

## State-of-the-art

- Starting point: at least some Old Romance (OR) varieties had **V-to-C movement** in declarative main clauses.
- Old French as the most robust V-to-C language (see e.g. Labelle 2007); ongoing debate about in particular Old Ibero-Romance (Martins fc.; Sitaridou fc.).
- **Origins** of OR V-to-C? Salvi (2004), Devine & Stephens (2006), Ledgeway (2012), Wolfe (2016): continuation from Latin, which had V-to-C in a range of environments, incl. declarative main clauses.

## Main claims

1. Taking into account that there is ample unambiguous evidence for V-to-T in Latin, V-to-C can only be acquired if it is itself unambiguously triggered (cf. 'Subset Principle').
2. In Latin/Romance, V-to-C is only triggered unambiguously by cases of 'Germanic inversion' ('**V - DP<sub>subj</sub> - Adv - XP**').
3. A-movement for subjects - a crucial ingredient of Germanic inversion - is a relatively new feature of Latin syntax.
4. We can reconstruct how subject movement and V-to-C were innovated simultaneously by language learners.

## Learnability and ambiguous evidence

- Assume children have to determine how high verbs (can) raise; the PLD contain ambiguous tokens of V-to-T but not of V-to-C. Possible scenarios:
- **Deterministic** parameter setting (Fodor 1998; Sakas & Fodor 2012): V-to-C cannot be acquired, as only unambiguously 'triggered' structures can.
- **Non-deterministic** ('trial and error') parameter setting : a V-to-C setting is rejected as soon as an unambiguous V-to-T token is encountered (Gibson & Wexler 1994). Variationist learning (Yang 2002), V-to-C is never rewarded and thus not acquired.
- Acquiring V-to-C is also unlikely if learning is based on indirect negative evidence ("absence in the PLD = ungrammaticality"), e.g. through Bayesian inference: postulating a superset grammar (V-to-C) is associated with the expectation that the PLD contain tokens the subset grammar (V-to-T) cannot parse, contrary to fact (Gould 2017: 24). However, for good (conceptual and empirical) reasons learning from indirect negative evidence can be considered suspicious (Yang 2017).

## Two TP-internal V-positions

- Danckaert (2012): in Early and Classical Latin, complementizers are in Fin(P), **demarkating the lower boundary of the LP**. A-bar moved XPs occur to the left of C-particles (1), but V<sub>fin</sub> is never attested in this position (2) (which would have been good evidence for V-to-C):

- (1) [XP<sub>Top</sub> [XP<sub>Foc</sub> [COMP ... ]]]
- (2) \*[V<sub>Fin</sub> [COMP ... ]]

- Two V-positions below CP (Danckaert 2017a, in prep.), whose distribution is diachronically stable:

- (3) ut Aristotel-es **saepe** *significa-t*  
as Aristotle-NOM often point.out-PRS.3SG  
'as Aristotle often points out' (Cic. Orat. 172)
- (4) ut *vers-e-t* **saepe** eadem  
as turn.over-PRS.SBJV-3SG often same-ACC.N.PL  
'that he often treats the same' (Cic. Orat. 137)

- **Intermediate conclusion:** given the availability of unambiguous cases of V-to-T movement, we can expect V-to-T to end up being acquired.

## Some ambiguous V1/V2 orders

- Devine & Stephens (2006), Ledgeway (2012): Latin has (optional) V-to-C in declarative, imperative and interrogative contexts.
- However, all structures previously analysed in terms of V-to-C are in fact **structurally ambiguous**, a V-in-T parse always being available.
- For instance, Devine & Stephens (2006) and Ledgeway (2012) suggest that XP focalization and topicalization can be coupled with V-movement to Foc° or Top°, as in (5):

- (5) [<sub>TopP</sub> Idem [<sub>Top'</sub> fac-it [<sub>TP</sub> Caesar ... t<sub>Q</sub> ... t<sub>v</sub> ]]]  
same.ACC do-PRS.3SG Caesar.NOM  
'Caesar did the same.' (Caes. Gal. 1.15.1)

- Three alternative V-in-T parses are given in (6):

- (6) a. [<sub>CP</sub> idem [<sub>C'</sub> [<sub>TP</sub> [<sub>T'</sub> facit [<sub>VP</sub> Caesar [<sub>V'</sub> ]]]]]]  
b. [<sub>CP</sub> [<sub>TP</sub> idem [<sub>TP</sub> [<sub>T'</sub> facit [<sub>VP</sub> Caesar [<sub>V'</sub> ]]]]]]  
c. [<sub>TP</sub> [<sub>TP</sub> [<sub>VP</sub> idem ] facit]] Caesar]

- The same logic can be applied to V1/V2-clauses with imperatives and interrogative *-ne* (i.e. the question particle optionally appearing in non-biased yes/no questions, which can but need not appear in the LP).

## Innovating A-movement for subjects

- Danckaert (2017a,b): two competing grammars in Latin: 'Grammar A' (old, no A-movement for subjects) and 'Grammar B' (new, optional A-movement). Evidence:

1. Danckaert (2017a): movement of **internal arguments** out of VP: significant difference between active and passive clauses only in Late Latin.
2. Danckaert (2017b): **external arguments** in VP or in TP, in clauses with an **auxiliary**, 'Aux-S-XP' vs. 'C-S-Aux': '(C)SAux' gains in frequency.
3. Danckaert (in prep.): **all types of subjects** in VP or in TP, in clauses with an **adverb**. Relative frequency of orders 'Adv-S-XP' and 'C-S-Adv': 'C-S-Adv' becomes more frequent over time.

- Yang (2002): metric to assess the fitness of competing grammars:

- Early/Classical Latin (ca. 200 BC-200 AD): the [-A movement] grammar is fitter than the [+A movement] grammar, in both the data set with the auxiliaries ( $p = .0014$ ) and the one with TP-adverbs ( $p = .02109$ ).
- The roles are reversed in Late Latin (200-600 AD), and significantly so (auxiliaries:  $p < .000001$ ; adverbs:  $p = .02844$ )

## Innovating V-to-C movement

- How was V-to-C movement first **actuated**? Two ingredients: (i) pre-existing high (but non-LP) verb position, and (ii) new TP-internal subject position.

=> **Do A-subjects sit above or below the high verb position?**

- Prediction: both 'V-S-Adv-[...]' and '(C)-S-V-Adv-[...]' are possible, because both are **UG-compatible**, and the PLD do not contain any (direct/indirect) negative evidence against either option.

- (7) si-t aliqu-is **fortasse** qu-i [...]  
be.PRS.SBJV-3SG someone-NOM maybe who-NOM  
'There is perhaps someone who <did not sin in speech>.' (Ambr. in psalm. 118 litt. 3.13)

- Generating examples like (7) = genesis of V-to-C:

- V-to-C movement cannot cross any left-peripheral XP, (see e.g. Rizzi 1997: 303-4) => **S in (7) sits in TP**.
- Cinque (1999: 111): multiple positions for subjects and finite verbs in the articulated TP, but \*[<sub>TP</sub> V > S ... [<sub>VP</sub> ] ] => **V in (7) sits in the left periphery**.

- Conclusion: instance of language change driven by learners, who move beyond the input, all the while staying within the confines of UG.