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Subject licensing in infinitival clauses: The Case of the Latin Acl

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Abstract

This thesis investigates the Latin infinitival construction known as *Accusativus cum Infinitive* 'Accusative with Infinitive' (AcI) with a particular focus on the properties of its subject. The subject of the AcI is typically overt and bears accusative case; this thesis seeks to understand how this overtness and how this case is obtained in syntax. A central claim is that these two questions are crucially different, and that explaining the one does not entail explaining the other.

The temporal properties of the AcI, its similarities to and distinctness from other infinitival clauses, in particular control infinitives, as well as its phrase-structural status will also be considered. General theoretical issues surrounding PRO, Case and the intricate intersection between Control and Non-Control will also be recurring themes. I study the distinctions between a variety of infinitival clauses, the empirical scope of Case-theory and the role of Tense in the licensing of subjects. I also critically review previous work on the Latin AcI based on Case Theory, arguing that they fall short of providing a clear answer to the research questions of this thesis. Finally, I explore a non-Case-based approach, the system developed by Landau (2004 *et seq.*) and its potential to account for the Latin data.

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List of abbreviations

Tags

ABL = ablative

ACC = accusative

ACT = active

DAT = dative

FUT = future

GEN = genitive

DGV = gerundive

INF = infinitive

IPFV = imperfect

LOC = locative

NEG = negation

NOM = nominative

PERF = perfect

PLPRF = plurperfect

PRES = present

PRT = particle

PTCP = participle

Q = interrogative

REFL = reflexive

SBJ = subjunctive

Authors

Caes. *Gal.* = Caesar *De bello Gallico*

Cic. = Cicero

Att. = *Epistulae ad Atticum*

Fam. = *Epistulae ad familiares*

Off. = *De officiis*

Phil. = *Philippicae*

Liv. *Ab Urbe* = Livius *Ab Urbe Condita*

Per. Aeth. = *Peregrinatio Aetheriae*

Pl. = Plautus

Am. = *Amphitruo*

Men. = *Menaechmi*

Ter. = Terence

And. = *Andria*

Heaut. = *Heauton Timorumenos*

Verg. Ecl. = Virgil *Eclogues*

1. Introduction

Throughout its recorded history, the Latin language makes ample use of a construction known as the *accusative and infinitive* (henceforth AcI, after its Latin designation, *accusativus cum infinitivo*). The AcI consists minimally (in the case of intransitive verbs) of a verb in the infinitive plus a noun phrase which bears accusative case, which is interpreted as the subject of the infinitival verb. The standard assumption is that this subject belongs exclusively to the infinitival clause, having no dependency on the matrix verb, as illustrated in (1):¹

- (1) spero [tibi me causam probasse]
 hope.1SG you.DAT me.ACC case.ACC prove.PRF-INF
 'I hope I have proven/ I proved my case to you'

(Cic. *Att.* 1.1.4)

The presence of a surface subject distinguishes the AcI from other types of infinitival clauses where the overt expression of the logical subject of the infinitive is not permitted. This is illustrated for English in (2) and Latin in (3):

- (2) I persuaded Bill [(Bill/him*) to come]

- (3) Remotisque arbitris [ad se] adolescentem iussit [venire]
 Removed.ABS witnesses.ABL to REFL.ACC young-man.ACC order.PRF3SG come-INF
 'When those present were gone, he ordered the young man to come to him.'

(Cic. *Off.* 3.112.9)

The primary issue that this thesis seeks to investigate is why certain infinitival constructions allow or require the overt expression of the subject while others do not, as illustrated by the

¹ Throughout this thesis, I will sometimes use square brackets to mark infinitival clauses. This renders the identification of the relevant string immediate for the reader and is particularly practical in the case of the Latin AcI. In addition, the subject and the infinitive of the AcI are underlined. As is normal practice, ungrammaticality is signalled by the asterisk*. Parentheses are sometimes used as a means to compress information. If the asterisk is placed outside the parentheses, this means that the sentence is ungrammatical *without* the content in parentheses; if it is placed inside the parentheses, as in example (2) above, the sentence is ungrammatical *with* the addition of the content in parentheses.

contrast between (1) and (2-3). Differently put, this thesis seeks to investigate how subjects in infinitival constructions are licensed in syntax. In this regard, particular attention is devoted to the Latin AcI as a case study, but other infinitival clauses will also be examined. This applies in particular to control infinitivals like (2-3), since they in many ways are the mirror image of the AcI, but also so-called Exceptional Case Marking/Raising-to-Object constructions (ECM/RtO) and English *for*-infinitives will be discussed.

The general research question stated above can be split into two distinct sub-questions. The first relates to *case assignment*, and can be formulated as in (5). The second question relates to the fact that the subject of the AcI is *overt*, in contrast to the silent/covert subject of the infinitival construction in (3) above. This question can be formulated as in (6). As an ancillary, to some extent interrelated question, we can ask what kind of constituent the AcI really is, which can be expressed in more technical terms as in (7):

- (5) How does the subject of the AcI receive accusative case?
- (6) What licenses subject overtness in Latin infinitival clauses
- (7) What is the categorial and phrase-structural status of the Latin AcI?

Word order on the other hand will not be treated in this thesis except for some comments which serve as ancillary arguments related to the other research questions.

It should be stated in advance that this thesis will not provide definite answers to these questions, nor even propose any developed analysis of its own. This does not mean that I will not advance concrete claims. A central argument of this thesis is precisely that the licensing of the overt subject in the AcI, and by extension in infinitival constructions in general, does not follow straightforwardly from Case theory, or more succinctly, that deriving the accusative case of the subject does not explain its overtness.

In general, this thesis aims to investigate the issue of subject-licensing in the Latin AcI and its relevance to syntactic theory in general. My objectives are to present the empirical facts of the Latin AcI and to highlight the theoretical issues and challenges these facts present for any formal analysis. Some important analyses of the AcI which have been proposed in the research literature will be critically examined. I will show that the AcI pose several problems

which have not yet been fully accounted for.

The structure of this thesis is as follows: in Chapter 2, I provide some theoretical background to current Minimalist syntax, focussing on issues that will be of importance in later chapters. Chapter 3 offers a brief overview over some infinitival constructions in English and the role Case Theory has played in analysing these. Chapters 4 and 5 provide the most important contributions of this thesis. Chapter 4 is devoted to a discussion of the merits and shortcomings of some previous analyses of the Latin AcI. In Chapter 5, I review an approach that divorce the notion of NP-licensing from Case Theory and explore its relevance to the Latin AcI. Chapter 6 closes the thesis with a short summary and some concluding remarks.

In the remainder of this chapter, I will provide a general introduction to the Latin AcI. In section 1.1, I first discuss what relevance this particular construction holds for generative syntax. In section 1.2, I briefly address the issue of the data used in this thesis, also providing some information on glossing. Finally, Section 1.3, which constitutes the bulk of this chapter, takes a first close look at the Latin AcI with the intention of establishing the 'big facts' without entering into any analysis at this point.

1.1 The relevance of the AcI to syntactic theory

Latin ceased to be spoken as a native language well over a millennium ago. The Romance languages that evolved from it replaced the AcI-construction with finite complement clauses.² This state of affairs might lead us to think that the Latin AcI is a remote phenomenon, relevant to the Classics student and the philologist, but not the generative linguist.

I argue that nothing could be farther from the truth. First, because Latin was for a very long time a living language, and the AcI was hardly confined to the learned jargon of the Roman elite, the historians, orators and philosophers. In fact, the AcI is frequently used in

² A possible exception are verbs of perception like 'see, hear', etc., which may still embed infinitival constructions which at least on the surface seem to continue the AcI. It should also be noted that the Old Romance languages in the medieval period still made use of the AcI and AcI-like constructions, although it is unclear whether these were still features of vernacular language at that point, or rather learned or artistic imitations of Classical language (Mensching 2000)

'colloquial' genres like the comedies of the popular playwright Plautus, the letters from the soldier Claudius Terentianus, or even in the graffiti on the walls of Pompei (Adams 2013). The AcI is therefore just as psychologically real as any other phenomenon of natural language, and a science like linguistics, based on the hypothesis of a biologically defined universal language faculty that underlies and generates all human language, should take interest in this phenomenon. Furthermore, as we shall see in Section 3, infinitival constructions in general have played an important role in the development of syntactic theory. It is only reasonable that the Latin AcI should contribute to this theoretical debate, both by serving as a testbed for the theories of NP-licensing and case assignment that have been proposed, and by providing new data that serve to refine existing theories and to inform this domain of syntactic theory.

1.2 The data used in this thesis and the PROIEL treebank

The research questions stated in the introduction are all *qualitative* in nature. I am not concerned with any *quantitative* dimensions of the AcI such as distributional patterns or frequencies of occurrence in different authors or genres, nor in any possible evolution of the construction over time. This is largely because the AcI is investigated not so much in its own right as in how it informs the more general issue of subject-licensing in infinitival constructions from a theoretical perspective. Furthermore, the kind of properties we will be concerned with are not in any way marginal or controversial, but widely attested across different genres and writers.

Based on these considerations, I have decided not to restrict my data collection to any predefined corpus. I have, however, imposed two general restrictions on the data, namely (i) that they should come from prose texts (not verse), and (ii) that they must not come from texts younger than 400 AD. In actual practice, most of the data are drawn from particularly three Latin texts: i) Caesar's *De Bello Gallico* ('The Gallic War'), dated to 58-49 BC, ii) Cicero's *Epistulae ad Atticum* ('Letters to Atticus'), i.e. letters to his friend Titus Pomponius Atticus from 68-44 BC, and iii) *Peregrinatio Aetheriae* ('The Pilgrimage of Aetheria'), also known as *Itinerarium Egeriae*, dated to the early 380s. The reason for giving priority to these texts is that they are available through PROIEL (Haug and Jøhndal 2008), which is an online treebank of ancient Indo-European languages manually annotated for morphological tags and

dependency structures. The INESS database allows one to search the PROIEL corpora by querying for specific morphosyntactic structures. I will occasionally make use of ancillary data; these can be drawn from various sources, such as dictionaries (e.g. OLD), online resources (e.g. Project Perseus), or simply passages from Latin literature that I am personally familiar with.

1.2.1 Glossing

In glossing my example sentences, I have tried to adopt a practical approach. Since Latin is a morphologically very rich language in both the nominal and verbal domains, a complete tagging of all morphology results in glosses which are very long and unwieldy to read. I have therefore focused on the information which is most relevant to my objectives. I loosely follow the approach adopted by Danckaert (2017: xxiii), omitting tags from certain categories which can be considered *default*; this entails tagging verbs for passive, but not for active voice, or for subjunctive but not for indicative mood, etc. Present tense is also considered default, gender tags are omitted, and plurality is indicated directly in the gloss rather than in separate tags.

1.3 The core facts of the Latin AcI

This section introduces the basic properties of the Latin AcI. The core facts of the AcI are simply enumerated and illustrated with some examples; no attempt at exhaustivity is made and no analysis is proposed, since the purpose at this point is only to familiarize us with the construction and to set the ground for the discussion in subsequent sections. In Section 1.3.1, we consider the tense properties and the morphology of the infinitive, while Section 1.3.2 deals with grammatical function and subcategorization patterns. I round off in Section 1.3.3 by discussing AcIs employed as main clauses, a by no means infrequent use of the AcI which every theory must take into consideration.

1.3.1 Tense and the morphology of the infinitive

Although we cannot say anything at this stage about the exact phrase-structural status of the AcI, the Latin AcI is a *clausal* constituent, which in turn means that it is a projection of the

verb. In syntactic theory, heads project (see section 2.1), which suggests that the head of the Latin AcI is the infinitival verb. We will now consider the semantic and morphological properties of this infinitival verb.

Starting out with morphology, the Latin AcI inflects for tense and voice, yielding in total 6 infinitives which are listed in the following paradigm (8) based on the verb *dicere* 'to say'. Three of these forms — the present active, the present passive, and the past active — are morphologically synthetic. The rest of the forms are periphrastic, employing an auxiliary. The past passive and the future active AcI use the (present) infinitival form of *esse* 'to be' as auxiliary, plus participles to denote the main verb, respectively the past passive participle (stem *dict-*) and the future active participle (stem *dictur-*). The participles agree in case, gender and number — but not in person — with the subject of the AcI. The auxiliary *esse* is often omitted, leaving the participle as the only overt verbal form in the AcI. The future passive infinitive uses the form *iri* (the present passive infinitive of the verb *ire* 'to go') plus the supine, a verbal noun.³

(8) **The Latin infinitival paradigm**

	Active	Passive
Present	dicere	dici
Past	dicisse	dictus, -a, -um esse
Future	dicturus, -a, -um esse	dictum iri

This paradigm allows the Latin AcI to express both anterior (9), simultaneous (10) or posterior (11) tense:

³The future passive infinitive is not very frequent and often replaced by a doubly embedding periphrasis, whereby the matrix verb embeds an impersonal AcI headed by *fore/futurum esse* - itself the future active infinitive of *esse* - which in turn embeds a finite clause in subjunctive mood introduced by the complementiser 'ut'. The *fore/futurum esse*-periphrasis also occasionally replaces the future active AcI.

(9) Vettiū primo negabat [se umquam cum Curione constitisse]

Vettius.NOM first denied REFL.ACC ever with Curio.ABL stand.PERF.INF

'Having been led in, Vettius first denied that he had ever been/ ever was in league with Curio'

(Cic. *Att.* 2.24.2)

(10) [gratum enim tibi id esse] intellego ...

thankful.ACC enim you.DAT it.ACC be.INF understand.1SG

'For I understand you are pleased about it ...'

(Cic. *Att.* 4.16)

(11) hanc ego teneo sed [usurum me] non puto

this.ACC.F I have.1SG but use_FUT.PTCP.ACC.M me.ACC NEG think.1SG

'This I have, but I do not think I will make use of it'

(Cic. *Att.* 2.18.3)

Although these examples demonstrate that the AcI can be used to describe events as taking place in the present, past, or future, the tense of the AcI cannot be interpreted *absolutely*, i.e. it cannot be relative to the *utterance time*. Thus the actual temporal reference of the AcI is established indirectly through the interaction of the tense on the matrix verb and the tense on the AcI itself (or more precisely, the event times). This is illustrated in examples (12-14).⁴ In all of these examples, the present active infinitive of the verb *scribere* 'to write' is used, but the matrix clause under which they are embedded denotes a saying-event which is situated respectively in the present, past, or future relative to the moment of utterance. The reference of the present tense of the AcI always expresses concomitance with the event denoted by the matrix verb:

⁴ The examples (12-15) are invented for illustrative purposes as is common practice in introductory textbooks; their grammaticality is uncontroversial.

- (12) Dixit [se litteras scribere]
 say.PERF.3SG REFL.ACC letters.ACC write.PRES.INF

'He said he was writing letters (then)'

- (13) Dicit [se litteras scribere]
 say.3SG REFL.ACC letters.ACC write.PRES.INF

'He says he is writing letters (now)'

- (14) Dicet [se litteras scribere]
 say.FUT.3SG REFL.ACC letters.ACC write.PRES.INF

'He will say that he is writing letter'

Semantically, the AcI can thus only express *relative* time, but apart from this fundamental restriction, most embedding verbs do not pose any particular restrictions on the actual tense of the AcI, which can freely denote past, present or future readings. It is worth pointing out that the AcI can also express *aspect*. For instance, the Latin perfect can express both true past readings as well as present perfect readings. In other words, a verb like *scripsi* can thus mean both 'I wrote' and 'I have written'. The perfect infinitive retains both of these readings in the AcI, as illustrated in (15):

- (15) Dicit [se litteras scripsisse]
 say.PRES.3SG REFL.ACC letters.ACC write.PERF.INF

'He says that he wrote letters/He says that he has written letters'.

1.3.2 Subcategorization patterns

The AcI is the standard complement clause in Latin, and it is very flexible in terms of its syntactic integration into the matrix clause. In general, the AcI may be embedded in one of

following ways, namely as i) the object (16), ii) the subject (17)⁵, iii) as an apposition to a (pro)nominal (18), (iv) under a noun (19) :

- (16) idem Diviacus Haeduus respondit . . . [esse miseriorem
likewise Diviacus.NOM Aeduan.NOM answer.PRF.1SG be-INF more-miserable.ACC
et graviorem [fortunam Sequanorum]
and more-grave.ACC fate.ACC Sequanians.GEN

'Likewise, Diviacus of the Aedui answered that the fate of the Sequani were more miserable and grave . . .'

(Caes. *Gall.* 1.34.2)

- (17) necesse fuit [eos statim reverti ad sua],
necessary be.PERF.3SG them.ACC immediately return-INF to their-things.ACC
'They had to immediately return to their own, that is to Persia.'

(Per. *Aeth.* XIX)

- (18) [hoc te intellegere] volo, [pergraviter illum esse offensum]
this.ACC you.ACC understand-INF want.1SG gravely him.ACC be-INF offended.ACC
'This I want you to understand, that he is gravely offended.'

(Cic. *Att.* 1.10)

- (19) Roma acceperam litteras [Milonem meum queri]
Rome.ABL receive.PLPRF.1SG letters.ACC Milo.ACC my.ACC complain-INF
per litteras iniuriam meam]...
through letters.ACC injustice.ACC my.ACC

⁵ It is a standard assumption in traditional grammar and textbooks (Sjöstrand 1953:304) that the AcI can be the subject of certain copulative expressions, impersonal predicates and passives, but from the perspective of modern syntactic theory, this conclusion is not beyond doubt, since the AcI could well be selected as a theme by the copulative expression or the one-place predicate, without necessarily being promoted to the subject in the course of the derivation.

'I have received a letter from Rome, saying that my friend Milo writes complaining of ill-treatment from me...'

(Cic. *Att.* 5.8)

The pattern (i), illustrated in (16), where the AcI is embedded as the direct object of its matrix verb, is by far the most common use of the construction. We will now briefly consider the subcategorization patterns of the AcI, in other words the group of verbs and embedding predicates that may C-select an AcI. The following examples are by no means exhaustive, but merely serve to illustrate that the AcI can be embedded under a wide variety of different predicates. These include, *inter alia*: (i) verbs of saying, where the strength of the assertion and other semantic nuances can vary considerably, like *dico* 'I say', *scribo* 'I write' (20), *narro* 'I tell', *iuro* 'I swear', *promitto* 'I promise', *exclamo* 'I exclaim', *spondeo* 'I assure' (21), *confiteor* 'I confess', *queror* 'I complain' ; (ii) verbs of thinking and mental processes like *cogo* 'I think', *memini* 'I recall', *intellego* 'I understand' (22) ; (iii) propositional attitude verbs like *credo* 'I believe', *arbitror* 'I reckon', *puto* 'I think' (23) ; (iv) verbs of perception like *video* 'I see', *perspicio* 'I watch, observe', *audio* 'I hear' (24); (v) emotive verbs like *doleo* 'I am pained', *gaudeo*, *laetor* 'I am happy' (25) ; (vi) one-place predicates like *oportet* 'it is necessary, possible, advisable' *licet* 'it is allowed, possible' (26), including (vii) impersonal passives like *videtur* 'it seems', *demonstratum est* 'it is shown, demonstrated', *scriptum est* 'it is written', etc. (27) ; (viii) manipulative or volative verbs like *spero* 'I hope', *volo* 'I want', *nolo* 'I do not want' (28) :⁶

(20) [reliquia mea] Camillus scribit [se accepisse]⁷
 remaining.ACC.PL my.ACC.PL Camillus.NOM write.3SG REFL.ACC receive.PRF.INF
 'The rest of my things, Camillus writes that he has received.'

(Cic. *Att.* 6.1)

⁶ Needless to say, these categories are neither exhaustive nor very clearly delimited. Overlaps are common, and many predicates could be classified as belonging to several different classes. This situation arises not only because of the sometimes blurry lines between the categories, but also because the lexical semantics of most embedding predicates is rather plastic, bestowing different semantic nuances on the verbs in different contexts. To name but one example, 'animadverto/I notice' denotes a *mental process*, which in many cases arises from a *perception*, and which must also be classified as *factive*.

⁷ Note that in example (20), the AcI is *linearly discontinuous*. This is a frequent phenomenon in the case of the AcI. In his particular example, the direct object of the AcI appears to the left of the matrix subject, and it does not seem unreasonable to suppose that it has been fronted under topicalisation to the matrix left periphery.

- (21) promitto, recipio, spondeo, [C. Caesarem talem semper fore civem
 promise.1SG repeat.1SG assure.1SG G. Caesar.ACC such.ACC always be.INF.FUT citizen.ACC
 qualis hodie sit]
 as today be.SBJV.3SG

'I promise, I repeat, I assure, (that) Caesar will always be the type of citizen that he is today'
 (Cic. *Phil.* 5.18.51)

- (22) cum [id quod ipsi diebus viginti aegerrime confecerant[...]
 when that.ACC which.ACC self.NOM.PL days.ABL twenty disagreeably accomplish.PL.PRF.3PL
illum uno die fecisse] intellexerent .
 him.ACC one.ABL day.ABL do.PERF.INF learn.IPFV.SBJV.3PL

'when they learned that what they themselves had accomplished with much difficulty
 in twenty days, he had done in one day . . .'

(Caes. *Gal.* 1.13.2)

- (23) credo enim [te putasse [tuas mulieres in Apulia esse]]
 believe.1SG PRT you.ACC think.PRF.INF your.ACC women.ACC in Apulia.ABL be.INF
 'For I believe you thought your women were in Apulia.'

(Cic. *Att.* 4.19)

- (24) audivi ex Gaudio hoc Firmano [Romae esse hominem
 heard.1SG from Gavius.ABL this.ABL Firmanus.ABL Roma.LOC be.INF.PRES man.ACC
 et fuisse adsiduum]
 and be.INF.PERF tributepayer.ACC

'I heard from this Gavius Firmanus that the man is in Rome and that he has been a
 tributepayer'

(Cic. *Att.* 4.8A.3)

- (25) [ea tibi grata esse] gaudeo

those-things.ACC you.DAT pleasing.ACC be.INF rejoice.1SG

'I am glad those (things) are pleasing to you'

(Cic. *Att.* 5.19.3)

- (26) non licet [hominem esse saepe ita ut volt], si res non sinit
 NEG be-allowed.3SG man.ACC be.INF often so as want.3SG if case.NOM NEG allow.3SG
 'Man cannot often be as he pleases, if the circumstances do not allow it'

(Ter. *Heaut.* 4.1.53)

- (27) unde scriptum est [dixisse Pharaonem ad Ioseph]
 whence written BE.3SG say.PERF.INF Pharaoh.ACC to Joseph
 'where it is written that the Pharaoh said to Joseph:'

(Per. *Aeth.* VII. 9)

- (28) sci- n' quid [nunc te facere] volo?
 know.2SG-PRT=Q what.ACC now you.ACC do.INF want.1SG
 'Do you know what I want you to do now?'

(Ter. *Heaut.* 3.1.85)

The intention behind listing these examples is to show how varied and multi-faceted the use of the AcI is. It should be clear that the AcI is simply the standard (propositional) complement clause in Latin, and as a consequence, it does not seem possible to formulate any strong generalisation regarding the 'semantics' of the AcI, any more than it is possible to formulate a 'semantics' for complement clauses in languages like English. Just like a finite complement clause, the AcI carries 'propositional content', but it is hard to justify any stronger generalization. For instance, some of the AcI-clauses (22, 25) are embedded under *factive* verbs, meaning that the propositional content of the AcI is presupposed, while others are not. Although mood distinctions are morphologically neutralised in a non-finite clause like the AcI, it is also worth pointing out that, in the evolution towards the Modern Romance languages, some of the predicates embedding AcIs now select complement clauses in

indicative, while others select the subjunctive (see Mensching 2000). This would seem to indicate that, semantically speaking at least, the AcI can also be associated with different moods/modalities.

Nonetheless, there is one semantic observation that is worth mentioning. Many of the verbs listed above can also embed finite clauses, primarily those introduced by the complementiser *ut* and which appear with a verb in the subjunctive. It is important to stress that this alternation is not random in nature or purely a formal fact related to optional C-selection of the embedding predicate. In fact, although some overlap seem to occur, the two different complement structures differ semantically in ways which are amenable to a generalisation. That is, the use of an *ut*-clause generally expresses some kind of volition or manipulative desire that is absent from the AcI, the latter expressing propositional content that is either asserted, reported, or simply presupposed (in the case of factive verbs).

Consider the following contrast; in (29) the verb *persuadere* 'to persuade, convince' is used to express that the subject of the main clause (here Orgetorix) manages to set his will through and obtain a specific course of action from someone else (here, the Helvetian tribe), namely that they should abandon their territory. In such cases, the complement of *persuadere* appears as a finite subjunctive clause headed by *ut*. In (30) on the other hand, the AcI is used, since the subject/speaker (Cicero) persuades Theophani not of the necessity to take a particular course of action, but simply *of the fact* that nothing would be better than for Theophanus to stay put. While this in turn of course invites some action or at least some decision on Theophanus' part, this is of secondary importance; what the AcI expresses, is that Cicero persuades Theophanus to *accept a propositional content as true*:

(29) et civitati persuasit [ut de finibus suis [. . .] exirent]
 and tribe.DAT persuade.PRF.3SG that from territories.ABL their.ABL go-out.IMPV.SBJV.3PL
 'and he persuaded the tribe to set out from their territory . . . '

(Caes. Gal. 1.2.1)

- (30) Theophani facile persuasi [nihil esse melius
 Theopanes.DAT easily convince.PRF.1SG nothing.ACC be.INF better.ACC
 quam illum nusquam discedere]
 than him.ACC nowhere leave.INF

'I easily convinced Theophanes that nothing would be better than that he goes
 nowhere' (Cic. *Att.* 5.11.3)

Such contrast pairs are standard in grammar textbooks. It is interesting to observe that the semantic distinction expressed in Latin by means of the *ut*-clause vs. the AcI is maintained in English, as shown by the translation provided in (29-30), but here in the form of a *control infinitive* (see Section 3.1) and a that-clause, respectively.

Given this distribution of labour between the AcI and *ut*-clauses, which can be observed for other predicates as well, it is tempting to suggest a weak semantic generalisation for the AcI, for instance that the latter expresses *non-manipulative* or *non-volative* propositional content. However, even this weaker, negatively phrased definition encounters problems when faced with examples like (28) above, since the verb *velle* 'to want' clearly expresses will. Furthermore, as we shall see later in this thesis, the waters are muddled further by some non-typical uses of the AcI embedded under the otherwise control verb *iubere* 'to order, command' (see section 5.3)

Before concluding this section on subcategorization it is necessary to briefly mention AcIs embedded under nouns, since this phenomenon raises some non-trivial theoretical issues that will play a certain role in upcoming chapters. In (19a) above, we saw an example of an AcI embedded under the noun *litteras* 'a letter'. This is not an isolated example, and nouns like *spes* 'hope', *opus* 'work', *opinio* 'opinion', *dolor* 'pain', *tempus* 'time', *nuntius* 'messenger/message', *testis* 'proof', *responsum* 'answer', *fides* 'faith', *rumor* 'rumor', to just name a random selection found when querying PROIEL, are attested with the AcI. While many of these nouns could be analysed as deverbal, corresponding to a lexically cognate, AcI-selecting verb, this is not the case for all nouns. I will return to this issue in Section 4.1

1.3.3 The AcI in (unembedded) Indirect Discourse and other root contexts

In the previous section, we established that the AcI is a standard Latin complement clause, and that its canonical integration into the matrix clause is through the object position of the embedding verb. However, there exist some particular cases where the AcI, at least on the face of it, is not embedded at all, but rather seems to function like a root clause. This phenomenon takes place e.g. in so-called *oratio obliqua* ('Disjunct Speech'), which is a form of Reported Speech/Indirect Discourse (ID). In such passages, where a narrator is merely reporting the statements of someone else, the AcI is used to render the main clauses of the original speech, whereas embedded clauses are rendered in subjunctive mood. Of course, as long as the verb that introduces the reported speech is included, this use of the AcI is just as embedded as all the other examples considered so far.

However, in longer passages of reported speech, the verb of saying is generally not repeated for each new statement, with the effect that one can easily run into long sequences of AcIs that are not overtly embedded under a verb. Again, this should come as no surprise, since this is presumably a common way of representing indirect discourse in all languages: a verb of saying is used to 'switch' to reported speech, and then there is no need to repeat it for each new reported statement, as long as it is clear to the interlocutor that the propositions are to be interpreted as utterances of a third person. The situation becomes more complex, however, in cases where the 'switch' to indirect discourse takes place without a verb of saying at all; furthermore, some AcIs in such sequences render propositional content that do not seem to represent original statements at all, but rather the thoughts and intentions which the narrator ascribes to the person whose 'speech' is reported. Since the AcIs can be embedded under a variety of different verbs, including verbs denoting mental processes of various kinds (see section 1.3.2), such cases have standardly been considered embedded clauses with an implicit verb of saying/thinking, etc.

However, in a recent article, Haug et al. (2019) show that this is in fact not the case: the AcI of indirect speech cannot be considered to be syntactically embedded, which is evident *i.a.* from those cases containing the causal particle *enim* 'for'. This particle, which carries assertive-causal force and establishes *the reason* or *motivation* behind (uttering) some proposition, roughly equalling 'for' or 'namely' in English, is found exclusively in main clauses, never in embedded clauses. What Haug and his co-authors find is, that if we assume an elided null verb, this yields entirely incorrect predictions about scope and meaning.

Consider example (31) below; this short sequence contains three AcIs, the first being overtly embedded under the verb *negavit* 'denied' (or simply 'said that...not'). Now, it is manifestly only the first AcI ('that it would be expedient to return the prisoners') that is being denied here; the other two cannot be interpreted as embedded under the same verb, as they are in fact positively asserted (Haug et al. 2019: 650). This suggests a covert verb of (positive) assertion, but this hypothesis in turn runs into problems with *enim*, since this particle would have to scope over the covert main clause verb, thereby falsely entailing that the event denoted by the null verb (i.e. an utterance) is a cause for the preceding *negavit*, when in fact, the cause (or reasoning) is the proposition denoted by the AcI:

- (31) [reddi captivos] negavit [esse utile];
 return.PRS.PASS.INF prisoners.ACC deny.PRF.3SG be.INF useful
- [illos **enim** adulescentes esse et bonos duces],
 they.ACC for young.ACC be.INF and good.ACC officers.ACC
- [se iam confectum senectute]
 himself.ACC already consumed.ACC age.ABL

'He denied that it would be expedient to return the prisoners; for, he said, they are good officers, while he was already consumed with age.'

(Cic. *Off.* 3.100; from Haug et al. 2019: 650)

The authors conclude (2019: 659) that, even though non-finite, this use of the AcI is truly syntactically unembedded, i.e. a root clause. Still, this has no effect on the case of the subject, which remains accusative.

Another unembedded use of the AcI is found in certain exclamatives (32) or rhetorical questions which convey strong emotional involvement (33). If these are truly AcIs, as is traditionally assumed, (Sjöstrand 1953: 313) this shows that the construction can not only express main clause declarative content, as in the case of Unembedded Indirect Discourse, but also be associated with different speech acts:

- (32) Nulla-ne in re esse quoiquam homini fidem!
 No NE in thing be.INF any.DAT man.DAT trust.ACC

In *no* circumstance is there faith for any man!

(Ter. *And.* 425)

(33) Sici-n' te mi hoc facere?

thus NE you.ACC me.DAT this.ACC do.INF

'Are you treating me like this?'

(Pl. *Per.* 42)

1.3.4 The subject of the AcI

The subject of the AcI appears in the accusative case. Why this is the case is not entirely clear and is one of the research questions of this thesis, so I will leave this question aside here and rather focus on some other aspects of the subject.

One noteworthy observation is that, in case the AcI and the matrix clause share the same, third-person subject (whether plural or singular), the reflexive pronoun *se* is used rather than a pronoun, in spite of the fact that Latin possesses regular pronouns and uses them to refer to third person subject referents which are distinct from the matrix clause subject. We thus find contrast like:

(34) dixit [se putare [satis ab se etiam

say-PRF.3SG REFL.3SGACC think-INF enough by REFL.3SGABL also

de istis rebus esse responsum]]

of these.ABL things.ABL be-INF answer.PST.PTCP.PASS

(Cic.*Att.* 1.14.2)

From the perspective of Principle A of Binding Theory (Chomsky 1981), which states that anaphors (reflexives and reciprocals) must be bound inside their governing category, the latter generally taken to be a clause, it is at first sight tempting to interpret the reflexive form of the subject of the AcI as evidence that it is somehow a clause mate with its antecedent, and that no clausal boundary separates the two. However, this conclusion is not warranted, since Latin under certain circumstances also allows third person subjects to bind reflexive forms in finite embedded clauses, as illustrated in (34). Such long-distance reflexives, which are quite

frequent in Latin, (see Solberg 2017 and references therein) *à priori* speaks against an analysis where the AcI is not separated from its embedding verb by a clausal boundary:

- (35) Ibi ei praesto fuere Atheniensum legati,
 there him.DAT ready be.PRF.3PL Athenians.GEN messengers.NOM
 orantes ut se obsidione eximeret
 begging.NOM.PL that REFL.ACC siege.ABL free.SBJV.3SG

'There he met messengers from the Athenians, who begged him to free them from the siege.'

(Liv. *Ab Urbe* 31.14.3; from Solberg 2017:4)

It is also of some interest to observe that, while the subject of the AcI is typically overt, this overtness is not compulsory. The subject of the AcI can also be left out, provided its reference can be recovered from the context. This phenomenon occurs both when the subject of the AcI and the matrix clause are the same, and when they are distinct. The latter case is exemplified in (36):

- (36) (A servant asks Menaechmus what she can tell her mistress):

Dicam [curare]? (For: 'Dicam te curare')

say.1SG.FUT take-care.INF

'Shall I say that you will see to it?'

(Plat. *Men.* 538; from de Melo 2006: 7)

De Melo (2006) provides many examples of 'subjectless' AcIs, arguing that their occurrence should not be considered exclusively a colloquialism nor a Greek influence, as argued by some traditional scholars, and offers an account of this phenomenon based on discourse factors. I refer the reader to the paper for details; for my purposes it suffices to establish that the overt expression of the subject of the AcI does not seem to be required by any syntactic principle.

2. Theoretical Framework: Minimalism

As already stated in the introduction, the aim of this thesis is not primarily to present a formal analysis of the Latin AcI, but rather to discuss and problematize existing analyses. These analyses have been couched in different frameworks; some in Lexical Functional Grammar, others in Transformational Generative Grammar. As for the latter group, which is the most relevant to the concerns of this thesis, some approaches go back to the Government and Binding (GB) era (Chomsky 1981), while others are couched in more current versions of Minimalism (Chomsky 1995). Some of the more recent analyses that will play a central role in this thesis are quite involved from a formal perspective, employing an intricate theoretical apparatus drawn from modern Minimalist theory. The intention behind this chapter is therefore to provide some useful theoretical background by introducing some central principles of of current Minimalist theory.

Section 2.1 introduces the structure-building operation *Merge* and the role of *features* in syntactic derivation. Section 2.2 discusses the important notions of *Agree*, *Probe* and *Goal*, while Section 2.3 rounds off by considering the three-layered functional organization of the clause (VP, TP, CP) common to most current theories, as well as the *truncation* hypothesis.

2.1 Features and Merge

In Minimalist syntax, the core derivational mechanisms are hypothesized to be: i) the operation *Merge*, through which two syntactic objects (SOs) combine to form a new one; for example, a head V° and a phrase NP are combined to form a new syntactic object VP containing both; and ii) a lexical property known as a *feature*.

Consider the examples in (1), where we employ the assumptions of *bare phrase structure* which since Chomsky (1995) have largely superseded previous representations built on X-bar Theory. On Minimalist assumptions, syntax builds complex structures by combining two syntactic objects (SOs) into a new syntactic object through the operation *External Merge*. In (1a), the SOs X and Y are merged into a new SO Z containing and dominating the former. We say that Z is the *mother* of X and Y. This Z could then merge with a new SO A to create an even more complex SO B (1b).

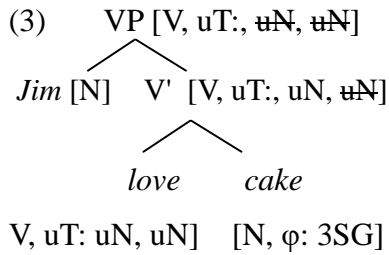


Syntactic objects are selected from the lexicon, where they are associated with various semantic and morphosyntactic properties known as *features*. We will adopt the simple assumption that one of these features simply provides a label which specifies which syntactic category/part of speech a syntactic object belongs to, and we will then represent the entire SO by a shorthand for that category, such as V for verbs, N for nouns, P for prepositions, etc.

Consider (2): here the transitive verb 'love' merges with the noun 'cake' to form a new syntactic object, the V' (read: V-bar) 'love cake' (2a). This raises the question why the combination of a V(erb) with a N(oun) results in a syntactic object which is designated as V' rather than, say, N'. The standard assumption is that the verb carries C(ategory)-selectional features as part of their lexical entry, what is commonly referred to as the *argument structure* of the verb, while non-relational nouns (like *cake*) do not. A fuller representation is therefore given in (2b); here we see that the verb carries two C-selectional features [uN] (I will shortly comment on the lower-case 'u'), which means that the verb needs to merge with two nouns. Once this happens, the feature [uN] is *checked* and thereupon *deleted*, (signalled by a strike-through) as can be seen from the resulting SO V' in (2b):



In other words, the V(erb) selects the N(oun), rather than the other way around, because the former carries C-selectional features allowing it to merge with the noun. This makes V the *head*, and heads *project* by merging, which leads to *feature checking* and *feature deletion*. As we can observe in (2b), however, the SO V' still carries an unchecked feature [uN], which means that the verb must merge again with another noun, as shown in (3):



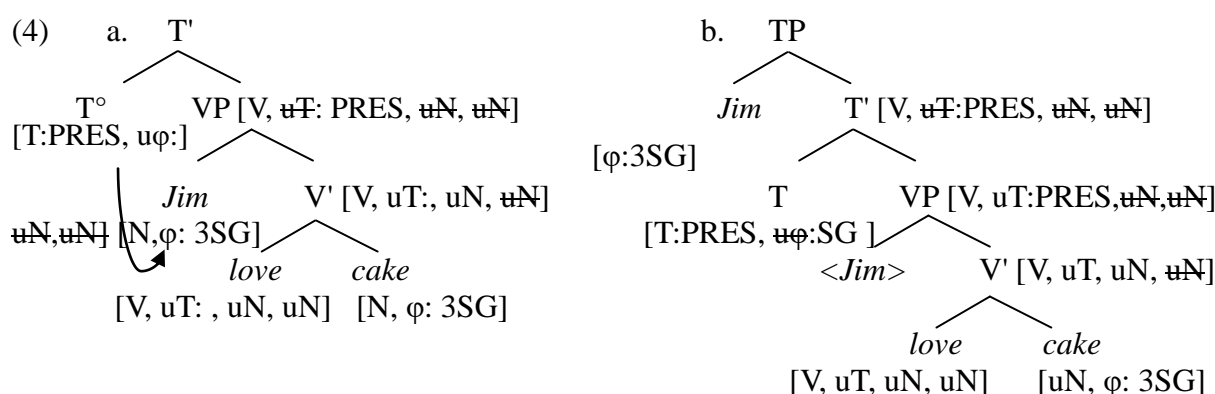
All the C-selectional features of the verb have now been checked and deleted, and the figure in (3) represents the maximal projection of the lexical verb, a V(erb) P(hrase). The first merge operation of the head V (also written V°) gives us the *complement* of the head (here the direct object 'the cake'), while all subsequent merge operations within the same projection creates *specifiers* (here the subject 'Jim'). We say that the complement is the *sister* of the head, while the specifier is the sister of the V' (V-bar) node. Sisterhood is central to syntax because it provides the strictly local relationship where selectional features (like the C-selectional features of the projecting verb in (3)) are checked, but also because it provides the relation known as *c-command*, which essentially is just an extended notion of sisterhood: a node X c-commands its sister Y and also any nodes embedded under (or 'dominated by') Y. In (3) e.g. the specifier 'Jim' c-commands the head and the complement, while the latter two mutually c-command each other, but not 'Jim'. C-command has played an important role in Case Theory, as we shall see in Section 3.5.

We have just seen that it is features that drive the application of merge. It is common in Minimalism to assume that features can be *interpretable* or *uninterpretable*. Interpretable features carry semantic content which can be read by the Conceptual-Intentional system (CI), which is where syntax interfaces with external cognitive systems, while uninterpretable features are morphosyntactic features manipulated for syntax-internal reasons with no corresponding content at CI. For instance, the category of *number* is considered an interpretable feature on nouns, since it corresponds to a semantic distinction *singular/plural*; on verbs (at least in languages like English), the number feature is considered uninterpretable, since it merely reflects the need for the verb to agree morphologically with the number features of the associated subject noun phrase. In phrase markers, uninterpretable features are signalled through a lower case 'u', such as the C-selectional features carried by the verb in (3) above. Uninterpretable features must be deleted (which means they must be checked) before

CI, or else the derivation is said to *crash*, leading to ungrammaticality. Before proceeding to the next section, notice that the VP in (3) still carries an unchecked uninterpretable feature, labelled 'T' for *tense*; this means that the event denoted by the verb phrase needs to be anchored in *time*. However, the VP does not require a specific tense, like *present*, *past* or *future*; any tense will do. The idea is that the VP carries an *unvalued* tense feature that must be valued by some other head, since the VP itself is not able to accomplish this.⁸

2.2 Agree, Probe and Goal

While (C-)selection takes place in the strictly local configuration of sisterhood, the syntax of natural languages displays several cases of *long distance dependencies*, which is a non-local relationship between two elements separated by a distance (sometimes even by clausal boundaries) in a clause. In order to account for these facts, Minimalist theory postulates an operation *Agree*, which allows a head to make contact with and act upon an element situated in its C-command domain (see section 2.1). For example, it is commonly assumed that the tense and ϕ -features (read: 'phi-features') — i.e. agreement features like *person*, *number* and *gender* — are generated in a *functional projection* above the VP. Let us assume that this is the head T° , as shown in (4). When T° is merged with VP, the unvalued feature [uT:] on VP is finally *checked* and *valued* by the feature [T: PRES] on T° (uT: \rightarrow $\bar{u}T$: PRES). The feature [PRES] is interpretable: T° has provided the event of the VP with a temporal reference.⁹



⁸ It is common since Larsson (1988) to assume that the VP is a complex domain consisting of two different 'shells', such that the VP is immediately dominated by another projection vP (read 'little VP'). In Adger (2004), it is the head of vP, rather than VP, that carries the uninterpretable, unvalued [uT:] feature. I abstract away from this.

⁹ It is sometimes assumed that tense features and agreement features are hosted by different heads, such as T° and Agr° , respectively. I will again ignore this complication here and just assume for illustrative purposes that all these features are located in T° .

Observe further that the T° head also carries an uninterpretable, unvalued agreement feature $[u\phi:]$. This feature is not (directly) checked upon merging with VP, since the latter does not carry any agreement features. However, the uninterpretable feature $[u\phi:]$ on the head T° is able to search in its C-command domain. In current Minimalist terms, a head with unchecked features acts a *probe*, which searches for a *goal* with a matching feature. In (4), the closest goal in the probe domain of T° is the noun 'Jim' in the specifier of VP, and upon finding this goal, the uninterpretable phi-features on T° are checked and valued: $T^\circ [u\phi:] \rightarrow T^\circ [\text{u}\phi: 3\text{SG}]$. Notice also that the matching takes place between the probe and the closest possible goal, preventing the more deeply embedded noun 'cake' to transmit its ϕ -features to T° . This provides one of several *locality conditions* on long distance Agree; other locality conditions have revolved around the notion of certain nodes in the clause acting as *Barriers* that disrupt the long distance relationship (Chomsky 1986). For instance, in Pre-Minimalist Case Theory, a CP node was considered a barrier for the assignment of Case, while a IP/TP was not (see section 3.5.2).

Notice also a further detail; when the head T° is valued by the ϕ -features of 'Jim', the latter is moved to the specifier of T° (or: Spec-TP), as shown in (4b). This operation, *Move*, is also referred to as *Internal Merge*, as a SO already present in the constructed phrase marker is remerged to a higher position, leaving a copy in the first-merge position. At PF, only one copy of the movement chain is spelled out, by default the highest one.

There does not seem to be consensus in the literature on why long distance Agree is sometimes followed by Move/Internal Merge, and sometimes not; a common assumption (Chomsky 2000) is that certain heads (or alternatively certain features on heads) carry or are associated with an *Edge* or *EPP*-feature, which triggers movement to the specifier of the corresponding head.¹⁰

2.3 Functional projections and the three layers of the clause

The importance of functional categories (see section 2.1.2) has grown steadily in generative

¹⁰ An alternative is to assume that features can be *strong* or *weak*; whereas *weak* features can be checked through Agree in long-distance probe-goal relationships along the C-command chain, *strong* features can only be checked in true, local sisterhood, and therefore require the matching element to move to the specifier position of the head (Adger 2004: 179).

grammar, and it is by now common practice in Minimalist theory to assume that the clause minimally consists of three functional systems: i) the V-system, ii) the T-system, and iii) the C-system. Each of these systems are associated with distinct functional heads which carry features enabling them to encode specific morpho-syntactic and semantic properties.

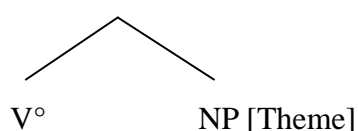
The V-system encodes the semantics of the event complex by discharging the theta-roles carried by the verbal arguments. To the T-system pertains the encoding of temporal, aspectual and modal properties, and to the C-system the encoding of illocutionary force, clause type, information structure and finiteness. We will have a look at each of these systems in turn.

2.3.1 The VP and theta roles

In section 2.1.1., we saw how the VP is constructed around a head, the lexical verb V, which projects by checking its C-selectional features. These C-selectional features on the verb are uninterpretable and delete once they are checked, adding no semantic content. However, it is clear that a VP has a meaning beyond the mere lexical semantics of the words (verb and nouns) that compose it.

A fundamental idea in Generative Syntax is that the argument structure of verbs is associated with a set of θ -roles (read: *theta* or *thematic roles*), which are broad semantic categories describing the relationship between the verb and its arguments. All verbs must discharge minimally one theta role (except from so-called 'weather predicates', which are believed to assign no theta-roles), the lowest of which being the *theme* or *patient*, which is the role assigned to the complement of V° , as illustrated in (5).

(5)



There are different theories about what kind of theta-roles exist and how they are integrated in syntax, but since this does not bear very directly on the goals of this thesis, we will not pursue this any further here. However, it is worth noting that, in current Minimalist

theory, theta-roles are *interpretable features* associated with lexical items; this means that they are 'readable' by the C-I interface. In other words, theta-roles have semantic effect.

In addition to theta-licensing, the V-system is commonly assumed to ensure the case-licensing of direct and indirect objects, e.g. accusative and oblique Case. Nominative Case is standardly not assumed to be assigned at this stage in the derivation (i.e. below TP), but rather in association with T or the C-T complex.

2.3.2 The TP layer

The T-system is thought to consist of a number of functional projections. It is not commonly agreed upon exactly what kinds and how many projections this domain may involve, but it is believed to host elements pertaining to Tense, Aspect, Mood (Cinque 1999), and both the verb and its arguments are prone to moving into specific positions within this domain for different reasons. For instance, in some languages like the Modern Romance languages, the lexical verb moves to T° in finite clauses (Pollock 1989).

2.3.3 The CP and the left periphery

Finally, the topmost layer of the clause, the CP-layer or the *left periphery*, has ever since Rizzi (1997) commonly been analysed as an articulate domain consisting of a variety of different projections. The traditional architecture of the left periphery (cf. Rizzi 1997) is laid out in (6):

(6) [ForceP [TopP* [FocP [Top* [FinP]]]]] (Rizzi 1997:288)

The highest projection, 'Force', expresses illocutionary force or clause type (declarative, interrogative, exclamative etc. (Cheng 1991)), and is also believed to host relative operators (Rizzi 1997). 'Fin' encodes the finiteness of the clause, and can host both verbs and complementizers. The domain between ForceP and FinP, hosts so-called 'scope-discourse' projections, whose specifiers often host topics, foci and wh-elements (see also Danckaert 2012: 29). The general notion is that there are two positions for topical elements, of which there can be multiple in a single clause, and one position for foci, of which there can only be one per clause (Rizzi 1997). These constituents can be base-generated in the LP or moved there, either by phrasal (A'-movement) or head movement.

2.3.4 Truncation

As just demonstrated, Minimalist generative syntax assumes the clause to consist of different zones or layers, each made up of different projections carrying some feature or set of features. To put it very simply, each layer, and indeed every projection, does something different and has its role to play in the derivation of a clause. It is therefore only natural to assume that the semantic and morphological properties of a clause somehow reveal its syntactic status.

A particularly strong claim in this respect is that the semantic and morphological properties of a clause can be read off relatively transparently from the kind of projections it hosts. This type of approach is referred to as 'truncation' (Haegeman 2012). To take an example: a main clause typically hosts a subject in nominative (if morphological case can be detected) and a finite verb. This then reveals that the clause has minimally access to the relevant projections in the T-domain that enable these agreement and case-licensing properties.

Furthermore, a main clause may also feature optional fronting operations like topicalisation or focalisation to the left periphery above the subject. This in turn reveals that the main clause has access to the part of the C-layer where these information-structural projections are situated. Finally, and in combination with all of the preceding properties, a main clause has independent illocutionary force, meaning it can be used to express assertions, ask for information, or express will in the form of commands. These speech acts are typically translated as particular 'clause types' like declaratives, interrogatives, or imperatives. If we accept with Rizzi (1997) that illocutionary force is encoded in ForceP, the conclusion must be that main clauses are ForcePs.

In contrast, most embedded domains do not show the same kind of freedom. While embedded finite clauses also have nominative subjects and verbs that inflect for the full range of agreement features, they often do not accept A-bar movement to the left periphery, and furthermore, they do not express independent illocutionary force. A simple explanation of these facts would be to say that these clauses simply lack access to the C-layer, or that they do not even possess a C-domain at all. For non-finite clauses, the dependency on the matrix clause is even greater, and there is often, as in the case of the Latin AcI, no nominative assignment nor a fully inflected verb. This *à priori* might suggest that elements of the T-layer are lacking.

It is normal practice in work on clause structure to assume that the site of complementation might vary, and that the sheer structural size of the complement clause constrains its syntax (and hence its semantics). Such approaches are often referred to as *truncation* approaches, and are obviously relevant to the current thesis, since we are interested in deciding what licenses the overt subject of the Latin AcI construction, and secondarily, what is responsible for giving the subject accusative case. In other words, we want to understand which projections are involved in giving the Latin AcI its characteristic properties, and conversely, which projections are lacking/truncated, to account for its difference with respect to finite clauses. This also justifies the inclusion of the ancillary research question stated in the introduction and repeated here for convenience:

(7) What is the categorial and phrase-structural status of the Latin AcI?

3 Case Theory and infinitival constructions

Since this thesis is centred around subject-licensing and case assignment in the Latin AcI, it is necessary to consider the other kinds of infinitival clauses that are recognized as existing in the research literature; this is the aim of the current chapter. The reason why this is important is that we need to gain a better understanding of what properties are shared between infinitivals as well as where they differ, since this may inform us about important differences in the underlying syntax, thus bringing us closer to an answer to the research questions we are interested in. Some infinitivals bear close resemblance to the Latin AcI, but differ in certain respects; some seem to be the counter-opposite of the AcI and are interesting for exactly that reason.

Furthermore, although we conveniently talk of different infinitival clauses as different 'constructions', the latter term is often considered by generativists as a descriptive label without any real theoretical standing. We therefore do not wish to simply ascribe the observable differences, for instance with respect to the presence or absence of an overt subject, as global properties of the constructions themselves, but rather to derive them from the interaction of more basic principles of syntax, such as the action of heads and the distribution of features in the phrase-structure of the clause (see Chapter 2)

We will examine four different infinitival clauses in this section, namely Exceptional Case Marking, (ECM/RtO) raising infinitivals, control infinitivals, and *for*-infinitivals. Since the notion of Abstract Case has played a prominent role in analysing all of these, I will also devote a section to a discussion of Case Theory.

The structure of the chapter is as follows: In Sections 3.1 to 3.4, we briefly consider the basic properties of control, raising, ECM/RtO, and *for*-infinitivals, in that order and without entering into analysis. Section 3.5 is devoted to a discussion of Case Theory and how it has been used to analyse all the infinitival clauses discussed in this chapter.

3.1 Control and PRO

A 'Control infinitive' refers to an infinitival clause where the logical subject is not overtly

expressed, but rather interpreted as being the same as some argument NP (subject or object) of the matrix predicate. The latter is referred to as the *controller*, and the unpronounced subject of the infinitival is referred to as PRO.¹¹ We can say that PRO and the controller are semantically co-refential; this is normally represented by adding the same index to the controller and PRO in a tree diagram. A schematic representation is given in (1), while (2) and (3) provide examples of object and subject control, respectively:

- (1) [_{MATRIX} DP_i . . . [_{INF} PRO_i . . . V]]
 (2) [_{MATRIX} I order John_i . . . [_{INF} PRO_i to sing]] Object Control
 (3) [_{MATRIX} I_i promised John_j [_{INF} PRO_{i/*j} to come]] Subject Control

The motivations behind postulating the empty category PRO comes from general syntactic theory, in particular from Theta-theory¹² (see section 2.3.1). Chomsky (1981) postulated the θ -criterion, originally formulated as follows:

- (4) θ -criterion: Each argument bears one and only one θ -role, and each θ -role is assigned to one and only one argument.

(From Chomsky 1981:35)

Since theta roles are assumed to be directly linked to the argument structure of a predicate through a so-called 'theta grid' (Agder 2003:90) in the lexicon, it follows that finiteness, which is computed in syntax, should not impact on argument structure, and hence not on the distribution of theta-roles either. In other words, since 'sing' is a verb which takes an NP argument with the theta role AGENT, the infinitival clause in (2) above must contain an empty category, PRO, which satisfies the C-selectional features on the verb and which is assigned the AGENT role.

While the existence of PRO is deduced from Theta Theory (among other considerations), the latter can not explain why the subject must remain unpronounced, in other

¹¹ In generative syntax, there are assumed to be three types of *empty categories*, which are (usually) not pronounced, but nevertheless syntactically present: (i) a copy (previously called a *trace*), indicating a non-terminal position of a moved XP; (ii) *pro*, indicating a terminal, but optionally¹¹ unpronounced position, typically the subject of a finite clause in *pro*-drop languages like Italian and Latin; and (iii) PRO, indicating a terminal, but obligatorily unpronounced position, assumed in control structures.

¹²Other motivations came from the Extended Projection Principle (Chomsky 1981), which states that all clauses must have subjects, or from Binding Theory (Chomsky 1981).

words why (5) is ungrammatical:

(5) *I order John [John to sing]

The traditional answer to this question has been provided by Case Theory, which we will review in Section 3.5. Before going into theory, however, we will consider the typology of control infinitives in some more detail.

It is possible to establish a broad typology of different control construction based on the status of the matrix controller of the PRO subject. If the PRO subject is controlled by a matrix element, this is also referred to as Obligatory Control (OC). Depending on the syntactic function of the controller in the matrix clause, we distinguish between subject control (6a), and object control (6b):

- | | | | |
|-----|---|----------------------------------|-------------------|
| (6) | a. I _i want | [PRO _i to sing now] | (Subject control) |
| | b. I _i order John _j | [PRO _{j/*i} to sing as] | (Object control) |

Sometimes, however, there is no possible controller present in the matrix clause, as in (8); the subject of *to sing loudly in the shower* has no syntactic antecedent, which gives the expression a generic/arbitrary reading, signalled by a an index 'arb' on PRO. This is a case of Non-Obligatory Control (NOC):

(8) [PRO_{arb} to sing loudly in the shower] is a virtue

This is just the basics of control theory; in section 5.2 we will consider in some detail the highly advanced and sophisticated version of control theory developed by Landau (2000 et seq.) and explore its potential to account for subject licensing in Latin infinitivals.

3.2 Raising Infinitives

Raising infinitives are similar to control infinitives in not having an overt subject, but differ from the latter inasmuch as their subject is not interpreted as performing any semantically meaningful role in the matrix clause. This is best illustrated with an example: upon hearing a

sentence like (9a), it is understood that 'John' is the one that 'knows Greek'. It is perhaps not immediately obvious why this is different from control, or why we could not just assume that the matrix subject 'John' controls a PRO in the infinitival construction. However, on closer inspection, it turns out that the matrix verb 'seem' does not have a thematic subject position at all, which is illustrated by (9b), where the semantically void expletive *it* is allowed to stand in as a dummy subject:

- (9) a. John seems [to know Ancient Greek]
 b. It seems that John knows Ancient Greek.

Again, the explanation comes from Theta Theory. Whereas the infinitival verb 'to know' in (9) is a transitive verb requiring two NPs, one with a theme theta role (the direct object 'Ancient Greek') and one with an Agent role, the matrix verb 'seem' only takes a single theme argument in the form of a clause. The standard assumption is therefore that the NP 'John' is theta-selected and first-merged in the infinitival clause, and has subsequently raised to a matrix position as an athematic subject, and is thus a form of A-movement (Argument movement). Since this does not involve two different thematic arguments, as in the case of a controller and PRO, (see section 3.1), the relationship here is not just mere co-referentiality, but complete *identity*. The general idea of this derivation can be simplistically illustrated as in (10), and example (9a) can be represented as in (11):

- (10) [XP [DP] ... V^o ... [INF ~~DP~~ ... V]] (Raising)
- (11) a. [seem [INF John to know Ancient Greek]] ('pre-raising')
 b. [John seems [INF ~~John~~ to know Ancient Greek]] (subject-raising)

Raising predicates, across languages, are largely a matter of idiosyncrasy: in English, raising occurs with one-place predicates like 'seem', 'appear', 'be likely' (Polinsky 2013), and with certain transitive verbs in the passive, e.g. 'say' and 'believe'. Both kinds of raising predicates exist in Latin as well and will be very relevant to the discussion on the AcI construction, but for now, consider the following. Both sentences in (12) are ill-formed; it seems like raising the subject out of the finite clause in (12a) is not allowed, while the opposite, namely to use a

dummy subject in the matrix clause while leaving the thematic subject John inside the infinitival clause, is equally bad:

- (12) a. * John seems that knows Ancient Greek
 b. * It seems John to know Ancient Greek

The ungrammaticality of (12) can not be directly explained by Theta Theory. We need something else to understand what drives movement out of the infinitival clause and what prohibits the same movement out of a finite clause. The traditional answer to this is once again Case Theory, but before we review that theory, we will consider two more infinitival constructions of English.

3.3 Raising-to-object/ECM

A third type of infinitival construction, for which there exist at least two competing analysis, are those structures where the locality of the interpreted subject of the infinitive is ambiguous between the embedded subject position and a matrix object position. Predominantly, it has no theta-relation to the matrix verb, but is commonly considered to have a syntactic connection to it, more so than merely being the subject of its complement clause. There is some codependency on the matrix verb, and the construction is only possible with a limited set of predicates. Examples of such predicates are e.g. 'believe' and 'expect' (13a); notice again that these cannot be analysed as control structures, since verbs like 'believe' or 'expect' only take two arguments, an AGENT 'believer/expecter' and the object of that belief, which denotes some proposition, not an entity like 'John'. This becomes clear through the paraphrasis with a finite clause in (13b):

- (13) a. I believe/expect John to have won
 b. I believe/expect that John has won.

These structures are either analysed as i) raising-to-object (RtO), or ii) alternatively, as a single constituent with an overt subject of its own. For the latter interpretation, the predominant analysis is termed *ECM* (an abbreviation of *Exceptional Case Marking*). The two analyses are (simplistically) represented in (14):

- (14) a. [V^o [_{INF} [DP] ... V]] (ECM)
 b. [V^o [DP]_j [_{INF} ~~DP~~_j ... V]] (RtO)

Although traditionally, the ECM analysis was developed around 'believe'-type complements, others have argued in favour of the raising-to-object analysis on the basis of certain word-order facts. For illustration, consider (15); here the contested constituent is the NP 'his earnings', which according to ECM is embedded as the subject of the infinitival, whereas proponents of RtO claim it has been raised to the matrix object position. Notice that the adverbial modifier 'foolishly' follows this constituent, and yet modifies the matrix verb. If the adverbial is in the matrix clause, then clearly the NP preceding must also be in the matrix clause, a conclusion which would seem to rule out ECM, at least for this sentence:

- (15) The chairman expected [his earnings] foolishly [to show increases]

Such examples show that the existence of a RtO structure must be taken into account and included in the overall typology of infinitival constructions; however, it does not follow that the RtO analysis can be applied to all (standardly deemed) ECM structures, as not all of them allow for adverbial insertions like in (15), a fact which is commonly known as the *Adjacency Requirement*. We will not enter into the debate on RtO versus ECM here, but assume that both constructions are available cross-linguistically. In fact, some have argued that both exist, involving different interpretations, and that some strings, e.g. involving the verb 'expect', are ambiguous between control, RtO, and a *for*-infinitive (see section 3.4) with complementizer-drop, yielding slightly different readings (Wurmbrand 2014):

- (16) a. John expected Mary_i [PRO_i to leave] (control) 'require of'
 b. John expected [\emptyset _{for} [Mary to leave]] (*for*-infinitive) 'require/want'
 c. John expected Mary_i [t_i to leave] (RtO) 'believe'

(Wurmbrand 2014: 409)

If this is correct, then the structures at the centre of the RtO/ECM debate actually constitute different syntactic phenomena, which would explain why some structures require adjacency, while others do not. For the Latin AcI, both RtO and ECM have been suggested in the

previous literature, but we will see that both are inadequate for reasons of C-selection and standard Case-theoretic principles (see Section 4.1)

I will round off this section on infinitival clauses by briefly considering the *for*-infinitive and how it relates to the ECM construction.

3.4 The *for*-infinitive

The following construction, involving the infinitival complementizer *for*, is distinct from the cases mentioned above:

- (17) a. [For John to lose the game] would be disappointing (subject)
 b. We would like [for John to win the game] (complement)
 c. They campaigned [for their candidate to win the election] (adjunct)
 d. [His plead [for the prisoners to be released]] fell on deaf ears (complement to N)¹³

In the structures in (17), the infinitival clause is headed by a prepositional complementiser *for*, and the NP succeeding *for* is uncontroversially taken as an embedded subject. The *for*-infinitive has a certain overlap with the ECM infinitive (as some of the verbs may optionally select for both), but the *for*-infinitive has a much wider distribution; whereas ECM is always in complement position to the matrix V° , *for*-infinitives can additionally be in subject (17a) or adjunct (17c) positions, or it can be selected by certain nouns (17d). This makes it more similar to the Latin AcI than the ECM-construction with regards to distribution and general 'independence', as the *for*-infinitive is not dependent on the matrix predicate for licensing its arguments. The NP-licensing in this construction has been a subject of debate, traditionally defined as Case-licensing, but this view has later been challenged (McFadden 2012; see Section 5.1)

A comment on the relation between ECM and *for*-infinitives is in order. Although there is often a semantic distinction between the two types (i.e. *for*-infinitives are often described as denoting 'unrealized' or 'purposive' future, similar to many control infinitives,

¹³ It is not easy to decide whether *for* is a preposition or a complementizer in this case, as *plead for* may be followed by another noun; on the other hand, *plead* may also select a *that*-clause. Furthermore, ECM infinitives are not, to my knowledge, possible with prepositions.

which is generally not the case in ECM), some have suggested that they are the same construction, only that in ECM, the complementiser is null (see Wurmbrand 2014), on analogy to *that*-clauses (where *that* is sometimes dropped). This, as we will see in Section 4.4, is relevant to the AcI construction, as a similar analysis has been proposed for the AcI (Cecchetto and Oniga 2002), where the presence of a null complementiser (similar to *for*) is invoked to explain subject-licensing.

I conclude this section with a brief comment on tense. That *for* is linked intrinsically linked to futurity does not seem correct in light of (18), as the infinitives here denote events in the past. On closer inspection, the *for*-infinitive in this case does not appear to involve temporal reference at all, having rather a more 'conditional' reading:

- (18) (Assuming that the age requirement to fight during WW2 was 15 years:)
- a. [For [_P him to have fought in WW2]], he would have to be at least 90 years old (which he might be).
 $P \rightarrow \text{true}$ iff he is at least 90 years old.
 - b. [For [_P him to have fought in WW2]], he would have had to be at least 90 years old (which he is not).
 $P \rightarrow \text{false}$: he is less than 90 years old.

The *for*-infinitives in (18) both denote past time, but involve a slight interpretive distinction: the proposition of the *for*-infinitive in (18a) is deemed possibly true, i.e. a 'potential past', while the one in (18b) is deemed untrue, and could be an expression of 'irrealis past'. This indicates that *for* primarily is connected to mood, and not (directly) to tense. One could assume that what the *for*-infinitive – in this case, at least – semantically reads is 'for P [to be true]', requiring a condition, which is provided by the main clause, from which the potentialis/irrealis reading stems (*would have* vs. *would have had*). Alternatively, it could read as 'for P [to *turn out* to be true]', which necessarily invokes future reference. At this point, this is only speculation, and we will not dwell on it further here. The connection to Mood and modality, both in the case of the *for* complementiser and infinitives in general, has been suggested by several authors (e.g. Bhatt 2008, Wurmbrand 2014), and also in that regard, it

has potential ties to the AcI construction (see Section 4.3 and Chapter 6)

3.5 Case Theory

In the previous sections, we reviewed different infinitival constructions in English: control infinitivals (section 3.1), raising infinitivals (section 3.2), ECM/RtO infinitivals (3.3) and *for*-infinitivals (3.4). We recall that Theta Theory played a major role in distinguishing between several of them. However, many of the observed phenomena were not explained by Theta Theory. Let us sum up some of the most important *explananda*, based on the paradigm in (19-24). Why is it that control sentences only allow PRO as subject of the infinitival complement, not a lexical DP (19)? Why is that that raising predicates precisely require the subjects of their *infinitival* complements to move to the matrix subject position (cf. 20 vs. 21) while prohibiting the subjects of their *finite* complements do undergo the same movement (22)? Why is it that the subject of the ECM construction, in contrast to PRO in (19) is allowed to be a lexical DP (23), if both subjects are internal to their infinitival clauses? Finally, on a RtO analysis of the same string, why is it that the subject 'John' moves to the direct object position of the matrix clause (24)?

(19) I ordered John _i [PRO _i /*John to sing]	Object Control
(20) John seems [John to know Ancient Greek]	Subject-to-Subject Raising
(21) *It seems [John to know Ancient Greek]	Non-Raising
(22) *John seems [that John knows Ancient Greek]	Subject-to-Subject Raising
(23) I expect [John/him/*he to have won]	ECM
(24) I expect John [John to have won]	Raising-to-Object

Within the transformational generative paradigm, the prevalent answer to all of the above questions has remained the same throughout the GB era and well into Minimalism: Case Theory. For this reason, and since this theory has also played a fundamental role in most approaches to the Latin AcI that we will be reviewing in chapter 4, it is necessary to consider in some detail how Case Theory works.

3.5.1 Abstract Case and the Case Filter

English is a poorly inflected language, particularly in the nominal domain. Morphological case distinctions only exist in the pronominal system, with lexical DPs showing no morphological variation for case. In this respect, English differs greatly from languages like Latin, Ancient Greek, or even Modern German, where formal case distinctions play a crucial role in revealing the syntactic function a nominal plays in the clause.

The fundamental idea behind Case Theory in generative grammar is that this surface variation conceals a deeper similarity between all languages; at some level, case is crucial to all languages, presumably because it is a part of UG. The crucial observation that inspired this idea is that, even in morphologically rich case languages, there are clear patterns of (un)grammaticality that show a surprising degree of consistency across languages.¹⁴ For instance, normal transitive verbs select subjects in the nominative case and direct objects in the accusative case, banning the dative or genitive (25). However, deverbal nouns derived from the very same verbs no longer have the capacity to assign accusative, as they now uniformly govern the genitive (26). Also, when transitive verbs are passivized, the 'logical' direct object turns up as a subject in nominative, in spite of the fact that it carries the same theme theta-role as in the active sentence (27):¹⁵

(25) Er hat den Motor/*dem Motor*/des Motors zerstört
 He.NOM has the.ACC engine the.DAT engine the.GEN engine.GEN destroyed
 'He (has) destroyed/ruined the engine'

(26) Die Zerstörung des Motors/ *den Motor
 The destruction the.GEN engine.GEN the.ACC engine
 'The destruction of the engine'

(27) Der Motor/*den Motor wurde zerstört
 the.NOM engine the.ACC engine became destroyed
 'The engine was destroyed'

(Modern German)

¹⁴ These comments apply to so-called 'nominative-accusative' systems. There are other major case and alignment systems in the world, of course; for ergative-absolutive systems and how these have been treated in Case Theory, see Pesetsky and Torrego (2012) and Bobaljik and Wurmbrand (2012).

¹⁵ Thanks to Espen Klævik-Pettersen (PC) for providing me with these examples.

Although English lacks case on nominals, it seems to obey very similar restrictions. Pronominals show the same case alternations as (25) (cf. 'I saw him' vs. 'He/*him was seen') and bare NPs or pronouns cannot appear as an accusative object of a deverbal noun (cf. 'the destruction of the engine'/ vs. *'the destruction the engine'). Concretely then, the idea is that what licenses a (pro)nominal in all languages is some hidden syntactic property or relation, referred to as 'Abstract Case' ('Case' with uppercase C), while the actual morphological marking on the nominals ('case' with lowercase c) is merely a surface reflex of that same syntactic relation. Since languages were assumed to differ with respect to case, but not with respect to Case, the way to study this phenomenon is by considering distributional patterns; thus Case Theory became the 'module' of UG responsible for the licensing of overt NPs in the clause.

This idea, which Chomsky attributed to Jean-Roger Vergnaud, was immediately put to use to explain the distribution of lexical NPs, PRO and control, raising and ECM/RtO phenomena of the kind reviewed above (Chomsky 1980, 1981). Before turning to the details, however, a word is in order on the possible deeper reason behind the very existence of Case in UG. Chomsky (1981) proposed the *Case Filter* (28), speculating that the deeper motivation behind this filter was a 'visibility/legibility' requirement at LF, dubbed the *Visibility Hypothesis*, one current formulation of which is given in (29):

(28) The Case Filter (Chomsky 1981): Every overt NP must be assigned Case.

(29) The Visibility Hypothesis: An NP without Case is uninterpretable at LF.

It is also important to stress that a major distinction in Case Theory was the difference between *structural* and *inherent* Case. Structural Case is assumed to be regulated in syntax, and hence gives rise to the highly systematic patterns of nominative and accusative alternations relating to the voice (active vs. passive). Inherent case, on the other hand, was considered to be a lexical property associated with particular predicates, which therefore show no syntactically induced variation. Consider the German verb 'helfen', which idiosyncratically takes a dative instead of an accusative object (30). When this verb is passivized, the dative case marking is retained (31). This is because 'helfen' has already assigned its lexical dative case to the NP argument it first merged with:

- (30) Die Schüler haben ihm geholfen
 The pupils.NOM have him.DAT helped
 'The pupils helped him'
- (31) Ihm wurde geholfen/Es wurde ihm geholfen
 him.DAT became helped it became him.DAT helped
 'He was helped' (Lit.: 'Him was helped/it was him helped')

Returning to infinitival clauses, we can now see how (structural) Case could be applied to account for the varying distribution of lexical (i.e. phonologically overt) subjects of infinitival clauses in English (see Bobaljik and Wurmbrand (henceforth B&W) 2009: 45). A striking empirical observation is that infinitival verbs behave just like their finite counterparts with respect to case assignment to direct or oblique objects, but somehow very differently when it comes to the subject. The standard generalisation, before the advent of Case Theory, was simply that infinitival subjects may not be overt. This was descriptively captured by the **NP-to-VP* filter (Chomsky and Lasnik 1977), which involved an 'unless case', which roughly said that an overt subject may be licensed if the containing infinitival clause is adjacent to and in the domain of a verb (to account for ECM/RtO) or *for* (to account for *for*-infinitivals). This 'unless case' involving infinitival subjects, as Bobaljik and Wurmbrand (2009) notes, described a syntactic environment which was strikingly similar to standard rules of overt case assignment to the objects of finite verbs (32b, c):

- (32) *Case-assignment rules*
- a. nominative to the subject of a tensed clause
 - b. accusative to the object of a verb
 - c. accusative (or oblique) to the object of a preposition

With the introduction of the Case Filter, the descriptive **NP to VP*-filter could be captured by the mechanisms of Case, as verbs and prepositions are Case assigners; in other words, the 'unless case' would fall squarely in the domain of accusative Case assignment (Bobaljik and Wurmbrand 2009: 46). In the case of both the prepositional complementiser *for* and the

infinitival complements of 'believe'-type verbs, an embedding category is able to assign case into the domain of its complement.

Before turning to the questions of how the different infinitival constructions have concretely been derived in traditional case theoretic approaches, we will briefly consider some of the general machinery of Case Theory.

3.5.2 Case assigners, government, and barriers

In the framework of GB, it was assumed that all NPs were base-generated/first-merged in their vP-internal θ -position without Case. Because of the Case Filter, all overt NPs had to be assigned Case in syntax. The technical formulation of Case theory made use of three crucial notions: a Case assigning head or *governor*, a nominal expression able to receive Case, plus a *barrier*. A Case-assigning head like a verb or a preposition was able to assign Case to an NP if it *governed* said NP. Government was in turn structured around the central notion of c-command (Chomsky 1980: 25; see also section 2.1), leading to formulations like the following:

- (33) X governs Y iff:
- a. X is a governor, i.e. a Case-assigning head
 - b. X c-commands Y
 - c. There is no head Z which c-commands Y but does not c-command X
 - d. There is no barrier intervening between X and Y

(slightly adapted from Roberts 1993: 19)

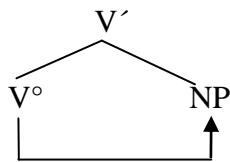
Notice the two different locality restrictions; (c) is a so-called *minimality* condition and expresses the idea that government, and hence Case assignment, must take place between an NP and the closest c-commanding governor. As for barriers (d), these were considered to be specific syntactic nodes that had the effect of disrupting the c-command chain of a higher head, thereby blocking Case assignment. Thus the maximal projection of a finite clause, CP, was considered to be a barrier, since Case assignment is local to clauses, meaning a V° cannot

assign accusative to the embedded subject across a CP, as witnessed by the contrast in (34):

- (34) a. I believe him
 b. *I believe that him is honest.

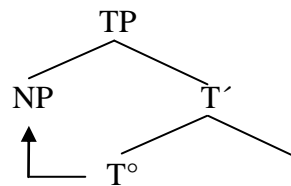
In standard finite clauses, accusative case was assumed to be assigned by the governor V° , and nominative by a head in the IP-domain, most commonly assumed to be T° . Since T° does not govern its specifier under strict c-command, case assignment was assumed to happen under the more permissive structural relation of m-command (which simply put allows a head to govern anything embedded under its maximal projection, including the specifier), or alternatively, in the structural relationship of Spec-Head Agreement (Roberts 1993):

- (35) a.



Accusative under C-command

- b.



Nominative in Spec-Head Agreement

With the hypothesis that subjects are first-merged as specifiers of the vP (Zagona 1982; Koopman and Sportiche 1991), it was possible to make all Case assignment follow from c-command (Chomsky 2000). The opposite approach, namely to make all Case assignment take place under Spec-Head Agreement, has also been pursued (Chomsky 1991; for discussion see Hornstein et. al 2010, chapter 4). I will not go further into these issues here.

3.5.3 The Case-theoretical analysis of raising

The development of Case Theory had consequences beyond the distribution of infinitival subjects, and notably, the Case Filter allowed a unified account of promotion to subject in passive (36a), raising (36b, c), and unaccusatives (36d).

- (36) a. John was invited *t* (by Peter)

- b. John was believed [*t* to have won]
- c. John seems [*t* to be happy]
- d. John fell *t*.

(Examples adapted from Bobaljik and Wurmbrand 2009: 47)

In the constructions in (36), the NP was assumed not to be governed by a Case assigner in its original position, and therefore must raise to a position where it can be assigned Case, in order to obey the Case Filter. In the case of infinitives, where the subject cannot be Case-marked by the local nonfinite Infl/T°, it must raise to a position where it is in the domain of a c-commanding Case assigner. Thus the subject in raising infinitivals are attracted by the matrix C-commanding head I°/T°. We now have an explanation for examples like (21-22), repeated below for convenience. In (21) the subject 'John' cannot stay inside the infinitival, since it cannot receive Case from non-finite I°/T°, and hence this sentence is ruled out by the Case Filter. As for (22), this is explained by the fact that finite I°/T° will assign nominative to 'John' in the lower clause, (and redundantly by the additional fact that CP is a barrier for case assignment from matrix I°/T°). In other words, *the need of an NP to receive Case drives movement*:

- (21) *It seems [John to know Ancient Greek]
- (22) *John seems [that ~~John~~ knows Ancien Greek]

This explanation also accounts for the contrast in (37); when the verb 'believe' is in the active form, it licenses the ECM construction (37a), while in the passive form, this configuration is no longer available (37b):

- (37) a. We believe Homer to have been blind
- b. *It is believed Homer to have been blind

Exactly the same pattern is found in other languages, as the following Italian examples show:

- (38) a. Ho visto Gianni riparare la macchina
- have.1SG seen Gianni repair.INF the car

- 'I saw Gianni repairing the car.'
- b. *È stato visto Gianni riparare la macchina
is been seen Gianni repair.INF the car
- c. Giovanni sembra essere arrivato
Giovanni seem.3SG be.INF arrived
'Giovanni seems to have arrived.'
- d. *Sembra Giovanni essere arrivato
seem.3SG Giovanni be.INF arrived

(Examples and translation from Mensching 2000: 73)

In the Case-approach (and specifically the Move-for-Case-approach) to NP-licensing, this is straightforward: under passivisation, transitive verbs can no longer assign accusative Case (cf. 'Burzio's generalisation' (Burzio 1986)), and so the embedded subject is not licit inside the complement, and must raise-to-subject to receive nominative. In light of this, the conclusion was that raising infinitives, as well as ECM infinitives, belonged to the IP/TP category, which are not barriers since they in contrast to CPs do not block Case assignment to the embedded subject.

Some languages, e.g. European Portuguese (EP), have inflected infinitives where the infinitive agrees with its subject in person, and number. Interestingly, these infinitives also license a nominative subject. Since this feature specification on infinitival I°/T° seems to allow local nominative Case assignment, the Case-drives-movement version of Case Theory predicts that raising should not obtain in these cases. This is confirmed for EP:

- (39) Parace ter ho João chegado
seems have.inf the João arrived
'It seems that João has arrived.'
Lit.: *Seems to have João arrived

(From Mensching 2000: 74)

3.5.4 The Case-theoretical analysis ECM and for-infinitives

Little needs to be repeated at this point about the ECM construction, since its analysis follows from the Case Filter and general Case-assignment rules. The only additional assumption

necessary was that ECM infinitives were not barriers and could therefore not belong to the CP category. In order to explain why matrix V^o can successfully assign accusative to the embedded subject, the ECM clause is standardly considered an IP/TP. This assumption has further support from Binding Theory:

- (41) a. $John_i$ believes $him_{k/*i}$ to be a genius.
 b. $John_i$ believes that $he_{k/i}$ is a genius.
 c. John believes himself to be a genius.
 d. *John believes that himself is a genius

The infinitive should not constitute a separate binding domain, since, as indicated by the indexes, *him* cannot be co-referenced with the matrix subject (41a), as it is can in finite embedded clauses (41b), because it is not free in its binding domain, and thus in violation of Binding Principle A (Chomsky 1981). Likewise, the anaphor *himself* is licensed in (41c), thus properly bound, contrary to in (41d), a finite clause.

Similarly, the subject-licensing and distribution of the *for*-infinitive also follows from Case theory, as the infinitival subject could be seen as licensed through Case-assignment by the prepositional complementiser *for*. Being a CP with an internal Case-licenser, it is not restricted to the complement position of the matrix V, but may occupy the subject position, or enter the syntax as an adjunct, as well.

However, the association of *for* with Case-licensing has been challenged by McFadden (2012). On his view, the relation between *for* and the infinitival subject is unrelated to Case (a point we take up in Section 5.1).

3.5.5 Case theory and Control

Among the questions raised at the beginning of this section regarding the subjects of infinitival constructions, there is one that still has not received a proper answer, namely why the control clause in (19), repeated here for convenience, is ungrammatical with a lexical/overt subject:

- (19) I ordered $John_i$ [$PRO_i/*John$ to sing]

Since infinitivals were not considered capable of assigning Case to their subjects, there is no clause-internal head that can assign any structural case to the subject of the infinitival. Unlike the case in ECM/RtO, the subject cannot receive accusative case from the matrix verb, since the latter assigns accusative to the local direct object instead by Minimality. It would seem that the nullness of PRO follows from the Case Filter, since it cannot receive Case.

However, for reasons which I cannot enter upon here, (but see Hornstein et al. 2010, pp.127-132), the idea that PRO did not receive Case was found theoretically undesirable¹⁶, and a new proposal was made, according to which PRO was lexically specified (in contrast to other NPs, which were assumed to be merged without Case) for a special 'null Case', which uninflected I°/T° was able to assign.

Martin (2001) argued that the stipulation of null Case and PRO could be both conceptually and empirically motivated, relating null Case to infinitival tense. He proposes the following adaptation, in order to keep the descriptive generalisation of the PRO Theorem¹⁷ (from Martin 2001: 146):

- (42) a. The subject of control infinitives is PRO or, in the case of *for*-infinitives, lexical DP
 b. The subject of raising infinitives is a trace at LF

The argument lies in the difference in tense interpretation between control and raising infinitives, as was previously noted by Stowell (1982). Stowell had argued that the *event time* in control is always consecutive (unrealized/ future) of the matrix event time, while the event time of raising infinitives is identical/ simultaneous to that of the matrix:

- (43) a. Sara convinced Bill to go to the party (control)
 b. The doctor believed Bill to be sick (ECM)
 c. The defendant seemed to the DA to be guilty (raising)

(Examples adapted from Martin 2001: 147):

¹⁶ Among other things, the Visibility Hypothesis dictates that PRO can not be read at LF if it does not receive Case, and this is an unwelcome result.

¹⁷ An attempt was made by Chomsky (1986) to motivate the exceptional character of PRO by tying it to independent grammatical principles like those postulated by Binding Theory. This was the motivation behind the PRO Theorem, which stated that PRO was both [+anaphoric] and [+pronominal] at the same time, hence it had to be both bound and free according to Binding Theory (45); this contradiction was seen as an explanation for its 'nullness':

Stowell (1982) further proposes that this is due to a difference in the feature [tense]: control infinitives are [+tense], while raising infinitives are [-tense]. Martin (2001) argues that this is in support of a Case distinction between control and raising: [+tense, -finite] checks null Case, while [-tense, -finite] does not check Case (2001: 147).

This is not an entirely unproblematic dichotomy. Although it is correct that the present infinitive expresses simultaneity in raising infinitives, and (usually) posteriority in control infinitives, it seems nevertheless to be the case that raising infinitives can express tense:¹⁸

- (44) a. Homer is believed to have been blind
 ≠ Homer has been blind (perfective aspect)
 b. The victim was shown to have died between 1 and 1:30 AM
 ≠ #the victim has died between 1 and 1:30 AM (perfective aspect)

Following the same reasoning as above, and seeing as the raising infinitives in (44a-b) cannot be interpreted as present perfective (i.e. expressing merely aspect), but express relative past tense, then they should be [+tense]. If this is a valid diagnostics for tense, then it seems [tense] alone cannot account for the empirical discrepancy between control and raising, nor support a formal distinction between them based on Case assignment.

Martin (2001: 150) argues further that eventive predicates are possible in control infinitives but not in raising infinitives, using the examples in (50) to demonstrate this:

- (45) a. *Geno believed Rebecca to win the game
 b. *The defendant seems to the DA to steal the car

(From Martin 2001: 150):

The ungrammaticality of these examples, according to Martin, follows from the infinitival verbs *win* and *steal* being eventive, and that raising is only compatible with stative infinitives. He here refers to Enç (1990), who argues that eventive predicates involve variables that must be bound by tense, or by a modal or temporal operator (2001: 150), which cannot be achieved in raising infinitives because they are [-tense]. However, it could be argued that it is not so much the infinitival verbs themselves (i.e. the lexical items), and their eventive or non-

¹⁸ I thank Dag Haug for pointing this out to me.

eventive character, that is of importance here, if we consider the following examples:

- (46)
- a. Geno believes Rebecca to have won the game
 - b. The defendant seems to have stolen the car
 - c. Caesar seems/ is believed to have died in 44 BC
 - d. *Caesar has died in 44 BC

The verbs in (46a-b) are still *win* and *steal*, only in the past infinitive form. For (46a-b) it might be the case that these express perfective aspect, however for (46c), this reading is impossible, cf. (46d). This tense-based distinction between control and raising infinitives has furthermore been challenged by other works (e.g. Wurmbrand 2014, Grano 2015). We will return to the issue of infinitival tense when considering Latin infinitivals in Chapters 4 and 5.

3.5.6 Case Theory in Minimalism

The gradual replacement of GB with Minimalism as the dominant framework within the Principles and Parameters approach has had some consequences for Case Theory. However, since most of these developments are conceptual or theory-internal, and since this thesis is not primarily concerned with Case Theory, there is no need to go into great detail here about these developments. Furthermore, even the more recent Case-theoretic approaches to Latin infinitival subjects, to which we will return in the next chapter, are generally couched in a relatively traditional GB conception of Case. I will therefore be content to point out a couple of the most important theoretical novelties in Minimalist Case Theory. For a thorough discussion, see Bobaljik and Wurmbrand (2009), Hornstein et. al (2010), and Pesetsky and Torrego (2012).

In Minimalism, it is no longer generally believed that nouns are merged without Case and must be 'assigned' a Case in syntax. Rather, NPs are merged with an unvalued and uninterpretable Case feature [*uCase:*] which must be 'checked' by a head carrying a valued Case feature, and once the feature on the noun is checked, the uninterpretable feature is deleted. It is not clear that this entails any new predictions.

The most important shift for Case Theory, however, follows from the emphasized role of the operation Agree and probe-goal relations in syntax, and from Chomsky's desire to eliminate a theoretical redundancy from the GB era, namely that raising was driven both by

Case and the Extended Projection Principle (EPP). The EPP has been retained as the driving force behind the operation Move (and possibly even External Merge; see Boeckx 2014); movement takes place when an Agree relation obtains between a probe and a goal, and when the former is additionally equipped with an EPP-feature. On this view, Case is no longer seen to drive movement, which in turn means that the original motivation for Abstract Case, which precisely was to regulate the position of overt NPs, is weakened.

I will round off by observing that an oddity of Case within the general Minimalist checking procedure is that, unlike other features that come in interpretable-uninterpretable pairs (like [number] which is [i] on nouns but [u] on the verb, or [tense], which is [i] on T° but [u] on v° , see section 2.1), the feature [Case] is uninterpretable both on the NP and on the verb. In light of the observations above, and viewed against the massive empirical challenges mounted against Case Theory (to which we will return in Section 5.1), that might turn to be more than pure accident.

4. Previous work on the Latin AcI

The Latin AcI construction has been the object of much research both in the traditional philological literature and, since the 1950's, in the generative paradigm and other theoretical frameworks. Many aspects of this research are not relevant to the specific concerns of this thesis and will not be mentioned here. This includes work on the historical origin and diachronic development of the AcI-construction, its importance in the reconstruction of Proto Indo-European, or indeed studies devoted to its stylistic value. I will restrict my attention to theoretically oriented work that has addressed the issues of interest to the current investigation, like internal structure, subject licensing, and case assignment to the subject. Priority will be given to analyses which are couched in more recent transformational (and predominantly Minimalist) frameworks. Some analyses from alternative frameworks will nevertheless be reviewed in brief, since the empirical observations and descriptive contributions across frameworks are important to any study seeking insights into the syntactic properties of the AcI construction and its subject.

The structure of this chapter is as follows: in Section 4.1, we briefly consider early generative work that tried to assimilate the Latin AcI to the ECM/RtO construction, and I will show why this approach was relatively quickly abandoned. In section 4.2 I will review some key claims made by a few researchers working in non-derivational frameworks. Sections 4.3-4.5 are devoted to a more thorough discussion of more recent approaches falling within the Chomskyan tradition of generative grammar and which make use of Case Theory. Section 4.3 is a very brief discussion of Ferraresi & Goldbach (2007), while I round off by a more in-depth discussion of the Case-theoretic approaches of Cecchetto and Oniga (2002) and Melazzo (2005) in Sections 4.4 and 4.5, respectively.

4.1 Early clause-external accounts

As we saw in the previous chapter, Modern English also features infinitival clauses with overt subjects. These are referred to as either ECM ('Exceptional Case Marking') or RtO ('Raising-to-Object') constructions, depending on the particular analysis adopted (see Section 3.3). On the surface, these bear a striking resemblance to the Latin AcI, and furthermore, they are found under many of the same verbs that embed the AcI. As a natural corollary, early

generative work tried to extend the analyses proposed for this construction to the Latin AcI. Both Raising-to-Object (Pepicello 1977, 1980; see also Baldi (1983) and Christol (1989) for similar ideas) and ECM accounts (Calboli 1983; Maraldi 1983) were proposed. Although these accounts differ in details, they both depend on a matrix verb to assign accusative case to the subject of the AcI. However, these analyses were shown to be incorrect already by Bolkestein (1979) and Pillinger (1980). I will now briefly review the main arguments levelled against these early, clause-external analyses; see Jøhndal (2012) for overview and discussion.

There are several pieces of evidence that strongly suggest that the AcI cannot be considered to have the same syntax as the ECM/RtO construction. For starters, the subcategorization patterns of the AcI and ECM are very different. While there is much overlap in the kinds of predicates that can embed both constructions as direct objects, the AcI can also appear as the subject of the matrix clause, in apposition to a pronominal, and embedded under a noun, as we saw in Section 1.3.2. The contrast with ECM/RtO infinitivals could not be starker:

- 1) a) *[Him to go out] is necessary
- b) *This I know, [him] to be a fool
- c) * The rumor [the war to be over]

In fact, even when embedded as the direct object of the matrix clause, the two constructions differ in interesting ways. While the AcI shows much more flexibility in terms of word order and can appear both to the left and the right of the embedding verb, the ECM may not be fronted (2a). Furthermore, the ECM does not allow local/internal A'bar movement either, suggesting it lacks a left periphery. Again there is evidence to suggest such a layer is available in the AcI (2c), as (parts) of the PP *in magno periculo* 'in great danger' has been fronted to a position above the infinitival subject *se*:

- (2) a) *[Him to be a fool] I consider
- b) *He believed [the neighbour's daughter his son to have kissed _]
- c) * Vidit autem vir omnium callidissimus [in magno se
 see.PRF.3SG however man all.GEN most-cunning.NOM in great.ABL REFL.ACC.

fore periculo ...]

be.FUT.INF danger.ABL

'But then that most cunning man saw that he would be in great danger.'

Nep. *Han.* 9.11-12.

Interestingly, all of the subcategorization data reviewed in Section 1.3.1 along with the word order facts in (2) show that the AcI patterns consistently like finite clauses in English, which can also stand in apposition to pronouns (3a) or be embedded by adjectives (3b) or nouns (3c), be fronted to the matrix left periphery (3d), or have constituents fronted locally to a clause-internal left periphery (3e). All

- (3) a. This I know, [that he is a fool].
 b. She was proud [that her son had won the race].
 c. The rumor [that the war was over].
 d. [That it would happen to me], I had never expected.
 e. He said [that this neighbourhood he would never recommend].

The most crucial evidence against an ECM analysis of the AcI, however, comes from its capacity to be embedded under impersonal predicates and passives. In such cases, the ECM consistently either becomes ungrammatical or turns into a raising construction in English (4). While this is a possibility in Latin as well (5a), yielding the so-called *Nominativus cum Infinitivo* (NcI) it is also perfectly fine for the subject to remain inside the AcI and to retain its accusative case (5b):

- (4) a. John/he was said [__ to have left early].
 b. *It was said [John/him/he to have left early].

- (5) a. [Quem quidem ... persequi] Caesar dicitur
 who.ACC PRT pursue.INF Caesar.NOM say.PASS.3SG

'Whom in truth Caesar is said to pursue'

(Cic. *Att.* 7.23.1; from Melazzo 2005:362)

- b. Traditum est etiam [Homerum caecum fuisse]

relate.PASS.PRF.INF be.3SG also Homer.ACC blind.ACC be.PRF.INF

'It has been claimed that Homer was blind, too.'

(Cic.*Tusc.*5.39.114)

Examples like (4b) seem irreconcilable with a Case-based analysis *à la* ECM, since one-place predicates are not supposed to assign accusative at all, according to Case Theory (Burzio 1986). Moreover, the alternation between NcI/Raising and Non-Raising/AcI in (4a-4b) has damaging repercussions for (traditional G&B) Case Theory in general, since the fact that subjects of infinitivals can receive accusative without a matrix assigner casts doubt on the traditional hypothesis that raising is driven by the need to receive Case.

The view that the AcI is a construction distinct from ECM/RtO has generally been accepted by subsequent accounts, e.g. Cecchetto and Oniga (2002), Melazzo (2005), Jøhndal (2012), Sevdali (2013), and others. The evidence reviewed above, and in particular the AcI/NcI-alternation (5), suggests that subject Case and licensing must be explained by principles *internal* to the AcI-clause. Pillinger (1980) for instance, having rejected the previous raising/ECM analyses, assumes instead that the AcI is a nominalised clause, where the subject receives accusative as the least marked case. His NP-hypothesis, he argues, is supported by the distributional overlap between AcIs and NPs, i.e. the fact that many verbs selecting the AcI, like *dicere* 'to say', *audire* 'to hear', and *putare* 'to think/reckon', etc., may alternatively select NP objects:

(6) aliquid dixisti
 something.ACC say.PRF.2SG
 'You said something'

(constructed example from Pillinger 1980: 76):

Although this is true of many AcI-selecting verbs, this is certainly not the case across the board. Furthermore, while deverbal nouns arguably retain their argument structure and their capacity to assign theta roles, they consistently fail to assign accusative, always selecting agent and theme/patient arguments in the genitive case:

- (7) a spes Romanorum, spes civium¹⁹
 hope.NOM Romans.GEN hope.NOM citizens.GEN
 'The hope of the Romans, the hope of the citizens'
- b. spe [templi ... capiendi]
 hope.ABL temple.GEN seize.GDV.GEN
 'by hope of besieging the temple'

(Liv. *Ab Urbe*. 31.25)

If the AcI simply is an NP, as the nominalisation hypothesis of Pillinger suggests, it is surprising that it patterns so radically different from other, verbally derived nouns. If on the other hand the AcI is a clause *embedded inside an NP*, then we need to understand how the subject is licensed and receives case inside its immediate clausal constituent, or how the addition of a nominal layer on top might concretely affect these factors; otherwise the nominalisation hypothesis seems to explain nothing. A nominalisation analysis also begs the question of why we find the AcI alternating with CPs like *ut*-clauses, an uncontroversially clausal constituent, and why we do not find AcIs embedded by prepositions (which Pillinger acknowledges (1980: 77)). All in all, his NP-hypothesis does not offer any principled way of deriving subject overtness or case, and it is not clear how it would deal with root AcIs, which do not seem to be (syntactically) embedded at all (see section 1.4).

4.2 Analyses in non-transformational frameworks (GPSG, HPSG, LFG)

Cann (1983) rejects Pillinger's NP-hypothesis, and assumes that the AcI is a non-finite sentence. Working in a GPSG framework, he proposes a rule which links the case of the subject to the finiteness of the clause which translates to: nominative if finite, accusative if non-finite. Furthermore, he associates the distribution of the AcI-passive and NcI-passive with 'lexical transitivity', which he defines as 'an inherent feature of a verb that remains constant (like all lexical features) no matter what linguistic environment surrounds it' (1983: 116). Under his assumptions, a transitive verb is one which 'may appear with a noun phrase object in the accusative case' (1983: 117). In his system, a verb which selects an accusative object is lexically transitive [+TRN], otherwise it is [-TRN], i.e. non-transitive. For instance, *velle* and *audire* are [+TRN], while *dicere* and *posse* are [-TRN]. His claim is that only [-

¹⁹ This example is invented, but uncontroversial.

TRN] verbs may select the AcI-passive or NcI-passive. Jøhndal (2012) points out several problems with his analysis: i) *audire* is attested with an NcI-passive (2012: 73), and *velle* has no passive form (adapted from Jøhndal 2012: 73):

- (8) a. iam Caesar a Gergovia dicessisse audiebatur ...
 now Caesar.NOM from Gergovia.ABL withdrawe.PRF.INF hear.PASS.IPFV.3SG
 'Now Caesar was reported (lit. 'was being heard') to have withdrawn from Gerovia'
 (Caes. *Gal.* 7.59.1)

- b. equus *vultur /auditur a me²⁰
 horse.NOM want.PASS.3SG/hear.PASS.3SG by me.ABL

Jøhndal therefore concludes that the relevance of [TRN], i.e. lexical transitivity, is 'doubtful', and notes that Cann's judgements on transitivity are debatable: Cann proposes a rule allowing all AcI-selecting verbs to optionally select a neuter, accusative pronoun, which, according to him, do not count as true objects with respect to lexical transitivity; however, as Jøhndal points out, verbs like *dicere* 'to say' can even take nominal objects like *oratio* 'speech', and Cann offers no satisfactory explanation for this, other than suggesting verbal homophony (2012: 74).

Expanding on Cann's (1983) ideas, Schoof (2003, 2004) provides an account of the AcI within a HPSG framework. Schoof assumes that the AcI is 'a kind of adjunct' or an 'oblique complement' when embedded by a verb, and an apposition when embedded by nouns (2003: 300-5).

These assumptions are not unproblematic. She accounts for the accusative subject by a rule which applies exclusively to AcIs, and derives the AcI-passive by a (lexical) rule of passivisation, which demotes the subject without altering the structure of the AcI. The NcI-passive is derived from the AcI-passive by another rule, which corresponds to subject-raising. Jøhndal (2012) points out that some of her definitions are problematic: she distinguishes object control verbs from AcI-selecting verbs by transitivity, the former being transitive, the latter intransitive; while it is uncontroversial that object-control-verbs are transitive, she

²⁰ Constructed by Jøhndal (2012), but the facts are uncontroversial.

classes the infinitival constructions with *velle* and *audire* as control, as she considers them to be transitive, which is not uncontroversial, as these are standardly considered AcIs. Jøhndal notes:

'If we eliminate the notion of 'transitivity' from Cann's and Schoof's proposals, we are left only with a stipulated rule that assigns accusative case to the subject of non-finite verbs. Nothing new is therefore added to our knowledge compared to Pillinger (1980)'
(Jøhndal 2012: 75)

Jøhndal (2012) is an account couched within the non-derivational generative framework of LFG. This framework distinguishes between two levels of syntax, C-structure (for 'constituent structure') and F-structure (for 'functional structure') which exist in tandem and communicate via mapping algorithms. At C-level, overt constituent structure and word order facts are encoded, while deeper properties like grammatical functions and case are defined at F-structure.

Jøhndal provides a clause-internal account of the accusative case of the subject, arguing that, as the infinitive is the only lexical element which is constant (disregarding here the possibility of auxiliary omission, as he notes), 'the relevant constraints must be lexically associated with the infinitive' (2012: 79). He proposes an LFG lexical entry which defines AcI as a sentence with the function COMP (which essentially means that it is a non-controlled complement clause), with a designated MOOD (=ACI), to 'allow a matrix predicate to subcategorise specifically for an AcI rather than some other complement that can have the function COMP' (2012: 79). The accusative case of the subject is encoded in the entry by association with the MOOD 'ACI'.

If I understand this correctly, it might be that a purely C-selectional approach to the AcI is in need of some additional story to account for the alternation between AcI and subjunctive *ut*-clauses under one and the same predicate, an alternation that was argued in Section 1.3.2 to be (at least partially) motivated by semantics (see also Bolkestein 1980).

In my opinion, an insight would be lost if this alternation were considered to be free lexical variation in the C-selectional properties of the embedding predicate. The correct outcome seems to be guaranteed by the association of the function COMP with the MOOD = ACI, but the AcI is strictly speaking not a mood, and constitutes a far more heterogeneous class than *ut*-clauses. The mood of the embedded clause, as well as the case of its subject, should preferably be properties that accrue to it through *clause-internal* properties.

I take it that Jøhndal's account is primarily descriptive in nature, so I will not go further into this, but it is worth mentioning that he also makes an interesting comment about the phrase-structure of the AcI. According to Jøhndal, the AcI is unlikely to be a CP since it it freely allows cross-clausal displacements (scrambling), unlike finite CPs (see also Haug 2017).

As this thesis is centred around Minimalist syntax, I will not pursue any of the analyses offered in other frameworks any further; In the remainder of the section, we will focus solely on more recent Case-theoretic and Minimalist accounts.

4.3 Goldbach and Ferraresi (2003)

Goldbach and Ferraresi (G&F) are chiefly concerned with the diachronic issue of the replacement of the AcI with finite complement clauses in the evolution towards Romance, so I will only briefly discuss their contribution to the synchronic understanding of the AcI.

Although the AcI has the morphological appearance of a non-finite form, it has the ability to express not only relative tense, but also modality. The authors offer the following example (9) to illustrate irrealis mood in the AcI; here the matrix verb *scitote* 'know' (imperative) embeds a declarative AcI which is conjoined with an AcI which expresses the apodosis (consequence clause) - *fuisse pensuros* ('they would continue to pay') - of a hypothetical protasis/conditional (*si a me foret cessatum* 'if I had hesitated'). This would have been expressed by the subjunctive in a root clause:

(9 Stipendium scitote [pependisse socios vestros Gallis]
 tribute.ACC know.FUT.IMP.2PL hang.PRF.INF allies.ACC your.ACC Gauls.DAT
 et nunc, liberatos per vos regio imperio,
 and now freed.ACC through you.ACC royal.ABL dominion.ABL
 [fuisse pensuros], si a me foret cessatum
 be.PRF.INF hang.FUT.PTCP.ACC if by me.ABL be.IPFV.SBJV.3SG stop.PASS.PRF.PTCP

'You [should] know that your allies paid tribute to the Gauls and now released from royal domination by you they would continue to pay if I had hesitated'

(Liv. *Ab Urbe* 38.47.13; from Ferraresi and Goldbach 2003:244)

F&G conclude that the AcI is able to express both tense and mood, and that the presence of these morphosyntactic features licenses the subject. Therefore, they argue, the AcI is 'more finite than other infinitival constructions' (2003: 245), citing AcIs used as root clauses with declarative and rhetorical-exclamative force as evidence for this hypothesis, as well as the fact that AcIs correspond to finite complement clauses in modern Romance. As for the specific accusative case of the subject, F&G speculate that this could be related to widespread syncretism between nominative and accusative in the neuter nominal declension, such that one can 'view the accusative as representing the nominative in certain grammatical contexts,' (2003:246). This hypothesis does not seem convincing, and it is unclear how it could be incorporated in a principled theory relevant to our purposes.

4.4 Cecchetto and Oniga (2002): The null complementiser

Cecchetto and Oniga (henceforth C&O) (2002) offer a more recent and more explicit transformational analysis (couched in a P&P framework) of Latin infinitival clauses that is particularly relevant to this thesis, as it includes both the AcI and control clauses. Their proposal has been echoed in later works, e.g. Tantalou (2003) and Spyropoulos (2005) for Ancient Greek, and to some extent Melazzo (2005) for Latin (see section 4.5). The authors generally follow the traditional framework of Case Theory, and they derive the accusative Case of the AcI subject by an analogy to the traditional analysis of *for*-infinitives (see Section 3.4), assuming a corresponding null complementizer for Latin.

Noting that AcIs differ from control infinitives in that the former can express past, present or future tense, C&O arrive at the conclusion that control infinitives are untensed [-T], while AcI infinitives are tensed [+T]. As they follow the standard Case-theoretic assumption that nominative Case is assigned by 'finite inflection', i.e. agreement and tense ([+Agr, +T]), and as Latin infinitives do not inflect for person, they conclude that Latin infinitival clauses are [-Agr]. PRO, in their view, is not compatible with [+T, -Agr]. C&O note that some control verbs embed infinitives with future reference, but these are not attested with future morphology, and were most likely not possible (C&O 2002: 165). The authors propose to capture this constraint by assuming that infinitival control clauses do not project to IP/TP, but are just vPs, a proposal which effectively amounts to a truncation analysis (Haegeman 2012)

for control clauses (see section 2.3.4).

AcI clauses on the other hand are CPs, according to C&O, containing a complementizer that is phonologically null. They do not adduce any concrete evidence for this complementiser, apart from speculating that it is the covert ancestor of the overt complementiser *quod* that gradually emerges in the evolution towards the Romance languages (2002:182). This hypothesis does not seem convincing, since *quod* introduces finite complement clauses sporadically even in Classical Latin, but to the best of my knowledge, *quod*-clauses and AcIs are always in complementary distribution with respect to finiteness, and at no point in the diachronic evolution does *quod* 'emerge' as the head of AcI-clauses. It is rather the minority option that grows to become a competitor and gradually ousts the AcI in the Romance diachrony, making it implausible to derive one from the other (see Cuzzolin 1994 for the emergence of the finite construction).

C&O proceed to postulate that the null complementiser is analogous to English *for*, which has been considered a prepositional non-finite complementizer capable of assigning accusative Case to the infinitival subject (see section 3.4). However, since the Latin complementiser is phonologically null, C&O find it reasonable to assume that it is *affixal*, meaning it behaves like a clitic in need of a phonologically overt host. This is parallel to the null complementiser \emptyset_{that} that alternates with English *that*-clauses (10), and which is not grammatical in all the contexts where its overt counterpart can appear, as shown by (11).

(10) Mary believes that/ \emptyset_{that} the world is round

(11) That/* \emptyset_{that} the world is round irritated the Catholic church

(From Cecchetto and Oniga 2002: 184)

C&O refer to work by Stowell (1981) and Kayne (1984), who suggest \emptyset_{that} must raise to cliticize to the matrix verb. This is possible when the complement clause is in object position (12), but not when it is in subject position (13), since subject clauses constitute islands to movement (*t* denotes the 'trace' from which the null complementiser has been moved):

(12) Maria \emptyset_{that} -believes [*t* world is round]

(13) *[*t* world is round] \emptyset_{that} -irritated the Catholic church

(From Cecchetto and Oniga 2002: 184)

Finally, C&O hypothesize that the affixal nature of the null complementiser is satisfied by a different strategy in Latin than in English; rather than raising and attaching to the embedding verb, the complementiser is satisfied clause-internally by the infinitival verb itself raising to C° . This modification is necessary in light of the fact that the AcI does not always have an embedding verb. The conceptual justification for this movement, according to the authors, is that complementisers 'reflect certain properties of the verbal system of the embedded clause' (2002:185), inasmuch as the choice of complementiser might depend on whether the clause is finite or non-finite ('that' vs. 'for' in English), or in indicative or subjunctive mood ('quod' vs. 'ut' in Latin). Theoretically, this means that the infinitive and the complementiser share some features. C&O propose that it is the strong inflectional features of the AcI-infinitive, which is [+T], that allows it to move in Latin. Once the infinitive has raised to C° , it can assign accusative case to the subject.

Cecchetto and Oniga's analysis is the most explicit attempt reviewed so far to derive both the distinction between PRO and overt subjects (i.e. between control and AcI), as well as the accusative Case of the subject of the AcI, in line with traditional Case-theoretic assumptions and modern generative theory. However, their analysis is not immune to criticism. First, there is some amount of stipulation involved, since they postulate a null element for which no independent evidence is presented. Furthermore, the idea that the infinitive in AcIs moves to C° is simply impossible to reconcile with the data, since the infinitival verb in the AcI shows great variation in terms of its position and is manifestly not in C° in many, if not most cases. This is presumably the reason why C&O suggest that this movement takes place at Logical Form (2002:185). This solution, however, raises many additional questions. It is unexpected that movement which is related to the 'affixal' or clitic nature of C should take place at LF, since the motivation that is initially postulated is rather phonetic in nature. Since it is not in fact the affixal C itself that moves to find a host, which is otherwise generally the case for clitics and light elements, the satisfaction of this affixal nature seems like a fortuitous coincidence of the infinitive moving to C° , a movement which in turn is triggered by feature-sharing (specifically, the feature [+T]) between C and the verb, an entirely different motivation. However, the most serious problem for this solution is that it raises the question why the subject of the AcI surfaces with accusative case in *overt syntax*. If the movement does not take place until LF, then surely the case-checking/valuing would also be delayed until that point, which is manifestly not the case.

It should be emphasized that LF movement is no longer necessary to account for Case in modern Minimalism, since Agree relations like the one postulated by C&O can be satisfied in narrow syntax by letting the higher feature probe down its c-command domain for matching features, a fact briefly mentioned by the authors in a footnote at the end of their paper (2002:186). Even this solution would be hard to reconcile with the case-theoretic idea at the basis of C&O's analysis, namely that accusative can be assigned to the subject by the verb under government. It seems we would need C° to perform two distinct, but interrelated operations: first it would have to probe in order to receive a value for its (presumably uninterpretable) tense feature. This would be accomplished through long distance Agree with the infinitival verb, which presumably carries the interpretable counterpart. Since this does not in itself result in accusative Case being assigned to the subject, the valuing of this [T] feature on C would allow it to activate a new search, only assigning accusative in this second step. This is a very complicated derivation.

There are also empirical issues; if the infinitival verb is able to assign Case to the subject locally, why do we get the well-known AcI/NcI-alternation under impersonal predicates and passives (see Section 3.1)? C&O are content to say the following:

'when the embedded infinitival is introduced by \emptyset_{comp} , its subject receives the Accusative from it. A[n] AcI clause results. If the embedded infinitival clause does not contain \emptyset_{comp} , its subject does not receive any Case and is forced to raise to the matrix subject position by the Case-Filter. A[n] NcI clause results'

(Cecchetto and Oniga 2002: 182).

In other words, the solution is simply a selectional variation: sometimes the AcI-clause is merged as a CP headed by a null complementiser, sometimes it lacks this Case-assigning layer (in other words, it is *defect*). In fairness, it should be said that the variation between AcI and NcI seems semantically vacuous (much more so than the variation between AcI and *ut*-clauses, see section 1.3.2) and therefore very hard to motivate for any theory; Cecchetto and Oniga's claim that the CP-layer in the AcI is sometimes absent/truncated at least makes it possible to defend the claim that Subject-to-Subject Raising is, after all, driven by Case.

4.5 Melazzo (2005) Case Assignment in the CP-layer

Melazzo (2005) builds on many of the same notions as Cecchetto and Oniga (2002). First, in order to assess the clausal structure of the AcI, he discusses the presence or absence of an embedded left periphery. In Italian and Portuguese, infinitival clauses embedded by *believe*-type verbs require a VS(O) order:

(14) Italian

a. *La corte ha deliberato [l'imputato esser innocente]
 the court has ruled the defendant be.pres.inf. innocent

'The Court has ruled the defendant to be innocent'

b. La Corte ha deliberato [esser tu innocente]

 the court has ruled be.pres.inf. you.nom innocent

'The Court has ruled you to be innocent'

(15) Portuguese²¹

a. *Eu penso/ afirmo [os desputados terem trabalhado pouco]

 I think maintain the delegates have worked little

b. Eu penso/ afirmo [terem os desputados trabalhado pouco]

 I think maintain have the delegates worked little

'I think/ maintain that the delegates have worked little'

(Examples, translations and glossing (adapted) from Melazzo 2005: 348)

For Italian, Rizzi (1982) has shown that infinitives may involve an overt nominative subject only if preceded by the infinitival verb. To account for these data, Rizzi assumed that this obtains under head-movement of the infinitive to C, also known as the Aux-to-Comp analysis, which he formulated into the following simplified rule:

(16) Assign Nominative Case to NP in the context Aux __ .

(Rizzi 1982: 87, from from Melazzo 2005: 348)

Raposo (1987: 92) put forth a similar analysis for Portuguese; however, Portuguese differs

²¹ From Raposo (1987: 87).

crucially from Italian, in that the the infinitive comes in two variants, one of which is inflected (hence the term 'Inflected infinitive'). Raposo formalised the Case-assignment to the infinitival subject in Portuguese in the following way, where the specification of Case on Agr was assumed to be licensed by T-to-C movement:

- (17) In the absence of [+Tense], Infl (or Agr in Infl) is capable of assigning nominative Case to a lexical subject only if it is itself specified for Case

(from Raposo 1987: 92)

In order to assess whether a similar account can be adopted for Latin, Melazzo discusses the presence or absence of a CP layer in the AcI clause. He provides *i.a.* the following example to illustrate A'-movement into the embedded LP (glossing and translation added):

- (18) Haec memini, et [victum frustra contendere Thyrsin]
 these-things.ACC remember.PRF.1SG and vanquished.ACC in-vain strive.INF Thyrsis.AC
 'These things I remember, and that Thyrsis, vanquished, strove in vain'

(Verg. *Ecl.* 7.69; adapted from Melazzo 2005: 349):

He argues, referring to Kayne's (1994) antisymmetry of syntax theory which adopts the Universal Base Hypothesis according to which all heads are merged to the left of their complements), that the string *victum frustra contendere* must have moved (presumably since it precedes the subject, which is standardly considered to occupy Spec-TP) to positions located in the split-CP layer proposed by Rizzi (1997) (see Section 2.3.3). It should be noted that both examples (one of which is repeated here) are taken from verse (i.e. Vergil and Horace), which might not be ideal contexts for identifying representative strings and constituent locality in Latin, as verse often exhibits radical word order manipulation to adhere to metric rules. He supplies with the following prose example, from Cicero, which exhibits a VS string (translation and glossing adapted):

- (19) Negat Piso [scire se (...) quicquam]
 deny.3SG PISO.NOM know.INF REFL.ACC anything.ACC

'Piso denies he knows (of) anything'

(Cic. *Phil.* 12.3.4; from Melazzo 2005: 350)

This example, Melazzo argues, shows that Latin infinitival clauses cannot be considered to lack a left periphery, as the verb precedes the subject. Again the argument rests on the assumption that the subject is always in Spec-TP; this assumption has been disputed, as Danckaert (2017) and Klævik-Pettersen (2019) find that Latin subjects may be in both Spec-TP and Spec-vP.

Based on these word order facts, Melazzo assumes that AcI clauses are CPs, and furthermore, that their CP contains many layers (Rizzi 1997). He furthermore assumes (echoing Pillinger (1980), see Section 4.1) that they are embedded under a DP at the level of the matrix clause. The point of departure for this assumption are the appositional/exegetical AcIs occurring with a pronominal antecedent, e.g. *id* 'it', *illud* 'that', *hoc* 'this', with the AcI in a *prima facie* extraposition (see Section 1.3.2). He notes the following example (translation and glossing adapted:)

(20) Sed ego *id* *respondeo* (...) *te* *dolorem ferre* *moderate*,
 but I *it*.ACC *answer*.1SG *you*.ACC *pain*.ACC *bear*.INF *moderately*
nec *potuisse* *non* *commoveri*,
 and-not be-able-.PRF.INF NEG *move*.PASS.INF
nec *fuisse* *id* *humanitatis tuae*
 and-not be-.PRF.INF *it*.ACC *humanity*.GEN *your*.GEN

'But I replied that, (namely that) you bear grief in a dignified manner, and could not have been unmoved by it, nor was this (part) of your humanity-

(Cic. *Amic.* 2.8; from Melazzo 2005:340)

Melazzo also finds that an ECM analysis cannot explain the accusative case of the AcI subject. He reasons, as C&O, that complementizers are 'connected with certain properties of the predicate of a clause', and are 'chosen in accordance with the finite or non-finite character of an embedded clause' (2005: 359), examples for which are *quod* '(the fact) that' which

introduces an indicative verb, and *ut* '(often: in order) that' a subjunctive verb (2005: 359). Thus, he argues, a complementizer can be considered to match inflectional features of the verb of the embedded clause. He follows Stowell (1982), Chomsky (2001) and Martin (2001) in assuming that 'the temporal properties of I° are selected by a tense feature [T] of C° and licensed through a covert movement that ensures their matching' (2005: 359), and furthermore notes that 'Rizzi's (1982) and Raposo's (1987) explanations of the Italian and Portuguese infinitive clauses ... go in the same direction' (2005: 359), as does Longobardi (1996), who assumes that 'a covert operation of V-to-C raising licenses the accusative case of the subject in English gerunds'.

Based on these assumptions, Melazzo proposes that the feature bundles in Fin° (the lower C in Rizzi's (1997) split C-system) involves a specification for case, a function which 'comes into play when the case of the subject cannot be licensed in the IP-layer in accordance with what is common knowledge in generative grammar' (2005: 359). Under such circumstances, he proposes that 'the subject rises overtly or covertly to the higher projection' in order to case-check. The case specification of Fin° he assumes to depend on the syntactic status of the infinitival clause: [+acc] if the infinitival clause is a complement clause, and [+nom] otherwise:

- | | | |
|------|-----------------------------------|-----------------------------------|
| (21) | a. Fin
+ Complement
+ Acc | b. Fin
- Complement
+ Nom |
|------|-----------------------------------|-----------------------------------|
- (from Melazzo 2005: 360)

It is crucial to notice that by [+Complement] in (21), Melazzo does not mean that the AcI will only assign accusative when it is the complement of a matrix verb, since it is well-known that this ECM/RtO logic does not work for Latin. In fact, the AcI is never a complement to the matrix verb, but rather the complement of an empty D° head, the maximal DP projection of which can be embedded as a direct object of a matrix verb, but also as its subject, which is what happens in clauses where the AcI traditionally is assumed to be the subject of the clause.

Adopting this DP analysis, which can be considered a highly refined version of the idea that the AcI is a nominalised clause (Pillinger 1980, see section 4.1), allows Melazzo to unify all AcI cases under one structure. It does not come completely without stipulation, however, as he specifies that the infinitival CP is a complement to a D head only when it

functions as an argument of the matrix predicate. Hence root and adjunct infinitival clauses are generated without a subsuming DP (2005: 359). Thus, the feature composition [-complement,+nom] is assumed to account for historic infinitives, which are unlike AcIs in having nominative subjects.

Melazzo further notes that the existence of exclamative root AcIs might appear problematic for his analysis. However, he resolves this by assuming that exclamative clauses are complements of an implicit speech act verb, and thus are complements of D^0 as well. This assumption is not unproblematic, given the findings of Haug et al. (2019), see section 1.4). Melazzo finds support for his assumption that exclamatives are embedded by appealing to the fact that exclamative clauses in many languages are introduced by complementizers, citing the following example as confirmation that this can occur in Latin as well (glosses adapted, translation by Melazzo):

- (22) *Quid [Alexandrum Pheraeum quo animo vixisse] arbitramur?*
 what.ACC Alexander.ACC Pheraeus.ACC what.ABL mind.ABL live.PRF.INF think.1PL
 'What (do we think?) – In what frame of mind do we think that Alexander Pheraeus lived?'

(Cic. Off. 2. 25; from Melazzo 2005: 360).

He argues that the example in (22) involves a so-called partial wh-movement construction, with the matrix wh-element *quid* 'functioning as a proleptic pronoun associated with the embedded wh-clause *Alexandrum Pheraeum quo animo vixisse*', (2005: 360); in his framework, *quid* and the infinitival 'wh-clause' would correspond to the specifier and complement of a [+wh] D, respectively, thus yielding the correct environment for a [+acc] Fin^0 (Ibid.)

I do not agree with Melazzo's interpretation of the clause in (22).²² First of all, the *quid* in (22) is not, in my opinion, co-referenced with *quo animo*, but is closer to a discourse

²² It should also be mentioned that the very idea of covert embedders for exclamatives raises the question why exclamative clauses are cross-linguistically very hard to embed overtly: cf. (i)

(i)* He shouted that/∅ what have you done!

particle, somewhat detached from the rest of the utterance. The sentence could alternatively be translated in the following way, as a pedagogically phrased rhetorical question which Cicero intends to answer himself, as a rhetorical device for building the discourse or summing up a main point of the discourse:

(23) *So?* We believe *A. P.* to have lived in *what* frame of mind?

Furthermore, as my English translation illustrates, I do not see anything that forces the conclusion that the *wh*-phrase *quo animo* has moved at all. It rather appears to have remained *in-situ*, since the subject of the AcI precedes it, and so the embedded clause is not necessarily a *wh*-clause *per se*, as the *wh*-phrase is not unambiguously located in the embedded CP. The only thing that would force a movement analysis is blind reliance on the Universal Base Hypothesis of Kayne (1994), since the latter excludes the possibility that verbal projections may be head-final. Adopting such a restrictive stance forces one to assume many movement operations for which there seems to be little evidence; in (22) one would have to assume that, in addition to the *wh*-movement postulated by Melazzo, that the subject has also been A'-moved to the left periphery. If so, the only viable alternative would be to assume that it has been topicalised, but this is implausible from an information-structural perspective.

In fact, Latin seems to not allow embedded infinitives introduced by *wh*-elements in the CP (i.e. with terminal *wh*-movement to the embedded CP) as a general rule, as this to the best of my knowledge is completely unattested. Latin simply seems to lack the equivalent of English sentences like (24), meaning (25) may well have been ungrammatical:

(24) I wonder [what to do *t*]

(25) ??? Nescio [quid facere *t*] (Unattested)

I was not able to find a single example of this construction in the PROIEL database. The only attestations are restricted to the (poorly understood) root AcIs, which may involve fronted *wh*-elements (or other Q-elements) in the exclamative or rhetorical reading. Needless to say, a thorough quantitative corpus study is necessary to shed more light on this, but the distributional patterns of *wh*-clauses in infinitivals provide more evidence for postulating a fundamental syntactic distinction between complement AcI and root AcIs, for instance that the latter are true main clauses (Haug et al. 2019).

Another potential problem for Melazzo's analysis is the *nominativus cum infinitivo* (NcI) construction. As we have seen, some impersonal predicates and passivized transitive verbs may also function as raising construction where the subject of the embedded infinitive becomes the subject of the passive matrix verb. Melazzo provides the following example:

- (26) [Quem quidem ... persequi] Caesar dicitur
 who.ACC.PRT pursue.INF Caesar.NOM say.PASS.3SG

'Whom in truth Caesar is said to pursue'

(Cic. *Att.* 7.23.1; from Melazzo 2005:362)

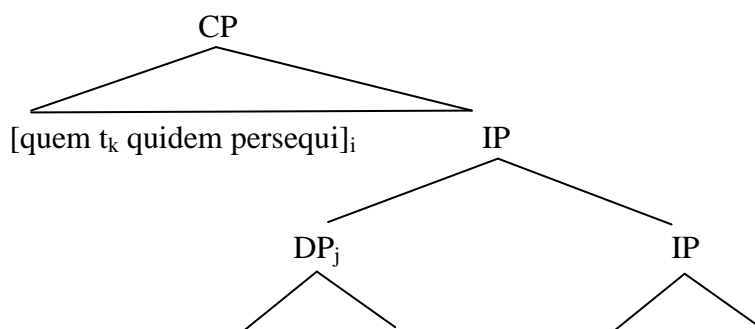
The reason NcI-clauses pose a problem to Melazzo's analysis - and to any analysis - is that if the infinitival CP is able to license and assign case to the subject by internal mechanisms, it is unclear why the subject should move to the matrix clause to receive nominative Case there. Melazzo argues it can be explained in the following way:

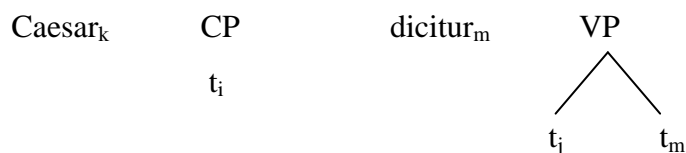
'In (44) - *my* (26) - [...] the accusative case feature of the FIN⁰ head of the infinitive clause has not been activated. These sentences are presumably saved in the following way: the subject of the infinitive clause is raised into the empty specifier position of the DP subsuming the infinitival CP. When this DP is moved into the Spec,IP position of the matrix clause, the nominative licensed by the matrix inflection, generally realized on the pronoun in the specifier of the DP, is now realized on the subject of the infinitive raised to this position.'

(Melazzo 2005: 362).

Melazzo illustrates this derivation with the following tree structure:

(27)





(taken from Melazzo 2005: 363)

Since this derivation is somewhat intricate, let us break it down into five steps: 1) the infinitival CP, with *Caesar* as its subject, is merged in the complement position of a D° , forming DP; 2) the subject *Caesar* moves to the specifier position of this DP; 3) the DP is merged with the matrix verb (*dicitur*), (surprisingly in a head-final configuration, since Melazzo otherwise bases his theory on Kayne 1994), 4) the DP moves to Spec-IP (presumably after matrix V-to-I), where it agrees with I° and checks nominative; 5) the infinitival CP undergoes so-called 'remnant movement' to a position in the matrix CP, in this particular case possibly to provide relativization of the direct object of the AcI (with pied-piping of the entire construction).

Melazzo's solution to the NcI is ingenious, but it raises many questions. In particular, it is not clear that it can avoid accusative assignment to the subject of the AcI. After all, at the point of the derivation when the infinitival CP has been embedded under D° , the Fin° node of the AcI will already be valued [+comp], and hence also [+acc]. Melazzo simply states that case feature of Fin° in these cases is 'not activated' (2005: 362), but the reason is unclear. Let us for the sake of argument suppose that the merging of D° , for some reason, in this particular case is followed directly by the raising of the subject to Spec-DP, such that this movement 'preempts' the accusative case assignment. Having avoided accusative assignment, it is still unclear why the DP, with the CP embedded in it, would need to move to Spec-IP of the matrix clause. Perhaps this is just traditional case-driven movement; the subject 'Caesar', having avoided accusative assignment internally, is probed by the unvalued case feature of matrix I°/T° and hence moves to Spec-IP (in violation of the Complex-NP Constraint (Ross 1967)), pied-piping the entire DP, where it is able to receive nominative. Finally, the remnant movement of the DP (with CP) to the matrix CP layer violates the Subject Island Constraint.

To summarize briefly: Melazzo (2005) is the most sophisticated version of the idea that AcIs are somehow nominalised clauses. By proposing a concrete structure of the AcI as embedded under a silent D° head whose specifier can host the pronominals that we see in appositional/epexegetical AcIs, he is able to unify relatively disparate uses of the AcI under a single structure. Following in the footsteps of Cecchetto and Oniga (2002), he assumes that

features of the CP-layer of the AcI are involved in assigning accusative to the subject, but his proposal is novel inasmuch as it ultimately is D° which activates the relevant case features on the lowest C head Fin° . His solution to the NcI is both derivationally problematic and stipulative, and his claim that that root AcIs are embedded under covert matrix verbs is also problematic. Before rounding off, it is also worth noting that Melazzo does not try to tackle control structures, focussing exclusively on the AcI.

5. Alternatives to Case Theory

In the previous chapter, I discussed in considerable detail some approaches to subject licensing in Latin which were based on Case Theory (Oniga and Cecchetto 2002, Melazzo 2005). I argued that these approaches were not successful in explaining what licenses the overtness of the AcI subject, nor how it achieves its case. These approaches also did not have much interesting to say about PRO in control infinitivals.

In this chapter, I will consider an approach to NP-licensing which is not based on traditional Case Theory. This is the 'Control Calculus' of Landau, which precisely aims to predict the appearance of PRO and lexical DPs in infinitivals without resorting to Case. This part of the thesis is therefore a novel contribution in the context of the Latin AcI, as I aim to explore the potential of a general syntactic theory to account for data outside the empirical domain that originally motivated it. I will conclude that, while Landau's model is an improvement on Case-based approaches in general terms, its predictive power with respect to subject licensing in Latin infinitivals is not up to the test. In particular, I will show that one particular verb — *iubere* 'to command' — creates problems for virtually all of Landau's predictions.

This chapter is organized as follows: in section 5.1, I first briefly review 'the case against Case', i.e. some of the empirical and conceptual/theoretical challenges mounted against Case Theory since the GB era and which have led some researchers to question the very notion of (Abstract) Case. In Section 5.2 I present data which show that PRO in Latin can have standard Case, further undermining the notion of Abstract Case. Section 5.3 is devoted to Landau's theory of control and in particular his Control Calculus. In section 5.4, I discuss how Landau's model fares in the context of Latin infinitivals. At the end I offer a brief summary.

5.1 The case against Case

Since the GB era and in particular in Minimalism, the notion of Case and the general principles of Case Theory have faced growing skepticism. Chomsky, already in (1981), acknowledged the problem of the Latin and Ancient Greek AcI. The contributions to the 'case

against Case²³ are many, and I will not be able to do justice to all (or even most) of them, as this would be beyond the scope of this thesis. However, I will briefly review some of the most influential works which have challenged the traditional Case-theoretic approaches to NP-licensing, as well as some alternative proposals, to see whether any of these could account for the Latin data. I will rely to some extent on Bobaljik and Wurmbrand's (B&W) overview of the core challenges and developments (Bobaljik and Wurmbrand 2009).

One of the earliest critiques directed against GB Case theory was a paper by Zaenen, Maling and Thráinsson (ZMT) (1985) on Icelandic, which showed that the traditional notion of case and 'abstract Case- were inadequate for explaining NP-distribution. The argument came partially from so-called *quirky* (lexical) case, i.e. non-nominative subjects. In Icelandic, the verb *hjálpa* 'to help', for instance, governs lexical dative case on the object (1a), a case which is retained in passivisation (1b):

- (1) a. Ég hjálpaði honum.
 I.NOM helped him.DAT
 'I helped him'
- b. þeim/honum var hjálpað.
 them/him.DAT was.SG helped
 'They/he was helped'

(from Bobaljik and Wurmbrand 2009: 51):

The dative in (1b), according to ZMT, is the subject of the passive verb, for which they provide many arguments, one of which being its position, i.e. in SpecIP. This was in direct conflict with Case theory and the Case Filter (see Section 3.5) as Case was assumed to drive movement; the dative argument would already have satisfied the Case Filter, and would have no reason to move for Case (B&W 2009: 51). A similar problem arises with the control versus ECM distinction: quirky subjects exhibits the same alternation between PRO and overt NP as normal subjects, even though the quirky dative, unlike the subject of ECM infinitivals, does not depend on the matrix verb, e.g. *telja* 'believe' (associated with accusative), for case. ZMT argue that Case theory should be abandoned altogether²⁴ (2009: 52).

More recent work on Icelandic by Sigurðsson (2012) finds additional evidence against

²³ I borrow this catchy term from McFadden and Sundaresan (2009).

²⁴ They suggest instead that NP-licensing should be formulated on the basis of grammatical function, and took their results as support for LFG (Bobaljik and Wurmbrand 2009: 52).

Case Theory, and Sigurðsson argues that 'Case' is unrelated to morphological case. However, he notes that abstract Case cannot be completely replaced by the EPP for Icelandic, as it does not have a general EPP requirement. Instead, Sigurðsson equates Case to ϕ -licensing, in line with more recent work by Chomsky, viewing (morphological) case as merely a PF reflex of ϕ -Agree. His highly formalised and explicit analysis of the Icelandic data would not seem to work for Latin, however, as the accusative AcI subject does not depend on the presence of a higher nominative argument, crucial to Sigurðsson's (2012) ϕ -licensing model.

The status of null Case is also controversial. The proposal by Martin (2001), that null Case is licensed by tensed infinitives and that only control infinitives are tensed (see section 3.5.5) has been challenged on several fronts (*inter alia* Landau 2000; Wurmbrand 2014, and Grano 2015), who provide both empirical and theoretical challenges. Evidence has been presented that PRO may bear standard case in a number of different languages. This is evident from secondary predicates and floating quantifiers which turn up with the same morphological case as the matrix controller in control infinitivals. This means that there is case transmission from the controller to PRO and from PRO to the secondary predicate. This has been attested in Icelandic, Latin (e.g. Cecchetto and Oniga 2004), Russian, Ancient Greek (Sevdali 2013); see Bobaljik and Wurmbrand (2009) for more references.

Landau (2006) argues for divorcing the distribution of PRO from case, rejecting the notion of null Case altogether, since PRO can bear standard case just like any other NP (2006: 154), and argues that the empirical facts can be captured by other, independently motivated principles. We return to his system of control (and non-control) in Section 5.2.

On a more conceptual level, Chomsky (2000) proposes that all Case assignment, including nominative, should be analysed in terms of Agree based on locality and c-command. Recent conceptions of Agree involve only the valuing of features through the Probe-Goal model (see Section 2.2) and Case is no longer assumed to drive movement (see Section 3.5.6), which is attributed solely to the EPP.

Some researchers have tried to reinterpret the notion of 'Case' by reducing it to other features or properties. For instance, Pesetsky and Torrego (2001) propose that 'Case' is in fact the NP analogue of Tense, and that NPs come with unvalued tense features, which must be valued for licensing.

Also the analysis of *for*-infinitives in terms of Case assignment by *for* as a 'prepositional complementiser' (see Section 3.5.4) has been challenged. McFadden (2012)

argues that the infinitival complementiser *for* in English infinitives in fact has 'nothing to do with case', basing his arguments on incorrect predictions following from Case theory, the diachrony of the *for*-construction, and cross-linguistic evidence. He associates the distribution of *for* with the more general restrictions on overt and covert complementisers (2012: 132), which exhibit strikingly similar distributions. Furthermore, McFadden notes, a simple Case assignment account is unable to explain the cases where *for* is obligatorily overt; e.g. *I would hate *(for) Jeff to join the circus* versus *I would like (for) Jeff to join the circus* (2012: 134, his (9a-b)), if also null *for* assigns Case.

I will now present some new data from Latin which adds to the burden for Abstract Theory.

5.2 More against Case: Independent Case on Latin PRO?

As Latin is a rich morphological language, no noun, adjective or participle may surface without case-marking. The notion of 'null Case' is therefore hard to imagine for a language like Latin. A candidate context could be prototypical control structures, where the controller and PRO usually agree in Case, which presumably involves Case transmission. Problematic for such an assumption is the case of null subjects in Non-Obligatory Control (NOC) infinitives, as these display independent accusative case. Consider the following example in (2). NOCs and AcIs are licensed in some of the same contexts. The NOC infinitival clause (2) is here the subject of the copula *est*, for which the nominative noun *vectigal* is the subject predicative. Inside the NOC clause, however, there is also a subject predicative in the *accusative* case, indicating an accusative null subject:

- (2) a. [non esse emacem] vectigal est
 not be._{INF} spendthrift._{ACC} profit._{NOM} be._{3SG}
 'To not be spendthrift is profit'

(Cic. *Par.* 6.3.5.1)

The question is how accusative Case could be licensed in NOC, from a syntactic point of

view, which – presumably – should follow the same principles as with the AcI. If the subject of NOC is PRO, then that would mean that PRO can occupy a (standard) Case position (in the Case-theoretic view). There are conflicting views on this matter, and it has been argued that arbitrary null subjects are not PRO, but *pro* (eg. Cecchetto and Oniga 2002). As they are crucially *not* referential, but arbitrary, this seems somewhat contra-intuitive. Furthermore, we would thereby also have to assume that languages like Norwegian and English (cf. the translation of 2), which are not *pro*-drop languages, exceptionally has *pro*-drop in NOC infinitives.

5.2.1 The problem of impersonal *licet*: Lack of Case-Agreement in Latin OC

Latin Obligatory Control structures typically exhibit Case-Agreement between the controller and PRO (Jøhndal 2012). Case Agreement in Latin control structures was noted by Cecchetto & Oniga (2004), who perceived it as a challenge to null Case. Even more problematic, perhaps, is the fact that verbs like *licet* '(it) is allowed' shows variation between dative Case Agreement and independent accusative case on PRO. I take these cases to be OC, and accordingly PRO, for two reasons: i) the subject appears to be obligatorily co-referenced with the matrix dative object; and ii) the subject is obligatorily null, which also Jøhndal (2012: 56) finds, noting that 'overt dative and overt accusative NP never co-occur'. Consider the following data:

(3) a. OC with Case Agreement (dative):

quo in genere mihi_i [PRO_i neglegenti esse] non licet
 which.ABL in manner.ABL me.DAT negligent.DAT be.INF NEG is-allowed.3SG

'With respect to which I may not be negligent' (Cic. *Att.* 1.17.6)

b. [quieto] tibi_i licet [PRO_i t esse]
 silent.DAT you.DAT is-allowed.3SG be.INF

'You may be quiet' (Plaut. *Ep.* 3.2.2)

(4) (OC with accusative PRO)

a. mihi_i non licet [PRO_i esse piam]

me.DAT NEG is-allowed.3SG be.INF pious.ACC
 'I may not be pious' (Ov. *H.* 14.64)

b. an huic_i [PRO_i esse procuratorem] liceat?
 Q this.DAT be.INF procurator.ACC be-allowed.SBJV.3SG
 'or should *he* be allowed to be in charge ...' (Quint. 7.1.19)

Crucially, no semantic difference between the two options (3-4) has been reported. Cecchetto and Oniga (2002) provide a brief comment on the phenomenon as well, but takes it to be an AcI with *pro*-drop (as Jøhndal 2012 also suggests).

This is a problematic assumption, as it does not explain the obligatory null-ness of the accusative subject. In Latin AcIs (as noted by both C&O 2002 and Jøhndal 2012), the subject may be co-referenced with the matrix subject *and* overt, and this pattern is by far the most dominant. Consider the following examples: in (5a) the matrix subject is overtly expressed by the noun *legati* '(the) messengers', and yet the co-referent AcI subject is overtly expressed as well; similarly, in (5b) the AcI subject pronoun *me* 'me' is overtly expressed, even though the matrix subject *ego* 'I' is too. Note that neither *se* nor *me* appear to have any emphatic status:

(5) a. Legati_i haec se_i ad suos relatuos
 messengers.NOM these-things.ACC REFL.ACC to their.ACC bring-back.FUT.PTCPL
 dixerunt
 say.3PL
 'The messengers_i said that they_i would relate these things back to their [people]'
 (Caes. *Gall.* 4.9.1)

b. Postquam ego me aurum ferre dixi ...
 after I.NOM me.ACC gold.ACC bring.INF said.1SG
 'After I said that I was bringing the gold ...'
 (Plaut. *Trin.* 4.2)

Finally, compare the data in (3) to the following example (6):

(6) obicit mihi me ad Baias fuisse
 throw-against.3SG me.DAT me.ACC at Baiae.ACC be.PERF.INF

'he uses against me that I was/have been in Baiae' (Cic. *Att.* 1.16.10)

The dative *mihi* 'me' is governed by the verb *obicit*, as with *licit*, but the infinitival clause (AcI) may have an overt subject co-referenced with the matrix dative argument. This, too, seems to indicate that the *licet*-case is in fact OC.

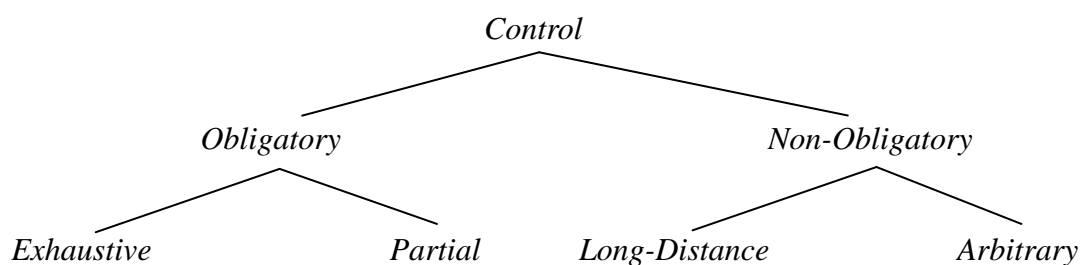
To conclude: in this section, I believe I have shown beyond reasonable doubt that PRO may receive independent accusative Case in Latin control structures, and that this infinitival clause cannot be analysed as merely an AcI with *pro*-drop. If this is on the right track, Latin joins many other languages in challenging the role of Case in subject-licensing. In the cases where *licet* governs control with a dative controller, independent accusative Case is optionally available, but overt subjects are not licensed. This finding is in support of Landau (2009), who reports a similar pattern for Russian and Ancient Greek control infinitives, and against Sevdali (2013), who dismisses Landau's evidence for Ancient Greek, claiming they are NOC.

5.3 Landau's System of Control (2004, 2006, 2013)

Landau's system for determining the environments of Obligatory Control has been developed over years of works. His account is interesting for our purposes as it seeks to determine the distinction between PRO (OC) and lexical NP/ *pro* (no-control, NC) under a unified account.

Landau greatly expands and refines the coarse Obligatory vs. Non-Obligatory distinction, providing the following general typology of control:

(7)



(From Landau 2000: 3)

The descriptive and syntactic properties of the different types of control can be defined and

classified according to the referential properties of PRO :

- (8)
- a. Obligatory Control (OC): The controller and infinitive must be clausemates
 - b. Exhaustive Control (EC): PRO must be identical to the controller
 - c. Partial Control (PC): PRO must include the controller
 - d. Split Control: Two matrix arguments jointly control a (plural) PRO
 - e. Non-Obligatory Control (NOC): the infinitive need not have a clausemate controller
 - f. Long-Distance Control (LDC): the controller and the infinitive are not clausemates
 - g. Arbitrary Control: PRO has no argument controller
 - h. Implicit Control: the controller is not syntactically expressed

(Adapted from Landau 2000: 3)

Since this thesis is not primarily concerned with control structures *per se*, but rather the more general question of what licenses the overtness and case of subjects in infinitival constructions, we only need to understand why control structures, as opposed to the Latin AcI, can not have an overt subject. I will therefore lay aside the typological distinctions between all the different types of control constructions, and rather focus on that part of Landau's theory which makes predictions directly relevant to infinitival constructions in Latin, namely the role of the feature *tense* in the distinction between exhaustive control and partial control.

5.2.1 Obligatory Control (OC) and the role of tense: Exhaustive and Partial Control

The infinitival complements embedded by control verbs do not constitute a uniform category. For instance, the complements of the verbs *try* and *want* are not identical, and exhibit grammatical differences under closer inspection, as illustrated in (9-10); *try*-type verbs (9) impose a referential restriction on PRO to minimally *and* maximally include the controller; in other words, they require that the antecedent *exhaustively* controls PRO, hence the term *Exhaustive Control* (EC). This is demonstrated by collective predicates like 'gather' (in the intransitive use), or secondary predicates/ floating quantifiers denoting plurality:

- (9)
- a. *John₁ tried/managed/started [PRO₁₊ to gather at noon].
 - b. *John₁ tried/managed/started [PRO₁₊ to apply together for the grant].

(Slightly adapted from Landau 2000:6)

Want-type verbs (10) on the other hand require that PRO minimally includes the controller, yet they allow PRO to include other referents as well (signalled by the '+' following the index on PRO), what Landau refers to as *Partial Control* (PC):

- (10) a. John₁ wanted/preferred [PRO₁₊ to gather at noon].
 b. John₁ wanted/preferred [PRO₁₊ to apply together for the grant].

Landau attributes the distinctions between EC and PC to a single general property: the presence of *tense* in the infinitive. Landau follows Stowell (1982) in assuming that control infinitives can be tensed, but argues that this applies only to PC complements. PC complements may denote an event which is distinct from that of the matrix event, while EC complements may not. This is demonstrated by the combination of distinct temporal adverbials:

- (11) a. *Yesterday, John managed to solve the problem tomorrow
 b. Yesterday, John wanted to solve the problem tomorrow

(from Landau 2000: 6)

From these observations, Landau defines EC as [-T] and PC as [+T], on the basis of *semantic tense*; i.e. whether the infinitival clause may have an event time distinct from that of the matrix, irrespective of whether this is morphologically visible. This temporal distinction gives his distinction between E(xhaustive) C(ontrol) and P(artial) C(ontrol) (Landau 2000). Crucially, tensed complement clauses allow that the infinitival subject (PRO) is not identical to that of the controller, but must referentially include it.

Furthermore, Landau defines a complement as inflected [+Agr] if it displays 'visible inflection for ϕ -features (either on Aux or the main predicate)' (2015: 6). This is an interesting point with respect to the Latin infinitive, as it in periphrastic constructions displays number-, gender- and case-agreement on the main predicate (participle), but not person-agreement. The infinitival verb (Aux, in these cases) never displays any ϕ -feature inflection whatsoever. We have therefore concluded (along with Cecchetto and Oniga 2002) that it is [-Agr], unlike e.g. the Inflected Infinitive in European Portuguese (Raposo 1987; see section 3.5.3).

Summarizing so far, Landau's model of control capitalizes specifically on these two

features, [+/- T] and [+/- Agr]. The different ways in which these can combine yields his OC-NC generalization (2015: 7).

(12) *The OC-NC Generalization*

In a fully specified complement clause (i.e. a clause in which the I head carries slots for both [T] and [Agr]):

- a. If the I head carries both semantic tense and agreement ([+T, +Agr]), NC obtains.
- b. Elsewhere, OC obtains.

In other words, [+T, +Agr] always licenses overt NP/ *pro*, and never PRO. Landau notes that the set of clauses where lexical NP and *pro* are licensed is the natural class, and OC the elsewhere case: if one or both of these features are negatively valued, i.e. if the I head is [+T, -Agr], [-T, +Agr] or [-T, -Agr], OC (PRO) obtains.

5.2.2 Cross-linguistic findings in support of Landau's system

Landau states that the predictions of his generalisation are borne out across a variety of languages (2015: 8); this includes non-canonical case of *finite* control clauses, as Landau finds that untensed complements require PRO irrespective of whether they are inflected or not (examples, glossing and translations from Landau 2015: 8):

(13) Untensed complements

- a. *OC in [-T, -Agr] infinitives: e.g. English*
Mary_i remembered/forgot/tried [PRO_{i/*j}/*Bill to lock the door
- b. *OC in [-T, +Agr] subjunctives: Greek*
O Yanis kseri na kolimbai (*o Giorgos)
the John.nom knows prt swim.3sg (*the George.nom)
'John knows how (*George) to swim'
- c. *OC in [-T, +Agr] inflected infinitives: Hungarian*
Kellemetlen volt Péternek_i [PRO_i/**pro*/*neki_{i/j}/*Katinak
unpleasant was Peter.dat PRO **pro*/him.dat/Kate.dat
későn érkez-ni-e]
late arrive-inf-3sg.

'It was unpleasant for Peter [PRO_i/**pro*/*for him/*for Kate to arrive late]'

Conversely, Landau finds that uninflected complements similarly require PRO (OC) irrespective of whether they are tensed or not (examples, glossing and translations from Landau 2015: 9):

(14) Uninflected complements (with semantic tense)

a. *OC in [+T,-Agr] infinitives: English*

Mary_i planned/hated [PRO_i/**j*/*Bill to lock the door]

b. *OC in [+T,-Agr] uninflected infinitives: Welsh*

Gwnaeth Elen gytuno [i/*iddi ddarllen y illyfr
did Elen agree to/*to.3fem.sg. read the book
'Elen agreed to read the book'

Furthermore, [+T,+Agr] always involve lexical NP or *pro*: tensed subjunctives in Balkan languages, tensed inflected infinitives in European Portuguese and tensed inflected infinitives in Welsh all display NC (examples, glossing and translations from Landau 2015: 9):

(15) Tensed and inflected complements

a. *NC in [+T,+Agr] subjunctives: Greek*

O Yanis elpizi na figi (o Giorgos)
the John.nom. hopes prt leave.3sg the George.nom
'John hopes to leave'/'John hopes that George would leave'

b. *NC in [+T,+Agr] inflected infinitives: European Portuguese*

Eu penso/afirmo [ter-em os deputados trabalhado pouco]
I think/ claim to.have.3PL the deputies worked little
'I think that the deputies have worked a little bit'

c. *NC in [+T,+Agr] inflected infinitives: Welsh*

Disgwyliodd Aled [iddi hi/*pro* fynd]
expected Aled to.3fem.sg she/*pro* go

The role of agreement is further demonstrated in languages where one predicate can select either a [+T,-Agr] or a [+T+Agr] complement, like in Turkish: NC only occurs in the latter

case. In sum, the predictions of his OC-NC generalisation are largely borne out by crosslinguistic data (he does not refer to any conflicting examples).

5.2.3 The R-assignment rule and the reference of PRO

Landau further implements the OC-NC generalisation in a formal apparatus, based on his analysis of Tense selection and his [R]-Assignment Rule:

(16) *The syntax of selected tense*

$$\begin{array}{c}
 \text{V} \dots [\text{CP } C_{[+/-uT]} [\text{TP } T_{[+/-iT]} \text{ VP}]] \\
 \begin{array}{cc}
 \boxed{\text{SELECTION}} & \boxed{\text{CHECKING}} \\
 \hline
 \end{array}
 \end{array}$$

Landau assumes a semantic tense operator, i.e. an interpretable feature [iT] which can be positively or negatively valued, located in the T° head of the infinitival complement clause. If the complement clause is larger than TP, a possibility Landau mentions, then selection by the matrix V obtains across a CP, i.e. indirectly: the matrix V selects an a CP with an uninterpretable T ([uT]) value on C°, which is then checked by the matching interpretable tense feature [+/-iT] on T (2015: 10). The analytic challenge, Landau notes, is to «to establish a systematic link between the 'clausal features', [T] and [Agr], and the referential features of the complement subject» (2015: 11). This he captures by an interpretable feature [+/-R(eferential)], lexical NP/ *pro* being referential [+iR], and PRO being nonreferential [-iR]. These, in turn, he assumes have uninterpretable counterparts on T and V (2015: 11). Based on the different [T,Agr] bundles we have reviewed, his [R]-Assignment Rule derives the value of [uR] in the following way:

(17) *[R]-Assignment Rule*

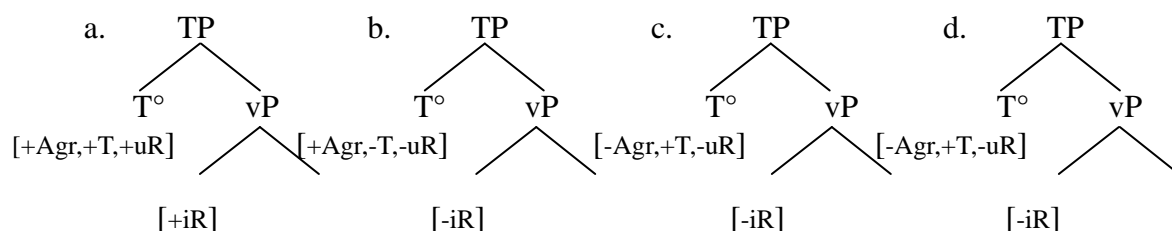
For $X_{[\alpha T, \beta Agr]} \in \{I, C \dots\}$:

- a. $\emptyset \rightarrow [+uR] / X[_]$, if $\alpha = \beta = '+'$
- b. $\emptyset \rightarrow [-uR] / \text{elsewhere}$

This yields four types of I heads: i) [+T,+Agr,+uR], ii) [+T,-Agr,-uR], iii) [-T,+Agr,-uR] and iv) [-T,-Agr,-uR].²⁵ [uR] in turn probes for a matching feature on a clause-internal (local) goal; the closest nominal in the c-command domain of T° is the subject located in Spec-vP.

The tree markers in (18) show the four licit checking configurations prescribed by Landau's Control Calculus: only a positively valued referential feature [+uR] on T° (18a) can check its positively valued interpretable counterpart [+iR] in Spec-vP, while a negatively specified referential feature [-uR] on T° - which is the *elsewhere case* that applies when either of the features [Agr] or [T] are themselves negative - can only be checked by a negatively valued interpretable counterpart [-iR] in Spec-vP, in other words, by *PRO*:

(17)



5.2.4 The predictions of Landau's system for Latin infinitivals

Now we can finally turn to the question of how Landau's system works for Latin infinitivals. This generalisation seems *a priori* inconsistent with what we know about Latin AcIs, which, presumably, are [+T, -Agr] predicates, frequently complements, with overt subjects (and *pro*). Recall that Landau specifies that his generalisation 'is restricted to 'nondefective' complement clauses – namely, standard infinitives (whose I head bears [-Agr], 'abstract agreement'), subjunctive complements, and indicative complements- (2015: 7), and does not include raising/ECM complements or small clauses 'where either [T] or [Agr] (or both) are entirely missing' (2015: 7). As we saw in Section 4.1, the AcI cannot be reduced to neither raising nor ECM, making it likely that the licensing of the AcI subject must be attributed entirely to

²⁵ Landau's analysis is quite involved, depending not only on the now common distinction between interpretable and uninterpretable features, but also on polarity as an additional dimension that cuts across both, yielding a potential four-way contrast for each feature. In the case of *negative*, yet *interpretable* features, like the negative, uninterpretable referential feature postulated for *PRO*, it is not entirely intuitive what the semantic counterpart of this feature really is; Landau refers to it as an *anaphor*, which I take to mean that it provides something like an instruction (perhaps at LF) that it must be bound or co-indexed with a controller in the matrix clause, but that hardly seems like semantic content in itself.

clause-internal principles. It therefore does not appear to be 'defective' in the sense of Landau.

Perhaps one could argue that the conclusion that the AcI is [-AGR], is not beyond doubt. After all, in periphrastic forms like the past passive and future active infinitives (see section 1.3.1), the main verb of the AcI turns up in the form of a participle that does agree in gender and number with the subject, although not in person. Since a feature like [AGR] clearly is a shorthand for a feature bundle, one could hypothesize that positively specified [+NUM] and [+GEND] values on T° suffice as 'overt agreement', at least for Latin, thereby saving Landau's generalisations.²⁶

In the next section I will argue that, even if we made allowance for such a permissive understanding of what counts as [+AGR] in Latin, the Latin AcI poses a serious problem to Landau's (2006) system.

5.4 AcIs with Dependent Tense: Evidence from the control verb *iubere*

The Latin verb *iubere* '(to) order', just like its English counterpart, typically selects a direct object which is interpreted as the recipient of the order, plus a bare infinitival clause which contains the content of the order. An example is provided in (19): here the understood subject of the infinitival clause is the direct object of the main clause, 'the young man':

- (19) Remotisque arbitris [ad se] adolescentem iussit [venire]
 Removed.ABS witnesses.ABL to REFL.ACC young-man.ACC order.PRF.3SG come.INF
 'When those present were gone, he ordered the young man to come to him.'
 (Cic. *Off.* 3.112.9)

This is plausibly a control clause, which means that the infinitival clause contains a silent *PRO* subject which is co-referent with the matrix controller *adolescentem* 'the young man'. Control clauses of this kind pose no problem to Landau's system and conform to his feature-based generalisations. The infinitival clause expresses a coming-event which is temporally posterior to the ordering-event of the matrix clause, and must therefore be characterised a

²⁶Cechetto and Oniga's claim that the participial parts of the AcIs that show partial agreement are 'predicative adjectives' (2002:158) seems inconsistent from a theoretical perspective, since the agreement patterns do not obscure (i) the fact the participles in the AcI act as a verbal (not adjectival) category with a full-fledged argument structure, and (ii) the relationship between the higher verb *esse* and the participle is an auxiliary/main verb relation, not a copulative/predicative one.

being semantically tensed, meaning the T° head carries the interpretable feature [+T]. However, the infinitive carries no overt agreement for ϕ -features, and must therefore be specified as [-Agr]. The combination [+T, -Agr] (see section 5.2) is not enough to support a lexical subject, and therefore leads to *PRO* as the elsewhere form, as predicted by Landau's theory.

However, (in addition to an occasional *ut*-clause) the verb *iubere* may also embed an AcI. Consider the example in (20). (The bracket notations are meant to signal the dependents of the infinitival verb, not mark the syntactic boundaries, which will be discussed next. This sentence cannot be interpreted as a case of control with the constituent 'Diviciacum' as the direct object of the matrix verb and hence the recipient of the order, since that would mean that the infinitival 'ad se vocari/to be summoned to him' would express the content of order. This is of course semantically incoherent, as one cannot order anyone to 'be summoned':

- (20) [Diviciacum ad se vocari] iubet
 Diviciacus.ACC to REFL.ACC summon.PASS.INF order.3SG.
 'He orders that Diviciacus be summoned to him'

(Caes., *Gall.* 1.19)

However, one imaginable analysis for such an example is to say that this is a case of *Raising-to-Object*, where the embedded subject 'Diviciacum' has raised to the matrix clause and received case there. If such an analysis can be defended, this example in fact poses no counterevidence to Landau's system, as he makes clear that all kinds of Raising Infinitivals are 'defective' and hence fall outside the purview of his theory. In this particular case, the word-order does not exclude such an analysis, as *Diviciacum* might be raised to a matrix position with the verb *iubet* in a head-final configuration.

It has been claimed (Pillinger 1980:82; Jøhndal 2012) that there is no evidence for RtO-infinitivals in Latin. We do not need to rely exclusively on the testimony of others, however, as it is not hard to find cases where a Raising-analysis of the embedded subject is ruled out by word order facts. In (21) below, the accusative subject NP appears to be more deeply embedded in the infinitival clause, preceded by both the direct object of the infinitive, and a dative (benefactive). If the subject 'quemque/everyone' is to be parsed into a matrix object position, then both of the latter constituent would also have to be fronted to positions in

the matrix domain:

- (21) [trium mensium molita cibaria sibi quemque
 three.GEN months.GEN ground.ACC provisions.ACC REFL.DAT each-one.ACC
 domo efferre] iubent
 home.ABL bring-out.INF order.3PL

'They order that each man bring (for himself) three months of ground provision from home'
 (Caes., *Gall.* 1.5)

Granted, Latin infinitivals are prone to cross-clausal dislocations, and hyperbaton (phrasal discontinuity) is a general characteristic of the language. These word-order facts may in many cases be attributed to information-structural principles. But such an analysis, i.e. that *trium mensium molita cibaria* and *sibi* are both dislocated to matrix A'-positions, seems unnecessarily complicated and stipulative here, as there is no clear information-structural motivation for such operations. The direct object constituent 'three months of ground provision' is both semantically indefinite and contextually brand-new, making it a very unlikely topic (see Lambrecht 1981, Erteschik-Schir 2007, De Cat 2007) nor is it narrowly focal in the sense of conveying contrast or emphasis. In fact, the entire proposition seems to be in wide focus, which means the left periphery should not be engaged.

Furthermore, the example in (22) seems to provide even clearer evidence against a RtO parse: here the conjunction *vel* 'or, either' specifically marks off the domains, or constituents, for which the contrast applies (i.e. the scope of *vel*), and in both cases the accusative NP 'nos/us' is included as part of that domain, i.e. the infinitival clause (where the first clause involves an elipsis). Taken together, these examples confirm that *iubere* may in fact optionally embed an AcI:²⁷

- (22) iussit [vel nos atriensem vel nos uxorem suam defraudere]
 order.3SG or we.ACC chamberlain.ACC or we.ACC wife.ACC his.ACC defraud.INF

'He ordered that we either scam the chamberlain or his (own) wife'

(Pl. *As.* 365-6)

²⁷ Perhaps (22) is the first unequivocal example reported of an *active* AcI embedded under *iubere*; all examples I have come across are in the passive; the OLD likewise does not report the existence of this construction, citing only passive examples.

Now that we have definitely discarded a Raising-to-Object analysis, it follows that the overt subject of the AcI remains inside the infinitival clause throughout (at least the overt part of) the derivation. The AcI therefore is not defect in any sense.

It is unclear how the AcI fits into Landau's system. What is clear is that the AcI expresses semantic tense and must therefore be [+T]. As for the value of the feature [AGR] in the AcI, the consensus in the literature (Oniga and Cecchetto 2002, Melazzo 2005, Sevdali 2013) is that it is negatively specified, [-AGR], since it does not agree with the subject. As we saw in section 5.2, a T° specified with [+T, -AGR] should lead to OC and PRO in Landau's theory. In the previous section, we suggested that the fact that the infinitival (in periphrastic forms) can show gender and number might somehow suffice for a positive [AGR] value in Latin. However, even if one were to accept this hypothesis, the more fundamental problem is *the alternation* between OC and AcI (NC in Landau's terms) under the same embedding predicate *iubere*. Not because Landau's system excludes such an alternation under one and the same predicate, but because it prohibits variation under one and the same feature specification on the head T°. However, it seems hard to motivate any feature distinction between the AcI and the OC complements of *iubere*, so this would merely be a unwarranted stipulation. I therefore conclude that the Control Calculus developed by Landau (2004, 2006) does not account for the overtness of the subject of the AcI or the alternation between OC and AcI under verbs like 'iubere'.²⁸

Before concluding this section, I should like to point out an additional complication raised by the OC/AcI-alternation under *iubere*. This complication is not related to the problem of determining what distinguishes the *internal syntax* of these two infinitival clauses, which presumably must be something else than the feature specification on the head T°, but rather how they interact with the syntax of the matrix clause. The point is that, if an OC control infinitival has been derived, the matrix verb must select a direct object controller (which admittedly may be omitted in some cases if the reference is clear); conversely, if an AcI is derived, the matrix verb must not select a direct object NP. The reason is that 'split cases' with an embedded AcI expressing the order plus a matrix object benefactive, though semantically plausible, are to the best of my knowledge not attested:

²⁸ In fairness, it should be mentioned that, in a more recent publication, Landau acknowledges that his (2004, 2006) model suffers from some empirical and conceptual problems, explicitly mentioning the Latin and Ancient Greek AcI. He therefore develops a new, more semantically oriented model which he calls the *Two-Tiered Theory of Control* (Landau 2015). I can only regret that this publication came to my attention too late in the writing process to be taken into account in this thesis. It is an interesting area for future research to see if Landau's new model is better suited to account for the AcI.

(23) iussit (??*Marcum) [milites proficisci]

order.PRF.3SG Marcus.ACC soldiers.ACC set-out.INF

Intended: *He ordered Marcus that the soldiers (should) set out²⁹

This is, to the best of my knowledge, unattested in Latin, suggesting there must be some property of the derivation by which (23) is avoided.

²⁹ Givón (1995: 127), for one, marks such structures as ungrammatical.

6. Conclusions and outlook

As this thesis comes to an end, it is natural to track back and consider our research questions again, and summarise what the contribution of this thesis has been. The main objective has been to investigate subject licensing and case assignment in Latin infinitival constructions, with particular attention devoted to the AcI. At the beginning of the thesis, I established two research questions, which I repeat here:

- (1) How does the subject of the AcI receive accusative case?
- (2) What licenses subject overtiness in Latin infinitival clauses?

Starting with the first question, it is fair to say that the jury is still out. To be sure, some conclusions have been reached; the data I have presented and reviewed unsurprisingly confirmed that the case of the subject in the Latin AcI cannot be explained by appealing to any *external case assigner*. It is not possible to assimilate the Latin AcI to either ECM or RtO, as evidence from distributional patterns, AcIs embedded under nouns and unaccusative predicates clearly reveal that the subject does not depend on any verb (or other matrix case assigner) for licensing. This is no novel discovery, as this has been the consensus view since Bolkestein (1979) and Pillinger (1980).

As for *internal Case assignment*, which has been argued for by Cechetto and Oniga (2002) and Melazzo (2005), whose analyses I have devoted particular attention to, I have argued that both analyses suffer from similar and independent problems. Their analyses both encounter empirical problems, comprising not entirely motivated stipulations, which on closer inspection appear more descriptive than explanatory. By bringing in more recent research, like the observation of Haug et al. (2019) that root AcIs are syntactically unembedded, I have argued that certain solutions based on a 'null'/'implicit' embedding verbs is problematic. Furthermore, both of these Case-driven approaches capitalise on the role of *tense* as the factor ultimately responsible for the availability of accusative Case to the subject. Although overt morphological tense distinctions are indeed the most salient distinction between control infinitives and AcIs, I have argued that tense will only get you so far. I have shown that the characteristic of the AcI as being 'temporally unrestricted' is not necessary condition for an AcI. The evidence comes from AcIs embedded under the elsewhere object control verb *iubere*

'to order'; in these cases, the temporal expression of the AcI is indistinguishable from that of the control infinitive. Although they are not semantically identical, it seems crucially not to be in *tense* that they differ. Cecchetto and Oniga (2002), discussing the restricted nature of control infinitives, find that these infinitives should be [-T]. This, I argue, should equally hold for the AcI counterpart under the same verb, whereby the subject's accusative Case and overtiness remains rather unexplained.

Passing to the second question, concerning the *overtiness* of the subject in the AcI, and infinitival clauses in more general terms, this question has received surprisingly little attention in previous literature on the Latin AcI. This is presumably because traditional Case theoretic assumptions (cf. the Case Filter) have led researchers, perhaps implicitly, to consider these questions as co-extensive. Arguing on the basis of certain control infinitives embedded by the verb *licet* '(it) is allowed', where the controller is in dative and a controllee in accusative may optionally occur, I have shown that reducing these infinitival clauses to AcIs with *pro*-drop does not seem to work, as they appear to be instances of Obligatory Control. One firm conclusion reached in this thesis is therefore that the question of the subject Case seems rather orthogonal to the question of its overtiness (licensing), as Case theory cannot account for all the facts of the AcI construction, and does not make all the correct predictions. In other words, answering question (1) above does not answer (2), nor the other way around.

Since Case Theory does not seem to provide any clear way forward, I therefore also explored frameworks alternative to the traditional Case-approach to subject (NP) licensing, more specifically, the Control model of Landau and his OC-NC generalisation, which has been hugely successful in capturing the control/non-control structures across numerous languages. His feature-based system, however, does not easily accommodate the Latin infinitival clauses: His prediction that lexical NPs/*pro* are only allowed in [+T, +Agr] infinitives is à priori inconsistent with all AcI clauses, and even if we allowed for a lax interpretation of [+Agr] such that the AcI would qualify, the free variation between OC and AcI under *iubere* does not conform to the perfect complementary distribution prescribed by his OC-NC generalisation.

The findings of this thesis are therefore mostly 'negative', as I am forced to conclude that there are not – at this point – any precise, unambiguous factors to which we can attribute subject overtiness (or case) in the Latin AcI. Let me briefly turn to the ancillary research question stated in the *introductio*, which I repeat here:

(3) What is the categorial and phrase-structural status of the AcI?

This research question remained mostly in the background, but it played a crucial role in the theories of Cechetto and Oniga and Melazzo, since both approaches dependent on Case licensing in the left periphery. It is clear that this cannot be used as an argument for the CP-status of the AcI. In fact, this question is intriguing since the evidence seems conflicting. Jøhndal (2012) noted that the AcI did not behave like a (finite) CP since it allows cross clausal scrambling freely. I also made one observation which would seem to go in the same direction, namely that *wh*-movement does not seem to occur in Latin embedded AcIs. In root AcIs, like *exclamative* AcIs or rhetorical questions, they do in fact appear. I believe this further weakens the idea that root AcIs are embedded under implicit predicates.

On the other hand, the very same fact that AcIs can be used as true, syntactically unembedded clauses, suggest the AcI is a CP, and perhaps even a rather big one; if viewed from the perspective of Rizzi's (1997) cartographic model of the left periphery, the root AcI seems able to express Speech Act-related phenomena associated with high projections like Force°. On the opposite side of that specter we find the AcIs embedded under *iubere*, which seem to lose the capacity to mark tense morphologically (like control complements). It might well be that it is impossible to assign a single phrase-structural representation, like vP, TP, or CP, to the AcI. Future research would have to take into much larger amount of data to verify if the morphological tenselessness I found for *iubere*-AcIs hold and if there are other predicates that behave the same.

Rounding off, I would like to suggest a possible venue for future research. This is to bring in considerations of *mood* or *modality* in the debate on the Latin AcI. Apart from Ferraresi and Goldbach (2003), who noted that Latin AcIs are capable of expressing *irrealis mood*, none of the contributions reviewed in this thesis involved modality. Given what is already established with respect to declarative, interrogative, and exclamative root AcIs, this seems like an idea worthy of being implemented in a formal approach.³⁰

³⁰ Sevdali (2013) observes that Ancient Greek infinitivals express mood, as is evident from the distinction between irrealis negator *me:* and 'indicative' *ouk*. See also my remarks on the *for*-infinitive in Section 3.4. Sevdali also downplays the role of *tense* in the licensing of the infinitival subject.

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