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Changing patterns of clausal complementation in Latin:
a parametric approach to ‘constructional’ changes.

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Abstract

The aim of this paper is to offer a unified account of two (at first blush independent) instances of syntactic change in Latin in terms of a single parametric change. The two developments that I will look at are both related to the system of clausal complementation. First, whereas Classical Latin typically uses infinitival clauses (so-called AcIs) to express embedded declaratives, these structures are later replaced by finite clauses, usually introduced by a complementizer. The opposite happens in the case of causatives, where a non-finite (infinitival) strategy is innovated. I will develop a proposal which reduces the key aspects of these two changes to a more general change in Latin clause structure, pertaining to the way in which the clausal EPP-requirement is satisfied (along lines of Danckaert 2017). Throughout, I will assume that the main mechanism needed to account for the observed facts is syntactic reanalysis of the PLD by the language acquiring child.

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1. Two apparently unrelated changes

I will start by introducing the empirical data that constitute the focus of this paper. I first discuss the rise of finite declarative complement clauses, and I then turn to clausal complements of causative *facio*.

1.1 From infinitival to finite embedded declaratives

In Early and Classical Latin (informally defined as the period from 200 BC until 200 AD), (non-factive) declarative complement clauses typically take the shape of an *Accusatiuus cum Infinitiuo* (henceforth AcI, cf. (1)), which as the name suggests features an infinitive as the main verb, and an accusative noun phrase, which is typically (but not always) expressed overtly, as the subject.²

- (1) cred-o [de-os immortal-es **spar-sisse** anim-os
believe-PRS.1SG gods-ACC immortal-ACC plant-PRF.INF souls-ACC
in corpor-a human-a].
in bodies-ACC human-ACC

‘I believe that the immortal gods have planted souls in human bodies.’ (Cicero, *De senectute* 77)

² When glossing verbal morphology in Latin examples, I adopt the following convention: as a rule, for all active and/or indicative verb forms, no voice and/or mood specification is given in the glosses, unless this information is really relevant. Passives, subjunctives and infinitives are always explicitly glossed as such.

In Late Latin (*ca.* 200 - 600 AD), declarative complements more and more often appear as finite clauses introduced by *that*-complementizers such as *quoniam* (2), *quod* and *quia*, although AcIs are still well attested in all Late Latin texts: see among others Mayen (1889), Cuzzolin (1991, 1994) and Adams (2005).

(2) non cred-is [quoniam sic pot-est pasc-ere de-us [...]]?
 not believe-PRS.2SG that so be.able-PRS.IND.3SG feed-PRS.INF god-NOM
 ‘Don’t you believe that God can nourish in this way?’ (Augustine, *Sermo* 104)

The earliest reliable example of a non-factive finite declarative is found in the anonymous *Bellum Hispaniense* (*ca.* 40 BC, cf. (3)), but the finite structure becomes productive only in the third and fourth century AD.

(3) Dum haec ger-untur legat-i Carteiens-es
 while these.NOM.N.PL do-PASS.PRS.3PL ambassadors-NOM from.Carteia-NOM
 renuntia-u-erunt [quod Pompei-um in potestat-e habe-re-nt].
 report-PRF-3PL that Pompey-ACC in power-ABL have-IPFV.SBJV-3PL
 ‘When this was being done, ambassadors from Carteia announced that they had Pompey in
 their power.’ (*Bellum Hispaniense* 36.1)

The elements *quoniam* and *quia* are originally adverbial conjunctions introducing (various types of) *because*-clauses. *Quod* can have this function too, but importantly, even in very early Latin it was also used to introduce a range of (emotive) factive complement clauses. Examples include

complements to predicates like *paenitet* ‘be sorry’ (4), *gaudeo* ‘rejoice, be happy’ and *queror* ‘complain’ (5):

(4) Ait enim [...] se paenite-re [**quod** anim-um tu-um
say.PRF.3SG PRT REFL.ACC be.sorry-PRS.INF that mind-ACC your-ACC
offend-eri-t].

offend-PRF.SBJV-3SG

‘He says that he is sorry that he has offended you.’ (Cicero, *Ad Atticum* 11.13.2)

(5) Saep-ius=que mihi ueni-eba-t in ment-em quer-i [**quod** ita
often-COMP=and me.DAT come-IPFV-3SG in mind-ACC complain-PRS.INF that like.this
uiu-ere-m] quam gaude-re [**quod uiu-ere-m**].

live-IPFV.SBJV-1SG than rejoice-PRS.INF that live-IPFV.SBJV-1SG

‘I used to think more often about complaining about the way I live than to be happy about the fact that I’m alive at all.’ (Cicero, *Ad familiares* 4.13.1)

It is standardly assumed that the pattern illustrated in (4) and (5) later spread to non-factive environments, eventually taking over from AcIs and *ut*-clauses (neither of which survive in the Romance languages). In what follows, I will assume that this is correct.

1.2 From finite to infinitival causatives

Interestingly, in the same period we witness a second shift which is to a large extent the mirror image of the previous development. More specifically, finite complements to causative *facio* ‘make’ (such as (6)), which feature a verb in the subjunctive mood and - optionally - the

complementizer *ut* (roughly ‘that’), are fully productive in Classical Latin, but in later times they are gradually replaced by infinitival clauses which at first sight look the same as the Classical Latin *AcI* (7) (but which I will argue are underlyingly quite different):

- (6) aut fortasse fec-isse-t [ut tu ex popul-i sermon-e
or maybe make-PLPRF.SBJV-3SG that you.NOM.SG out.of people-GEN speech-ABL
excid-ere-s].
fall.out-IPFV.SBJV-2SG

‘Or maybe he would have made you escape people’s criticism.’ (Cicero, *Pro Flacco* 82)

- (7) et in ips-a part-e faci-e-s **iace-re** laborant-es.
and in self-ABL.F.S part-ABL make-FUT-2SG lie-PRS.INF suffering-ACC.M.PL

‘And you will make the patients lie on the same side.’ (Cassius Felix, *De medicina* 44.8)

The finite causative strategy with *ut* is not preserved in any present day Romance variety, but this is clearly because the complementizer/conjunction *ut*, which in (Classical) Latin introduces a variety of complement and adverbial clauses, has completely disappeared. On the other hand, in most modern Romance languages (Daco-Romance being a notable exception), successors of Latin *facio* ‘make’ or *mando* ‘send’ can act as causative verbs selecting an infinitival clause.³ In

³ The literature on Romance causatives is particularly rich (accurately reflecting the complexity of the empirical landscape). Key references include Kayne (1975) and Guasti (1993); see Guasti (2006) and Sheehan (2016) for general overviews. In particular on varieties of Old Romance, see Robustelli (1992, 1994, 2000), Egerland and Cennamo (2010) (on Old Italian), Martineau (1990a,b) and Pearce (1990) (on Old French), and Martins (2006) (on Old Portuguese).

many cases, the same predicates can also appear with a finite clause introduced by a KE-complementizer followed by a subjunctive verb form. This last construal is however a secondary innovation which I will not be concerned with here.

The rise of the ‘*facio* + infinitive’ pattern is fairly well described: see among others Thielmann (1886), Muller (1912), Norberg (1945), Chamberlain (1986), Robustelli (1993, 2000), Biville (1995), Iliescu (1995) and Vincent (2016). As was the case with finite non-factive declaratives, there is a handful of very early attestations (mainly in poetry), the earliest (shown in (8)) dating from the second century BC. This pattern too becomes productive from *ca.* 200 AD onwards.

- (8) purpure-am=que uu-am fac-it alb-am pampin-um **habe-re**
purple-ACC=and grape-ACC make-PRS.3SG white-ACC vine.shoot-ACC have-PRS.INF
‘And it (the sun ld) makes the pale vine-shoot have purple grapes.’ (Lucilius, fragment 1224 (Warmington))

As can be deduced from (8), in the earliest type of Late Latin infinitival causatives the Causee⁴ argument (agentive or otherwise) surfaces as an accusative. As is well known, in certain types of Romance causatives, agentive Causees are realized as datives (formally PPs), yielding the much-discussed *faire à* causative illustrated in (9) (cf. Kayne 1975 and subsequent literature):

⁴ Throughout this chapter, I (informally) use the term ‘Causee’ to refer to the highest (external or internal) argument DP associated with the embedded lexical verb of a given causative configuration, without prejudging anything more about the syntactic and thematic properties of this DP (see Section 5.2 for further discussion of the syntax and argument structure of various causative patterns).

(9) Marie fait mang-er la tarte [à Pierre].

Marie make.3SG eat-INF the cake to Pierre

‘Marie makes Pierre eat the cake.’

As will be elaborated on in section 5.2.3, dative Causees only originated long after infinitival causatives with *facio* had become productive.

1.3 The proposal in a nutshell

The facts reviewed in the previous two sections are summarized in Table 1, in which the shading highlights the apparently antagonistic nature of the two changes. As indicated, I assume the combination of AcIs and finite causatives to be part of one single grammar, which I call ‘Grammar A’, and which is most prevalent in Early and Classical Latin (*ca.* 200 BC - 200 AD). Correspondingly, I take it that both finite declarative complements and infinitival causatives are part of a second coherent system, Grammar B, which steadily gains ground during the Late Latin period (*ca.* 200 - 600 AD).

	Declarative complements	Causatives
Grammar A (old)	non-finite (AcI)	finite (<i>facio</i> ‘make’ + (<i>ut</i> ‘that’ +) subjunctive)
Grammar B (new)	finite (<i>quod/quia/quoniam</i> ‘that’ + finite verb)	non-finite (<i>facio</i> ‘make’ + infinitive)

Table 1: changing patterns of clausal complementation in Latin:

the very basic picture.

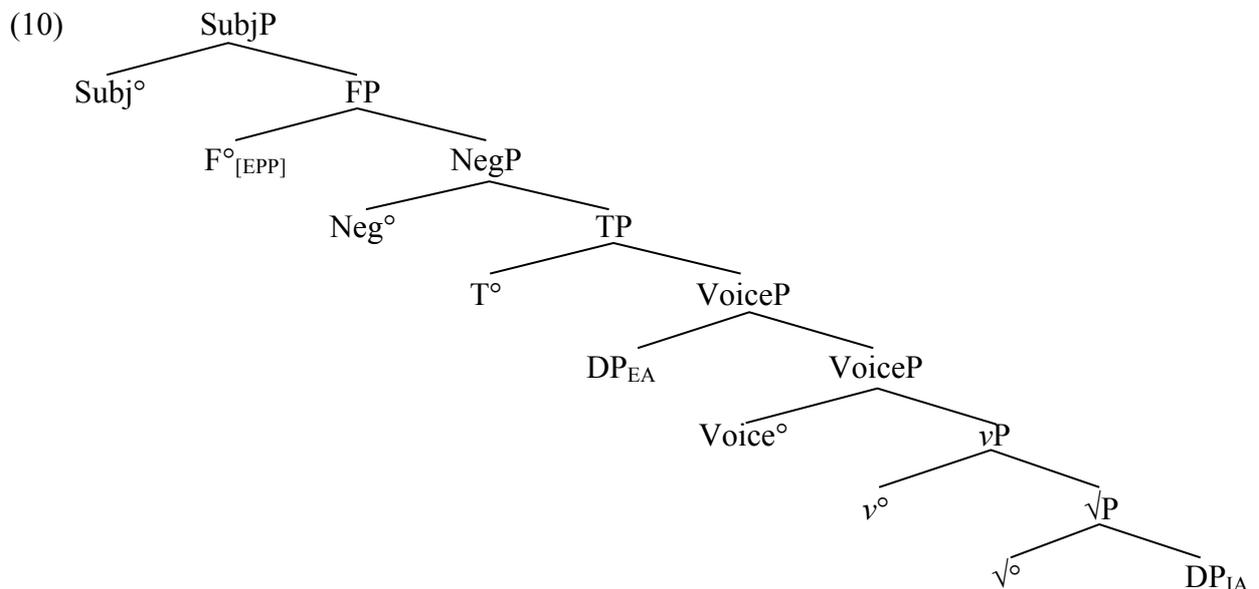
The main proposal of this chapter is that except for the loss of *ut*-clauses after *facio* (which as we saw is related to the loss of the lexical item *ut*), the developments summarized in Table 1 are part of a single integrated change from one major grammatical system (Grammar A) to another (Grammar B). The key feature that differentiates the two grammars will be argued to be the way in which the clausal EPP-requirement is satisfied. Assuming a parameterized approach to EPP-checking in the spirit of Alexiadou and Anagnostopoulou (1998) and Biberauer (2003), I will propose that in Classical Latin, the entire VP moves to the functional projection where the EPP-requirement is satisfied. Concomitantly, subject DPs do not A-move out of the verb phrase, but are case-licensed *in situ*. Whenever they do evacuate the thematic layer (for instance for reasons related to information structure), the relevant operation is not an instance of (case-driven) A-movement. In contrast, in the innovative grammar, EPP-driven VP displacement is replaced by verb movement (coupled with optional A-movement of the subject DP).

As a consequence, in Grammar A VP-internal embedded subjects do not canonically appear in a local configuration with the matrix predicate: this state of affairs will be shown to be compatible with the syntactic properties of the AcI. Next, I will argue that in the new grammar matrix verbs and embedded subject DPs are actually in a sufficiently local configuration: as a result, from Late Latin onwards (causative) ECM structures become possible and indeed available.

The paper is structured as follows. In the following section, I will further elaborate on the model of parameterized EPP-satisfaction. I proceed to discuss the most important properties of Classical Latin clause structure (or more precisely, of what I call ‘Grammar A’), and I detail my assumptions about the syntax of the AcI (section 3). Special attention is paid to the way in which subjects (and objects) are assigned structural case. In section 4 I present my analysis of Late Latin clause structure (‘Grammar B’). Next, I show how the constructional changes reviewed earlier fall out from the new clausal architecture. Section 6 concludes.

2. Background: parameters of EPP-checking

I will assume that the basic structure of the (Latin) clause consists of a number of projections, which come in a fixed hierarchical order. The basic sequence is shown in (10) (in which no left-peripheral projections are represented):



Let me briefly comment upon the properties of the various heads in this representation. First, I take it that the whole structure is an extended projection of an a-categorial root ($\sqrt{\quad}$), which can select a phrasal complement (an internal argument, IA), and on top of which a series of functional projections is merged. The first of these is a verbalizing head v (which characterizes the entire extended projection as verbal rather than for instance nominal). Next, there is a Voice head, which determines whether or not an (agentive) external argument (EA) is added to the structure. Higher up, I assume a Tense phrase (TP), a NegP (optionally) and most importantly in

the present context, a functional projection FP whose head is endowed with an EPP-feature, which, simply put, requires FP to be lexicalized overtly by some element bearing ϕ -features.⁵ Finally, high in the articulated inflectional layer there is a designated subject position, which can host ‘subjects of predication’ (in the sense of Cardinaletti 2004).

I will adopt a parameterized approach to EPP-checking along lines of Alexiadou and Anagnostopoulou (1998), which says that the EPP-requirement is universal, but that the way in which it is met varies cross-linguistically. An explicit system to model cross-linguistic variability in this domain was proposed in Biberauer (2003), Biberauer and Roberts (2005), Richards and Biberauer (2005) and Biberauer and Richards (2006).⁶ These authors propose a system with two independent parameters, one specifying the nature of the category satisfying the EPP-requirement (a head or a phrase), and one specifying whether or not movement to the functional projection carrying the EPP-feature (F(P) in my system) is coupled with pied-piping of additional material. This gives rise to a four-way typology which is summarized in Table 2:

	Goal = X^o	Goal = XP
- pied-piping	V-to-F movement (with optional DP movement to SpecFP)	DP-movement to (or expletive insertion in) SpecFP
+ pied-piping	VP movement to SpecFP	DP or VP movement to SpecFP

⁵ The reason why I assume the EPP-requirement not to be associated with T is related to the fact that in Latin Tense-final clauses, negation canonically intervenes between the verb phrase and an auxiliary in T. See the analysis of example (11) below.

⁶ The same system was also applied to Latin in Mackenzie and van der Wurff (2012): see Danckaert (2017: 236-8) for discussion of how these authors’ implementation differs from my own.

Table 2: Parameters of EPP-checking (adapted from Biberauer and Roberts 2005;

Biberauer and Richards 2006).

In all cases, the probing head F is in need of a Goal endowed with ϕ -features (a finite verb or a DP; Person-features are probably the most crucial for the purpose of EPP-checking). This system makes available three options to satisfy the EPP-requirement, namely (i) verb movement to F^o, (ii) VP movement to SpecFP and, (iii) insertion of a(n) expletive or otherwise) DP in SpecFP. As indicated, in certain circumstances the system allows for some degree of optionality. Languages that choose the verb movement option, such as Italian and Modern Greek, typically display rich agreement (and pro drop), and productively allow for postverbal subjects. In contrast, DP movement languages such as English have preverbal subjects and tend to have expletives. Finally, two types of languages have VP movement at their disposal to check F's EPP-feature. In languages like German ('head pied-piping' languages), this operation is argued to be the only option (with a fixed VPAux order as a result), whereas in a 'spec pied-piping' language like (colloquial) Afrikaans, VP movement freely alternates with DP movement to SpecFP. I refer to the original papers as well as to Danckaert (2017: 230-3) for additional discussion and illustration.

3. Clause structure in Grammar A ('Classical Latin')

I will now apply the system outlined in the previous section to Classical Latin, which will give us a fair idea about the overall constituency of finite clauses and AcIs. I will also pay attention to the way in which subject DPs are assigned structural case in both of these environments.

3.1 Finite clauses

3.1.1 VoiceP movement to SpecFP

Following proposals made in Danckaert (2017, 2018), I will assume that the grammar of Classical Latin only has VP movement (or more precisely, VoiceP movement (see below)) at its disposal as a means to satisfy the EPP-requirement. Importantly however, contrary to what one might think on the basis of the discussion in the previous section, there are reasons to assume that in terms of the typology summarized in Table 2, Latin is better considered a ‘spec pied-piping’ than a ‘head pied-piping’ language (i.e. that what is probed for is not the verb, but rather the highest VP-internal argument DP), with the proviso that VP movement cannot optionally alternate with DP movement, resulting in obligatory pied-piping. In all cases, F probes down the tree and attracts the highest DP argument (the external argument in SpecVoiceP in the case of clauses with a transitive predicate, or the internal argument (complement of the root) in the case of passives), which pied-pipes the entire verb phrase to SpecFP. To be more precise, I take it that the displaced constituent corresponds to the VoiceP node. One reason why I prefer this slightly altered system is that it does not run into difficulties in non-finite contexts, where it is hard to see which verbal head endowed with ϕ -features would be available to satisfy F’s EPP-requirement (see also Danckaert 2017: 236-8).⁷ Especially infinitives are a point in case, as these do not

⁷ A reviewer points out that it might be conceptually attractive to retain the option of ‘free variation’ between VP and DP movement in finite clauses. However, as shown in Danckaert (2017: 243-7; 262-4), there are empirical reasons to doubt whether this is on the right track. Specifically, in the period from 200 BC until 200 AD internal arguments in active and passives cannot be differentiated on the basis of their word order preferences, suggesting that ‘derived subjects’ are not more likely to evacuate the verb phrase than direct objects in transitive clauses (contrary to what an ‘optional DP movement’ hypothesis would predict). Interestingly, such a

display any ϕ -agreement at all.⁸ No such problems arise if one assumes that a DP is probed for, (i) as (overt as well as covert) DPs presumably always have a set of ϕ -features, and (ii) because each VP contains at least one DP. I will come back to the diachronic implications of EPP-checking in infinitival clauses in section 5.1.

An obvious correlate of a derivation involving EPP-driven VoiceP movement is the characteristic ‘VP(-Neg)-Aux’ word order of Classical Latin, which we see in (11):

- (11) [_{VoiceP} Roman-us equitatu-s ips-um quidem reg-em Elati-ae
 Roman-NOM cavalry-NOM self-ACC PRT king-ACC Elatia-LOC
 adsecut-us] non est.
 reached-NOM.M.SG not be.PRS.3SG

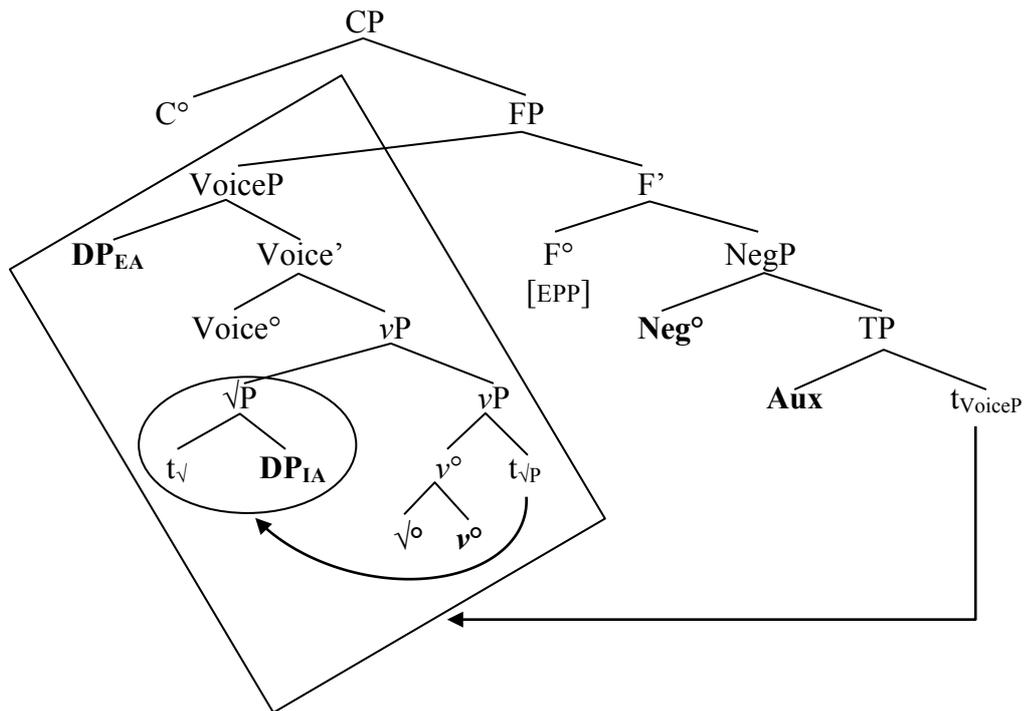
‘The Roman cavalry did not manage to find the king himself in Elatia.’ (Livy, *ab Urbe condita* 36.19.10)

The structural representation that I will assume for examples featuring the word order ‘VP-Neg-Aux’ is as in (12) (overt terminals in boldface), where the VP-internal operation displacing \sqrt{P} to SpecvP is a case of roll-up movement (Biberauer, Holmberg and Roberts 2014), which gives rise to the order OV:

contrast between internal arguments in active and passive clauses does in fact arise in later centuries, in line with the characterization of Grammar B that will be offered below.

⁸ Past participles on the other hand do in fact agree with the subject in Gender, Number and Case (but not Person), as can be seen in the example in (11) below.

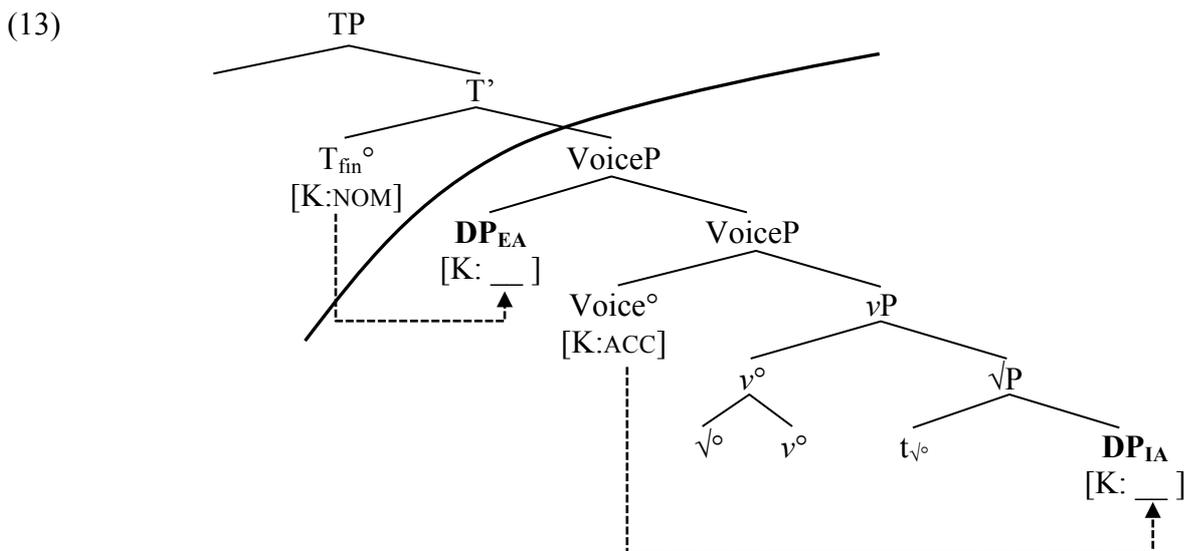
(12)



In this structure, the position of non-finite verbs (the complex head \sqrt{v}) with respect to negation (Neg°) can be taken to be indicative of a high landing site of the moved verb phrase (Danckaert 2014), as well as of the phrasal nature of the movement operation that gives rise to the surface order V-Aux (head movement of the non-finite verb past negation being ruled out by the Head Movement Constraint, see Danckaert 2017: 45-62). In other words, movement of VoiceP in VPAux clauses is not of the strictly local ‘roll-up’ type which in the tree in (12) is responsible for bringing about the complement-head orders inside the extended VP (cf. the OV order). In Danckaert (2017, 2018), this set of assumptions is shown to be compatible with the observation that Classical (but not Late) Latin allows for the order ‘VOAux’, which following Biberauer, Holmberg and Roberts (2014) can be assumed not to be possible in a grammar where roll-up movement is the canonical way to generate head-final surface orders (VPAux, in this case).

3.1.2 Case assignment

An important consequence of the analysis just sketched is that argument DPs never undergo A-movement, EPP-driven or otherwise (see also Julien 2002 for a similar approach to argument licensing in Tense-final languages). Instead, I will take it that all arguments are case-licensed *in situ*, by virtue of an Agree relation between the relevant phrase and a c-commanding functional head, which is established as soon as the latter is merged. More specifically, I assume that if Voice hosts an external argument in its specifier it also assigns accusative case to the internal argument (cf. Burzio’s Generalization). On the other hand, nominative case is assigned by T to the closest caseless DP in its c-command domain. For a finite clause with a transitive verb, the picture we thus get looks like in (13) (matters of word order (roll-up movement) aside):



I assume that structural case assignment involves an Agree relation between a probing functional head and some Goal DP (cf. the dashed arrows in (13)). Importantly, I take it that this Agree relation does not have to involve a strictly local (spec-head or head-complement) configuration, but that it is subject to the following constraints:⁹

⁹ On non-local case assignment, see Alexiadou, Kiss and Müller (2012) and references cited there. Interestingly for the upcoming discussion (cf. section 5), some ECM environments seem to

(14) **Locality conditions on structural case assignment (first version)**

A case assigning Probe X can case mark a Goal YP iff

- (i) X c-commands YP,
- (ii) YP is categorially a DP,
- (iii) YP does not bear inherent case (i.e. is caseless),
- (iv) no CP-boundary intervenes between X and YP, and
- (v) there is no caseless ZP, also of category D, such that X c-commands ZP and ZP dominates or c-commands YP.

constitute cases where structural case is assigned at a distance. One potential such case would be Icelandic examples such as (i) (from Sigurðsson (2000); cf. McFadden 2009: 113-4, fn. 11), where the embedded subject *fjóra laxa* ‘four salmons’ is case marked by the *believe*-predicate in the matrix clause, without being linearly adjacent to it (of course it remains to be seen what the underlying syntax of this type of example is).

- (i) Þeir töldu [líklega hafa verið veidda [fjóra laxa]].
they believed probably have been caught four salmon.ACC.PL
(approx.) ‘They believed there to have probably been caught four salmons.’

For related discussion, see also Raposo and Uriagereka (1990), Ura (2007) and McFadden (2009).

Put differently, I assume that case assignment involves a ‘sufficiently local’ configuration, in which the Probe and the Goal are not separated by any clause boundaries or intervening competing DPs.^{10,11}

3.2 The syntax of the AcI

3.2.1 Constituency

I will now say a couple of words about the constituency of infinitival clauses. First of all, assuming that the proposed mechanism of EPP-checking applies to all non-defective clauses (i.e. clauses with full functional structure) indiscriminately, the same operation of VoiceP movement to SpecFP should take place in infinitival clauses too. In relation to this, note that there is good evidence that AcIs are categorially CPs rather than TPs. Concretely, given the discussion of Latin clausal pied-piping in Danckaert (2012: chapters 4 and 5), it seems to be the case that Latin AcIs are endowed with a left-peripheral space which can host syntactic operators. The relevant data involve pied-piping of an AcI under *wh*-movement, whereby a *wh*-moved operator extracted from within the AcI first undergoes what is known as ‘internal’ (or secondary) *wh*-movement to the edge of the AcI, an operation which is followed by movement of the entire embedded clause

¹⁰ On the fourth clause of the definition in (14), see Sigurðsson (2012: 207): “CPs are A-islands; that is, A-relations, including T-licensing, are blocked from being established across C-boundaries.” This requirement can presumably be reformulated in terms of phase theory (see Chomsky (2001) and subsequent literature). See also Danckaert, D’Hulster and Haegeman (2016) (and references cited there) for potential counterexamples to this generalization.

¹¹ Alternatively, if CPs can bear (structural) case (Picallo 2002; Nunes 2008), clause (ii) of (14) should be reformulated as ‘YP is categorially a DP or a CP’; clause (v) would also have to be updated accordingly. Same remark for (27) below.

to the left periphery of the next higher CP (see Danckaert 2012: 169-70, and especially the tree in (413)”). The structure is such that the actual operator surfaces in the left periphery of the AcI, but crucially is not interpreted there, its scope position being located in the left periphery of the clause that ends up hosting the pied-piped AcI. Given the standard assumption that CPs but not TPs constitute cyclic domains for the purpose of long distance phrasal movement, these clausal pied-piping facts strongly suggests that AcIs are indeed CPs.

Let us now consider how the subject of an AcI is case marked. Importantly, there is a broad consensus that the characteristic accusative case of the subject is not to be explained in terms of a structure whereby the predicate of the matrix clause assigns case to the embedded subject, yielding what one could call an ‘Exceptional Case Marking’ (ECM) configuration (see Bolkestein 1976, 1979; Pillinger 1980; Cecchetto and Oniga 2002; Jøhndal 2012). The arguments in favour of this position are numerous and indeed compelling. For instance, whenever an AcI appears as the complement of a predicate which canonically assigns dative case to DP complements (like e.g. *confido* ‘trust’, cf. (15)), the subject of the AcI still bears accusative case (16):

(15) ne quis [fide-i Roman-ae aut societ-at-i] confid-a-t
 not anybody.NOM.M.SG promise-DAT Roman-DAT or alliance-DAT trust-PRS.SBJV-3SG
 ‘No man should ever trust a Roman promise or alliance.’ (Livy, *ab Urbe condita* 21.19.10)

(16) Sed confid-o [te / *tibi esse fac-tur-um].
 but trust-PRS.1SG you.ACC.SG you.DAT.SG be.PRS.INF do-PTCP.FUT-ACC.M.SG
 ‘But I trust that you will do this.’ (Cicero, *Ad Atticum* 3.3)

Second, AcIs readily appear in other contexts where there is no category that could assign accusative case. For instance, they can be a complement to a noun (17), and they can appear as arguments of one-place predicates such as *expedit* ‘be useful’ (18) and adjectives like *manifestum* ‘clear, obvious’ (19):

- (17) haec autem opinatio est **iudicatio** [se sci-re
 DEM.NOM.F.SG PRT opinion.NOM be.PRS.3SG judgment.NOM REFL.ACC know-PRS.INF
 qu-od nesci-a-t].
 what-ACC.N.SG not.know-PRS.SBJV-3SG
 ‘However, this opinion amounts to thinking that one knows what one does not know.’
 (Cicero, *Tusculanae disputationes* 4.26)

- (18) omn-ibus enim bon-is **expedi-t** [salu-am esse
 all-DAT.M.PL PRT good-DAT.M.PL be.useful-PRS.3SG safe-ACC be.PRS.INF
 re-m public-am].
 cause-ACC public-ACC
 ‘It is to the benefit of all good citizens that the state is safe.’ (Cicero, *Philippicae* 13.16)

- (19) [Hunc uepr-em]; **manifest-um** est [t_i interim-i non
 DEM.ACC.M.SG thorn.bush-ACC clear-NOM.N.SG be.PRS.3SG kill-PASS.PRS.INF not
 pos-se, nisi radicitus effod-ere uel-i-s].
 be.able-PRS.INF unless completely dig.out-PRS.INF want-PRS.SBJV-2SG
 ‘It is clear that this type of thorn-bush cannot be destroyed unless you dig it out
 completely.’ (Columella, *De agricultura* 11.3.7)

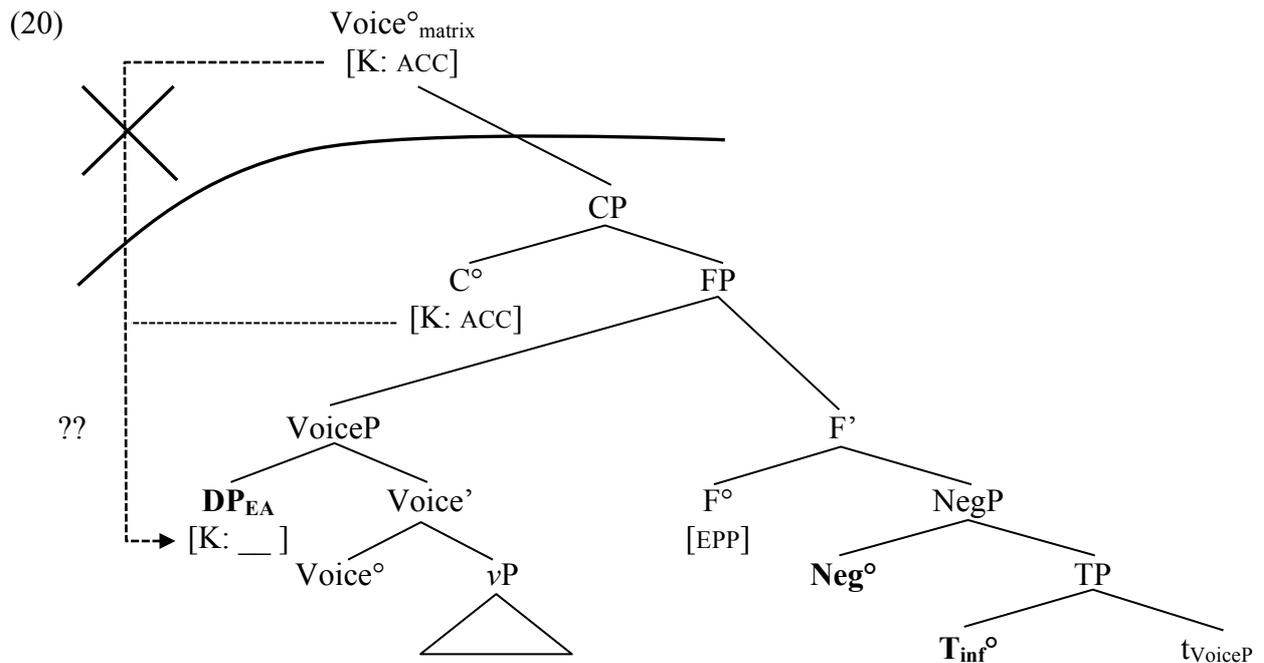
Finally, note that the existence of subject-to-subject raising with passives such as *dicitur* ('X is said to ...'), yielding a so-called *Nominativus cum Infinitivo* (NcI), alongside AcIs selected by the same predicate ('they say that X ...'), cannot obviously be construed as evidence in favour of an ECM analysis of the latter. The logic of the argument would be that in both the AcI and the NcI, the embedded subject is actually the internal argument of the matrix predicate (assuming a subject-to-object raising analysis of what is here called ECM, as in Postal (1974)). However, even in English the availability of raising across passive predicates with an infinitival complement does not always depend on the availability of an ECM 'input' structure. For instance, whereas a predicate like *expect* allows for ECM when active and subject raising when passive, *say* and *hope* can never appear in an ECM configuration, which does not preclude the availability of raising with *be said* (and more marginally also with *be hoped*, in particular with *wh*-subjects (see Danckaert, D'Hulster and Haegeman 2016: 146, fn. 1)). On the other hand, *want* allows for ECM, but *be wanted* not for passive raising (Kayne 1984: 37, 45, fn. 33). In other words, at least in English there is a double dissociation between ECM and passive raising. Whether or not a given verb qualifies as a (passive) raising and/or ECM predicate seems to be lexically (and thus idiosyncratically) specified, on a case to case basis.¹²

To conclude, it seems clear that an ECM analysis of AcIs is not on the right track. This is a welcome result, given the constraints on structural case assignment listed in (14): recall that by assumption, case assignment cannot take place across a CP-boundary. Given that there is robust evidence that AcIs are CPs, any account whereby an argument inside the AcI receives case from a functional head in the higher clause would have to be rejected on independent grounds.

3.2.2 Case assignment revisited: a brief excursion

¹² Compare also Jøhndal (2012: 77): "Some evidence suggests a third solution, that two distinct lexical entries are involved for the NcI-passive and the AcI-passive."

But then how does the embedded subject end up being case marked as an accusative? To answer this question, consider first the structure in (20).¹³ As indicated, I take it that there are two potential case assigners, viz. (i) the matrix verb and (ii) a (phonologically null) case assigner in the embedded left periphery (identified here as C°):



The first possibility can be discarded on the basis of the discussion in the previous section. Let us then consider whether an analysis involving a null case assigner in the left periphery of the AcI - say the covert counterpart of English *for* in a structure like *For John to leave would be a good idea* - could fare better.¹⁴ However, although I do not have any principled objection against a

¹³ In this structure I only consider case assignment of an external argument in SpecVoiceP. The same logic can be applied to passives/unaccusatives where the subject to be case marked would be an internal argument lower in the structure.

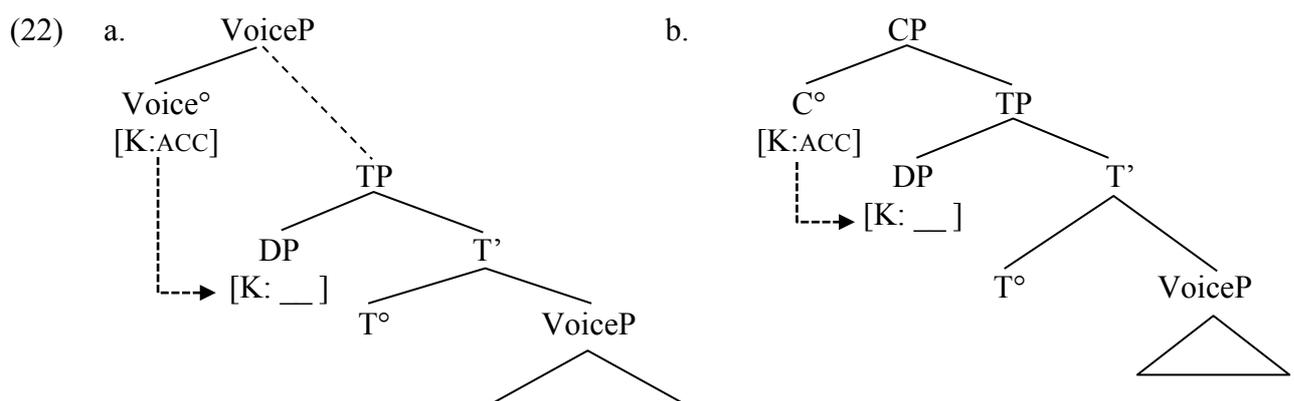
¹⁴ On null case assigners in AcI-like environments, see Kayne (1984: 38) and Sevdali (2013). A variant of this line of analysis (involving covert V-to-C movement) is applied to Latin AcIs in Cecchetto and Oniga (2002), who base themselves on Longobardi (1996).

solution along these lines, there are reasons to doubt whether it could work in the particular case of the Latin AcI. More specifically, it is not clear whether in a structure like (20) an Agree relation can be established between a Probe in the main projection line and a Goal which is embedded inside a left branch, even though all the requirements listed in (14) are met.

Consider the following pair of examples, which illustrate two types of English infinitival clauses with an overt subject.

- (21) a. I consider [_{TP} [_{DP} John/him] to be foolish]. ECM
 b. We all hope [_{CP} for [_{TP} [_{DP} John/him] to win the elections]]. *for-to* infinitive

In both structures, the embedded subject receives accusative case from a c-commanding functional head, viz. (i) matrix Voice° (lexicalized by the predicate *consider*) in the ECM-configuration in (21a) (where I assume that the infinitive is a TP rather than a CP, and that the subject DP is in SpecTP (Stowell 1982)), and (ii) the ‘dummy’ preposition *for* in (21b). The relevant structural configurations are given in (22):



Interestingly, as suggested by the examples in (23), embedded subjects that sit in the specifier (Spec1) of another specifier (Spec2) can apparently not be case marked by a c-commanding functional head located higher than Spec2 (on cases like (23a), see also Munn (1999: 662-3),

who refers to Stowell (1981)). In both examples, the target for case assignment is the subject of a subject infinitive:

- (23) a. * I consider [_{TP} [_{TP} [_{DP} John] to be foolish] to be obvious] (compare *I consider John's foolishness to be obvious*).
- b. * We all expect [_{CP} for [_{TP} [_{TP} [_{DP} John] to win the elections] to create new opportunities for our country] (compare *We all hope for John's (contingent) election to create new opportunities for our country*).

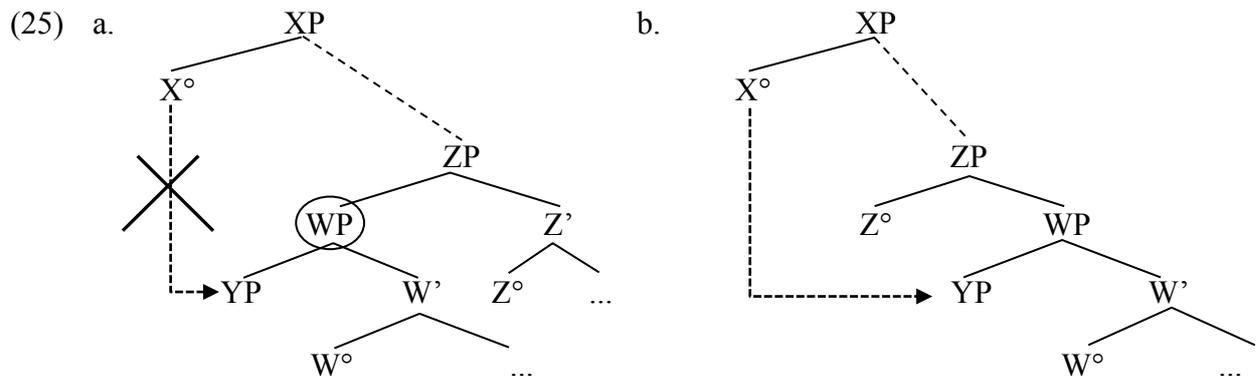
I hasten to add that it is not immediately obvious that a failure of case assignment (rather than some other factor) is indeed the cause of the ungrammaticality of these examples. However, note that the unacceptability of (23a) is probably not the result of a general ban on *to*-infinitives to appear in the canonical subject position. Native speakers that I consulted find the examples in (24), which arguably involve an infinitive with some sort of 'arbitrary PRO' subject, markedly better than those in (23) (note in particular the contrast between (23a) and (24b)), although it has to be said that speakers clearly prefer an *-ing* form (*being foolish*) as the subject:¹⁵

- (24) a. ? To be foolish is a bad thing.
- b. ? I consider to be foolish to be a bad thing.

¹⁵ On *-ing* forms acting as subjects, see Chierchia (1985). One could object that it is not clear whether in (24a) the infinitive does indeed sit in the canonical TP-internal subject position rather than in some left-peripheral topic position. This problem does not arise for (24b) however, as ECM-complements are in all likelihood not endowed with a left-peripheral space of their own.

Thanks to Ji Young Shim (p.c.) for pointing this out to me.

In addition, observe that in both examples in (23), no phonologically overt material intervenes between the case assigner and the embedded subject: in other words, the well known requirement that in English, accusative subjects need to be string adjacent to their case assigner (Stowell 1981) is met. On the other hand, on the basis of what we said earlier, the ungrammaticality of these examples is unexpected, given that none of the constraints listed in (14) above seems to be violated. In other words, (14) will have to be updated in such a way that it rules out configurations like (25a), in which the circled WP can be considered the ‘offending’ node.¹⁶ However, we don’t want to be overly restrictive, as (25b), where the path from X° to YP also goes over the same two maximal projections ZP and WP, should still be fine.¹⁷



¹⁶ I am - perhaps not entirely innocuously - assuming that it is immaterial whether WP in (25a) is an internally or an externally merged specifier.

¹⁷ The issue is arguably related to the broader question as to whether it is possible for a Probe to enter into an Agree relation with a Goal embedded deeply in a left branch (cf. the very rich literature on (the ban on) phrasal movement out of subjects, or left branches more generally; see Haegeman, Jiménez-Fernández and Radford (2014) for recent discussion): in a nutshell, in some cases it clearly is possible to subextract phrasal material from within subjects, suggesting that the locality conditions governing the operations ‘Move’ and ‘Agree’ are not entirely equal.

Ideally, we will want to offer a solution without making direct reference to notions like ‘left’ and ‘right’, which I assume are irrelevant for core syntactic operations like Agree. Before I proceed, let me just point out that phase theory does not seem to have anything to say about the difference between (25a) and (25b). Imagine for instance that W is a phase head and that neither Z, X or any of the heads in between those two are phase heads: under such a scenario, the edge of WP should be equally accessible for a probing head located outside WP when the latter c-commands Z (25a) as when it is a sister to it (25b). Alternatively, if Z is the only phase head in the structure, the establishment of a Probe - Goal relation between X and YP is blocked only in (25b), not in (25a) (which is the opposite of what we are trying to derive).

The solution that I would like to propose builds on the notion of ‘Extended Projection’ (henceforth EP), as developed in Grimshaw (1991, 2000, 2005). More specifically, I will update the set of conditions given in (14) with an additional clause stating that although the Probe and the Goal need not be part of the same EP, all nodes intervening between the two have to be a member of the same EP as the Probe. Before going there, let me offer a number of definitions. First, Grimshaw (2005: 4) defines the notions of ‘head’ and ‘projection’ as follows (*italics in original*):¹⁸

(26) X is a *head* of YP, and YP is a *projection* of X iff:

- a. YP dominates X
- b. The categorial features of YP and X are consistent
- c. There is no inconsistency in the categorial features of all nodes intervening between

¹⁸ Note that I am abstracting away from Grimshaw’s (2005: 3-5) discussion of ‘F-values’: in particular I am not adopting the additional requirement that YP can only be a(n extended) projection of X if the F-value of the latter is not higher than that of the former. This conception of ‘extended projection’ is in line with that assumed in Biberauer, Holmberg and Roberts (2014).

X and YP (where a node N *intervenes* between X and YP if YP dominates X and N, <and, ld> N dominates X).

Next, the author makes a further distinction between ‘perfect’ and ‘extended’ projections.

Simply put, the perfect head of a phrase XP is the closest head dominated by XP; all of its other (i.e. lower) heads are extended heads. Similarly, a perfect projection of a head is the closest phrasal node dominating it; all of its other (i.e. higher) projections are extended projections. Here I will - slightly informally, but in accordance with common usage - call the set of extended heads and projections of a lexical head L ‘the extended projection of L’.

Crucially, Grimshaw (2000: 117-8) adds that “it may be necessary to add the requirement that only complements, and not specifiers, participate in extended projections, by requiring that all maximal projections intervening between Y and X be complements.” If we assume that this is indeed correct, we can reformulate (14) as in (27).

(27) Locality conditions on structural case assignment (final version)

A case assigning Probe X can case mark a Goal YP iff

- (i) X c-commands YP,
- (ii) YP is categorially a DP,
- (iii) YP does not bear inherent case (i.e. is caseless),
- (iv) no CP-boundary intervenes between X and YP,
- (v) there is no caseless ZP, also of category D, such that X c-commands ZP and ZP c-commands¹⁹ YP, and

¹⁹ Note that given (26c), cases in which a caseless DP which is c-commanded by X and which dominates (rather than c-commands) YP are subject to clause (vi) of (27).

- (vi) there is no WP such that (a) X c-commands WP and WP dominates YP, and (b) WP and X are not part of the same extended projection.

Crucially, (27) does not stipulate that X and YP themselves have to be part of the same EP, which correctly allows for a YP in a specifier to be case marked by X (as long as all requirements in (27) are met).

With this in place, we are in a position to account for the different status of WP in (25a) and in (25b): only in the latter configuration can WP belong to the same EP as the probing head X (namely when all requirements listed in (26) are met), whereas in the former, it always acts as a ‘barrier’ which prevents X from case marking YP.

As a result, if the reasoning developed above is on the right track, we should rule out both patterns schematized in (22) as possible case marking configurations involved in the derivation of the Latin AcI, namely (i) the ECM-pattern (which we had already discarded on independent grounds) and (ii) the null case assigner in the embedded C-layer. More generally, all derivations in which a(n embedded) subject has to receive structural case after VoiceP is moved to SpecFP (and thus where the case assigning head sits higher than the embedded FP) are expected to lead to ungrammaticality.

Two alternatives come to mind. The first - which I will adopt here - involves accusative case assignment by the embedded non-finite T, essentially following Jøhndal (2012: 79-81) (see also Bolkestein (1979) and Miller (1993: 259 fn. 1), among others).²⁰ Although it definitely

²⁰ A similar pattern of case assignment has been argued to be available in Irish non-finite clauses (Chung and McCloskey 1987).

remains to be seen why and under which conditions non-finite T can assign accusative case²¹, this solution does have the advantage that the case assigner (T) and the embedded subject (in SpecVoiceP) are in the right structural configuration at the point where the former is first merged. The structure would be exactly as in (13), the one difference being that the case assigned is accusative rather than nominative. The second alternative is to say that the embedded accusative is actually not a structural but rather a ‘default’ case (Pillinger 1981), which occurs (as a kind of ‘last resort’) whenever for a given argument DP no structural case assigner is available. One could object that the fact that the subject of an AcI systematically appears as an accusative casts doubt on such a last resort scenario (see Jøhndal (2012) for further discussion). I will not further pursue this second alternative here.

In any event, what matters for the present purposes is that there are good reasons to assume that the source of the accusative case of the subject of an AcI is not a functional head situated higher than the embedded FP. Once this is agreed upon, the question as to why subjects of AcIs surface as they do is to some extent orthogonal to the main concerns of this chapter.

3.2.3 Intermediate summary

At this point we can conclude that three factors contribute to the fact that the grammar of Classical Latin (‘Grammar A’) can generate AcIs. The first is the CP status of infinitival clauses, which is one of the reasons why case assignment to the embedded subject from within the matrix clause is not an available option. The second is the fact that the ‘Goal parameter’ in the parameterized EPP system summarized in Table 2 above is set at the ‘XP’ value: as a consequence, the non-finite character of the hierarchically highest verb of an AcI (and

²¹ Note that it is not a general property of Latin infinitival T to assign accusative case to its subject, as subjects of historical infinitives (which canonically appear in root clauses) are always marked for nominative case.

concomitantly, its lack of φ -features) does not prevent the EPP-requirement from being satisfied. Third, the fact that the second EPP parameter (\pm pied-piping) is set at the [+ pied-piping] value entails that the embedded subject is removed from the main projection line. As a result of this, subjects in Grammar A occur deeply embedded inside a complex specifier, a position which is inaccessible for a case-assigning probe c-commanding the embedded FP.

To conclude, the availability of AcIs can be considered a result (not to say a ‘conspiracy’) of a number of independent factors. As we will now see, the parameters involved are set at different values in Late Latin, which has repercussions for - among other things - the system of clausal complementation.

4. Clause structure in Grammar B (‘Late Latin’): new ways of EPP-checking

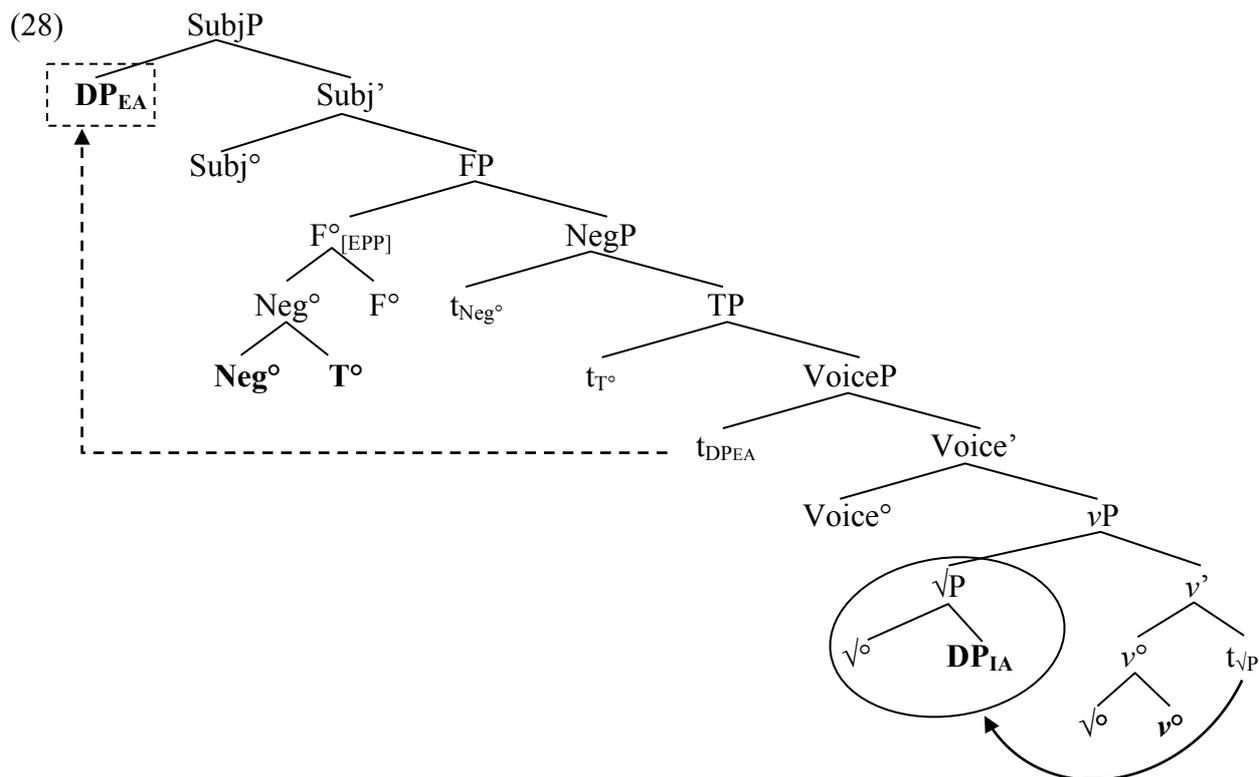
4.1 From Grammar A to Grammar B: structural reanalysis and its consequences

Building on Danckaert (2017, 2018), I assume that the main difference between the grammar of Classical and Late Latin is a resetting of the EPP parameters, which entails a major reorganization of the basic structure of the clause. In particular, I will assume (i) that in the new grammar (Grammar B, which I take to be the most prevalent one in the Late Latin period (*ca.* 200 - 600 AD)), F probes for a verbal head rather than for a DP, and (ii) that this verb does not pied-pipe any material when it moves to F. The result is a grammar with EPP-driven V-to-F movement, an operation which can optionally be accompanied by movement of the subject DP across the verb (for reasons related to information structure rather than the EPP proper).

As argued elsewhere (see again Danckaert 2017: 248-54, 2018), the innovations just sketched are themselves the result of a series of independent developments. The key change that

sets the whole process in motion is weakening of the preverbal negator *non*, which loses its status as a free standing morpheme and becomes proclitic to the T-head. Syntactically, this process of procliticization involves head movement from T to Neg, resulting in the formation of a complex head ‘Neg-T’. This change can be considered an entirely regular stage of Jespersen’s cycle (‘weakening of a preverbal negator’). Importantly, this development has two major consequences. First, the preverbal negator now no longer constitutes a locality barrier for verb movement to F: in the new grammar, the verb in T first moves to Neg and then to F, where it can effectively serve to satisfy the EPP-requirement.²² Crucially, movement of the complex ‘Neg-T’ to F and absence thereof result in the same surface string. Put differently, learners now have to decide whether they posit a grammar where the highest verb only moves to T (and further to Neg in negated clauses), or a grammar where it moves a bit higher to F. With Danckaert (2017: 252-3) I take it that given that in a Grammar B setting, a finite verb is no longer just a potential EPP-satisfier (by virtue of its having ϕ -features), but also in all cases the closest possible goal for F, the child learner should postulate verb movement all the way to F, which effectively makes further phrasal movement to SpecFP superfluous. The new structure is detailed in (28), which shows the tree for an ‘SAuxOV’ clause in Grammar B.

²² Recall that no such thing is possible in Grammar A, as movement from T to F across the free standing head negator *non* results in a violation of the Head Movement Constraint.



A second result of Neg-incorporation is reanalysis of VoiceP movement to SpecFP as a ‘roll-up’ structure, where movement of VoiceP is entirely unrelated to EPP-checking, despite giving rise to the same surface order ‘VPAux’ as in Grammar A. I take it that this type of ‘snowballing movement’ always sets out at the bottom of an extended projection, and that it can then optionally apply to higher nodes, with the proviso that no projection can ever be skipped (cf. Biberauer, Holmberg and Roberts 2014). As mentioned, this analysis correctly predicts that clauses featuring the order ‘VOAux’ should be very rare in Late Latin texts. In later stages, the ‘height’ of roll-up movement was gradually reduced, leading to the eventual loss of complement-head sequences in the Romance clause. This scenario correctly explains why VPAux orders were lost earlier than OV orders (see again Danckaert 2017 for full details).

To conclude, a Late Latin clause like (29) which features the order ‘SOV(-Neg)-Aux’ (which I assume for the sake of the argument to be the output of Grammar B) seems at first sight very similar to its Classical (Grammar A) Latin counterpart (cf. (11)). However, both structures

can actually be assumed to have very different properties (see Danckaert (2017: 254) for a detailed tree structure of the example in (29)).

(29) postquam Maroue-us episcopatu-m urb-is adept-us est
 after Maroueus-NOM bishophood-ACC city-GEN obtained-NOM.M.SG be.PRS.3SG
 ‘after Maroueus had become bishop of the city’ (Gregory of Tours, *Historia Francorum* 9.40)

4.2 Grammar A and Grammar B compared

Table 3 offers a summary of the main properties of the two systems just discussed:

	Grammar A (old)	Grammar B (new)
EPP-satisfaction	VoiceP movement to SpecFP	V-to-F movement
Negation	free morpheme	procliticized to T°
Order ‘VPAux’ derived by	(EPP-driven) A-movement	roll-up movement
Order ‘VOAux’	available	not available
DP-movement to SpecSubj	not available	available

Table 3: Classical and Late Latin clause structure compared.

Most importantly, the new parameter settings related to the EPP-requirement (‘X° attracted’ and ‘no pied-piping’) give rise to a grammar where a verbal head moves to F to check the EPP. As a corollary, subject DPs canonically stay inside the main projection line, unless some optional operation of for instance roll-up movement displaces VoiceP (or a phrasal category containing VoiceP) to a left branch.

5. Explaining the changes

With all this in place, we are now ready to solve the main puzzle of this paper, namely the changes in clausal complementation introduced in section 1. I will first show how the loss of the AcI can be made to follow from the more general reorganization of Latin clause structure discussed in the previous section. I then turn to causatives.

5.1 The loss of the AcI: the EPP in non-finite environments

Recall that the EPP is conceived of here as the need for the functional projection FP to be lexicalized by an element bearing ϕ -features. As pointed out above, in Classical Latin the finiteness of (the highest verb of) a clause is of no importance to matters of EPP-checking, as the element probed for is one of the verb's arguments. Things are very different in the new grammar, which sharply differentiates finite verbs (displaying full subject-verb agreement) and non-finite ones, as only the former can satisfy the EPP. Given that the grammar does not make available any alternative strategy for EPP-checking (assuming optional DP movement to SpecSubjP not to be driven by the EPP), the loss of the AcI follows trivially.²³

Needless to say, the process of one grammar replacing the other is very slow and gradual. It is therefore not surprising that AcIs are still regularly attested after 200 AD. However, in Late Latin they clearly start to decline, witness the fact that in this period finite complement clauses introduced by *quod*, *quia* and *quoniam* become productive even in non-factive environments. I

²³ For some recent alternative analyses, see Goldbach (2003, 2008) and Roberts (2007: 161-75).

take it that the increased productivity of the finite complementation strategy is a direct result of the loss of the AcI.

5.2 From AcI to ECM

The second instance of syntactic change that we still have to account for is the genesis of non-finite (infinitival) causatives, as well as the loss of *ut*-clauses after *facio*. As mentioned in the introduction, the second development is arguably related to the complete loss of the lexical item *ut*, and is probably unrelated to the shift from Grammar A to Grammar B, not in the least because it is very common for one predicate to appear with both finite and non-finite complement clauses.

As to the new type of infinitival complement, what I would like to propose is that the old AcI was so to speak ‘recycled’ and transformed into a new structure, which has a more limited distribution than its historical source.²⁴ More specifically, I take it that the new pattern is of the ECM type, which requires the presence of a(n accusative) case assigner in the matrix domain. Two structures in which such a matrix case assigner is present are (i) causatives with *facio* and (ii) complements to perception verbs. Both of these survive as ECM structures in the present day Romance.

5.2.1 The syntax of (early) ‘*facio* + infinitive’ causatives

Before looking at the details of the proposed process of syntactic reanalysis, let us first consider what the syntactic status is of ‘*facio* + infinitive’ causatives. First of all, there are reasons to doubt that this pattern is to be analysed as a genuine AcI. For one thing, it seems very unlikely

²⁴ The idea that the Latin AcI and certain Romance infinitival clauses are historically related is of course not new: see e.g. Bourciez (1956: 110).

that an AcI-type '*facio* + infinitive' causative should become productive at exactly the same time at which the unambiguous AcI pattern (which can occur with verbs of saying/believing, nouns, adjectival and impersonal predicates etc.) itself starts to decline (recall that the earliest non-finite causatives date from roughly the same period as the first attestations of non-factive finite embedded declaratives). Second, given the syntactic analysis just outlined, all genuine AcIs are predicted to disappear once the grammar which employs V-to-F movement to satisfy the EPP has become fully established. We know however that infinitival causatives did not die out, which suggests that they are not AcIs.

Imagine now a situation in which a language learner who has access to both Grammar A and Grammar B (which we can assume to have been in competition during an extended period of time): a number of things can happen when a child is exposed to an AcI in the Primary Linguistic Data (PLD). First of all, whenever Grammar A is put to use, the relevant string could still be analysed as an AcI, with exactly the same structure as the one discussed earlier. On the other hand, when Grammar B is selected, it is no longer possible to postulate the structure schematized in (20), and the child can only impose an alternative parse on the same string (or reject it altogether). Three such alternative configurations featuring an infinitive and an accusative DP come to mind, namely (i) ECM, (ii) a monoclausal structure in which the infinitive and a matrix verb form a complex predicate, and (iii) object control.²⁵ The exact properties of these structures will be elaborated on below. What I will propose is that in Grammar B some AcIs were reanalysed as ECM structures, a pattern that is still available in

²⁵ Note that this taxonomy of (Latin) 'ACC + INF' structures (to which we have to add genuine AcIs) is slightly richer than the two-way classification assumed in for instance Bolkestein (1976, 1979) and Vincent (2016), which does however seem to be sufficient to capture the Classical Latin facts (my Grammar A).

(some) present day Romance varieties (but see section 5.2.3 for some thoughts on the diachrony of ECM in Romance). The reasons why I think this scenario is viable are the following.

Let me start by considering whether an analysis in terms of object control is appropriate for ‘*facio* + infinitive’ causatives.²⁶ I will define object control as a syntactic configuration in which a three-place verb selects both a nominal and a clausal internal argument (the exact category (and thus ‘size’) of the latter need not concern us here), and in which the nominal argument receives a theta role from the control predicate rather than from the infinitive (Jøhndal 2012: 54-6). In Latin, a likely candidate to act as a matrix predicate in an infinitival²⁷ object control configuration is *cogo* ‘force’.

This being said, in actual practice it is often quite difficult to tell apart object control from other structures featuring an accusative and an infinitive, and some of the diagnostics that have been discussed in the literature on Latin (most prominently in Bolkestein 1976, 1979) are unlikely to be reliable. Specifically, to illustrate syntactic and semantic restrictions on object control (‘nominal object + an infinitival complement’, in her terms), Bolkestein (1979: 21) reports a number of contrasts between a predicate like *dico* ‘say’ followed by an AcI and *cogo* ‘force’ with a DP complement and a control infinitive. Specifically, the author claims that in cases of object control, the Causee must be sentient (or it should at least be the case that it can plausibly be construed as such), and able to influence/control the course of the event expressed by the embedded infinitive, whereas no such restriction holds for the subject of an AcI (cf. (30a)). She also claims that in the AcI the infinitive can either be active or passive, but that it

²⁶ On object control structures as the historical source of ECM causatives in English, see Miller (2002: 159, 183).

²⁷ In all likelihood, with predicates like *suadeo* ‘advise’ or *persuadeo* ‘convince’ (and many more) Latin allowed for a type of finite object control (featuring an embedded clause introduced by *ut* or *ne*, cf. example (35b) below).

must be active in the control structure (30b). Finally, there are also restrictions on the tense properties of the infinitive in the object control pattern, to the effect that a perfective infinitive is not allowed there (30c).

- (30) a. dic-o / *cog-o port-am pate-re
 say-PRS.1SG force-PRS.1SG door-ACC be.open-PRS.INF
 ‘I say that the door is open/I force the door to be open.’
- b. dic-o / *cog-o te lauda-ri
 say-PRS.1SG force-PRS.1SG you.ACC.SG praise-PASS.PRS.INF
 ‘I say that you are (being) praised/*I force you to be praised.’
- c. dic-o / *cog-o te uen-isse
 say-PRS.1SG force-PRS.1SG you.ACC.SG come-PRF.INF
 ‘I say that you have come/*I force you to have come.’

However, it is clear that Bolkestein’s judgements for the constructed examples in (30a,b) are inaccurate, given that *cogo* can in fact appear with inanimate Causees (such as *pacem* ‘peace’ in (31)), with passive infinitives (like *condemnari* ‘be condemned’ in (32)), and with both simultaneously (cf. *tot et tanta uitia* ‘so great and so many vices’ and *superari* ‘be overcome’ in (33)).²⁸

- (31) od-ere uent-os et imbr-es, qu-i inter ill-os
 hate-PRF.3PL winds-ACC and showers-ACC which-NOM.M.PL between DEM-ACC.M.PL
 pac-em esse cog-unt

²⁸ On the other hand, object control infinitives do in fact always seem to display present tense morphology (arguably for semantic reasons, cf. Vincent 2016).

peace-ACC be.PRS.INF force-PRS.3PL

‘They hate wind and rain, which force peace upon them.’ (Plinius, *Naturalis Historia* 16.159)

(32) sed indict-a caus-a ciu-em Roman-um capit-is
but not.heard-ABL cause-ABL citizen-ACC Roman-ACC head-GEN
condemna-ri coeg-it
condemn-PASS.PRS.INF force-PREF.3SG

‘But without a hearing, he had a Roman citizen condemned to death.’ (Cicero, *Pro Rabirio perduellionis reo* 12)

(33) nonne [...] di ips-i immortal-es cog-a-nt ab
Q gods.NOM self-NOM.M.PL immortal-NOM force-PRS.SBJV-3PL by
his praeclar-issim-is uirtut-ibus tot et tant-a
DEM.ABL.F.PL outstanding-SUP-ABL virtues-ABL so.great and so.many-ACC
uiti-a supera-ri?
vices-ACC defeat-PASS.PRS.INF

‘Would not the immortal gods themselves ensure that such a display of depravity were defeated by these outstanding virtues?’ (Cicero, *In Catilinam* 2.25)

It is not immediately clear how exactly these data are to be interpreted: one possibility is that the tests proposed by Bolkestein (1979) can simply not be used to identify object control.

Alternatively, it may be the case that *cogo* was at least for some speakers ambiguous, in that it could appear with more than one type of clausal complement (object control infinitive, AcI, and/or ECM). Finally, it is also conceivable that Latin did not have infinitival object control, and

- (35) a. si inutil-iter aliquid senatu-i suas-eri-m
 if useless-ADV something.ACC.N.SG senate-DAT advise-PRF.SBJV-1SG
 ‘if I have given useless advice to the senate’ (Cicero, *Ad Brutum* 2.1.2)
- b. suade-bi-t tibi_i [ut ____i hinc disced-a-s]
 advise-FUT-3SG you.DAT.SG that from.here go.away-PRS.SBJV-2SG
 ‘He will advise you to go away from here.’ (Cicero, *Divinatio in Q. Caecilius* 52)

In sum, given the absence of unambiguous evidence for a three-place usage of *facio*, perhaps compounded with the fact that inanimate Causees and passive infinitives are readily found in the pattern under discussion, it seems safe to discard the object control analysis.

It then remains to be decided whether the Late Latin ‘*facio* + infinitive’ causatives are of the ECM or of the complex predicate type. We can define an ECM structure as a biclausal configuration in which an embedded subject is case marked but not theta marked by a matrix predicate (see the tree in (43) below, and recall the discussion in section 3.2.1). In contrast, as the term suggests, a complex predicate is a ‘restructured’ monoclausal domain in which a functional (*in casu* causative) verb and a lexical non-finite verb together act as one single predicate. According to Ciutescu (2013b), (present day) Catalan, Italian and French²⁹ only have complex predicate causatives, Romanian only has the ECM pattern, and Spanish and European Portuguese have both. The syntactic differences between the two patterns are numerous (for recent discussion, see Ciutescu (2013a,b) and Sheehan (2016); see also the many references cited there). One difference (again) concerns the availability of passive infinitives (which is of course related to whether or not the lexical verb sits in a clause of its own, and thus whether it is endowed with some amount of functional superstructure): as we will see in more detail in section

²⁹ But see Kayne (2004 : 197-9) for an ECM analysis of agentive datives in French *faire*-infinitive causatives.

5.2.3, in the case of complex predicates only (morphologically) active infinitives are licit, even if the relevant verb is interpreted as a passive, but in ECM configurations, passives tend to be acceptable.³⁰ In other words, example (34) does in fact suggest that the earliest ‘*facio* + infinitive’ causatives are not complex predicates.

A second very conspicuous difference between the two types of causatives is that it is only possible in the ECM pattern for the embedded verb to be independently negated (see e.g. Sheehan 2016: 989). For instance, in Standard Italian, where only complex predicate causatives are available, the following example is strongly unacceptable (Guasti 1993: 36, her example (38)):

- (36) *Ciò ha fatto non mangia-re (più) la pappa al bambino.
that have.PRS.3SG made not eat-INF anymore the soup to.the child
‘That made the child not eat his soup (anymore).’

³⁰ For instance, passives are fine in English ECM configurations with *believe*, as illustrated by the following attested example:

- (i) Fugro later clarified in a statement that it believed the search area to have been well defined based on the data available.

(<https://www.theguardian.com/world/2016/jul/21/mh370-hunt-team-leading-search-says-they-may-have-been-looking-in-wrong-place>, last accessed 30.03.2020)

In addition, as pointed out in Guasti (1993: 118-9), in Italian complements of perception verbs of the ECM type (with accusative subjects), passives with the auxiliary *venire* (lit. ‘come’) are completely acceptable (but with the auxiliary *essere* ‘be’ they are only marginal).

Similar facts have been reported for Catalan and French (albeit in the latter case with some complications, cf. Labelle (1996) and Rowlett (2007)). Importantly however, in those Romance varieties where ECM causatives are available, the embedded infinitive can freely be negated, which suggests that in the relevant pattern the infinitival domain is endowed with a certain amount of functional superstructure of its own (examples from Torrego (2010: 451, her (9)) and Martins (2006: 328, her (3b)):

- (37) a. El jefe hizo a sus clientes **no** divulga-r la noticia. Sp.
 the boss made to his clients not spread-INF the news
 ‘The boss made his clients not spread the news.’
- b. O médico mandou=o **não** beb-er vinho. E. Prt.
 the doctor sent=him.ACC not drink-INF wine
 lit. ‘The doctor made him not drink wine.’

Importantly, it is not difficult to find Late Latin examples with causative *facio* and a negated infinitive. In (38) and (39), the relevant pattern (in boldface) is accompanied by an overt Causee (underscored):

- (38) Qu-is enim neg-e-t ita homin-es natur-a mort-em
 who-NOM.M.SG PRT deny-PRS.SBJV-3SG so people-ACC nature-ABL death-ACC
 time-re [ut eam nonnull-os uix rar-a anim-i
 fear-PRS.INF so.that DEM.ACC.F.SG some-ACC.M.PL hardly rare-NOM mind-GEN
 magnitudo **faci-a-t non time-re**?
 magnitude.NOM make-PRS.SBJV-3SG not fear-PRS.INF

‘For who would deny that people naturally fear death to such an extent that it only rarely happens that great strength of mind makes some people abandon their fear (lit. not to fear it)?’ (Augustine, *Contra Iulianum opus imperfectum* 6.16)

(39) quod nos plerumque **fac-it** **non dormi-re**
 which-NOM.N.SG us.ACC often make-PRS.3SG not sleep-PRS.INF

‘what usually causes us not to sleep’ (Tiberius Claudius Donatus, *Interpretationes Virgilianae* 1.6 (p. 618 l. 11 Georgii))

Two additional examples in which the Causee (a generic third person in (40), and an imaginary pious man introduced earlier in the discourse in (41)) is left unexpressed are given below:

(40) Ceruin-a pell-is substrat-a **fac-it** **non time-re**
 of.a.deer-NOM skin-NOM spread.out-NOM make-PRS.3SG not fear-PRS.INF
 serpent-es.
 snakes-ACC

(lit.) ‘A deer skin as bed spread makes one not fear snakes.’ (Cassius Felix, *De medicina* 70)

(41) ut **faci-a-t** **non cred-ere** quod de-i fili-us
 so.that make-PRS.SBJV-3SG not believe-PRS.INF that god-GEN son-NOM
 uer-e hanc nostr-am suscep-eri-t carn-em
 real-ADV DEM.ACC our-ACC assume-PRF.SBJV-3SG flesh-ACC

‘so that he makes him not believe that the son of God really assumed this flesh which is also ours’ (Ambrosius, *Expositio euangelii secundum Lucam* 4.10 (Tissot))

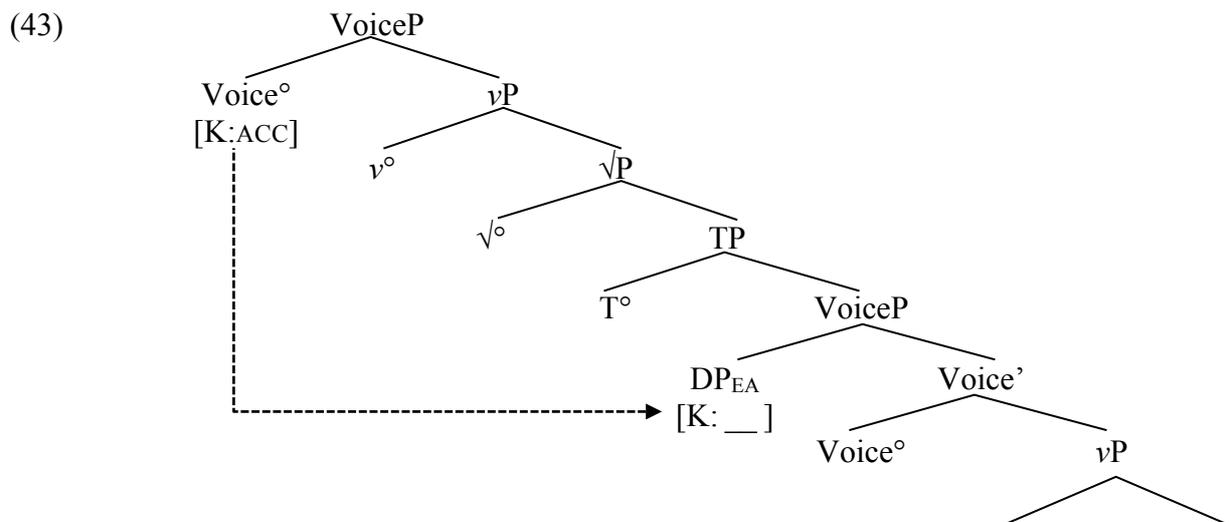
[VP **V**_{CAUS/PERC} [CP [FP [VoiceP **DP**_{ACC} [Voice' ... **V**_{INF} ...]]] [F' F_[EPP] [TP [T' T t_{VoiceP}]]]]]]]



b. Output structure (Grammar B) ECM

[VP **V**_{CAUS/PERC} [TP [T' T [VoiceP **DP**_{ACC} [Voice' ... **V**_{INF} ...]]]]]]]

A more detailed characterization of the newly created ECM configuration (and of the case marking mechanism therein) is given in (43).³²



It should be clear that the AcI and the ECM pattern are very different in two important ways. First, the new structure is not a full clause but rather a structurally deficient domain which is not endowed with an EPP-requirement of its own. Simplifying somewhat, let us say that it is a TP

³² Note that in (43) we see ECM of an external argument: in passive/unaccusative contexts the same operation can also apply to an internal argument lower in the structure.

rather than a CP. Second, given that in the newly created structure (i) no node intervenes between the matrix Voice head and the embedded subject which is not part of the same EP as the case assigning Probe (by virtue of the new EPP-parameter settings), and (ii) given the absence of a CP-boundary (structural simplification)³³, a new pattern of case assignment becomes available, namely one in which the matrix predicate (more accurately, matrix Voice) case marks the embedded subject. I will assume that as soon as the language learner has postulated an ECM parse, the embedded T head loses its ability to assign accusative case.³⁴ A crucial result of this analysis is that the old AcI could only be ‘recycled’ in cases where a matrix predicate is present which can assign accusative case to the embedded subject. As indicated in (42), environments featuring a perception or a causative predicate in the matrix clause meet this requirement.³⁵ Let us then briefly consider some additional details of this process of reanalysis.

³³ The only additional point to note is that I assume that the restriction in clause (d) of (26) is lifted through head movement of the matrix lexical verb (viz. a ‘ $\sqrt{+v}$ ’-complex) to Voice^o, to the effect that there is no longer any lexical node intervening between Voice^o and the embedded subject.

³⁴ Alternatively, if one adopts the scenario in which a null case assigner in C^o is the source of the accusative case marking of the subject of the AcI (despite the objections raised in section 3.2.2), structural simplification from CP to TP would automatically entail the loss of the case assigner, and thus the loss of the AcI as a grammatical option. Many thanks to Ian Roberts for pointing this out to me.

³⁵ In addition, in some early Romance varieties ECM-like constructions also appear with verbs of saying and believing (see among others Martineau (1990b: 297-320) and Pountain (1998)), yielding a construction which according to many is a learned borrowing from Latin. As is well known, in present day Romance languages an ECM configuration with *believe*-predicates is

In the case of perception verbs, the scenario is rather straightforward, as verbs of visual and auditive perception frequently appear with AcIs in Classical Latin, and as a result, we can be confident that the input structure for the proposed reanalysis was readily available in the PLD. It only needs to be added that the input and the output structure are not entirely semantically equivalent, in that the newly formed ECM configuration typically involves direct perception (see for instance Rizzi 2000), whereas there is no such requirement for Classical Latin AcIs after perception verbs.³⁶ For the case of *facio*-causatives, things are slightly more complex, as the input structure one would have to assume differs more strongly from the output structure. Two factors can be thought to have contributed to the creation of ‘*facio* + infinitive’ ECM structures.

The first is the existence of infinitival complements to the verb *iubeo* ‘order’, which in the classical language can also be construed with a finite *ut*-clause.³⁷ As pointed out in Jøhndal (2012), the syntactic status of infinitival complements to *iubeo* is not immediately clear, as both an AcI and an object control analysis seem possible.³⁸ In cases where *iubeo* appears with a passive infinitive (44), an AcI analysis seems most plausible (but recall the discussion in section 5.2.1):

typically only available under *wh*-movement of the subject (see Postal (1974: 53) for an early statement).

³⁶ But see among others Labelle (1996) for some qualification of this direct perception reading of infinitival complements.

³⁷ For recent discussion on causative *iubeo* in Classical Latin, see Costantini (2012), who suggests that in some cases, the relevant predicate does not behave as a fully lexical category.

³⁸ The following often-quoted example from Plautus might well instantiate object control (with a covert direct object of *iubeo*):

- | | | | | |
|-----|----------------|---|----------|-----------------------|
| (i) | iube | <i>pro</i> _i [PRO _i | ocul-os | elid-ere] |
| | order.IMPV.2SG | | eyes-ACC | gouge.out-ACT.PRS.INF |

(44) itaque [infirm-ior-es milit-es ex omn-ibus centuri-is
 and.so weak-COMP-ACC soldiers-ACC from all-ABL century-ABL
 delig-i] iube-t [...].
 select-PASS.INF.PRS order-PRS.3SG

‘And so he ordered that the weakest soldiers of all units be picked out.’ (Caesar, *De bello
 ciuili* 1.64.4)

The idea is then that the causative ‘*facio* + infinitive’ structure is modelled on the older ‘*iubeo* + infinitive’. This is in essence the line of analysis pursued in Norberg (1945), who proposes that the rise of the *facio*-causatives is to be understood as an analogical extension of the pattern with *iubeo*. It is in this respect tempting to hypothesize that there is a correlation between the fact that the lexical item *iubeo* does not survive in the Romance languages (despite being well represented in Late Latin), and the eventual success of causative *facio* (in its many guises).

On the other hand, in Classical Latin it is in fact possible for *facio* to appear with an AcI, but the relevant structure clearly doesn’t have the same semantics as the later causatives. More precisely, as noted as early as Thielmann (1886), in Classical Latin one finds examples such as (45), where the verb *facio* means something like ‘portray as’:

(45) at uero Polyphem-um Homer-us [...] cum ariet-e etiam
 but PRT Polyphemus-ACC Homer-NOM with ram-ABL also
 conloqu-ent-em fac-it eius=que lauda-re
 speak.with-PTCP.PRS-ACC.M.SG make-PRS.3SG DEM.GEN.M.SG=and praise-PRS.INF
 fortun-as [...].

‘Tell them to gouge out his eyes.’ (Plautus, *Rudens* 659A)

fortunes-ACC

‘But Homer also portrays Polyphemus as talking with a ram and praising its fortune.’

(Cicero, *Tusculanae disputationes* 5.115)

Note however that in order for this type of ‘*facio* + infinitive’ collocation to be able to be the historical source of the later genuine causatives, there would have to be a rather strong semantic difference between the putative input and output structure. In other cases, such as (46), *facio* complemented by an AcI means something like ‘pretend’ (rather than ‘portray myself as’), but here too we are still quite far away from the desired causative meaning.

(46) itaque fac-io me ali-as re-s ag-ere
therefore make-PRS.1SG me.ACC other-ACC things-ACC do-PRS.INF

‘So I pretend I’m doing other things.’ (Cicero, *Epistulae ad familiares* 15.18.1)

I therefore (tentatively) conclude that the input structure for the reanalysis of causative structures features a form of *iubeo* rather than *facio*, and that the latter verb was only later ‘inserted’ into the newly formed ECM causative.

5.2.3 Later developments: variation between ECM and complex predicates

It should be pointed out that the scenario outlined in the previous section is apparently at odds with a number of well-documented developments in Old Romance varieties, which suggest that complex predicate causatives are older than ECM causatives (see among others Pearce 1990; Davies 1995a,b, 1996, 2000; Martins 2006; Soares da Silva 2012). In particular, although the ECM configuration is attested in most of the earliest texts, corpus data concerning (i) case marking patterns of the Causee (dative (complex predicate) vs. accusative (ECM)), (ii) presence

or absence of clitic climbing (*ex situ* (complex predicate) vs. *in situ* (ECM)), (iii) presence or absence of reflexive SE (absent (complex predicate) vs. present (ECM)) and (iv) word order (V(O)S (complex predicate) vs. SV(O) (ECM)) suggest that the incidence of the ECM pattern increases over time, which in turn makes it a likely candidate to be a Romance innovation (see especially Davies (1995a) (on Old Spanish) and (1996) (on Old Portuguese)). Although I certainly do not wish to dispute the relevant observations, I do think that they should not be interpreted to mean that the ECM pattern was not inherited from Late Latin, and that it did not come into being earlier than the complex predicate type. Let me briefly outline why I think this is so.

As mentioned, there are good reasons to assume that the Late Latin ‘*facio* + infinitives’, which become fully productive from about the third century onwards, are neither AcIs (unlikely chronology) nor complex predicates (availability of embedded negation and passive infinitives). On the other hand, there is also evidence that in the very late stages of the Latin language, the complex predicate type causative had in fact emerged (plausibly as the result of another round of structural reanalysis). The crucial pieces of evidence that support this conclusion are (i) the earliest attestations of the agentive dative subject and (ii) the spread of morphologically active infinitives with passive meaning, both of which we can take to be defining properties of the complex predicate construction. As to the agentive dative Causee, the oldest attested token seems to date from the sixth century AD (Norberg 1945: 88):

(47) ut faci-a-m ei, qu-i surrex-it,
 so.that make-PRS.SBJV-1SG DEM.DAT.M.SG who-NOM.M.SG stand.up-PRF.3SG
 inueni-re merced-em
 find-PRS.INF reward-ACC
 ‘so that I will make him who has stood up find his reward’ (*Vitae Patrum* 5.10.28)

As documented in Chamberlain (1986), at around the same time we see that infinitives complementing *facio* that are interpretively passive are more and more frequently morphologically realized as active. This phenomenon, illustrated in (48), is very common in texts from the seventh and eighth century.

(48) omn-es Goth-os ad christian-am leg-em **baptiza-re** fec-it
all-ACC Goths-ACC to Christian-ACC law-ACC baptize-ACT.PRS.INF make-PRF.3SG
‘He had all Goths baptized in accordance with the Christian customs.’ (Fredegarius,
Chronicarum libri 4.8)

Importantly, this last development is not to be ascribed to the disappearance of the synthetic passive (which only happens later, see Danckaert (2017: 289-91) and references cited there). Nor can it plausibly be due to phonological levelling of the endings of (certain) active and passive infinitives which in the classical language were differently realized as *-rĕ* and *-rī* respectively. As is well known, the phonological distinction between these two endings had become neutralized Late Latin, rendering infinitives as *baptizare* in (48) ambiguous. This phonological ambiguity was argued in Muller (1912) to be the driving force behind syntactic changes affecting ‘*facio* + infinitive’ constructions (see also Davies 1995a,b; 1996), but this idea was strongly (and rightly) criticized in Norberg (1945). For one thing, the relevant phonological development does not lead to any morphological overlap in the case of infinitives of verbs of the third conjugation, but here too the active form (with passive meaning) appears in causative constructions:

(49) du-os eiusdem german-os capit-e truncat-o in pute-um

two-ACC same.GEN.M.SG brothers-ACC head-ABL cut.off-ABL in well-ACC

fec-isti **proiec-ere**

make-PRF.2PL throw-ACT.PRS.INF

‘You had two of his brothers beheaded and thrown in a well.’ (Fredegarius, *Chronicarum libri* 3.19)

All this strongly suggests that causative complex predicates only came about in the very last stages of Late Latin, and thus much later than the earlier ‘*facio* + infinitive’, which (by elimination) we have identified earlier as ECM configurations. An additional advantage of this scenario is that it involves a ‘logical’ development with two successive steps of structural reduction, going from a biclausal structure with an infinitival CP to a biclausal structure with an infinitival TP, and finally to a monoclausal structure with a complex predicate. In contrast, if one were to assume that it was the complex predicates that were created first, one would either have to say that the relevant structures are entirely unrelated to the Latin AcI (which would leave the question as to the origin of the *facio*-causatives again entirely open), or it would be necessary to assume a direct transition from the AcI to a monoclausal structure. The radical character of this last process does not make this an appealing option.

To return to the later development of the ECM and complex predicate structures in Romance, I take it to be uncontroversial that both patterns still exist in many varieties (see again Ciutescu (2013a,b) and Sheehan (2016)). Note however that I do not want to say that all of the ECM structures in present day Romance are continuations of the pattern that came about as a by-product of the shift from Grammar A to Grammar B; rather, some ECM patterns may very well be (much) later innovations. For instance, according to Martins (2006) the Portuguese ECM configuration with a perception or causative verb and an inflected infinitive was only innovated

in the 15th century. I have no objection against this analysis, which strikes me as fully compatible with my own account of the (Late) Latin data.

6. Conclusion

In this paper, I have tried to derive a number of phenomena concerning the availability and distribution of infinitival complements in Classical and Late Latin from a set of independently motivated assumptions on clause structure in the two periods. Crucial reference was made to a major parametric change concerning the way in which the EPP-requirement is satisfied. The proposed analysis neatly explains why the Classical Latin AcI was lost, and how an ECM configuration could emerge. At a more general level, this paper shows how ‘constructional’ changes can be made to follow from more abstract, non-construction specific parametric changes.

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