CLITICS AS CALCIFIED PROCESSING STRATEGIES

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Abstract

In this paper we examine clitic placement in Medieval Spanish (MedSp) and Renaissance Spanish (RenSp) as well as the Person Case Constraint (PCC) in Modern Spanish (ModSp), arguing that a natural explanation for these phenomena can be given once we assume clitics to be the encoding of calcified processing strategies of an earlier freer word order system (Bouzouita 2008a, 2008b, 2008c; Kempson et al. 2008; Kempson & Cann 2007; Kempson & Chatzikyriakidis 2009; Chatzikyriakidis forthcoming). We show that the availability of different parsing strategies being possible for one and the same string, led to cases where reanalysis in terms of the parser gave rise to syntactic change. Assuming that each clitic in effect matches one of the four different parsing strategies of the earlier Latin scrambling system, the PCC facts are straightforwardly accounted for. Assuming that syncretized and dative clitics involve the projection of an unfixed node with no form of update, any combination of 1st/2nd clitics or a 3rd dative plus a 1st/2nd clitic is predicted to be illicit by a very general constraint on tree-growth, the fact that no more than one unfixed node with the same underspecified address can be present in the tree structure, since by definition these two will collapse into one by means of tree-node identity.

1   Introduction

In this section, we will give an overview of the data that will later on be examined from a Dynamic Syntax (DS) perspective. Firstly, we shall discuss the diachrony of Spanish clitic placement with respect to the finite verb from 13th century Medieval Spanish (MedSp) to 16th century Renaissance Spanish (RenSp). Subsequently, the Person Case Constraint (PCC) phenomenon will be examined and exemplified.

1.1   The Diachrony of Spanish Clitic Placement

In order to discuss the historic development of Spanish clitic placement, we shall examine both the clitic systems found in 13th century MedSp and in 16th century RenSp –the terminus a quo and ad quem of the study reported in this section– from a synchronic point of view.[1] In this paper, we limit our attention to clitic placement with respect to the finite verbs. Furthermore, we will focus above all on the root clause environments as this is the locus where diachronic changes can be perceived.

1.1.1   Medieval Spanish

Whereas in non-root clauses the predominant clitic position is the preverbal (anteposition) one, in root contexts it is the postverbal (postposition) one. The study reported in Bouzouita (2008b: 238), for instance, records only 25% (507/2026) of anteposition for 13th century root clauses. Notwithstanding this, some syntactic environments only license preverbal clitics, as illustrated below:[2]

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[1]This section summarizes research reported in Bouzouita (2007, 2008a, 2008b, 2008c) and Bouzouita & Kempson (2006).

[2]In the following examples, the constituents preceding the clitic will be underlined for ease of consultation.

(1)
Que **vos** *dara*
what CL-DAT give-will.3SG
'What will he give you?' (*Faz.*: 104)

(2)
No **lo** *matemos*
not CL-ACC kill.1PL
'Let's not kill him.' (*Faz.*: 51)

(3)
mayor mal **les** *fizo*
more pain CL-DAT made.3SG
'More pain he caused them.' (*Faz.*: 65)

(4)
e *a el* **se** *aplegaran* *pueblos*
and to him CL-REFL move-closer-will.3PL people
'and to him people will flock.' (*Faz.*: 210)

(5)
Grief **me** *es*
hard CL-DAT is.3SG
'It is hard for me.' (*Faz.*: 106)

Root clauses in which a *wh*-element, a negation adverb, a non-coreferential complement, or a prepositional or a predicative complement appears at the left-periphery, as illustrated by examples (1) to (5) respectively, all invariably display preverbal clitics. Moreover, unlike in Modern Spanish (ModSp), the mood of the verb does not influence the clitic's position in MedSp: clitics appearing with indicative, imperative, subjunctive or optative verbs will always exhibit anteposition in these syntactic environments (for an extensive discussion see Bouzouita 2008a: chapters 2-3). The same is also true for those syntactic contexts that always appear with postposition or those that license variation. Examples (6) to (9) illustrate the former. Postposition is the only clitic position observed for root clauses in which the verb appears sentence-initially, paratactic ones, or those with a contrastive coordination conjunction such as *mas* 'but' or those with a vocative, as exemplified below. The restriction of clitics appearing sentence/clause-initially has also been called the Tobler-Mussafia Law.

(6)
*Bendixo***los** *en* *es* *dia*
blessed.3SG-CL-ACC on that day
'He blessed them on that day.' (*Faz.*: 59)

(7)
Esta aqui, e yré yo; *encontrar***m***é* *yo* *con* *mio* *Sennor*
is.3SG here and go-will.1SG I meet-CL-will.1SG I with my Lord
'He is here and I will go, I will meet with my Lord.' (*Faz.*: 90)

(8)
mas *da***les** *a* *comer* *e* *a* *bever*
but give.2SG-CL-DAT to eat and to drink
'But give them to eat and drink.' (*Faz.*: 126)

(9)
Selo *mio fijo* *se***lo**
know.1SG-CL-ACC my son know.1SG-CL-ACC
'I know, my son, I know.' (*Faz.*: 59)

Notice that example (7) contains a so-called mesoclitic pronoun in the analytic future *encontrarmé*. As has been shown in great detail in Bouzouita (forthcoming), such analytic futures (and conditionals) appear in the same

syntactic environments as postverbal clitics with other tenses and can therefore be considered to be postposition cases.

Besides the exclusively preverbal and postverbal cases given above, there are also syntactic environments in which synchronic variation between preverbal and postverbal can be discerned. This is for instance the case following left-peripheral subjects, and coreferential objects, as shown in examples (10)-(11) and (12)-(13) respectively.

(10)
e	*Dios*	*torno**lo***		*en*	*bien*
and	god	turned.3SG-CL-ACC		in	good

'and god turned it into good.' (*Faz.*: 61)

(11)
e	*Dios*	***te***	*quiere*	*demostrar*	[...]
and	god	CL-DAT	wants.3SG	show	

'and god wants to show you [what he has to tell you].' (*Faz.*: 54)

(12)
Zebee e Salmana	*descabeço**los***		*Gedeon*
Zebee and Salmana	decapitated.3SG-CL-ACC		Gideon

'Zebee and Salmana, Gideon decapitated them.' (*Faz.*: 110)

(13)
todo	***lo***	*quemo*
everything	CL-ACC	burned.3SG

'Everything he burned it.' (*Faz.*: 111)

The minimal pair in examples (10) and (11), in which the subject *Dios* 'god' appears at the left-periphery, clearly illustrates that one and the same syntactic environment can license both anteposition and postposition. It has been reported that subjects preceding preverbal clitics seem to be emphatic (e.g. Bouzouita 2008a: 88-99, 2008b, 2008c; Castillo Lluch 1996). By contextual analyses for subject cases found in notarial and other prose texts, Granberg (1988: 200), for instance, demonstrated convincingly that there exists a relationship between the presence/absence of emphasis on the left-peripheral subjects and the placement of the following clitic(s). Despite such contextual analyses being subjective, we shall assume this hypothesis to be correct as other Iberian-Romance languages, such as Modern Galician and Modern Asturian, have a clitic placement system the underlying principles of which are similar, if not identical, to the MedSp one (Alvarez Blanco et al. 1986: 184; Campos 1989: 22; Xove Ferreiro 1986: 522-523; Academia de la Llingua Asturiana 2001: 366-367; D'Andrés Díaz 1993: 36-43; González i Planas, 2007; Sánchez Vicente & Rubiera Tuya 1985: 77).

Coreferential objects (Clitic Left Dislocation/Hanging Topic Left Dislocation, CLLD/HTLD) contexts also exhibit variation, as shown in (12)-(13). Unlike the subject environment which allows variation following a whole range of different types of subjects (Bouzouita 2008a: 63-74), anteposition in CLLD/HTLD cases has only been observed following the quantifiers *todo(s)* 'all' and *am(b)os(s)* 'both'. At first sight, the variation in these latter cases seems thus more restricted. However, it has been proposed that in these environments too the left-peripheral constituents are emphatic when co-occurring with preverbal clitics (Bouzouita 2008a: 108). Moreover, cross-linguistic evidence from Modern Galician supports (once again) this claim: Xove Ferreiro (1986: 527-528) states in this respect that both preverbal and postverbal placement is possible following left-peripheral quantifiers, depending on whether they are focussed or not. He also notes that, because certain quantifiers appear overwhelmingly with a certain clitic position, some grammars claim that only anteposition is found following *todos*. Nonetheless, postposition is also an option, although very rare. Remarkably, this parallelism between Modern Galician and MedSp seems to have gone unnoticed in the current literature, as far as we are aware. Variation between anteposition and

postposition has also been attested following left-peripheral adverbials, coordination contexts with *e(t)/y* 'and' and preceding non-root/absolute clauses. Due to space limitations, we shall not dwell on the details of this syntactic variation and we refer the readers to Bouzouita (2008a: chapters 2-3; 2008b) for an extensive discussion.

1.1.2 Renaissance Spanish

From the beginning of the 15th century onwards, diachronic changes can be observed (Arias Alvarez 1995; Eberenz 2000: 133; Nieuwenhuijsen 1999: chapter 5 inter alia). The Tobler-Mussafia Law, for instance, starts eroding as exemplified in example (14), in which the clitic *se* precedes the finite verb *dize* without there being a left-peripheral constituent present. In fact, all those syntactic environments that in MedSp only permitted the use of postverbal clitics have acquired by the 16th century the possibility of occurring with preverbal clitics as well, as illustrated schematically in Table 1 which gives a side-by-side overview of both MedSp and RenSp clitic placement.

(14)   ***Se***   <u>*dize*</u>   *publicamente*   *que*   [...]
      CL   says.3SG   publicly   that
      'Publicly it is being said that [...].' (*DLNE*: 1529.9)

(15)   <u>*al señor su marido*</u>   ***le***   *dé*   *mis*   *besamanos*
      to-the lord your husband   CL   give.3SG   my   regards
      'Give my regards [lit.: hand-kiss] to your husband.' (*DLNE*: 1529.7)

Table 1: Clitic Placement in Root Clauses

Syntactic Environment	Medieval Spanish Antepos.	Postpos.	Renaissance Spanish Antepos.	Postpos.
Wh-element or *si/sy*	X	-	X	-
Negation	X	-	X	-
Non-coreferential object complement	X	-	X	-
Prepositional complement	X	-	X	-
Predicative complement	X	-	X	-
Verb in 1P	-	X	X	X
Paratactic root clause	-	X	X	X
Contrastive coordination *pero/mas* 'but'	-	X	X	X
Vocative	-	X	X	X
Subject	X	X	X	X
Adverbial	X	X	X	X
Coreferential object (CLLD/HTLD)	X	X	X	X
Coordination *e(t)/y* 'and'	X	X	X	X
Non-root/absolute clause	X	X	X	X

Apart from sentence-initial cases such as example (14), the novel anteposition environments include those which involve a preceding paratactic root clause, a contrastive coordination conjunction *pero/mas* 'but' or a vocative,

as shown in Table 1. Furthermore, not only the exclusively postverbal environments are affected by diachronic changes but also the variation ones (see also Bouzouita 2008a: chapter 7, 2008b: 241-245; Keniston 1937: 93). Recall that we saw in section 1.1.1 that for certain syntactic environments preverbal placement was observed under specific conditions. In RenSp, however, these restricting conditions no longer seem to apply. Consider for instance the CLLD/HTLD example in (15): as can be seen, there is a preverbal clitic present despite the fact that no quantifiers appear at the left-periphery (cf. example 13). Similar loss of restrictions is also observed for the other variation contexts (see Bouzouita 2008a: chapter 7 for more details). It is also important to note that in RenSp, as in MedSp but unlike ModSp, mood does not affect clitic placement.

In sum, preverbal placement has become more widespread in RenSp as (i) the environments that were previously only licensing postposition also acquired the possibility of appearing with preverbal clitics and (ii) the conditions under which anteposition was licensed in the MedSp variation environments no longer apply. As we shall see in section 2.2, the loss of these restrictions has been implemented in the account given here as the lexical simplification of the lexical entry of the clitic.[3]

Now that the MedSp and RenSp data have been broadly discussed, we shall turn our attention to the Person Case Constraint.

1.2 The Person Case Constraint

The Person Case Constraint (PCC) is a clitic co-occurrence restriction which basically bans certain combinations of clitics from co-occurring. There are a number of different versions of the constraint. The most restrictive one, exhibited by languages like French, Greek, Spanish, Italian among others, states that 1st/2nd person accusative clitics are precluded in the presence of a dative clitic:[4]

(16)   *Elle **me** **lui** a donné*
she me.CL him.CL-DAT has given
'She has given me to him.' [French]

(17)   ***Gli** **mi** ha dato*
them.CL-DAT me.CL-ACC has given
'He/She has given me to them.' [Italian]

(18)   ***Le** **me** ha dado*
him.CL-DAT me.CL-ACC has given
'He/She has given him to me.' [Spanish]

(19)   ***Mu** **se** exi dosei*
me.CL-DAT you.CL-ACC has given
'He/She/It has given you to me.' [Greek]

There are a number of other variants of the PCC, namely the weak PCC (Bonet 1991, 1994; Anagnostopoulou 2005; Bianchi 2006) and the Romanian PCC (Săvescu 2007; Nevins 2007), but we will not deal with them here

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[3]It is important to note that this formal simplification does not entail a simplification in the data output. As can be seen in Table 1, RenSp presents more variation environments than MedSp and could therefore be considered as more complex.

[4]There are varieties of the latter two languages that exhibit different variants of the constraint (Ormazabal & Romero 2007; Bianchi 2006).

for reasons of space. The interested reader is referred to Kempson & Chatzikyriakidis (2009) for a full analysis of the PCC including these two variants. In this paper, we limit ourselves to the discussion of the strong PCC.

What makes the PCC rather peculiar is the fact that the restriction does not seem to be semantic at all, with paraphrases where one of the clitics has been substituted by a strong pronoun being well-formed:[5]

(20) **Me** *sistisan* *se sena*
me.CL-ACC introduced to you.ACC
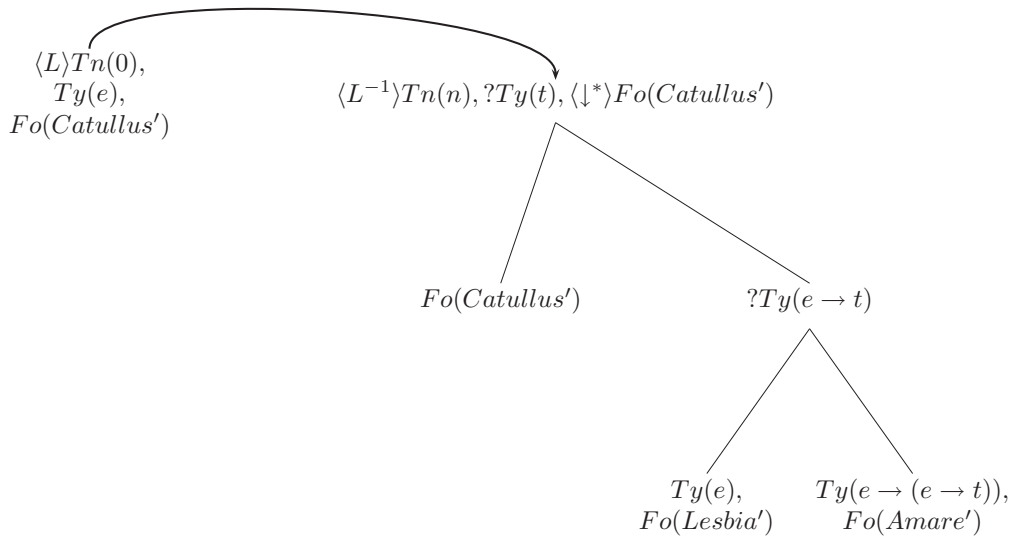'They introduced you to me.' [Greek]

(21) *Elle* **m'** *a donné a lui*
she me.CL has given to him
'She has given me to him.' [French]

A number of approaches have been proposed in the literature. There are functional accounts such as Haspelmath (2002), arguing that the ungrammaticality of the PCC combinations is due to the inability of these clitic clusters to get grammaticalized, assuming low frequency rates of the latter. Furthermore, there are templatic approaches arguing for a separate level of morphology (Bonet 1991, 1994; Heap 2003). Lastly, pure syntactic accounts of the phenomenon also exist, mainly within the minimalist framework (Rezac 2003, 2008; Anagnostopoulou 2003, 2005; Adger & Harbour 2007; Nevins 2007; Săvescu 2007, 2009 inter alia). The common denominator in all the latter analyses is that the PCC is argued to arise from a feature checking failure against a functional head. There are different formalizations of the latter assumption, e.g. the assumptions made as regards the nature of the agreeing head with respect to checking (multiple vs. single Agree) or the stipulated features that different kinds of clitics are argued to have (no person feature for 3rd person accusative clitics in Anagnostopoulou 2003, 2005 vs. the presence of a person feature for the same clitic, although negatively specified [-], in Nevins 2007), but the core proposal effectively shares the same intuitions. It is not our intention to give a full review of the PCC literature (see Kempson & Chatzikyriakidis (2009) for such a review) and the problems that do arise in these existing analyses. However, we should note that a number of stipulatory decisions must be made in all these analyses as regards the feature specifications of each clitic, in order for all these analyses to work. Notable examples include Adger & Harbour's assumption that all indirect objects carry a [+Participant] feature, independently disputed by Bonet (2007) and Kempson & Chatzikyriakidis (2009), and Anagnostopoulou's (2003, 2005) assumption that 3rd person dative clitics bear a person feature, albeit specified as minus [-], whereas 3rd person accusative clitics bear no such feature at all. There are a number of other similar examples plus a number of other stipulations used in these analyses but we will not go through them. The interested reader is referred to Kempson & Chatzikyriakidis (2009) for an extensive critique of such approaches.

In this paper, we will argue that the PCC can be naturally explained as a processing constraint, according to which no more than one underspecified relation can be used simultaneously. The PCC will then be argued to be no more than a restriction on underspecification, a hard-wired constraint of the tree-logic language underpinning the Dynamic Syntax framework.
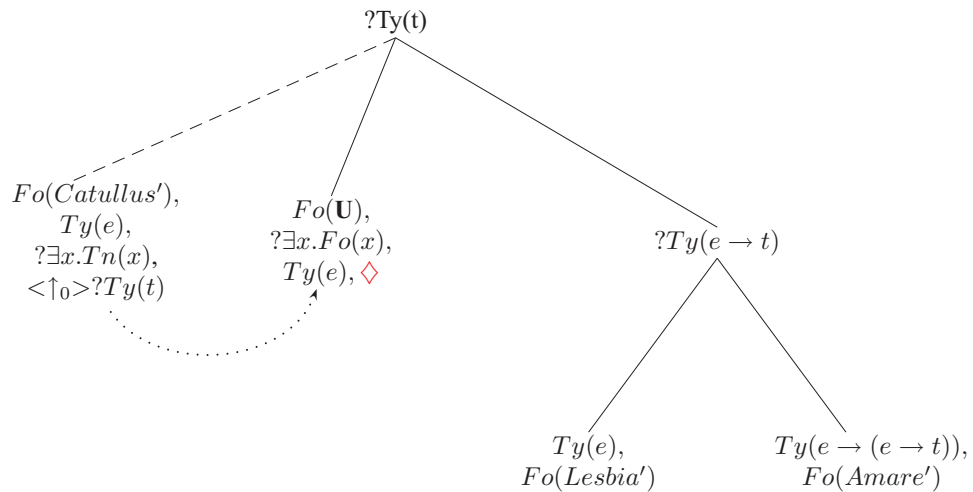
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[5]Such a fact is noted in the literature as a repair (Bonet 2007; Rezac 2008) and may involve a number of different strategies 'saving' in a way the illicit PCC combinations (object camouflage in Georgian, absolutive displacement in Basque). See Rezac (2008) for an extensive discussion of these different repair strategies.

2 Dynamic Syntax Analyses

2.1 Availability of Different Processing Strategies

The accounts to be given for the different clitic phenomena adopt the Dynamic Syntax framework (DS; Cann et al. 2005; Kempson et al. 2001). DS is a grammar formalism that reflects the dynamics of parsing, with syntax defined as the incremental growth of semantic trees following the time-linear parsing/production process. These semantic trees represent a possible interpretation of the natural language string. Once the processing process is completed, the top node of the tree is decorated with a propositional formula and each daughter node with some sub-term of that formula, representing a predicate-argument structure. Various processing strategies i.e. different ways of building up semantic content for a natural language string, are made available. More specifically, DS licenses the construction of (i) fixed nodes, (ii) unfixed nodes, which represent structural underspecification (which is similar to functional uncertainty in LFG) and which can be constructed locally or non-locally, and (iii) linked structures, i.e. trees that are hooked together and often share semantic content. Moreover, as a set of strategies for parsing, the grammar standardly makes available more than one sequence of strategies for parsing a string with little or no difference in content associated with the distinct output structures. For example, in parsing a pro-drop language with case such as Latin, there are three strategies available for the parsing of a subject expression (Kempson et al. 2008; Kempson & Chatzikyriakidis 2009). It may be parsed following the strategy available for parsing all argument expressions, which is to construct an unfixed node merely indicating argumenthood (step 1), then decorate it as indicated by the nominal (step 2), and eventually use case to fix the structural relation as that of a subject (step 3). This process is illustrated for the parse of the subject of the Latin example given in (22). As shown in (23), first the locally unfixed node is projected (step 1). The NP is then parsed as annotating that locally unfixed node (step 2). Finally, constructive case fixes the locally unfixed node's address into that of the subject (step 3):

(22)   *Catullus*   *Lesbiam*   *amavit*
       Catullus.NOM   Lesbia.ACC   loved.3SG
       'Catullus loved Lesbia.'

(23)   Parsing *Catullus* in *Catullus Lesbiam amavit* via constructive case

<div align="center">

LOCAL *ADJUNCTION   *Catullus*   Constructive case

$Tn(0), ?Ty(t)$ $\mapsto$ $Tn(0), ?Ty(t)$ $\mapsto$ $Tn(0), ?Ty(t), \diamondsuit$

$\langle\uparrow_1^*\rangle Tn(0)$ $\langle\uparrow_1^*\rangle Tn(0),$ $\langle\uparrow_0\rangle Tn(0),$
                                         $?Ty(e \to t)$ $Fo(Catullus')$

$?Ty(e), \diamondsuit$ $Ty(e), Fo(Catullus'),$
                              $?\langle\uparrow_0\rangle Ty(t), \diamondsuit$

</div>

The second strategy is to take that subject expression as providing a context relative to which the reminder is interpreted, i.e., in DS terms to build a linked structure decorated solely with information provided by the subject expression and use that structure as the point of departure for constructing an independent tree containing a proposition with subject agreement indicating the identification of that term with the already presented context.

(24) Parsing *Catullus* in *Catullus Lesbiam amavit* as a linked structure

$\langle L \rangle Tn(0),$
$Ty(e),$
$Fo(Catullus')$

$\langle L^{-1} \rangle Tn(n), ?Ty(t), \langle \downarrow^* \rangle Fo(Catullus')$

$Fo(Catullus')$

$?Ty(e \rightarrow t)$

$Ty(e),$
$Fo(Lesbia')$

$Ty(e \rightarrow (e \rightarrow t)),$
$Fo(Amare')$

Finally, there is also the possibility of taking the subject expression to decorate a node initially constructed as unfixed that is not immediately updated, but rather is identified as subject only subsequent to parsing the verb; this decision to fully determine its role in the propositional structure at only this very late stage is a means of achieving a non-backgrounding/contrastive effect.

(25) Just before MERGE of the unfixed node in the parse of *Catullus Lesbiam amavit*

$?Ty(t)$

$Fo(Catullus'),$
$Ty(e),$
$?\exists x.Tn(x),$
$<\uparrow_0>?Ty(t)$

$Fo(\mathbf{U}),$
$?\exists x.Fo(x),$
$Ty(e), \diamondsuit$

$?Ty(e \rightarrow t)$

$Ty(e),$
$Fo(Lesbia')$

$Ty(e \rightarrow (e \rightarrow t)),$
$Fo(Amare')$

The availability of these different processing strategies will be crucial to the analysis of MedSp clitic placement as well as the PCC. In what follows, we will show the latter claim starting with MedSp and moving on to the PCC.

2.2 Clitic Placement in Spanish

As has been argued elsewhere (Bouzouita 2007, 2008a, 2008b, 2008c; Bouzouita & Kempson 2006), MedSp and RenSp clitic placement seem to be regulated by the processing strategies used for the left-peripheral constituents that precede the clitics. More specifically, in MedSp, preverbal placement is found after a disjunct set of triggers, to wit, whenever a negation marker, a tense marker, or a constituent that can be represented as structurally (syntactically) underspecified i.e., an expression decorating an unfixed node, precedes the clitic pronoun.[6] The left-peripheral constituents of most syntactic environments that trigger anteposition can be parsed/produced using this unfixed node strategy. This is, for instance, the case for *wh*-questions, non-coreferential object complements, and prepositional and predicative complements. This is also the case for those variation examples that appear with preverbal clitics, e.g. subjects. Furthermore, the left-peripheral constituents in these variation cases can not only be analyzed as involving an unfixed node but also as decorating a linked structure (or a fixed node). This explains in turn why variation is observed: whenever the unfixed node strategy is used anteposition will appear whereas in the absence of this processing environment postverbal clitics will be used.

As shown in the lexical entry given in (26), the various anteposition triggers are stored as part of the clitic pronoun's lexical specification. The lexical incorporation of these processing environments is said to be due to a routinization process (see Bouzouita 2007, 2008a, 2008b for more details).

(26)   Lexical entry of Medieval Spanish accusative clitic *lo*

$$
\begin{array}{llll}
\text{IF} & ?Ty(t) \\
\text{THEN} & \text{IF} & [NEG+] \ \lor & \} \text{ Negative marker} \\
& & (\langle\downarrow_*\rangle Fo(\alpha), ?\exists x.Tn(x)) \ \lor & \} \text{ Unfixed node} \\
& & ?\exists x.Tns(x) & \} \text{ Tense requirement} \\
& \text{THEN} & \text{make}(\langle\downarrow_1\rangle); \text{go}(\langle\downarrow_1\rangle); \\
& & \text{make}(\langle\downarrow_0\rangle); \text{go}(\langle\downarrow_0\rangle); & \} \text{ Lexical calcification} \\
& & \text{put}(Fo(\mathbf{U}), Ty(e), ?\exists x.Fo(x), \\
& & [\downarrow]\bot, ?\langle\uparrow_0\rangle Ty(e \to t)) \\
& \text{ELSE} & \text{abort} \\
\text{ELSE} & \text{IF} & ?Ty(e), \langle\uparrow\rangle\top \\
& \text{THEN} & \text{IF} & \langle\uparrow_0\uparrow_1^*\rangle^+(?Ty(t), [NEG+], \exists x.Tns(x)) \ \lor \\
& & & \langle\uparrow_0\uparrow_1^*\rangle^+(?Ty(t), \langle\downarrow_*\rangle(Fo(\alpha), ?\exists x.Tn(x)), \\
& & & \exists x.Tns(x)) \ \lor \\
& & & \langle\uparrow_0\uparrow_1^*\rangle^+(?Ty(t), ?\exists x.Tns(x)) \\
& & \text{THEN} & \text{abort} \\
& & \text{ELSE} & \text{put}(Fo(\mathbf{U}), Ty(e), ?\exists x.Fo(x), \\
& & & [\downarrow]\bot, ?\langle\uparrow_0\rangle Ty(e \to t)) \\
& \text{ELSE} & \text{abort}
\end{array}
$$

As shown, preverbal placement in MedSp has three possible environment triggers. However, as we shall see shortly, these anteposition restrictions have been lost for the RenSp clitic. Postverbal placement, on the other hand, appears in the absence of these anteposition-triggering processing environments (both in MedSp and RenSp). There is thus a complementary cluster of restrictions. Further, it should be noted that both preverbal and postverbal accusative clitics are taken to annotate fixed object nodes. As we shall see later in more detail, not all clitics involve

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[6]Note that no proper treatment of negation is meant here. See Chatzikyriakidis (forthcoming) for an attempt to formalize negation in DS without the use of a [+NEG] feature.

the construction of a fixed argument node. In leísta dialects, for instance, the clitic *le* will be taken to introduce and annotate a locally unfixed node due to its case ambiguity. This is also the case for the dative *le*. Further, the nodes decorated by the postverbal clitics have been introduced by the lexical specifications of the preceding verb. Those being annotated by preverbal clitics, on the other hand, have been constructed by the lexical entry of the clitic pronoun itself due to the lexical calcification of the accusative case in Old Romance. The self-evident complexity of the disjunctive form is what then gets progressively simplified, as we can now see with a characterization of the RenSp *lo* in (27).

(27) Lexical entry of Renaissance Spanish accusative clitic *lo*

$$
\begin{array}{llll}
\text{IF} & ?Ty(t) \\
\text{THEN} & \text{make}(\langle\downarrow_1\rangle); \text{go}(\langle\downarrow_1\rangle); \\
& \text{make}(\langle\downarrow_0\rangle); \text{go}(\langle\downarrow_0\rangle); \\
& \text{put}(Fo(\mathbf{U}), Ty(e), ?\exists x.Fo(x), \\
& [\downarrow]\bot, ?\langle\uparrow_0\rangle Ty(e\rightarrow t)) \\
\text{ELSE} & \text{IF} & ?Ty(e), \langle\uparrow\rangle\top \\
& \text{THEN} & \text{IF} & \langle\uparrow_0\uparrow_1^*\rangle^+(?Ty(t), [NEG+], \exists x.Tns(x)) \lor \\
& & & \langle\uparrow_0\uparrow_1^*\rangle^+(?Ty(t), \langle\downarrow_*\rangle(Fo(\alpha), ?\exists x.Tn(x)), \\
& & & \exists x.Tns(x)) \lor \\
& & & \langle\uparrow_0\uparrow_1^*\rangle^+(?Ty(t), ?\exists x.Tns(x)) \\
& & \text{THEN} & \text{abort} \\
& & \text{ELSE} & \text{put}(Fo(\mathbf{U}), Ty(e), ?\exists x.Fo(x), \\
& & & [\downarrow]\bot, ?\langle\uparrow_0\rangle Ty(e\rightarrow t)) \\
& \text{ELSE} & \text{abort}
\end{array}
$$

Recall that in RenSp anteposition is much more widespread (see Table 1). This can be faithfully reflected in the DS characterization by the loss of the restrictions on the appearance of preverbal clitics, as shown in example (27). Notice that the disjunctive specification constraining postverbal placement is retained. This lexical entry thus directly reflects the fact that all MedSp postverbal environments in the intervening period acquired the possibility of also licensing preverbal pronouns (see Table 1). As this specification shows, this was due to a relatively small change in the lexical entry of the clitic pronoun: the so-called anteposition triggers that were present in MedSp (the presence of a negation marker, an unfixed node or a tense requirement) are dropped from the RenSp characterization, as shown in example (27). The immediate result of the loss of these triggers is the occurrence of preverbal clitcs in substantially more environments: RenSp clitics can appear preverbally as long as there is a $?Ty(t)$-requirement. Note however that the same does not apply to the appearance of postposition, as these restrictions remain unchanged. Further, the effect of this lexical 'simplification' is not a more simplified distribution, as what emerges is a greater number of environments in RenSp that exhibit syntactic variation.
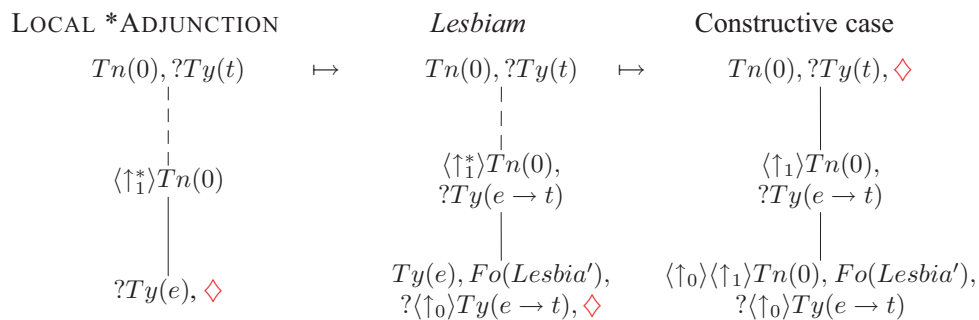
There remains the question why this simplification in the lexical entry occurred. Recall that DS regularly makes available more than one strategy for interpretation: for certain variation environments, for instance, (i) the strategy of building a pair of linked structures, with the left-peripheral NP decorating that first linked tree as an independent structure, and, in addition, (ii) the strategy of inducing the construction of an unfixed node for that left-peripheral expression to decorate. Additionally, once routinisation took place in MedSp, the original pragmatic motivation underpinning clitic placement gradually disappeared, as it had become a short-circuited. With no pragmatic basis or intonation cues present, there is then nothing to determine which of these two processing strategies to select. Accordingly, a processing mismatch between speaker and hearer is then plausible for these variation environments. The left-peripheral subject in a sentence containing a preverbal clitic, for instance, can be produced relative to a

strategy for building and annotating an unfixed node. The hearer, on the other hand, can parse this subject as annotating a $?Ty(e)$-linked structure. Once the preverbal clitic has been heard, the hearer has two processing choices: (i) they can access the lexical entry for MedSp clitics and notice that the left-peripheral subject should have been parsed as an unfixed node due to the occurrence of this preverbal pronoun and consequently choose to parse this subject as an unfixed node instead or (ii) they can ignore this MedSp lexical entry and infer that preverbal pronouns are allowed after linked structures since that is how they just parsed the left-peripheral subject. In the latter option, the hearer will have effectively reanalyzed the lexical entry for the weak pronoun as given in (27). In other words, a production-parsing mismatch in the variation environments could accordingly have led to the inference that there are no conditions on the occurrence of preverbal pronouns. Once the hearer has made such a move, and indeed has done so on a recurrent basis, this reanalysis could be used as the basis for a production decision, thereby confirming a shift of analysis in the system itself. Notice further that this production-parsing mismatch, restricted to taking place in variation environments only, led to the reanalysis of the clitic's lexical entry, hence affecting all the other environments as well.

2.3 The Person Case Constraint

We have argued that one of the reasons behind diachronic change in the case of the Spanish clitic system is the availability of different parsing strategies for a given string. These different parsing possibilities are not only possible with subjects, but have been argued to be the mechanism that derives the Latin scrambling effects (Kempson & Cann 2007; Kempson et al. 2008; Kempson & Chatzikyriakidis 2009). What we are going to argue is that the clitic system of MedSp, leaving aside the positioning restrictions and concentrating on the actual actions induced by the clitics, can be seen as a calcification of the parsing strategies of an earlier 'freer' in terms of word order system, namely the Latin scrambling system. The Latin case system made use of four parsing strategies that effectively allowed scrambling. Three of them have been mentioned previously in our discussion of the different parsing strategies being available for the same word, such as for the parsing of a subject. To recap, the first strategy involves parsing of an NP as decorating a locally unfixed node, with subsequent fixing of that node via case information provided by the morphology on the NP (constructive case) (see section 2.1):

(28) Parsing *Lesbiam* in *Catullus Lesbiam amavit* (see example (22)) via constructive case

<table>
<tr>
<td style="text-align:center">LOCAL *ADJUNCTION</td>
<td></td>
<td style="text-align:center">*Lesbiam*</td>
<td></td>
<td style="text-align:center">Constructive case</td>
</tr>
<tr>
<td style="text-align:center">$Tn(0), ?Ty(t)$</td>
<td style="text-align:center">$\mapsto$</td>
<td style="text-align:center">$Tn(0), ?Ty(t)$</td>
<td style="text-align:center">$\mapsto$</td>
<td style="text-align:center">$Tn(0), ?Ty(t), \diamond$</td>
</tr>
<tr>
<td style="text-align:center">$\langle\uparrow_1^*\rangle Tn(0)$</td>
<td></td>
<td style="text-align:center">$\langle\uparrow_1^*\rangle Tn(0),$
$?Ty(e \to t)$</td>
<td></td>
<td style="text-align:center">$\langle\uparrow_1\rangle Tn(0),$
$?Ty(e \to t)$</td>
</tr>
<tr>
<td style="text-align:center">$?Ty(e), \diamond$</td>
<td></td>
<td style="text-align:center">$Ty(e), Fo(Lesbia'),$
$?\langle\uparrow_0\rangle Ty(e \to t), \diamond$</td>
<td></td>
<td style="text-align:center">$\langle\uparrow_0\rangle\langle\uparrow_1\rangle Tn(0), Fo(Lesbia'),$
$?\langle\uparrow_0\rangle Ty(e \to t)$</td>
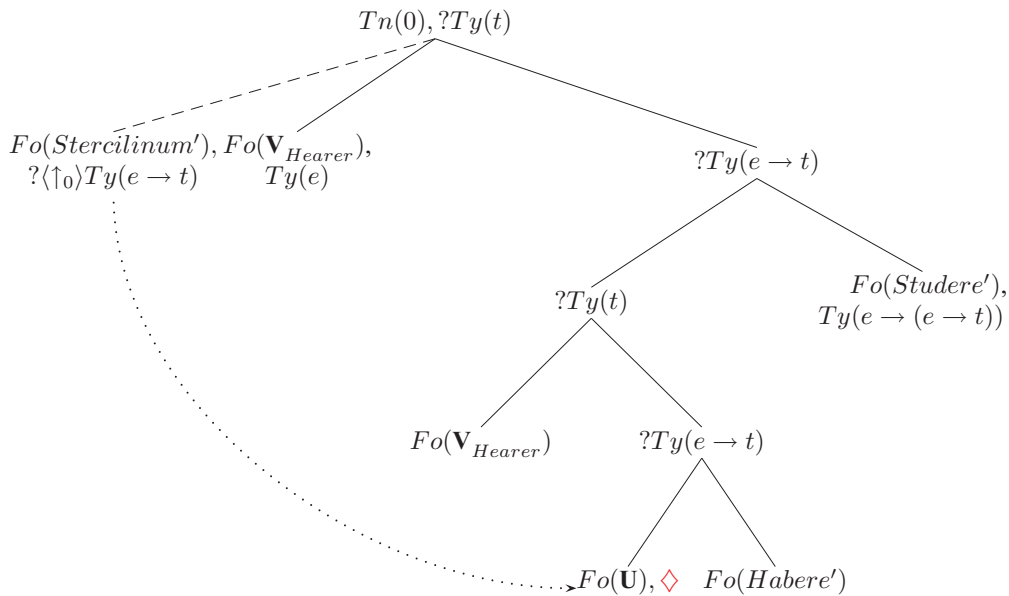</tr>
</table>

In the above example, *Lesbiam* is parsed on a locally unfixed node. Then the accusative case information uniquely identifies the unfixed node as the direct object node, since only the latter node will satisfy the requirement $?\langle\uparrow_0\rangle Ty(e \to t)$ within the range of the underspecified modality $\langle\uparrow_0\rangle\langle\uparrow_1^*\rangle$.

The second parsing strategy assumes case to function not fully constructively as above, but rather as a filter on output. In that sense, the potential fixing sites of the node get reduced by means of a case filter but the node still remains unfixed, since more than one structural position is available for fixing the node. This parsing strategy is exemplified in (30), showing an intermediate step in the parse of the sentence given in (29):

(29) *Stercilinum   magnum   stude   ut   habeas*
      dunghill.ACC   big.ACC   ensure.2SG-IMP that   have.2SG
      'Ensure that you have a large dunghill.'

(30) Before MERGE has applied in the parse of *Stercilinum magnum stude ut habeas*

$$Tn(0), ?Ty(t)$$

$Fo(Stercilinum'), Fo(\mathbf{V}_{Hearer}),$
$?\langle\uparrow_0\rangle Ty(e \to t) \quad Ty(e)$

$?Ty(e \to t)$

$?Ty(t)$

$Fo(Studere'),$
$Ty(e \to (e \to t))$

$Fo(\mathbf{V}_{Hearer}) \quad ?Ty(e \to t)$

$Fo(\mathbf{U}), \diamondsuit \quad Fo(Habere')$

In the above tree structure, *stercilinum* is parsed as decorating an unfixed node (not locally unfixed). The case filter the NP *stercilinum* carries, i.e., $?\langle\uparrow_0\rangle Ty(e \to t)$, although restricting the potential fixing sites of the node (to all direct object nodes no matter the level of embedding), cannot however fix the node itself. Fixing of the node is done later via MERGE, as soon as a fixed node with no conflicting formula, type, address or any other value or requirement exists.

The third parsing strategy involves a much weaker structural relation encoded as a linked structure, i.e. a separate tree structure peripheral to the main tree. Linked structures are in general used in DS for relative clauses and topic constructions. In the case of these two constructions, a requirement for a shared term between the linked tree and the main tree is posited. However, the strategy we present here makes use of the link relation but unlike the topic or CLLD/HTLD case no requirement for a shared term is posited. Such a strategy is used to encode weak non-argumental structural relations, traditionally called 'ethical datives', as the one found in the example (31). The use of this strategy is illustrated in the parse given in (32):
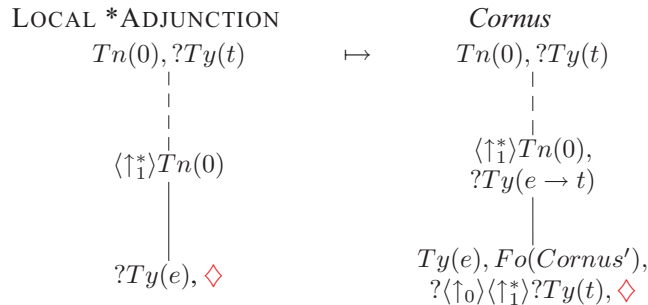
(31) *Quid   **mihi**   Celsus   agit* ?
      what   me.DAT   Celsus.NOM.SG   do.3SG
      'How, pray, is Celsus?' (Lit. 'What to me Celsus does?')

(32) Parsing *Quid mihi Celsus agit?*

$$\langle L\rangle Tn(0),\ Ty(e),\ Fo(\mathbf{V}_{Hearer}) \qquad \langle L^{-1}\rangle Tn(n), ?Ty(t)$$

$$Fo(\mathbf{WH}) \qquad Fo(Celsus') \qquad ?Ty(e \rightarrow t)$$

$$Ty(e),\ Fo(\mathbf{U}), \diamond \qquad ?Ty(e \rightarrow (e \rightarrow t)),\ Fo(Agere')$$
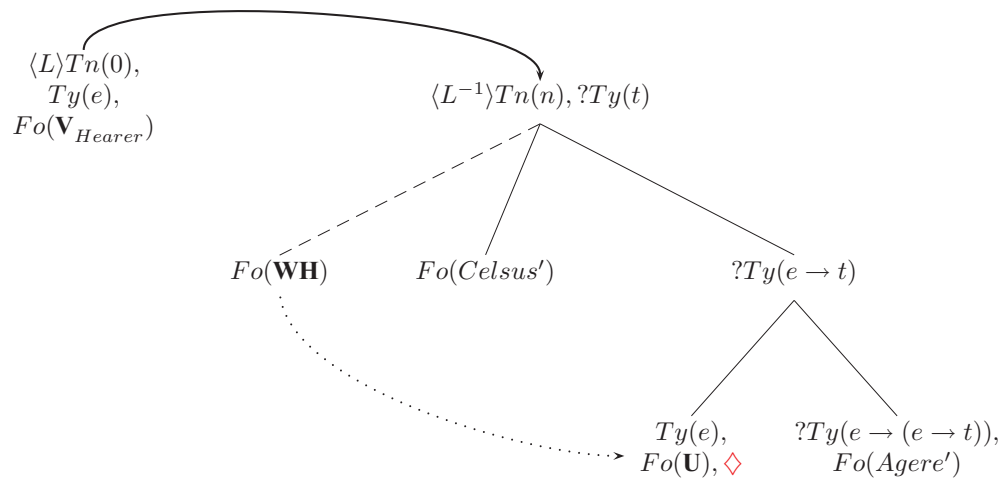
The additional parsing strategy we will introduce shares with the first two strategies described the effect that parsing of the NP is on an unfixed node. However, the difference lies in the fact that no case information is projected on the unfixed node. In that sense, neither fixing of the node nor filtering of the potential fixing sites of the unfixed node is possible. A natural candidate for the use of this strategy will be a highly syncretized noun, e.g. a fourth declension Latin neuter noun, such as *cornus* 'cornel tree':[7]

(33) Parsing *cornus*

LOCAL *ADJUNCTION   *Cornus*

$$Tn(0), ?Ty(t) \qquad \mapsto \qquad Tn(0), ?Ty(t)$$

$$\langle\uparrow_1^*\rangle Tn(0) \qquad\qquad \langle\uparrow_1^*\rangle Tn(0),\ ?Ty(e \rightarrow t)$$

$$?Ty(e), \diamond \qquad\qquad Ty(e), Fo(Cornus'),\ ?\langle\uparrow_0\rangle\langle\uparrow_1^*\rangle ?Ty(t), \diamond$$

What we are going to argue is that these four parsing strategies used in Latin scrambling became lexicalized and even though some of them got lost as general language strategies in Spanish (via loss of case-marking), most of them got encoded lexically in the entries for clitic pronouns, in which case marking is still active (albeit highly syncretic). According to this story, each clitic matches one or more of the described strategies. The constructive case strategy has already been exemplified, although implicitly, by the entries given for the MedSp and RenSp 3rd person accusative clitic *lo* in (26) and (27). According to these lexical entries, the clitic builds and decorates the direct object node, in effect producing a fixed structure. This action is nothing else than the outcome of constructive

---

[7]Note that the fact that a noun exhibits some syncretism does not mean that constructive or output filter case is no longer possible. What we need to further look at is which cases in the paradigm are syncretized. For example 3rd declension nouns are always syncretized for nominative/accusative. However, this does not mean that no accusative case filter can be projected in this case, since nominative can be always parsed as a link under standard DS assumptions (Cann et al. 2005).

case use, in which case information eventually fixes the node's address. On the other hand, 1st/2nd person clitics in Spanish being syncretized are assumed to project a locally unfixed node without any such form of update, in effect matching the third parsing strategy presented. Furthermore, 3rd person dative clitics, even though non-syncretic, are also assumed to project locally unfixed nodes, since their function is still underspecified (indirect and direct objects, possessives, benefactives/malefactives). Putting all these assumptions together, we end up with the following entries for ModSp *lo, le* and *me/te* respectively:

(34) Lexical entry for Modern Spanish accusative clitic *lo*

$$
\begin{array}{lll}
\text{IF} & ?Ty(t) \\
\text{THEN} & \text{IF} & [\downarrow_1^+]?Ty(x) \quad \lor \\
& & [NON-FINITE+] \\
& \text{THEN} & \mathsf{make}(\langle\downarrow_1\rangle); \mathsf{go}(\langle\downarrow_1\rangle); \\
& & \mathsf{make}(\langle\downarrow_0\rangle); \mathsf{go}(\langle\downarrow_0\rangle); \\
& & \mathsf{put}(Ty(e), Fo(\mathbf{U}_{Male/Neuter}), ?\exists x.Fo(x)); \\
& & \mathsf{gofirst}(?\text{Ty(t)}) \\
& \text{ELSE} & \text{abort}
\end{array}
$$

(35) Lexical entry for Modern Spanish dative clitic *le*

$$
\begin{array}{lll}
\text{IF} & ?Ty(t) \\
\text{THEN} & \text{IF} & [\downarrow_1^+]?Ty(x) \quad \lor \\
& & [NON-FINITE+] \\
& \text{THEN} & \mathsf{make}(\langle\downarrow_1^*\rangle); \mathsf{go}(\langle\downarrow_1^*\rangle); \\
& & \mathsf{make}(\langle\downarrow_0\rangle); \mathsf{go}(\langle\downarrow_0\rangle); \\
& & \mathsf{put}(\langle\uparrow_0\rangle\langle\uparrow_1^*\rangle?Ty(t), Ty(e), Fo(\mathbf{U}_{Male/Neuter}), \\
& & ?\exists x.Fo(x), ?\exists x.Tn(x)); \\
& & \mathsf{gofirst}(?Ty(t)) \\
& \text{ELSE} & \text{abort}
\end{array}
$$

(36) Lexical entry for Modern Spanish syncretic clitics *me/te*

$$
\begin{array}{lll}
\text{IF} & ?Ty(t) \\
\text{THEN} & \text{IF} & [\downarrow_1^+]?Ty(x) \quad \lor \\
& & [NON-FINITE+] \\
& \text{THEN} & \mathsf{make}(\langle\downarrow_1^*\rangle); \mathsf{go}(\langle\downarrow_1^*\rangle); \\
& & \mathsf{make}(\langle\downarrow_0\rangle); \mathsf{go}(\langle\downarrow_0\rangle); \\
& & \mathsf{put}(\langle\uparrow_0\rangle\langle\uparrow_1^*\rangle?Ty(t)), Ty(e), Fo(\mathbf{U}_{Speaker/Hearer}), \\
& & ?\exists x.Fo(x), ?\exists x.Tn(x)); \\
& & \mathsf{gofirst}(?Ty(t)) \\
& \text{ELSE} & \text{abort}
\end{array}
$$

Given the above lexical entries, the PCC is straightforwardly accounted via a hard-wired processing constraint, namely the fact that no more than one unfixed node with the same underspecified address will ever be possible, since by definition two such nodes will collapse into one by means of tree-node identity. Assuming that 1st/2nd person and dative clitics project locally unfixed nodes, no combinations of these clitics will ever be made possible,

thus the PCC. Let us go into more detail. Assuming that we want to parse the illicit *me te* combination, we first parse the 1st person clitic *me*. This will project a locally unfixed node along with its type value and metavariable specifications. However, as soon as *te* gets parsed and projects another locally unfixed node, these two nodes collapse into one. What we are left with is one node carrying incompatible formula metavariables, as shown in red in the second step below:

(37) Parsing the clitic cluster *me te*

<div align="center">

Parsing *me*   Parsing *me te*

$Tn(a), ... ?Ty(t), \diamondsuit \quad \mapsto \qquad Tn(a), ... ?Ty(t), \diamondsuit$

$\langle \uparrow_1^* \rangle Tn(a), ?\text{Ty(x)} \qquad\qquad \langle \uparrow_1^* \rangle Tn(a), ?\text{Ty(x)}$

$\langle \uparrow_0 \rangle \langle \uparrow_1^* \rangle Tn(a), \qquad\qquad \langle \uparrow_0 \rangle \langle \uparrow_1^* \rangle Tn(a),$
$Ty(e), Fo(\mathbf{U}_{Speaker'}), \qquad Ty(e), Fo(\mathbf{U}_{Speaker'}), Fo(\mathbf{V}_{Hearer})$
$?\exists x. Fo(x), ?\exists x. Tn(x) \qquad\qquad ?\exists x. Fo(x), ?\exists x. Tn(x)$

</div>
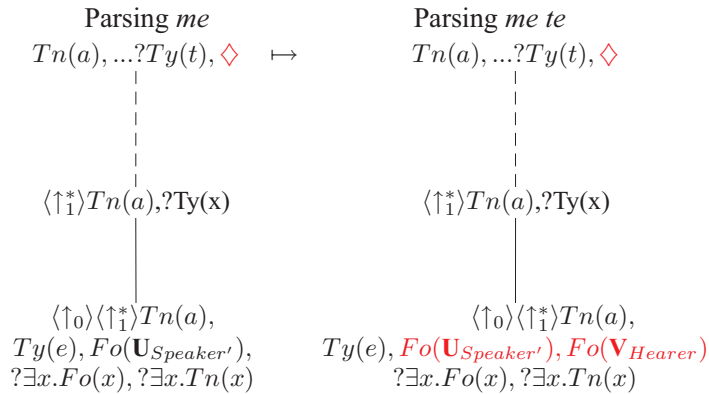
Under the present account the PCC is derived by an entirely general processing constraint, a restriction on under-specification. A further welcomed result is that the current account predicts that substituting one of the clitics of the illicit combinations with a strong pronoun will render the sentence grammatical. This is because strong pro-nouns on a par with full NPs are analyzed in DS as involving a $?Ty(e)$-trigger, provided either by the verb itself or via an unfixed but not a locally unfixed node. The reason strong pronouns are parsed as decorating an unfixed but not a locally unfixed node is that strong pronouns can also appear outside their domain of interpretation (left dislocation), in which case the rule of LOCAL *ADJUNCTION would produce the wrong results. Two (or more) underspecified nodes, as long as these are encoded by different underspecified modalities, are predicted to be pos-sible according to the system. This is what happens in the case of a preverbal strong pronoun plus a syncretized clitic. Within this line of reasoning, combinations of a 1st/2nd person clitic and a strong pronoun are predicted to be grammatical by our account, which is indeed the case.[8]

The analysis provided for Spanish extends naturally to other PCC languages like French or Italian. However, strong PCC languages like Greek seem to pose a problem for such an analysis. This is because in Greek 1st/2nd person singular clitics are non-syncretized. In that respect, 1st/2nd person accusative clitics will have to be encoded as fixed, some might argue. Before we abandon the account proposed as inadequate for Greek, let us first look at the nature of non-syncretism with 1st/2nd person clitics. First of all, non-syncretism is only partial for 1st/2nd person clitics in Greek, since their plural counterparts are syncretized with respect to case (*mas*.1PL, *sas*.2PL), in contrast to 3rd person clitics that are non-syncretic across the board. Assuming a unitary analysis of 1st/2nd person clitics in Greek, we will either have to encode plural clitics as projecting fixed nodes or singular clitics as projecting unfixed nodes. The first option is clearly on the wrong track, since it will predict that plural 1st/2nd person clitics

---

[8]It is a well known fact that ethical datives escape the PCC (Ormazabal & Romero 2007; Kempson & Chatzikyriakidis 2009 among others). Assuming the development of an alternative parsing strategy for 1st/2nd person clitics that basically parses the clitic as a linked structure, in effect matching the third strategy mentioned, such a fact is straightforwardly captured. See Kempson & Chatzikyriakidis (2009) for the exact formulation and argumentation.

can be interpreted as either direct or indirect objects but not both. On the other hand, the second option can be naturally encoded given what we have said, assuming that 1st/2nd person accusative clitics, even though unfixed, they do project a case requirement that acts as a filter on output but nevertheless does not fix the node itself. Under such an analysis, the PCC is captured within the same mechanisms in both the Greek and the Spanish case. The lexical entry for 1st/2nd person accusative clitics in Greek is shown below:

(38)   Lexical entry for Greek 1st/2nd accusative clitics

$$
\begin{array}{lll}
\text{IF} & ?Ty(t) & \\
\text{THEN} & \text{IF} & [\downarrow_1^+]?Ty(x) \quad \lor \\
& & Mood(Imp) \\
& \text{THEN} & \mathsf{make}(\langle\downarrow_1^*\rangle);\mathsf{go}(\langle\downarrow_1^*\rangle); \\
& & \mathsf{make}(\langle\downarrow_0\rangle);\mathsf{go}(\langle\downarrow_0\rangle); \\
& & \mathsf{put}(\langle\uparrow_0\rangle\langle\uparrow_1^*\rangle?Ty(t), Ty(e), Fo(\mathbf{U}), \\
& & ?\exists x.Fo(x), ?\exists x.Tn(x), ?\langle\uparrow_0\rangle(Ty(e \to t))); \\
& & \mathsf{gofirst}(?Ty(t)) \\
& \text{ELSE} & \mathsf{abort}
\end{array}
$$

The difference then between 1st/2nd person clitics in Spanish and 1st/2nd person accusative clitics in Greek is that the latter, even though they also project a locally unfixed node, further project a statement $(?\langle\uparrow_0\rangle(Ty(e \to t)))$ which acts as a filter on output, ensuring that the locally unfixed node will be updated into the direct object node at some point. On the other hand, dative clitics in Greek, even though non-syncretized, do not need such a case filter, since their interpretation is still not determined given that dative clitics can also function as direct objects, possessives, and malefactive/benefactive datives as well as indirect objects (see Kempson & Chatzikyriakidis (2009) for the relevant examples and argumentation). In that sense, positing an indirect case filter will exclude all the latter interpretations. Thus, no such case filter is needed for datives in Greek:

(39)   Lexical entry for Greek dative clitics

$$
\begin{array}{lll}
\text{IF} & ?Ty(t) & \\
\text{THEN} & \text{IF} & [\downarrow_1^+]?Ty(x) \quad \lor \\
& & [NON-FINITE+] \\
& \text{THEN} & \mathsf{make}(\langle\downarrow_1^*\rangle);\mathsf{go}(\langle\downarrow_1^*\rangle); \\
& & \mathsf{make}(\langle\downarrow_0\rangle);\mathsf{go}(\langle\downarrow_0\rangle); \\
& & \mathsf{put}(\langle\uparrow_0\rangle\langle\uparrow_1^*\rangle?Ty(t), Ty(e), Fo(\mathbf{U}), \\
& & ?\exists x.Fo(x), ?\exists x.Tn(x)); \\
& & \mathsf{gofirst}(?Ty(t)) \\
& \text{ELSE} & \mathsf{abort}
\end{array}
$$

To recap, we have argued that clitics encode parsing strategies for scrambling of an earlier system. Each of the clitics encodes one or more of these strategies. In effect, the clitics in Spanish and Greek can be seen as vestiges of the earlier freer scrambling system (Latin and Ancient Greek respectively). Assuming that 1st/2nd person and dative clitics project locally unfixed nodes, the PCC is directly explained as a processing constraint in which no more than one unfixed node with the same underspecified modality can be present. The PCC is thus reduced to a hard-wired general constraint and no feature stipulations or added framework machinery is needed.

3 Conclusions

We have argued that the clitic systems of MedSp and RenSp as well as the PCC can be accounted for assuming that clitics constitute calcified processing strategies of the Latin scrambling system. In the case of RenSp positioning, it was shown that reanalysis of the different parsing strategies by the parser gives rise to syntactic change. In the same vein, we have argued that the actual actions induced by the clitics match one or more of these strategies of the earlier Latin system (or Ancient Greek one in the case of Greek). Then, we have argued that 1st/2nd clitics as well as dative clitics project locally unfixed nodes with no immediate form of update or case filter, while 3rd person accusative clitics, on the other hand, project fixed structure. Given that no more than one unfixed node with the same underspecified modality is possible, combinations of 1st/2nd person clitics with a dative are predicted to be impossible within such an account, thus the PCC.

References

Academia de la Llingua Asturiana, 2001. Gramática de la llingua asturiana. Oviedo: Academia de la Llingua Asturiana.

Arias Alvarez, B., 1995. Colocación de los pronombres átonos en *El libro de los gatos*. In: González, A., L. von der Walde and C. Company (eds), Palabra e imagen en la Edad Media. Mexico City: Universidad Nacional Autónoma de México, 113–125.

Adger, D. and Harbour, D., 2007. Syntax and Syncretisms of the Person Case Constraint. Syntax 10, 2–37.

Alvarez Blanco, M.R., Reguiera, X.L. and Monteagudo, H., 1986. Gramática galega. Vigo: Galaxia.

Anagnostopoulou, E., 2003. The Syntax of Ditransitives: Evidence from Clitics. Berlin/New York: Mouton de Gruyter.

Anagnostopoulou, E., 2005. Strong and Weak Person Restrictions: A Feature Checking Analysis. In: Heggie, L. and Ordonez, F. (eds), Clitics and Affixation. Amsterdam/Philadelphia: John Benjamins, 199–235.

Blackburn, P. and Meyer-Viol, W., 1994. Linguistics, Logic and Finite Trees. Bulletin of Interest Group of Pure and Applied Logics 2, 2–39.

Bianchi, V., 2006. On the Syntax of Personal Arguments. Lingua 116, 2023–2067.

Bonet, E., 1991. Morphology after Syntax: Pronominal Clitics in Romance. PhD Dissertation, Cambridge, MA: MIT.

Bonet, E., 1994. The Person Case Constraint: A Morphological Approach. In: Harley, H. and Philips, C. (eds), The Morphology Syntax Connection. Cambridge, MA: MIT, 33–52.

Bonet, E., 2007. The Person Case Constraint and Repair Strategies. In: Alessandro, R., Fischer, S. and Hrafnbjanson, G. H. (eds), Person Restrictions. Berlin/New York: Mouton de Gruyter, 103-128.

Bouzouita, M., 2007. Processing Factors in Syntactic Variation and Change: Clitics in Medieval and Renaissance Spanish. In: Salmons, J. C. and Dubenion-Smith S. (eds.), Historical Linguistics 2005: Selected papers from the 17th International Conference on Historical Linguistics, Madison, 31 July-5 August 2005. Amsterdam/Philadelphia: John Benjamins, 51-71.

Bouzouita, M., 2008a. The Diachronic Development of Spanish Clitic Placement, PhD Dissertation, London: King's College London.

Bouzouita, M., 2008b. At the Syntax-Pragmatics Interface: Clitics in the History of Spanish. In: Cooper, R. and Kempson, R. (eds), Language Evolution and Change. London: College Publications, 223–265.

Bouzouita, M., 2008c. Modelling Syntactic Variation. Diálogo de la lengua 1: 15–39.

Bouzouita, M., forthcoming. Future Constructions in Medieval Spanish: Mesoclisis Uncovered. In: Gregoromichelaki, E. and Kempson, R. (eds), At the Lexicon-Syntax Interface. Stanford: CSLI.

Bouzouita, M. and Kempson, R., 2006. Clitic Placement in Old and Modern Spanish: A Dynamic Account. In: Thomsen Nedergaard, O. (ed.), Competing Models of Linguistic Change. Amsterdam/Philadelphia: John Benjamins, 253–268.

Campos, H., 1989. Clitic Position in Modern Gallegan. Lingua 77: 13–16.

Cann, R., Kempson, R. and Marten, L., 2005. The Dynamics of Language. Oxford: Elsevier.

Castillo Lluch, M., 1996. La posición del pronombre átono en la prosa hispánica medieval. PhD Dissertation, Madrid: Universidad Autónoma de Madrid.

Chatzikyriakidis, S., forthcoming. Clitics in Four Dialects of Modern Greek: A Dynamic Account. PhD Dissertation, London: King's College London.

D'Andres Diaz, R., 1993. Allugiamentu de los pronomes átonos col verbu n'asturianu. Oviedo: Universidad de Oviedo.

Eberenz, R., 2000. El español en el otoño de la Edad Media. Sobre el artículo y los pronombres. Madrid: Gredos.

Granberg, R.A., 1988. Object Pronoun Position in Early and Medieval Spanish. PhD Dissertation, Los Angeles, CA: University of California Los Angeles.

González i Planas, F., 2007. Sintaxis de los clíticos pronominales en asturleonés. Ianua. Revista Philologica Romanica 7: 15–35.

Haspelmath, M., 2004. Explaining the Ditransitive Person - Role Constraint. Electronic form article. Available at: http://email.eva.mpg.de/ haspelmt/2004dpr.pdf.

Heap, D. 2005. Constraining Optimality: Clitic Sequences and Feature Geometry. In: Heggie, L. and Ordóñez, F. (eds.), Clitic and Affix Combinations. Amsterdam/Philadelphia: John Benjamins, 81-102.

Kempson, R., Meyer-Viol, W. and Gabbay, D., 2001. Dynamic Syntax: The Flow of Language Understanding. London: Blackwell Publishing.

Kempson, R. and Cann, R., 2007. Production Pressures, Syntactic Change and the Emergence of Clitic Pronouns. Ms., King's College London.

Kempson, R. Cann, R. and Marten, L., 2008. Treegrowth Dynamics. In C. Cristi (ed.) (title tba).

Kempson, R. and Chatzikyriakidis, S., 2009. The Person Case Constraint as a Treegrowth Property. Ms., King's College London.

Keniston, H., 1937. The Syntax of Castilian Prose: the Sixteenth Century. Chicago: University of Chicago Press.

Nevins, A., 2007. The Representation of Third Person and its Consequences for the Person-Case Constraint, Natural Language and Linguistic Theory 25.2: 273–313.

Nieuwenhuijsen, D., 1999. Cambios en la colocación de los pronombres átonos. Phd Dissertation, Groningen: University of Groningen.

Ormazabal, J. and Romero, R., 2007. The Object Agreement Constraint. Natural Language and Linguistic Theory 25, 315-347.

Rezac, M. and Bejar, S., 2003. Person Licensing and the Derivation of PCC Effects. In: Perez-Leroux A. and Roberge,Y., (eds.), Romance Linguistics: Theory and Acquisition, Amsterdam/Philadelpia: John Benjamins, 49–62.

Rezac, M., 2007. The Syntax of Eccentric Agreement: The Person Case Constraint and Absolutive Displacement in Basque. Natural Language and Linguistic Theory, 61–106.

Rezac, M., 2008. Phi across Modules. Ms, University of Nantes.

Sánchez, X. and Rubiera Tuya, C., 1985. Enclisis, proclisis y pronomes átonos n'asturianu. ALLAS, Lletres Asturianes 18: 71–81.

Săvescu, O., 2007. Challenging the Person Case Constraint: Evidence from Romanian. In: Camacho, J., Flores-Ferran, N., Sanchez, L., Deprez, V., Jose Cabrera, M. (eds), Romance Linguistics 2006. Selected Papers from the 36th Linguistic Symposium on Romance Languages (LSRL), New Brunswick, March-April 2006. John Benjamins, 261-274.

Săvescu, O., 2009. A Syntactic Analysis of Pronominal Clitic Clusters in Romance: The View from Romanian. Phd Dissertation, New York: New York University.

Xove Ferreiro, X, 1986. Sobre a posición do pronome persoal átono en galego: eu o sei e eu seino. In: Actes du XXVIIIe Congrès International de Linguistique et Philologie Romanes. Tübingen: Max Niemeyer 2.18: 515-529.

A   Sources and Texts Consulted

DLNE (year, document number) = *Documentos lingüísticos de la Nueva España: Altiplano central*. C. Company Company, Mexico City: Universidad Nacional Autónoma de México, 1994.

Faz. (page) = *La Fazienda de Ultra Mar*. Edition of M. Lazar, Salamanca: Universidad de Salamanca, 1963.