

Syntactic Change: Latin Pronoun Placement, Routinisation of Actions and Reanalysis

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Structure of the Lecture

- Preliminary: syntactic change as routinisations of online processing
- On reducing concepts of topic and focus to progressive tree-growth
- Summarising DS Latin grammar: processing strategies that get frozen
- Modelling in detail the shifts in clitic positioning (main clause):
 - Medieval Spanish and its clitic placement complexity
 - Routinisation and the re-analysis that yields Renaissance Spanish
 - Routinisation and the re-analysis that yields Modern Spanish
- Summary and reflections

Tree-growth Mechanisms, Production Pressures, Syntactic Change?

- The case study of diachronic development of Spanish object clitics, as calcifications of:
 - (a) linearisation choices for weak pronoun positioning (Lecture IV),
 - (b) different strategies for building nodes and updating associated with different clitics (Lecture V)

The emergent clitic positioning in Medieval Spanish (MedSp) from Latin

- Shift from Latin ‘weak’ pronouns to complex environments licensing MedSp clitic pronouns
 - Shift from MedSp to Renaissance Spanish (RenSp) to Modern variants (ModSp), progressively simplifying triggering conditions
- Clitics as calcified processing/tree-growth strategies
 - structural processes underpinning interpretation build-up in free word order systems (Latin) as point of departure;
 - production (relevance) pressures determine:
 - (i) Latin given-before-new preference on NP sequencing and
 - (ii) subsequent alternating sequences of:

routinisation precedes system-shift

Latin ‘Weak’ Pronouns - the Point of Departure

Appearing in early position in the clause (often observed):

- (1) *quae tibi nulla debetur*
 which_{neut,pl} you_{dat} no_{neut,pl} is owed
 ‘Nothing of which is owed to you.’ [rel.pro.+pron]
- (2) *Nihil me aliud consolatur*
 nothing me_{acc} other_{neut,sg,nom} it consoles
 ‘Nothing else gives me comfort.’ [neg+pron]
- (3) *rogo ut mi mittas dalabram*
 I ask that me_{dat?} you send mattock
 ‘I ask you to send to me a mattock.’ [complementiser+pronoun]
- (4) *delectarunt me tuae litterae*
 delighted me your letter
 ‘I was delighted with your letter.’ [verb+pron]
- (5) *Rem tibi Tiro narrabit*
 Thing_{ACC} you_{DAT} Tiro will-tell
 ‘Tiro will tell you about this.’ [NP-pron]
- (6) *Quid mihi divinatio prodest*
 What me_{DAT} divination_{NOM} is-useful
 ‘That use is divination to me?’ [WH-pron]

Similar Clitic Placement in Medieval Spanish

- (7) *Esto es el pan de Dios que vos da a comer*
 this is the bread of God that CL he-gives to eat
 ‘This is the bread of God that he gives you to eat.’ [rel-pro+clitic]
- (8) *E non los hi fallo.*
 and not CL there he-found
 ‘And he did not find them there.’ [negation+clitic]
- (9) *e dixie que lo tenie del prior de S. Johannis*
 and he-said that CL he-had of-the prior of St. John
 ‘And he said that he got it from the prior of St. John.’ [COMP+clitic]
- (10) *Connocio-la Jacob*
 he-recognised-CL Jacob
 ‘Jacob recognised her.’ [Verb+clitic]
- (11) *Et los dioses me quisieron mal e me lo quieren*
 And the gods CL they-want harm and CL CL they-want
 ‘And the gods wanted to harm me & they still want to.’ [NP/conj+cl]
- (12) *Quien te fizo rey?*
 who you made.3sg king
 ‘Who made you king?’ [WH+clitic]

Questions

- The questions clitics raise:

Lecture IV

- To what extent is clitic placement unlike other noun phrases?
- How does its placement shift over time?

Lecture V

- Why do clitics, if there is more than one, occur paired together?
- And why are there language-particular orderings?

No Direct Correspondence between Mechanisms and Topic/Focus

- Contexts as the point of departure for current processing may be constructed, e.g. as linked pairs of structures:

(13) *María, Susana la encontró*

‘Maria, Susanna met her.’

[ModSp]

- At the left-periphery, linked structure and ‘topic’ may coincide.

Topics are:

- EITHER identified within general (minimal) utterance-context

(14) *Te dea_{VOC}, te fugiunt venti_{NOM}*

‘You Goddess, from you, the clouds flee.’

- OR they are a new context, constructed during interpretation process (Devine and Stephens 2006).

(15) *Circum coronas et circum vias ulmos serito* (Cato)

Round the edges of the property and along the roads elms plant

‘Plant elms round the edges of the property and along the roads.’

(16) *Ficos matriscas in loco cretoso et aperto serito*

Marican figs, in a chalky and open place plant

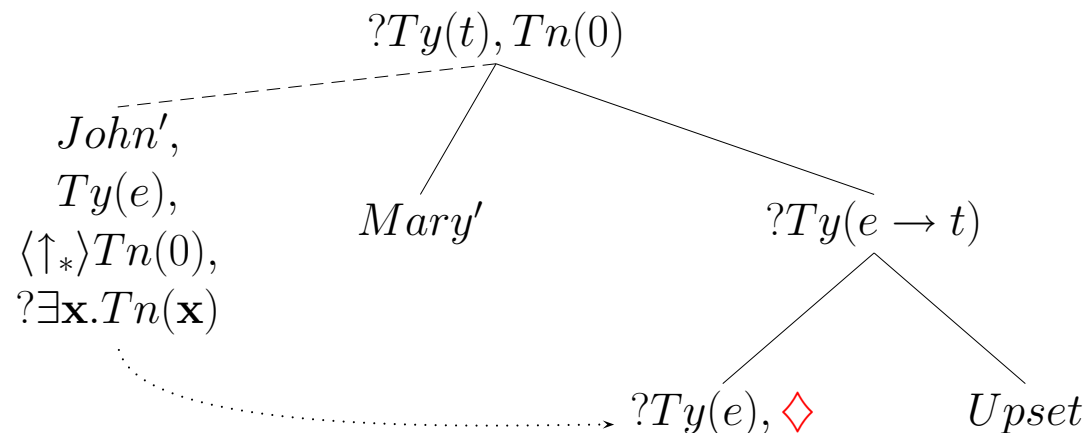
‘Plant Marican figs in a chalky and open place.’

Focus as Update to Create New Propositional Structure

- The propositional structure is constructed with its update

**Adjunction* as a focus device? Not always a novel or contrastive update:

(17) JOHN, Mary upset



Contrastive basis for construal not necessary:

(18) A: John I upset, I'm afraid, though Bill was apparently amused.
 B: Oh, don't worry, John I can ALWAYS cheer up.

End placement of subject often contrastive:

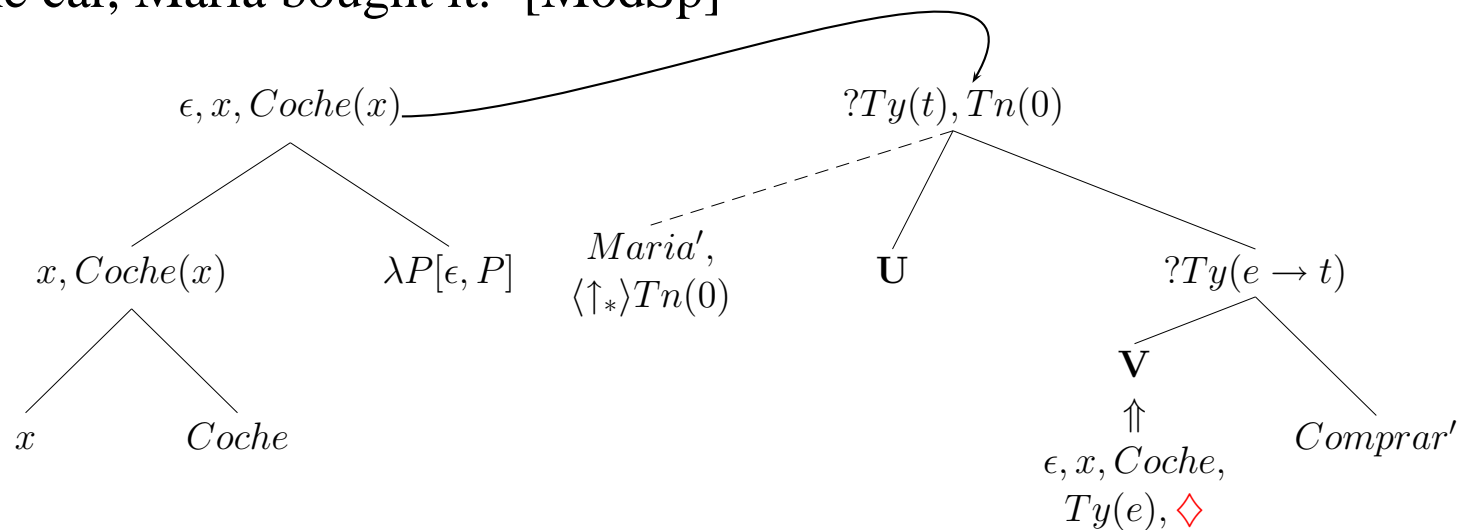
(19) *Te dea*_{VOC}, *te fugiunt venti*_{NOM}
 You Goddess, from you, the clouds flee.

Constructed Context & Constructed Delay in Update Combined

Focus effect is via late placement, not use of **Adjunction*

(20) As for John, he I think should be congratulated.

(21) *El coche, María lo compró*
 ‘The car, Maria bought it.’ [ModSp]



For a subject to be contrastive in Spanish, it is generally postposed.

(22) *El coche lo compró María*
 ‘The car, MARIA bought it’. [ModSp]

Tree Construction Process and Minimising Cognitive Effort

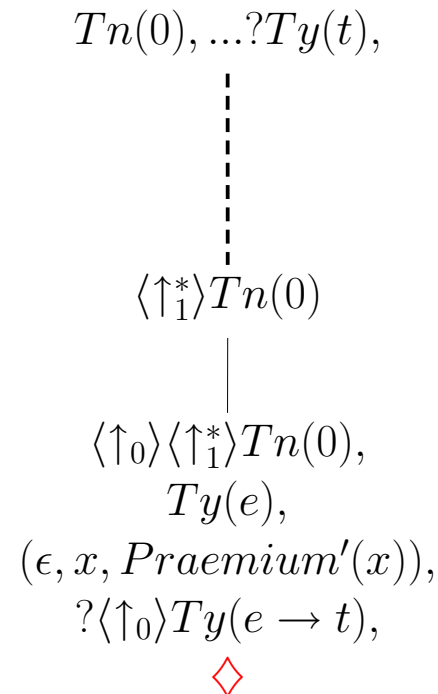
- Relevance as a constraint on optimising cognitive costs relative to establishing intended inferential effects (Sperber and Wilson 1995)
- Minimal-effort constraints determining implementation of
 - Building and updating locally unfixed nodes
 - Building partial structures as contexts for local anaphoric/ellipsis identification
 - Identifying order of choice of operations
 - Making sure that context search for anaphoric/ellipsis identification is minimised

Latin Word Order Variation

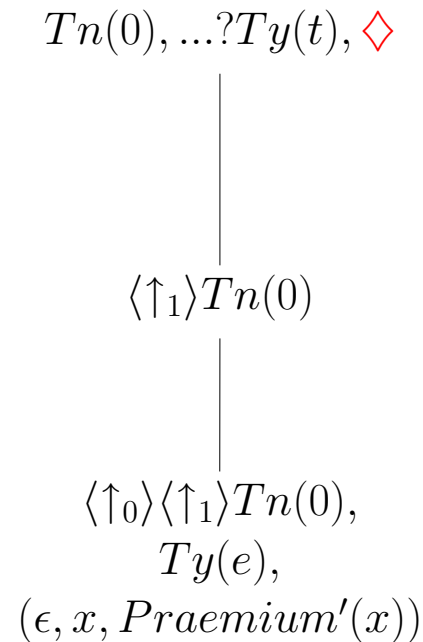
Updating structural underspecification as quickly as possible:

Parsing *Praemium Caesar proposuit*

Parsing *Praemium*



Abduction

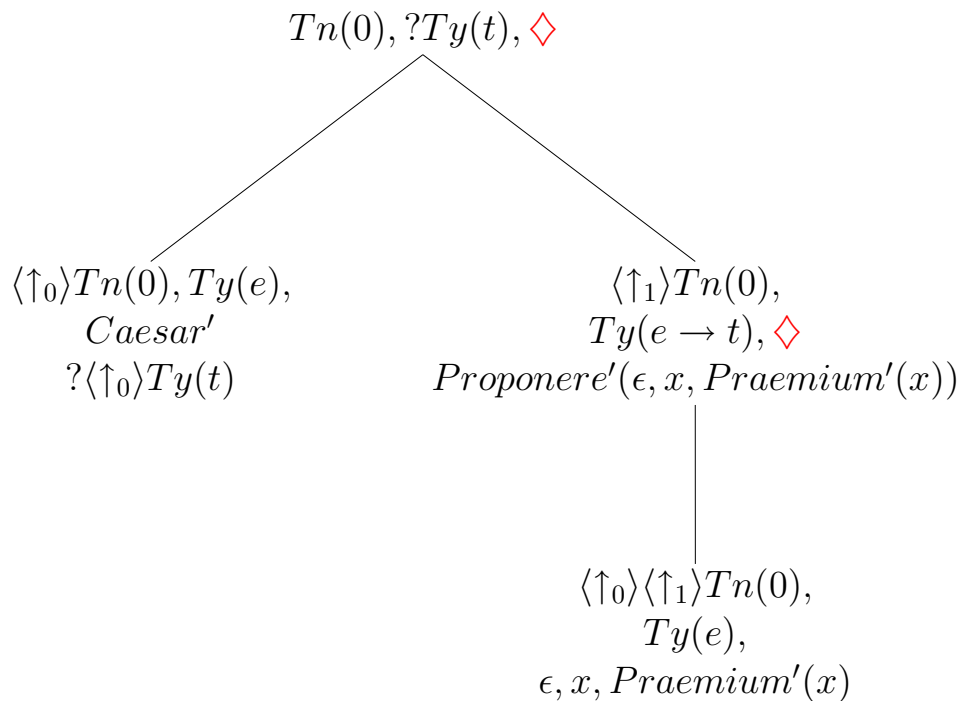


Parsing *praemium*: using case (and animacy) to fix argument node

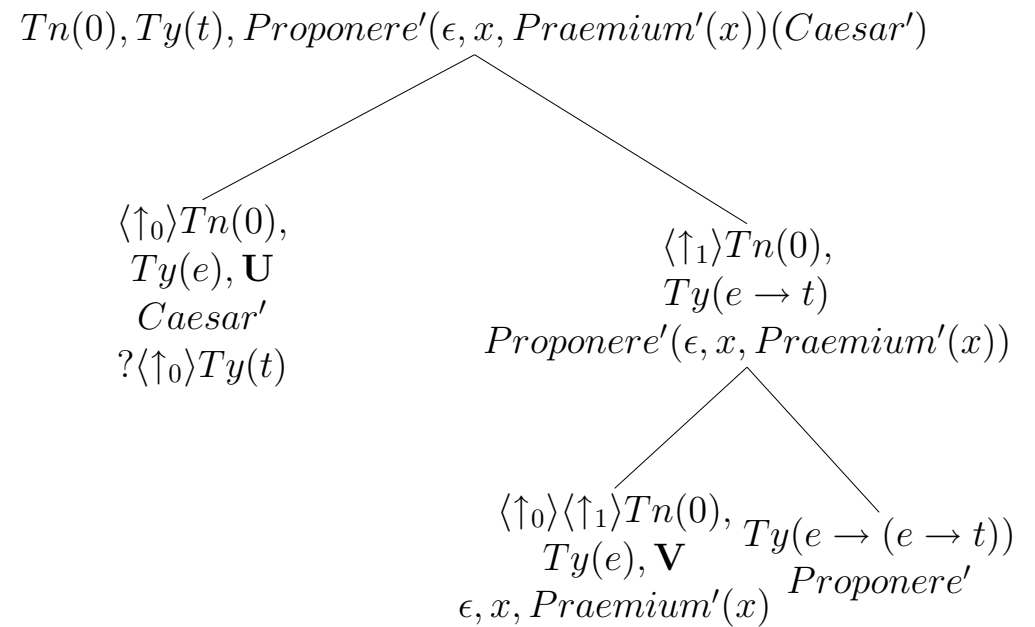
Latin Word Order: Short and Long Scrambling

Parsing *Praemium Caesar proposuit*

Step 1



Step 2

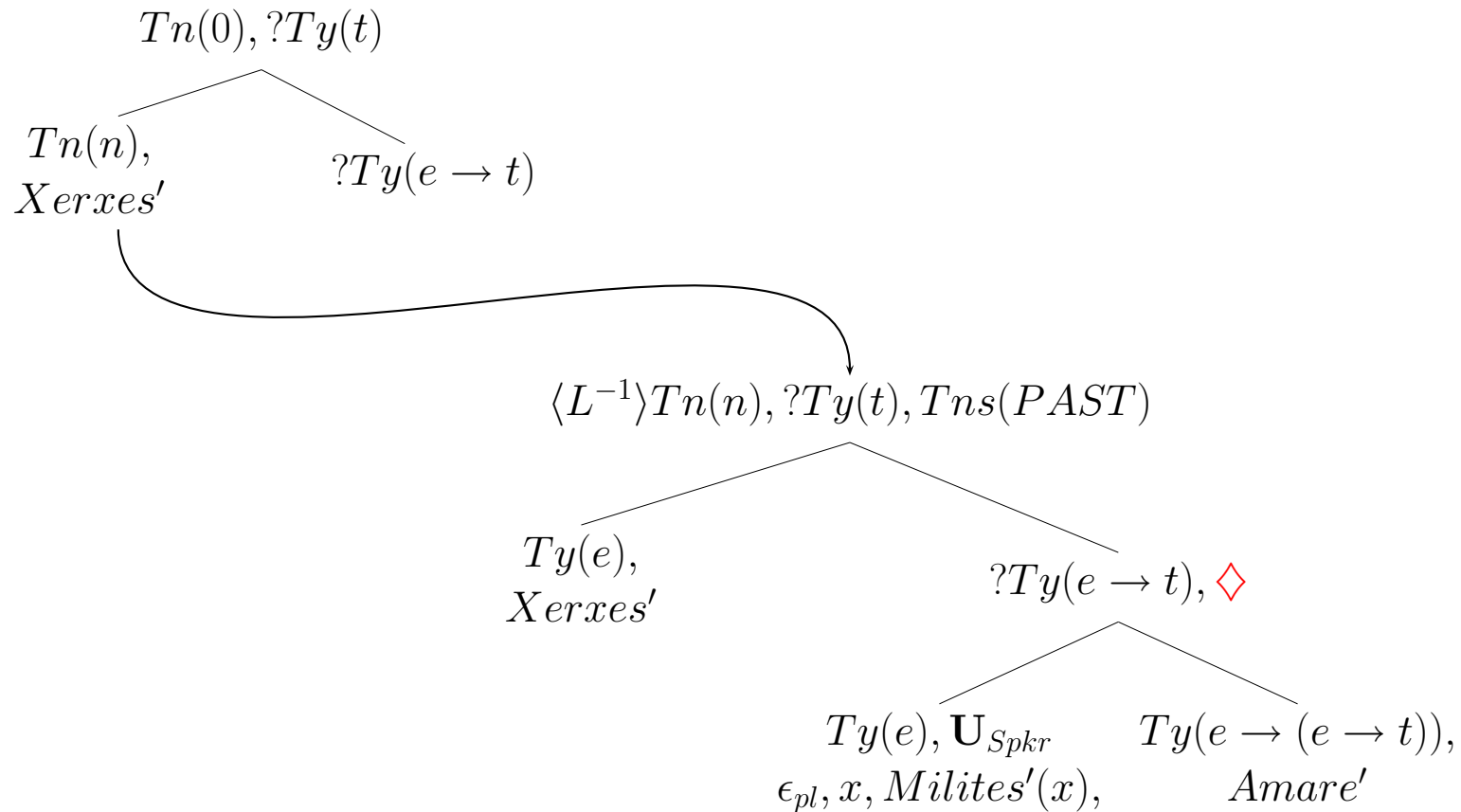


Partial tree with argument nodes provides context for update provided by final verb.

Relative Clauses as Paired Linked Trees

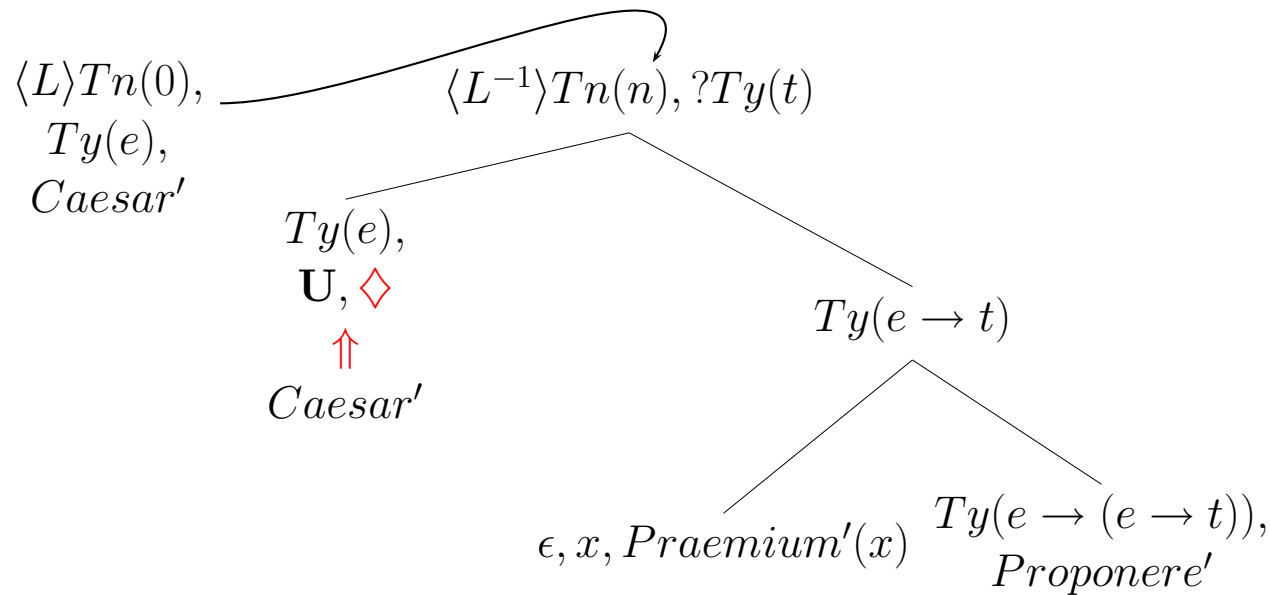
Parsing (*Xerxes, quis nos*) *amabat*

Completing the linked tree provides the context for processing *amabat*:



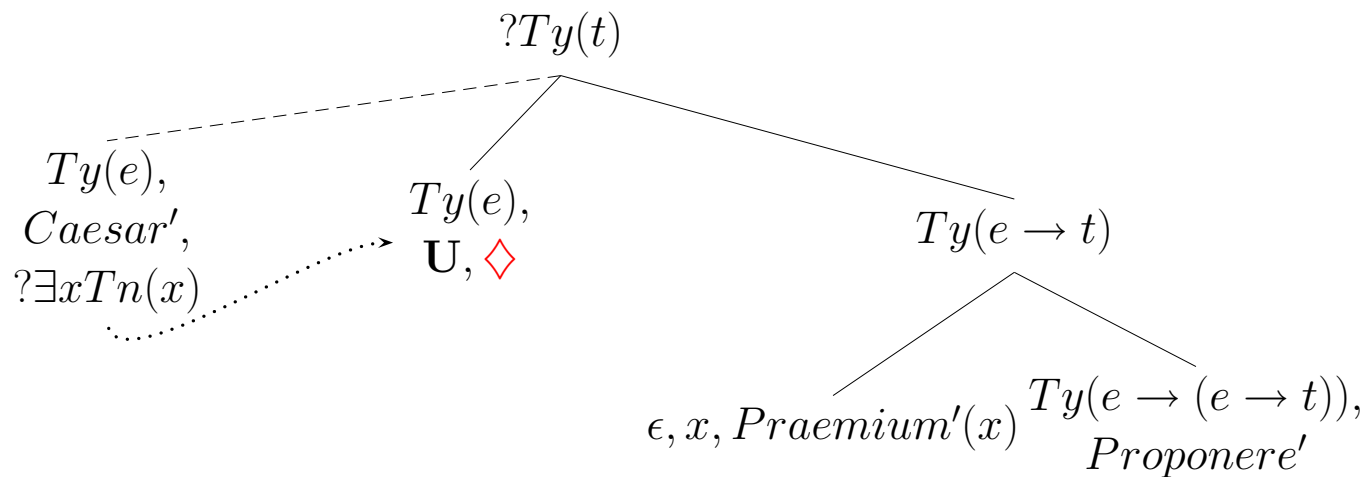
Parsing Alternatives

- Link vs. unfixed-node in pro-drop structures -
 Processing *Caesar praemium proposuit* via
- **Link**: copy provided by *Substitution* of subject metavariable



Parsing Alternatives

- Link vs. unfixed-node in pro-drop structures -
 Processing *Caesar praemium proposuit* via:
- **Unfixed node:** Merge with subject node



Making Generation Context-Dependent

Incremental generation and word-order choice

Anaphora and Context Search:

Anaphoric expressions are used and placed to **minimise** search space in the context

- Words to be interpreted relative to context placed at an early stage in constructing a newly identified emergent propositional structure.

Hence, tendency for **given-new** ordering within each clause

(23) *Plecaremus nos ad Montem Dei. Mons ipse unus esse videtur...*

We turned towards the Mountain of God. That mountain seemed to be one.... [*Peregrinatio Aegeriae*, 4C AD.]

Context Search Minimisation for Strong and Weak Pronouns

- Minimising context search by **early placement** in a string for both strong and weak pronouns:

(i) Left-peripheral stressed pronouns decorate:

linked tree to change context or **unfixed node** for later update.

Both have the effect of identifying an emergent propositional edge:

- a LINK transition onto a type-*t*-requiring tree follows the initial term,
- the unfixed node confirms the type-*t*-requiring tree it initiates

(24) *Apud illos...nihil mathematicis illustrius...At contra oratorem celeriter complexi sumus.*

‘Among them, nothing was more illustrious than mathematicians.

But on the contrary, we rapidly embraced the orator.’

(25) *Mihi enim volo ignosci, ceteris ipse non ignosco*

‘Me I want people to forgive, but the others I do not forgive.’

(26)

A *Tibi ego dem?*
 you_{DAT} I_{NOM} give_{1.sg.prs.sbj}
 Should I give it to you?

B *Mihi hercle vero.*
 me_{DAT} by Hercules truly
 Yes, to me, by god!

The Wackernagel Second Position Effect

(ii) Unstressed are the remainder

Their placement too is driven by minimisation of context:
These pronouns occur as soon as something else determines an emergent propositional edge:

negation, subordinator, focussed/WH expression, relative-pro, verb

- (27) *quae tibi nulla debetur*
which_{neut,pl} you_{dat} no_{neut,pl} is owed
‘Nothing of which is owed to you.’ [rel.pro.+pron]
- (28) *Nihil me aliud consolatur*
nothing me_{acc} other_{neut,sg,nom} it consoles
‘Nothing else gives me comfort.’ [neg+pron]
- (29) *rogo ut mi mittas dalabram*
I ask that me_{dat?} you send mattock
‘I ask you to send to me a mattock.’ [complementiser+pronoun]
- (30) *delectarunt me tuae litterae*
delighted me your letter
‘I was delighted with your letter.’ [verb+pron]

Formalising Syntactic Change

- **Syntactic change** can be triggered and driven by **cognitive pressures** to minimise production costs:
 - Both **processing strategies** and **routinisation** can play important role
- Case study: quantitative and qualitative study of **weak pronoun/clitic positioning** with finite verbs in the history of Spanish:
 - Shift from Latin to 13th and 14th c. Medieval Spanish (MedSp)
 - Shift from MedSp to 16th c. Renaissance Spanish (RenSp)
 - Shift from RenSp to 20th c. Modern Spanish (ModSp)
- Using **Dynamic Syntax** (DS) with interaction of syntactic and pragmatic processes to explain syntactic changes
 - Syntax is defined as the progressive construction of semantic content
 - Parsing and production tightly coordinated
- Progressive ‘simplification’ of triggering environment

Clitic Placement in 13th-14th c. MedSp

- Some characteristics of 13th/14th c. MedSp clitic system

- Variability in clitic placement: **proclisis - enclisis**

E David repintios del mal
 (31) and David repented.3SG-CL of-the evil

‘And David repented the evil.’ (*Faz.*: 141)

Et David lo firma esto
 (32) and David CL states.3SG this

‘And David states this.’ (*Missa*, CDE s.v. *David* [pp*])

- No sentence-initial clitics - **Tobler-Mussafia Law**

* First uncontroversial sentence-initial clitics date from 1438
 (Corbacho)

- No necessary adjacency to verbal form - **interpolation**

(33) *Assi me Dios ayude* [...]

like-this CL God help.3SG [...]

‘May God help me this way [...].’ (*apud* Sánchez Lancis 1992: 327)

Clitic Placement in 13th-14th c. MedSp cont.

- Classification of MAIN CLAUSE DATA according to syntactic environment:
 - **Exclusively preverbal constructions:**
 - * *Wh*-element
 - * Negation
 - * Object complement (not co-referential with clitic)
 - * Prepositional complement
 - * Predicative complement
 - **Exclusively postverbal constructions:**
 - * Verb
 - * Contrastive coordination marker *pero/mas* ‘but’
 - **Variation constructions:**
 - * Subject
 - * Adverbial (including PPs)
 - * Vocative
 - * Coordination marker *e(t)/y* ‘and’
 - * Object NP (co-referential with clitic)
 - * Non-root or absolute clause

Exclusively Preverbal Constructions

1. *Wh*-element + clitic

- (34) *Quien te fyzo rey?*
 who CL made.3SG king
 ‘Who made you king?’ (*Faz.*: 107)

2. Negation + clitic

- (35) *Non los destroyré [...]*
 Not CL will-destroy.1sg [...]
 ‘I will not destroy them [...].’ (*Faz.*: 77)

3. Non-coreferential object complement + clitic

- (36) *Tal galardón me dyo el Criador*
 such prize CL gave.3SG the Creator
 ‘Such a reward did the Lord give me.’ (*Faz.*: 102)

Exclusively Preverbal Constructions cont.

4. Prepositional complement + clitic

- (37) *Con aquellas se aiunto Salomon*
 with those CL slept.3SG Salomon
 ‘With those women, Salomon slept.’ (*Faz.*: 150)

5. Predicative complement + clitic

- (38) *Dia [de] angunstia ed aquexadura nos es est*
 day of anguish and distress CL is.3SG this
 ‘This is a day of anguish and distress for us.’ (*Faz.*: 155)

Exclusively Postverbal Constructions

1. Verb + clitic

- (39) *Enbiol* *Juda un cabrito*
 sent.3SG-CL Juda a little goat
 ‘Juda sent her a little goat.’ (*Faz.*: 52)

- non dixo nada a ninguno;* *fuesse* *desconosçida mente*
 not told.3SG nothing to nobody went.3SG-CL unknown
 (40) *para su casa*
 to his house
 ‘He didn’t say anything to any one, unknown he went to his house.’
 (*Luc.*: XXXVI)

2. Contrastive coordination marker (*pero/mas* ‘but’) + verb + clitic

- (41) *ovo* *muy grand pesar* *pero* *dixoles* *que* [...]
 had.3SG very great grief but told.3SG-CL that [...]
 ‘He had a lot of grief but he told them [...].’ (*Luc.*: XLVI)

- (42) *nin so nombre non me dixo* *mas* *dixom* [...]
 nor his name not CL told.3SG but told.3SG-CL
 ‘Nor did he tell me his name but he told me [...].’ (*Faz.*: 207)

Variation Constructions

1. Subjects

- (43) *e el conde respondiōl que* [...]
 and the count replied.3SG-CL that
 ‘And the count replied him that [...].’ (*Luc.*: XVI)
- (44) *El conde le pregunto commo* [...]
 the count CL asked.1SG how
 ‘The count asked him how [...].’ (*Luc.*: V)

2. Adverbs/Adverbials (including PPs)

- (45) *et agora prísolo*
 and now took.3SG-CL
 ‘And now he took him.’ (*EE.*: 108; *apud* Granberg 1988: 176)
- (46) *Agora me quieres fer matar*
 now CL want.2SG make kill
 ‘Now you want to have me killed.’ (*Faz.*: 122)

Variation Constructions cont.

3. Vocative

- (47) *O mio Sennor, priegot que [...]*
 Oh my Lord beg.1SG-CL that [...]
 ‘Oh my Lord, I beg you that [...].’ (*Faz.*: 121)
- (48) *Madre, plena de gracia, reina poderosa, tú, me guia*
 Mother, full of grace, powerful queen, you CL guide.2SG
 ‘Mother, full of grace, powerful queen, you, guide me.’ (*BMLg.*: 46c-d)

4. Coordination (*e(t)/y* ‘and’)

- (49) *Sonno J. un suenno e contolo a sos ermanos*
 dreamt.3SG J. a dream & told.3sg-CL to his brothers
 ‘Joseph had a dream and he told it to his brothers.’ (*Faz.*: 50)
- (50) *todos los cativo e los levo a Babilonia*
 all CL captured.3SG and CL brought.3SG to Babylon
 ‘He captured them all and took them to Babylon.’ (*Faz.*: 160)

Variation Constructions cont.

5. Coreferential object NP (doubling)

- (51) *al rey mataronle en so lecho sos syervos*
 to-the king killed.3PL-CL in his bed his slaves
 ‘The king, his slaves killed him in his bed.’ (Faz.: 159)
- (52) *todos los cativo e los levo a Babilonia*
 all CL captured.3SG and CL brought.3SG to Babylon
 ‘He captured them all and took them to Babylon.’ (Faz.: 160)

6. Preceding non-root/absolute clauses

- (53) *quant le vyo, dixol [...]*
 when CL saw.3SG said.3SG-CL [...]
 ‘When he saw him, he told him [...].’ (Faz.: 122)
- (54) *antes que saliestes del vientre te santigué*
 before that left.3SG of-the belly CL blessed.1SG
 ‘Before you were born, I blessed you.’ (Faz.: 165)

Subordinate Clauses

Complementiser/Relative Pronoun/...

- Ellos no sabían que lo entendía Josep*
 (55) they not knew.3PL that CL understood.3SG Joseph
 ‘They didn’t know that Joseph understood it.’ (*Faz.*: 55)

- Di a hijos de Israel que prendanse unos blagos*
 (56) tell.imp-2SG ACC sons of Israel that take.3PL-CL some sticks
 ‘Tell the sons of Israel that they find themselves some sticks.’ (*Faz.*: 86)

Clitic Placement in MedSp per Verbal Mood

	Non-imperatives		Imperatives	
	Proclisis	Enclisis	Proclisis	Enclisis
<i>Wh</i> -word	X	-	-	-
Negation	X	-	X	-
Obj. complement	X	-	X	-
Prep. complement	X	-	X	-
Pred. complement	X	-	X	-
Verb	-	X	-	X
<i>Pero/mas</i> 'but'	-	X	-	X
Subject	X	X	X	-*
Adverbial	X	X	X	X
Vocative	X	X	X	X
Coordination	X	X	X	X
Obj. NP (doubling)	X	X	X	X
Non-root/abs. clause	X	X	X	X

* : only wish contexts

Diachronic Changes: 16th c. RenSp

- **Novel preverbal examples** which are not found in MedSp:

- Sentence-initial clitics

- (57) *Se dize publicamente que [...]*
 CL say.3SG publicly that [...]
 ‘Publicly it is being said that [...].’ (DLNE: 1529.9)

- Contrastive coordination marker *pero/mas*

- (58) *pero se hazen ocho o diez géneros de atole*
 but CL made.3PL eight or ten types of atole
 ‘But eight or ten types of *atole* are made.’ (ProbSecr., CORDE s.v. *pero se*)

- Co-referential object NP (doubling) without *todos/ambos*

- (59) *Y este dinero_i lo_i hallares en Sevilla [...]*
 and this money CL will-find.2SG in Seville [...]
 ‘And this money, you will find it in Seville.’ (DLNE: 1574.45)

- Preceding non-root clauses without *antes que*

- (60) *Despues que se partieron [...], me ha enbiado [...]*
 After that CL left.3PL [...], CL has.3SG sent [...]
 ‘After they left, he sent me [...].’ (apud Keniston 1937: 94)

Clitic Placement in RenSp per Verbal Mood

	Non-imperatives		Imperatives	
	Proclisis	Enclisis	Proclisis	Enclisis
<i>Wh</i> -word	X	-	X	-
Negation	X	-	X	-
Obj. complement	X	-	X	-
Prep. complement	X	-	X	-
Pred. complement	X	-	X	-
Verb	X	X	X	X
<i>Pero/Mas</i> 'but'	X	X	X	X
Subject	X	X	X	-*
Adverbial	X	X	X	X
Vocative	X	X	X	X
Coordination	X	X	X	X
Obj. NP (doubling)	X	X	X	X
Non-root/abs. clause	X	X	X	X

* : only wish contexts

Diachronic Changes: 20th c. ModSp

- **Towards a verb-centered system:**

- Only preverbal placement for non-imperative verbs
(irrespective of syntactic environment)

(61)

¿Te hacían muchas preguntas?
CL made.3PL a-lot-of questions
‘Did they ask you a lot of questions?’
(*Habla*: 2.30)

**¿Hacíante muchas preguntas?*
made.3PL-CL a-lot-of questions
‘Did they ask you a lot of questions?’

- Postverbal placement is restricted to imperative verbs

<p>(62) <i>Cuéntame cómo es</i> tell.2SG-CL how is.3SG ‘Tell me how it is.’ (<i>Habla</i>: 2.26)</p>	<p>*<i>Me cuenta cómo es</i> CL tell.2SG how is.3SG Intended: ‘Tell me how it is.’</p>
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<p>(63) <i>No me hables</i> not CL talk.2SG ‘Don’t talk to me.’ (<i>Habla</i>: 2.22)</p>	<p>*<i>No hables-/hábla-me</i> not talk.2SG-CL Intended: ‘Don’t talk to me.’</p>
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Clitic Placement in ModSp per Verbal Mood

	Non-imperatives		Imperatives	
	Proclisis	Enclisis	Proclisis	Enclisis
<i>Wh</i> -word	X	-	-	-
Negation	X	-	X	-
Obj. complement	X	-	-	X
Prep. complement	X	-	-	X
Pred. complement	X	-	-	X
Verb	X	-	-	X
<i>Pero/Mas</i> 'but'	X	-	-	X
Subject	X	-	X*	-*
Adverbial	X	-	X*	X
Vocative	X	-	-	X
Coordination	X	-	X*	X
Obj. NP (doubling)	X	-	-	X
Non-root/abs. clause	X	-	-	X

* : only wish contexts

Occurrence of Proclisis in Spanish Root Clauses

• Change towards proclisis completed?

	13th c.	14th c.	16th c.	20th c.
<i>Wh</i> -word	100% (41/41)	-	100% (1/1)	100% (49/49)
Negation	100% (168/168)	100% (39/39)	100% (33/33)	100% (99/99)
Obj. complement	100% (18/18)	100% (6/6)	100% (11/11)	100% (5/5)
Prep. complement	100% (10/10)	100% (4/4)	100% (5/5)	100% (6/6)
Pred. complement	100% (6/6)	-	-	-
Verb	0% (0/335)	0% (0/1)	20% (3/15)	77% (115/150)
Root clause	0% (0/34)	0% (0/1)	100% (1/1)	82% (47/57)
<i>Pero/Mas</i>	0% (0/3)	0% (0/7)	25% (1/4)	73% (11/15)
Subject	69% (114/165)	62% (58/94)	100% (67/67)	100% (101/101)
Adverbial	70% (118/169)	48% (28/58)	96% (73/76)	91% (170/186)
Vocative	0% (0/14)	0% (0/3)	100% (1/1)	-
Coordination	2% (23/997)	1% (1/158)	62% (31/50)	95% (79/83)
Obj. NP (doubling)	19% (5/27)	67% (4/6)	100% (17/17)	100% (24/24)
Non-root/absol. clause	8% (3/39)	0% (0/61)	38% (8/21)	91% (21/23)
TOTAL	25% (506/2026)	32% (140/438)	83% (252/302)	91% (727/798)

Diachronic Changes in Numbers

Occurrence of Proclisis in Root Clauses per Verbal Form

	13th c.	14th c.	16th c.	20th c.
Non-imperatives	25% (445/1771)	32% (130/410)	88% (215/244)	100% (723/723)
Imperatives	24% (61/255)	36% (10/28)	64% (37/58)	5% (4/75)
Total	25% (506/2026)	32% (140/438)	83% (252/302)	91% (727/798)

Occurrence of Proclisis in Non-Root Clauses

	13th c.	14th c.	16th c.	20th c.
NON-ROOT CLAUSES	98.9% (605/612)	99.5% (838/842)	99.7% (765/767)	100% (442/442)

Interpolation in MedSp

- **No verbal adjacency** necessary with preverbal placement:

(64) *Ont me yo loo mucho de la tu amor*
 thus CL I praise.1SG a lot of the your love
 ‘Thus I praise your love a lot.’ (*Faz.*: 43)

(65) *Qui lo fer non quisiessse [...]*
 who CL do not want.3SG
 ‘Those who do not want to do it [...].’ (*apud* Sánchez Lancis 1993: 327)

- **Where?** In root and non-root clauses (*contra* Chenery 1905)
- **Multiple** interpolation possible (reflex of freedom of Latin word order)
- **Range of interpolated constituents:** (Castillo Lluch 1998, Sánchez Lancis 1993)
 - negation adverbs (e.g. *non*)
 - adverbs/PPs
 - subject pronouns (e.g. *yo*)
 - subject NPs
 - strong pronouns
 - object NPs
 - infinitives (e.g. *fer*)

Interpolation in RenSp

- Occurrence of interpolation **decreases** sharply after the 14th c.
(Eberenz 2000: 166)
- Is loss of interpolation a **concomitant change** with other clitic placement changes?
 - First novel proclisis cases: beginning of 15th c. (1438) (Granberg 1988)
 - Last known interpolation examples: end of 16th c. (1594)
(Keniston 1937; Rini 1990)

(66) *Le yo daré*
 CL I will-give.1sg
 ‘I will give her [...].’ (15th c.; *Corbacho*: 264)

⇒ Interpolation disappeared **after** novel preverbal cases are attested

- ‘Re-bracketing’ view of change is too **simplistic**: (in syntax, not phonology)

$$[X + Cl] + (X) + V > (X) + [Cl + V]$$

$$[X + Cl] + (X) + V > (X) + Cl + (X) + V > (X) + [Cl + V]$$

DS Analyses for MedSp Clitic Placement

1. Exclusively Preverbal Constructions

- *Wh*-element
- Negation
- Object complement
- Prepositional complement
- Predicative complement

⇒ All – except negation – can be represented as decorating a left-peripheral **unfixed node**

2. Exclusively Postverbal Constructions

- Verb
- *Pero/mas* ‘but’

⇒ **no unfixed node** present

3. Variation Constructions

- Subject
- Adverbial
- Vocative
- Coordination
- Object NP (doubling)
- Preceding non-root clauses

Variation within a single grammar due to the **availability of different processing strategies** for the same string

Exclusively Preverbal Constructions

- Construction of **unfixed node** (in *wh*-questions, object, prepositional & predicative complement constructions)

(67) *Quien te fyzo rey?*
 who CL made.3SG king
 ‘Who made you king?’ (*Faz.:* 107)

Parsing a Wh-Word

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

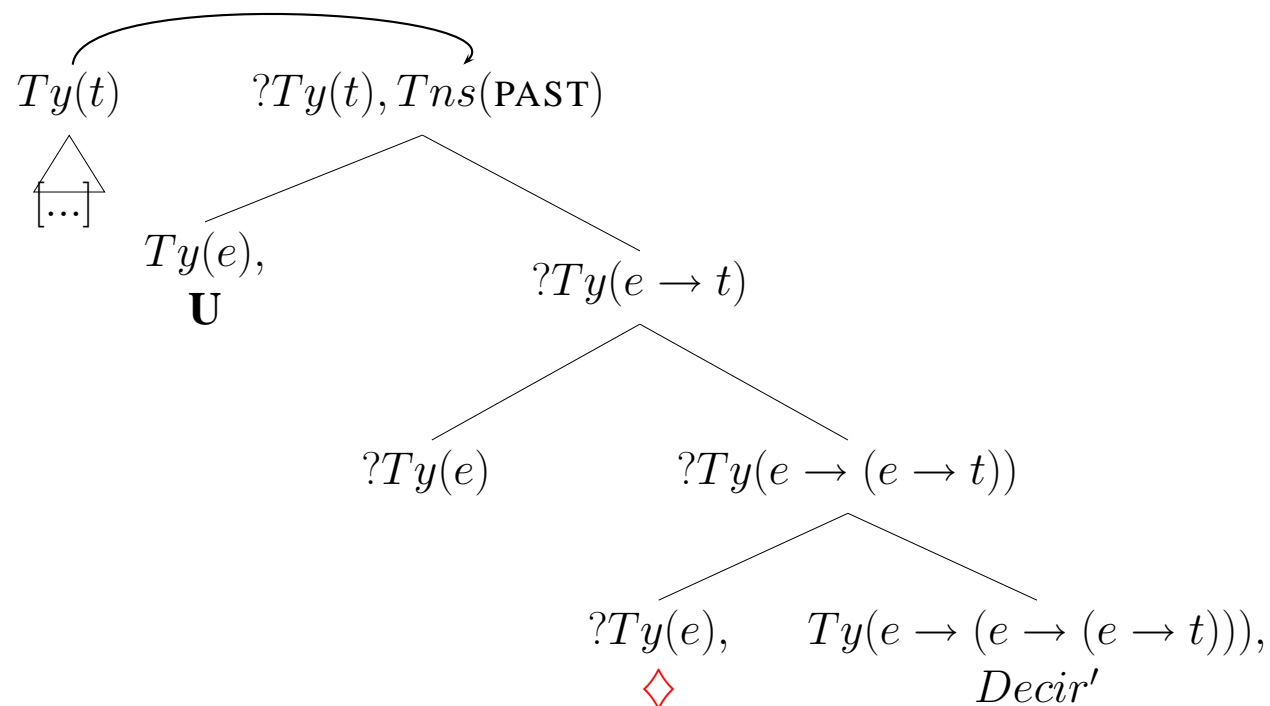
$Ty(e), WH,$
 $\langle \uparrow_* \rangle Tn(0),$
 $? \exists x. Tn(x), \diamond$

Exclusively Postverbal Constructions

- Construction of **fixed nodes** with/without linked structures (for verb-initial clauses, contrastive coordination with *pero/mas* ‘but’)

nin so nombre non me dixo mas dixom [...]
 (68) nor his name not CL told.3SG but told.3SG-CL
 ‘Nor did he tell me his name but he told me [...].’ (*Faz.*: 207)

Parsing ‘mas dixo-’



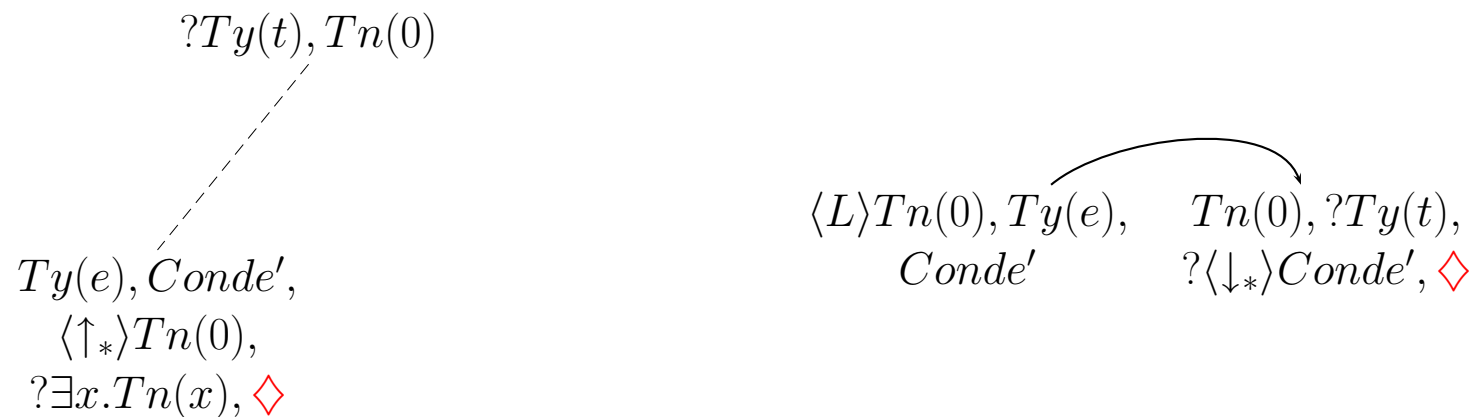
Variation Constructions

- Availability of **different processing strategies** (e.g. left-peripheral subjects, adverbials, etc.)

(69) *e el conde respondiolo que [...]*
 and the count replied.3SG-CL that
 ‘And the count replied him that [...].’ (*Luc.*: XVI)

(70) *El conde le pregunto como [...]*
 the count CL asked.1SG how
 ‘The count asked him how [...].’ (*Luc.*: V)

Parsing Possibilities for Left-Peripheral Subjects



Routinisation

- **LATIN**: Pronouns in an early position to **minimise production costs** (Kempson & Cann 2007)
- **MEDSP**: these relevance-driven constraints become **lexically encoded** via routinisation
 - ⇒ **Consequence of routinisation**: complex lexical entry for clitic
- In **psycholinguistics, cognitive psychology**:
 - **Routinisation**: process in which expressions (sequences of actions) become routines i.e. “expressions that are ‘fixed’ to a relatively great extent”, creating as such a processing shortcut (Pickering & Garrod 2004; **chunking**)
- In **historical linguistics**:
 - The **frequent occurrence** of a cognitive event leads to a greater ease of processing (Haspelmath 1999)
 - “Repetition leads to the *automatization* of a sequence of units, and the reanalysis of the sequence as a single processing chunk” (Bybee 2003: 603; Haiman 1994: **ritualization**)

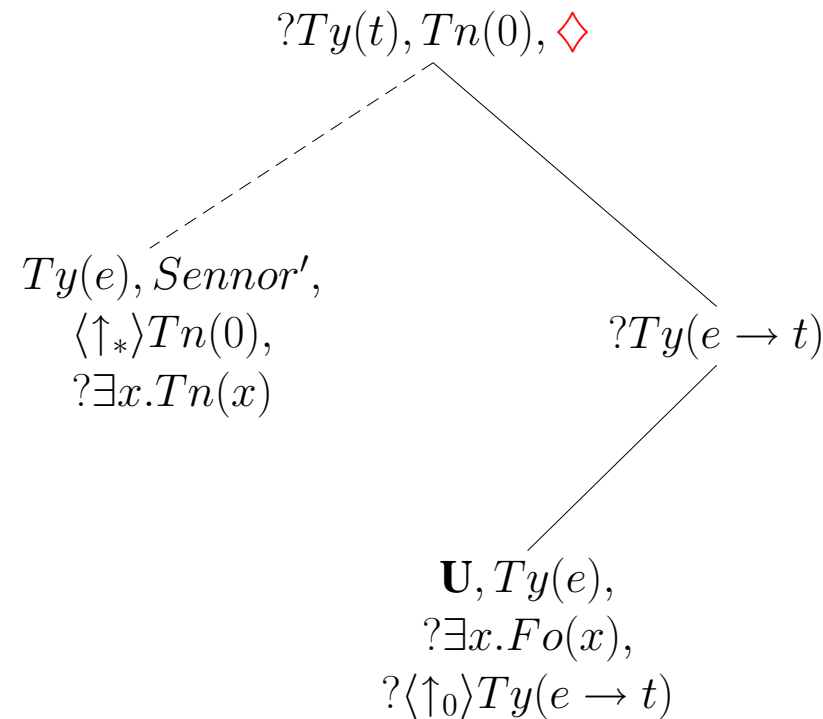
Lexical Entry for MedSp Accusative Clitic *lo*

- Complex lexical entry with proclisis triggers

P	IF	$?Ty(t),$	
R		$Tn(a)$	
O	THEN IF	$[NEG+] \vee$	} Negative marker
C		$(\langle \downarrow_* \rangle Fo(\alpha), ?\exists x.Tn(x)) \vee$	} Unfixed node
L		$? \exists x.Tns(x)$	} Tense requirement
I	THEN	$make(\langle \downarrow_1 \rangle \langle \downarrow_0 \rangle),$	
S		$go(\langle \downarrow_1 \rangle \langle \downarrow_0 \rangle),$	
I		$put(Fo(\mathbf{U}), Ty(e),$	
S		$? \exists x.Fo(x),$	
		$[\downarrow] \perp, ? \langle \uparrow_0 \rangle Ty(e \rightarrow t))$	
	ELSE	ABORT	
E	ELSE IF	$?Ty(e), \langle \uparrow \rangle \top$	
N	THEN IF	$(\langle \uparrow_0 \rangle \langle \uparrow_*^1 \rangle (?Ty(t) \wedge [NEG+])) \vee$	
C		$(\langle \uparrow_0 \rangle \langle \uparrow_*^1 \rangle (?Ty(t) \wedge \langle \downarrow_* \rangle (Fo(\alpha),$	
L		$? \exists x.Tn(x)))) \vee$	
I		$(\langle \uparrow_0 \rangle \langle \uparrow_*^1 \rangle (?Ty(t) \wedge \langle \uparrow \rangle \top))$	
S	THEN	ABORT	
I	ELSE	$put(Fo(\mathbf{U}), Ty(e), ? \exists x.Fo(x),$	
S		$[\downarrow] \perp, ? \langle \uparrow_0 \rangle Ty(e \rightarrow t))$	
	ELSE	ABORT	

Parsing of MedSp Preverbal Accusative Clitic *lo*

- al Sennor lo faras*
 (71) to-the Lord CL will-do.2SG
 ‘For the Lord you will make it.’ (Faz.: 208)



Lexical Calcification in MedSp

- Lexical encoding of clitic involves structural characterisations:
 - **proclisis** occurs whenever the clitic is parsed in the presence of
 - (i) a negation marker
 - (ii) an unfixed node
 - (iii) a subordinating complementiser (tense requirement)
 - **enclisis** occurs in all other environments - linked/fixed nodes
BUT not after proclisis triggers (**‘negative/abort triggers’**)

Interpolation

- **Various processing strategies** available for interpolation:

- **Fixed nodes:** e.g. subject pronouns (with case)

(72) *esta heredad que vos yo he ganado*
 this inheritance that CL I have.1SG won
 ‘[...] this inheritance that I have secured for you.’ (*apud* Sánchez Lancis 1993: 326)

- **Linked structures:** e.g. subject NPs

(73) *Assi me Dios ayude*
 like this CL God may-help.3SG
 ‘May God help me like this.’ (*apud* Sánchez Lancis 1993: 327)

- **Locally unfixed nodes:** e.g. subject NPs

⇒ More than one possibility for a same string

Change from MedSp to RenSp

- **Loss of proclisis triggers** in the lexical entry for RenSp clitic:

(74) *Le yo daré*
 CL I will-give.1sg
 ‘I will give her [...].’ (15th c.; *Corbacho*: 264)

In other words, the restrictions on occurrence of proclisis in MedSp no longer apply in RenSp

⇒ **Generalisation/spread of proclisis**

- **Simpler or not?**

Formally this lexical entry is simpler compared to the MedSp one.
 BUT output of it is more complex as variation is observed in more syntactic environments

Lexical Entry for RenSp Accusative Clitic *lo*

- **No more proclisis triggers:**

P	IF	$?Ty(t), Tn(a)$	
R	THEN	$make(\langle \downarrow_1 \rangle \langle \downarrow_0 \rangle),$	
O		$go(\langle \downarrow_1 \rangle \langle \downarrow_0 \rangle),$	
C		$put(Fo(\mathbf{U}), Ty(e),$	
L.		$? \exists x.Fo(x),$	
		$[\downarrow] \perp, ? \langle \uparrow_0 \rangle Ty(e \rightarrow t))$	
E	ELSE IF	$?Ty(e), \langle \uparrow \rangle \top$	
N	THEN IF	$(\langle \uparrow_0 \rangle \langle \uparrow_*^1 \rangle (?Ty(t) \wedge [NEG+])) \vee$	
C		$(\langle \uparrow_0 \rangle \langle \uparrow_*^1 \rangle (?Ty(t) \wedge \langle \downarrow_* \rangle (Fo(\alpha),$	
L.		$? \exists x.Tn(x)))) \vee$	
		$(\langle \uparrow_0 \rangle \langle \uparrow_*^1 \rangle (?Ty(t) \wedge \langle \uparrow \rangle \top))$	
		THEN ABORT	
		ELSE	$put(Fo(\mathbf{U}), Ty(e), ? \exists x.Fo(x),$
		$[\downarrow] \perp), ? \langle \uparrow_0 \rangle Ty(e \rightarrow t))$	
	ELSE	ABORT	

Causes for Diachronic Change

a. Atrophying of pragmatic motivation:

Once cognitive shortcut has been made, the earlier pragmatic basis for clitic placement can vanish

b. Production/parsing mismatch:

In variation environments some **left-peripheral expressions** (e.g. pre-verbal subjects) can be analysed using different processing strategies

⇒ Possibility of **mismatch** between speaker-hearer is real:

Possible scenario:

– Speaker:

Subject + Clitic + Verb where subject is decorating unfixed node

– Hearer:

Subject + Clitic + Verb where subject is decorated linked struct.

⇒ **Reanalysis** of lexical entry of clitic as not having restrictions on occurrence of proclisis

Change from RenSp to ModSp

- **More routinisation and reanalysis:**

Commonest next neighbour to clitics was the verb, despite existence of interpolation (Castillo Llach 1996, 1998; Ishikawa 1990)

Routinisation 2 : actions of clitic PLUS information on the verb
are stored together

Reanalysis 2 : clitic placement becomes associated with verbal form/mood:
enclisis is only possible in **imperative** environments
'negative triggers' vanish (except for negation: *No lo hagas*)

Lexical Entry for ModSp Accusative Clitic *lo*

- ‘Negative triggers’ vanish (except for negation)

P	IF	$?Ty(t), Tn(a)$
R	THEN	$make(\langle \downarrow_1 \rangle \langle \downarrow_0 \rangle),$
O		$go(\langle \downarrow_1 \rangle \langle \downarrow_0 \rangle),$
C		$put(Fo(\mathbf{U}), Ty(e),$
L.		$? \exists x.Fo(x),$
		$[\downarrow] \perp, ? \langle \uparrow_0 \rangle Ty(e \rightarrow t))$
E	ELSE IF	$?Ty(e), \langle \uparrow \rangle \top,$
N		$\langle \uparrow_0 \rangle \langle \uparrow_1 \rangle IMP$
C	THEN IF	$\langle \uparrow_0 \rangle \langle \uparrow_*^1 \rangle (?Ty(t) \wedge [NEG+])$
L.		ABORT
		ELSE
		$put(Fo(\mathbf{U}), Ty(e), ? \exists x.Fo(x),$
		$[\downarrow] \perp, ? \langle \uparrow_0 \rangle Ty(e \rightarrow t))$
	ELSE	ABORT

Summary

- **Diachronic changes in Dynamic Syntax terms:**
 - From Latin to MedSp: **lexical calcification** of relevance-driven constraints - **1st routinisation**
 - In 13th-14th c. MedSp: **disjunctive lexical entry** for clitic which matches earlier pragmatic motivation
 - From 14th c. to 16th c.: spread of proclisis due to **loss of proclisis restrictions** in lexical entry - **1st reanalysis**
 - From 16th c. to 18th c.: **2nd routinisation**: storing of actions of clitic & verb together; clitic placement is starting to be associated with verbal form - reanalysis in progress
 - From 18th c. to 20th c.: **2nd reanalysis completed**: enclisis only permitted for imperative constructions

$$[X + Cl] + (X) + V \quad > \quad (X) + Cl + (X) + V \quad > \quad (X) + [Cl + V]$$

Conclusions

- **Syntactic change** can be triggered and driven by **cognitive pressures** to minimise production costs:
 - Both **processing strategies** and **routinisation** can play important role
- Different processing strategies are not only the source of **synchronic variation** in MedSp clitic placement but also a motive for the **diachronic shift** from the MedSp to the RenSp clitic system
- **Routinisation** also plays an important role in the changes:
 - (i) from MedSp to RenSp as it permitted the atrophying of the pragmatic basis,
 - (ii) from RenSp to ModSp as it permitted the association between enclisis and imperative verbs
- Different steps in the change from MedSp to ModSp: not just re-bracketing
- A formal variant of the functional account of **grammaticalisation**, that has relied on a parsing/production perspective for modelling syntax

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CDE = Corpus del Español

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