] See Schaeffer (2000) for description of subjects.

Table 1 - *Percentage of clitic and participle agreement omission in Italian elicited production* (based on Schaeffer, 2000)

Age	[-Cl, +AgrO] (8a/9a)	[+Cl, +AgrO] (8b/9b)	[+Cl, -AgrO] (8c/9c)	[-Cl, -AgrO] (8d/9d)	Total
2	2 (11%)	8 (44%)	0	8 (44%)	18
3	1 (.02%)	57 (98%)	0	0	58
4	0	77	0	0	77
5	0	72	0	0	72
Adult	0	130	0	0	130

(7)   Exp.:   Allora, dillo tu a Raja: cos'ha fatto Minnie con la pera?
                 'OK then, you tell Raja: what did M. do to the pear?'
        Child: L'ha mangiata.   (G 2;6)
                         it-fem.sg. has eaten-fem.sg.
                         'She ate it.'

Also, among the 2-year olds, 44% of their sentences are adultlike, with overt clitic and agreeing participle. Of the non-adultlike sentences, the predominant error involves omission of *both* the clitic and agreement. The generalization is that if there is an overt clitic, there is an agreeing participle and if the clitic is missing, there is no agreement, as predicted by Schaeffer's TOH account. On the other hand, sentences such as (5a) and (5c), both of which are predicted by the UCC, are virtually unattested. Moreover, examples like (6d), which should be ruled out by MV, are the most common non-adult sentence type produced by the children.

The second column of table 1 shows that there were 3 examples of an agreeing participle without a clitic (= 6a) among the 2 and 3-year olds. Antinucci and Miller (1976) also report such examples in the spontaneous speech of several Italian-speaking children (ages 1;6 to 2;5) (cf. also Borer and Wexler 1992). However, subsequent studies have shown very few such examples. Thus, the Italian clitic drop data does not support the 'free choice' prediction of the UCC; participles do not typically show agreement in the absence of a clitic.

3.0 Bare participles: the *UCC* and the *TOH*

We turn now to bare participles, illustrated in (2) The UCC account of
bare participles is far less detailed than the clitic drop analysis. However,
Wexler (1998) proposes that Aux omission results when T is checked and
Aux is omitted, as in (8a). According to this view these clauses are finite.
The 'free choice' prediction of the UCC predicts that in addition to [+T, -
Aux], children will produce sentences conforming to [-T, +Aux], as in
(8b), contrary to fact. As is well known, auxiliaries never occur in non-
finite form, even in RI languages (Ferdinand 1996; De Haan 1987). If
both Aux and T are checked/specified, we have the adultlike (8c), which is
indeed an attested form. Finally, according to the UCC, the specification in
(8d) should be blocked because it involves a double violation, i.e., two
heads are left unchecked. Thus, the prediction of this analysis is that bare
participles cannot be non-finite. We will show, however, that bare
participles are indeed non-finite structures (i.e. have the specification in
(8d).

(8)	a.	[+T, -Aux]	e.g.	disegno cascato	ok
				picture fallen	
	b.	[-T, +Aux]	e.g.	disegno essere cascato	ok
				picture be.inf. fallen	
	c.	[+T, +Aux]	e.g.	disegno è cascato	ok
				picture is fallen.	
	d.	[-T, -Aux]	e.g.	disegno cascato	*

According to the analysis presented in Hyams (2007a), bare
participles lack an overt Aux specification and they are also non-finite.
Tense (in RIs) or the tense bearing auxiliary (in bare participles) are
targets of (optional) omission because in the absence of finiteness the
clause can be temporally interpreted through a system of aspectual
anchoring (cf. also Becker 2000). Crucial to this targeted omission account
is the presence of an event variable in the predicate that provides a link to
an utterance time (UT) operator (cf. also Wijnen 1997). The system is
schematized in (9): (10a) represents an open predicate (that is,
imperfective or atelic, depending on the language). In this case the event
variable links to UT rendering an ongoing interpretation. (9b) and (9c)
represent the bare participles under discussion: Participles are perfective
and hence denote closed events. According to general semantic principles,
in particular, Giorgi and Pianesi's (1997) *Punctuality Constraint*, a closed

event cannot link to UT (cf. also Smith 1997), as in (9b). Such representations are blocked by general principles that require clauses to be temporally interpreted. Telic participles are saved, however, because they have a second event variable representing the end state or telos, as proposed in Higginbotham (2000). Hyams (2007a) proposes that this second event variable constitutes a kind of 'escape hatch', anchoring the sentence to UT as in (9c) (capturing the observation that children's participles typically denote resulting states rather than past events (cf. Antinucci and Miller 1976 among others)).

(9)   a.   UT....e......   open/imperfective/atelic
              $\lfloor$___$\rfloor$

         b.   UT [......e...]   closed/perfective
              $\lfloor$___**✗**___$\rfloor$

         c.   UT [......$e1$...] $e2$ ✗   telic (2-event structure)
              $\lfloor$_____$\rfloor$

The first prediction of this hypothesis is that the schema in (9b) is blocked because auxiliaries are not event-denoting. Lacking both tense and an event variable a non-finite auxiliary is uninterpreted.[4] Further predictions of this hypothesis are illustrated in (10). First, Aux omission will be restricted to telic predicates (e.g. *fall*) because these can be temporally anchored via the second event variable (cf. 10a), and second, atelic predicates such as 'sleep' should occur only in full (finite) participial clauses because there is no second event variable (cf. 10b) and thus a tensed auxiliary is therefore required for temporal anchoring.

(10) a.   Disegno (è) cascato   picture (is) fallen   (telic)
     b.   Bimbo *(ha) dormito   baby has slept   (atelic)

On this analysis bare participle clauses are predicted to have a different distribution than their finite counterparts. Alternatively, if the UCC is correct that bare participle clauses are finite structures lacking an overt Aux (cf. 8a), we expect no distributional differences.

Antinucci and Miller (1976) observed that Italian children use the *passato prossimo* (past tense) only with telic verbs. However, Antinucci and Miller also noted exceptions to their generalization. In particular, three

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[4] See Hyams (2007b) for a fuller discussion of eventivity effects in non-finite clauses in child language.

activity (atelic) verbs occurred in participle form, *aspettare* (wait), *dormire* (sleep), and *piangere* (cry). Antinucci and Miller provide the relevant examples for 2 of the 3 verbs, as in (11). We see that both these verbs occurred in finite clauses, i.e. with auxiliary, as predicted in (10).

(11)   a.   Abbiamo aspettato Paola   (Antinucci & Miller, 1976)
                 '(We) have waited (for you) Paola'
        b.   Ho dormito insieme co Pippo, ho dormito
                 '(I) have slept together with Pippo, (I) have slept'

Following up on this finding, we examined the transcripts of two other Italian-speaking children in the CHILDES database (McWhinney and Snow, 1990) – Diana (Diana 01- 09; age 1;8 –2;6) and Martina (files 02-16; age 1;7 –2;7) (Calambrone corpus). All Martina's participle clauses (bare and finite) were restricted to telic predicates and so her data did not allow us to test the hypothesis under consideration. In contrast, Diana produced both telic and atelic participles, all her eventive bare participles were telic, as shown in table 2, confirming our hypothesis.

Two stative verbs, *sentire* 'hear' and *vedere* 'see' also occurred, but these bare participles are also possible in adult Italian, particularly in confirmation questions (viz. *Sentito quello che ho detto?* 'Heard what I said?'; *Visto che hai fatto?* 'Seen what you did?'). During the same period the range of verbs that occurred in finite participle clauses was much greater. It includes many telic verbs, but also the first clear atelic (activity) verbs, which are realized exclusively with finite auxiliaries. Some relevant examples are given in (12).

(12) a.   Ho pallato (= parlato) co' Nicola   (Diana 08, age 2;5)
            (I) have spoken with Nicola
      b.   Pinocchio ha detto di bugie   (Diana 09, age 2;6)
            Pinocchio has told lies

Table 2 - *Bare participles and full participles by (a)telicity: Diana* [5]

Aspectual class	Verbs occurring as bare participles	Verbs occurring as full participles (with Aux)
Telic	aprire 'open' cadere 'fall' levare 'take off' mettere 'put' finire 'finish' cascare 'fall' chiudere 'close' buttare via 'throw away' soffiare 'blow out (candles) arrivare 'arrive' caccare 'poop' prendere 'take'	venire 'come' rompere, 'break' fare la pippi 'pee' mettere 'put (on)' volare via 'fly away' finire 'finish' andare 'go' asciugare 'dry (off)' cadere 'fall' scappare 'run away' caccare 'poop' bruciarsi (il culino) 'burn (his ass)' addormentarsi 'fall asleep' svegliarsi 'wake up' pigiare (le dita) 'hammer (fingers)' uscire 'go out'
Stative	sentire 'hear' vedere 'see	vedere 'see' capire 'understand'
Activity (Atelic)		guardare 'watch' scrivere 'write' mangiare 'eat' bere 'drink' parlare 'speak' dire bugie 'tell lies'

The data are limited and there are some unclear cases. Nevertheless, these results strongly suggest that bare participial clauses behave differently from finite participial clauses with respect to the aspectual types (telic vs. atelic) that are permitted. This follows from our hypothesis that the bare participial clauses are non-finite, as in (8d) and therefore require a telic event variable for temporal anchoring. In contrast, the UCC/MV predicts that this double underspecification should be blocked.

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[5] There were several cases in which it was difficult to determine the telicity of the predicate, in particular with the verb *fare* 'do' and *portare* 'bring' or 'carry'. These verbs were excluded.

4.0 Conclusions

To conclude, our results with respect to clitic and Aux omissions in Italian participial clauses do not support the UCC. Omission or underspecification does not appear to affect arbitrary heads, but targets those categories that have a recoverable referential function in either the temporal or nominal domain, consistent with the Targeted Omissions Hypothesis.

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