

Cross-linguistic Variation in the Acquisition of Clitics: Evidence from French and Catalan

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1. Introduction

Manzini and Savoia (2005) collect numerous examples from Italian dialects that show how auxiliary selection depends on the person (and number) specification of the subject. (1) is one such example, from the variety spoken in Castelletto Merli (Manzini and Savoia 2005 (II): 650), in which reflexives with first and second person select the auxiliary *essere* ‘be’ as auxiliary (1a), while third person selects *avere* ‘have’ (1b).¹

- (1) a. A sum la’va-mi.
 CIS am washed CI1sg
 ‘I washed myself.’
 b. Al a la’va-si.
 CIS has washed CI3refl
 ‘He washed himself.’

This pattern is found in several Piemontese, Venetian, and Friulian varieties (those of Castellazo Bormida, Felizzano, Molina di Ledro, Grizzo, Montereale, amongst others). Similarly, in Romance languages with participle agreement, agreement sometimes occurs only with a subset of person specifications. This is illustrated for standard Italian in (2), taken from Belletti (2006). Here participle agreement is obligatory with third person object clitics (2a), but optional with first and second person clitics (2b).

- (2) a. L’ho vista/*visto.
 3sg.CI have.1sg seen-fs/*seen-ms
 ‘I have seen her.’

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¹ Abbreviations: CI = clitic; CIS = subject clitic, f = feminine, INF = infinitive, m = masculine, s = singular.

- b. Mi/ti ha vista/visto.
1s/2s.Cl have.3sg seen-fs/seen-ms
'S/he has seen me.'

This general phenomenon is known as 'person split'. In light of the person split associated with clitic constructions in Romance, it becomes relevant to consider clitic development in relation to person features. In this paper, we investigate first and second person clitics in the development of Catalan and French. The paper proceeds as follows. In section 2 we outline our goals, in view of two hypotheses in the literature on the development of clitics. In section 3 we report the first study, on the acquisition of Catalan. In section 4 we report the same experiment as it was run in French. In section 5 we compare the results for Catalan and French and evaluate the two hypotheses given in section 2 against the new results.

2. Goals

There is extensive work on the acquisition of clitics in early Romance, however most of this work focuses on third person clitics (Jakubowicz et al. 1996, Hamann et al. 1996, Avram 1999, Schaeffer 2000, Gavarró et al. 2010, amongst others). Much less is known about first and second person clitics and their path of development.

Tuller, Delage, Monjauze, Piller & Barthez (2011) constitutes one of the few exceptions. In this work, it is proposed that third person clitic omission stems from a combination of factors: (i) the establishment of non-discourse dependent reference, and (ii) the occurrence of agreement in both gender and number. In the language investigated by Tuller et al., French, first and second person clitics, unlike third person object clitics, do not bear gender features, although they present number alternations (*me* '1st singular' vs. *nous* '1st plural'). The reference of first and second person clitics differs from third person by being discourse dependent, not only in French but universally. This implies that, of the two factors considered, (ii) is expected to make first and second person clitics easier for language-specific reasons, and (i) makes wider predictions: first and second person clitics should be universally easier than third person clitics. These predictions are fulfilled for French, as the subjects tested indeed performed better with first and second person clitics than with third person object clitics. The same line of reasoning is pursued by Delage and Durrleman (2013) (see also Delage, Durrleman & Frauenfelder, to appear, on similar results), who found that French-speaking children tended to produce fewer third person object clitics than second person clitics. Like Tuller et al. (2011), they attributed this difference to discourse dependency: 'identifying the referent for ACC2 is easier than for ACC3 because potential referents for the former are restricted to the interlocutor'.

If we consider the predictions of this proposal for Catalan, they are the same as for French, given that first and second person clitics in Catalan bear number, but not gender features, while third person clitics are marked for gender and

number. As is the general case, Catalan first and second person clitics establish their reference in discourse. Therefore, according to the claims made by Tuller et al. and Delage and Durreleman, performance with first and second person clitics should be the same in Catalan and French.

Wexler (1998) proposed restriction on the computational resources of children until the age of 3, and although this was initially meant to capture the characteristics of non-finite clauses in the optional infinitive stage, it was later extended to cover the optionality of clitic production in languages like French and Catalan (see Gavarró, Torrens and Wexler 2010). According to this view, first and second person clitics should yield different patterns of acquisition in Catalan and French. The computational constraint that, by hypothesis, children are subject to, is a constraint on the elimination of more than one uninterpretable feature by one same DP. The derivation of clitic structures does not necessarily involve double elimination of uninterpretable features; in that case, the derivation is not problematic and young children are expected to produce clitics in an adult-like manner from early on. When the derivation of a clitic structure involves double elimination, optional omission occurs. This is the case for third person clitics in languages like French and Catalan, in which the associates of the third person object clitics eliminate two uninterpretable features: one at vP, one at CIP. While the uninterpretable feature at CIP is found in all languages with pronominal clitics, the uninterpretable feature at vP is found with participle agreement. The derivation of Catalan first and second person clitics involves no double elimination, since participle agreement does not occur with this feature specification, as shown in (3).²

- (3) M'ha pintat/*pintada.
 CIs has painted.ms/painted.fs
 'S/he has painted me.'

By hypothesis, the derivation of the clitic construction corresponding to (3) is that in (4).

- (4) [CIP pro Cl [TP T [vP v [VP V ~~pro~~]]]]

In French, on the other hand, first and second person clitics trigger past participle agreement (or, to be precise, trigger it optionally, like Catalan third person object clitics)³, as shown in (5).

² We should specify that we are referring here to most varieties of Catalan, though not all: in Balearic Catalan there is participle agreement with first and second person clitics.

³ The fact that participle agreement with first and second person might be optional (and not obligatory) for some (or all) speakers seems to be inconsequential, as it was for third person clitics in standard Catalan (see Gavarró et al. 2010, where it is argued that the underlying mechanisms are the same whether agreement is obligatorily or optionally visible).

- (5) Il m'a peinte/?peint.
 he ClI1s has painted.fs/painted.ms
 'He has painted me.'

The derivation of (5) is therefore that in (6), with double elimination of uninterpretable features:

- (6) [_{ClP} pro Cl [_{TP} T [_{VP} ~~pro~~ v [_{VP} V ~~pro~~]]]]

In the Unique Checking Constraint (UCC) analysis, omission takes place as a consequence of the parochial properties of constituents (in this case, the properties of the clitic regarding the presence or absence of an uninterpretable feature), and so there is no expectation that French and Catalan first and second person clitics should behave in the same way. In fact the prediction is that French first and second person clitics should be optionally omitted, while their Catalan counterparts should not.

In what follows we present the results of the same elicitation experiment run in Catalan and French in order to evaluate the two approaches under consideration.

3. A study on the acquisition of Catalan

The method of clitic elicitation of Silva (2008) was adapted in Rafel (2010) to Catalan; elicitation involved the experimenter interacting with the child through hand puppets as exemplified in (7). The materials are shown in Figure 1.

- (7) Experimenter: – The king has told me there is a nice boy/girl over here,
 but his/her hair is a bit messy!
 [The king combs the child's hair.]
 Experimenter: – What is the king doing?
 Expected response: – Pentinar-me/ Em pentina.
 comb-INF 1Cl 1Cl combs

Table 1: Subjects

	#	mean age	age range
2-year-olds	16	2;8,29	2;3,4–2;11,25
3-year-olds	19	3;5,0	3;0,15–3;11,1
4-year-olds	9	4;6,18	4;1,19–4;11,0
total children	44		2;3,4–4;11,0
adults	10		

The procedure was as follows. Children were tested individually in a quiet room in their schools, in sessions that lasted around 15 minutes. The experimenter told them they would hear some short stories and then answer a question at the end. No feed-back other than to encourage children to respond was given. Answers were annotated on paper by the experimenter, and the whole session was also recorded on an iPod. Adult controls were tested in the same way, in their homes or at university.

The coding of the valid answers included (i) target clitic production, exemplified above (7), and (ii) clitic omission, exemplified in (9) with a finite verb as well as in (10) with an infinitive. A verb followed by a full DP was marginal, as first and second person clitics cannot be replaced by full DPs in Catalan; a DP only occurred when an inalienable part was used instead of a clitic, as in (11).

- (9) Tapa. (Maria, 2;10,04)
 cover-3sg
 ‘S/He covers (me).’
- (10) Pegar. (Albert, 2;08,29)
 hit-inf
 ‘Hit.’
- (11) Tapar les cames. (Joel, 2;05,12)
 cover the legs
 ‘Cover my legs.’

A total of 402 valid responses were obtained; adults produced only valid answers, children gave invalid answers in 6.9% of cases – a sharp improvement over the results obtained in Rafel (2013). The results appear in Table 2.

Table 2: Clitic production and omission in Catalan

	1 st person		2 nd person	
	production	omission	production	omission
2-y.o.	60.9%	15.6%	67.2%	15.6%
3-y.o.	68.4%	23.7%	69.7%	19.7%
4-y.o.	91.7%	8.3%	97.2%	2.8%
adults	100%	0	100%	0

	1 st and 2 nd person clitic production	clitic omission	other and no- answers
2-y.o.	64.1	15.6%	0
3-y.o.	69.1%	22.7%	9.2%
4-y.o.	94.4%	5.5%	0
adults	100%	0	0

The statistical analysis of the results can be summarised as follows. First, there were no differences as a function of person for any age group: first and second person clitics were equally produced/omitted. Second, no statistically significant difference was found in performance of 2- and 4-year-olds, or between that of 2- and 3-year-olds. Third, the levels of clitic production were very high (82% at age 2), much higher than those found for Catalan third person clitics by Gavarró et al. (2010); omission of first and second person clitics was accordingly low (the difference between omission with third and with first/second person clitics is statistically significant at age 2). Fourth, clitic omission with first and second person was mostly found in the non-finite answers; this again contrasts with the omission of third person object clitics, which occurred in the same extent with finite and non-finite verbs.

4. A study on the acquisition of French

The experiment for French was run exactly as in Catalan, with 8 experimental items, 4 for first person and 4 for second person clitics. The verbs used were: *coiffer* ‘to comb’, *taper* ‘to hit’, *laver* ‘to wash and *mouiller* ‘to get (someone) wet’ (see the Appendix for all experimental items). Expected responses for the experimental items are exemplified in (12); note that the clitic precedes the infinitive in French, unlike what happens in Catalan, but this difference seems to be of no consequence for our experiment here.

- (12) Experimenter: – What is the king doing?
 Expected response: –Il me coiffe.
 he 1Cl combs

Details of the subjects, recruited in the Geneva area, appear in Table 3. No adult control group was tested.

Table 3: Subjects

	#	mean age	age range
3-year-olds	11	3;4	2;9–3;11
4-year-olds	25	4;3	4;1–4;9
5-year-olds	11	5;6	5;1–5;10
total children	47		2;9–5;10
adults			

The procedure was again the same as for Catalan, and so was the coding of the answers. A total of 376 answers were obtained, and the percentage of invalid answers was 14.9% (all of them no-answers). The results obtained are those in Table 4.

Table 4: Clitic production and omission in French

	1 st person		2 nd person	
	production	omission	production	omission
3-y.o.	0	43.2%	9.1%	43.2%
4-y.o.	31%	41%	28%	50%
5-y.o.	50%	47.7%	50%	47.7%

	1 st and 2 nd person clitic production	clitic omission	other and no- answers
3-y.o.	4.5%	43.2%	52.3%
4-y.o.	29.5%	45.5%	25%
5-y.o.	50%	47.7	2.3

The results for French attest to a period of first and second person clitic omission; rates of production do not statistically differ as a function of the person feature. Even if performance consistently increases with age (from 4.5% to 50%), the inter-group differences are significant only between the 3- and the 4-year-olds ($p < .05$). The absence of statistical difference between the 4- and the 5-year-olds may be attributed to the very high inter-subject variability in children's performance (with production rates varying between 0 and 100% both at age 4 and 5).

5. Discussion

The results from French and Catalan share one important property: no differences are found between first and second person clitics, as both are equally produced or omitted. This result is expected under Tuller et al.s' (2011) account, Delage and Durrleman's (2013), and the UCC. In the first two approaches, first and second person clitics are discourse dependent, and therefore their production is predicted to be the same. Under the UCC approach, participle agreement occurs in the same way for first and second person: there is participle agreement for both in French, for neither in Catalan.

However, when we consider the rates of omission, the performance in the two languages is very different: there are very low levels of omission in Catalan, but high omission in French – see Figure 2. Furthermore, Gavarró and Fortón (2014) show that the cases of omission in Catalan are confined to non- finite verbs, more likely to be interpreted generically, while this pattern is absent in French.

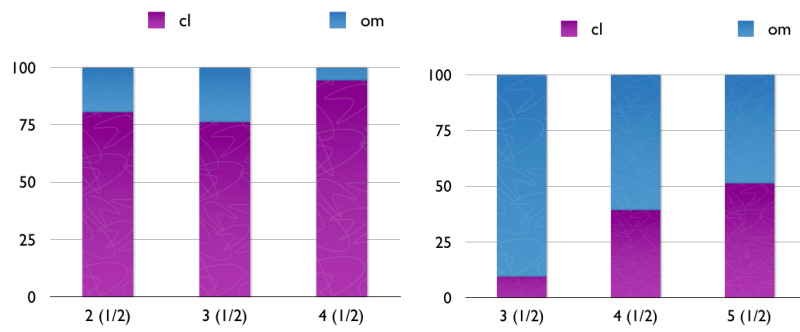


Figure 2: Production and omission of clitics for Catalan (left) and French (right) at the different ages tested

This pattern is not expected under Tuller et al.'s or Delage and Durrleman's approaches, since their prediction was that no cross-linguistic differences should emerge between French and Catalan. On the other hand, the UCC account predicted cross-linguistic variation, with omission in French (a language with participle agreement in first/second person clitic constructions) and adult behaviour in Catalan (a language without participle agreement in first/second person clitic constructions). These predictions are borne out.

The effects of the UCC, a maturational constraint, are argued to last until age 3: optional infinitives disappear at age 4, and so does clitic omission in languages like Catalan and Italian (see Wexler 1998 for the first, and Gavarró et al. 2010, Schaeffer 2000 for the latter). This means that the behaviour of the Catalan-speaking children matches the expectations of the UCC (no differences between 2- and 4-year-olds since the effect of the UCC is not visible) – but the results for

French are surprising. Omission is indeed still expected at age 3–3;6, and would have been expected at age 2, which was not tested in French. However, in the results reported here, omission in French lasts until age 5 at a rate of nearly 50%. This is certainly not predicted by the UCC, since this constraint is not operative (in healthy children) past the age of 3–3;6. This seriously questions the UCC analysis as the unique explanation for clitic omission in French.

Two directions for future research may help solve this puzzle. First, child spontaneous production should allow us to determine the age to which omission persists; discrepancies between the experimental results and spontaneous production would then be an indication of some experimental confound. Second, adult speakers were not tested in French, and their performance would tell us if there is a general tendency in contemporary French towards the production of null objects. This is attested for third person object clitic pronouns (Cummins and Roberge 2005), but has not been reported for first and second person pronouns.

The evidence so far, from both experimental results (Gavarró and Fortón 2014 for Catalan) and spontaneous production (Coene and Avram 2011 for Romanian, and again Gavarró and Fortón 2014 for Catalan), indicated low levels of omission for first and second person clitics. The new evidence reported here shows that there is cross-linguistic variation in the production of first/second person clitics, and that this variation is aligned with the presence vs. absence of participle agreement, in line with the UCC. We conclude that, contrary to the claims in the literature, first and second person clitics are not universally an early acquisition.

Appendix: French experimental items

1. *Il me coiffe.*
'He is combing me.'
2. *Il te coiffe.*
'He is combing you.'
3. *Elle te tape.*
'She is hitting you.'
4. *Elle me tape*
'She is hitting me.'
5. *Elle me lave.*
'She is washing me.'
6. *Elle te lave.*
'She is washing you.'
7. *Il me mouille.*
'He is getting me wet.'
8. *Il te mouille*
'He is getting you wet.'

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