Long-distance anaphora in Latin

Per Erik Solberg

Course code: LIN-3990
Master's Degree Programme in Theoretical Linguistics
Departement of Language and Linguistics
Faculty of Humanities, Social Sciences and Education
University of Tromsø
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Contents

Chapter 1

Introduction

Most students of Latin, myself included, have probably spent a decent amount of time pondering over what the antecedent of anaphors might be. The reason for this is that Latin anaphors are not always locally bound. Under certain conditions there can be one, or even several clause boundaries between an anaphor and its binder, a phenomenon referred to as *indirect reflexivity* in the philological literature or *long-distance anaphora* in the linguistic literature. The aim of this thesis is firstly to describe where long-distance anaphors occur and what their antecedents are, and secondly to see whether this phenomenon can be given a syntactic treatment within the minimalist framework.

Some initial terminological clarifications are necessary: In the grammatical literature the term *anaphor* is often used to refer to deictic pronouns, while *reflexive pronoun* is used for pronouns which cannot refer independently, but need a sentence-internal antecedent. In the generative literature, on the other hand, the term *pronoun* is usually used for the former and *anaphor* for the latter. I will in the following text adopt the terminology of generative grammar: *Anaphors* will refer to pronominal elements which need to be bound by a sentence-internal antecedent; *local anaphors* will refer to anaphors bound within the minimal clause, and *long-distance anaphors* (henceforth: LDAs) will refer to anaphors with an antecedent in a higher clause. *Pronoun* will be used for pronominal elements which can refer independently.

I will, in the following chapters argue for two theses, one empirical and one theoretical. The empirical thesis is that clauses of reported speech/thought constitute a relevant domain for long-distance binding in Latin. This thesis has been generally accepted in the grammatical literature, but has been challenged in [Benedicto 1991], as there are examples of LDAs occurring outside of reported speech/thought. In chapter 2 I argue that there are good empirical reasons for assuming that reported speech/thought is relevant for long-distance binding in Latin, and that LDAs outside of reported contexts need a separate explanation. I use the terms *reported* or *indirect speech/thought* for clauses which express the thoughts or utterances of a sentence-internal protagonist, most often the subject in the superordinate clause, without quoting them. Such clauses include not only complements of communication verbs and verbs of thought, but also complements of verbs of fear etc., which presuppose a mental attitude towards the proposition expressed in the complement.

The second, theory-oriented thesis is that both syntactic and pragmatic

factors must be taken into account in the analysis of Latin LDAs. There have been attempts to analyze long-distance anaphora as a discourse phenomenon, notably in [Sells 1987], as pragmatic factors seem to be relevant in determining the antecedents of LDAs in many languages. Alessandra Giorgi has in [Giorgi 2006] and [Giorgi 2007] proposed a syntactic theory of long-distance anaphora, in which the apparent pragmatic factors are ascribed to independently needed syntactic mechanisms. In chapter 3 I propose an analysis of the Latin data drawing on Giorgi's theory, and in chapter 4 I investigate the same data from the perspective of [Sells 1987]. In the first part of chapter 5 I discuss the advantages and disadvantages of these analyses. In my view, Latin long-distance anaphora is best accounted for in an approach which combines elements from both theories. The second part of chapter 5 sketches out what such a combined approach might look like. Finally I propose a general conclusion.

In the remainder of this chapter I will introduce the Latin anaphors which will be considered in this thesis, and present the sources from which my data is collected. Section 1.1 will summarize the basics of classical binding theory, and in section 1.2 I will review some earlier accounts of long-distance anaphora in Latin.

Anaphors in Latin Latin has two anaphors, the pronominal anaphor *se,* 'himself/herself/itself/themselves', and the possessive determiner *suus*, 'his/her/its own'[1]. Neither of these overtly agree with their antecedent in gender and number. However, they do inflect for case, and they take only third person antecedents. When antecedents are first or second person, anaphors are indistinguishable from personal pronouns and first or second person possessive determiners.

While *suus* most often is a syntactically bound anaphor, it is also occasionally used in a non-reflexive way. This can be illustrated by the example in (1.1) (from [Menge 2000, 125]), where *suus* is a part of a subject DP, and is coreferent with the object.

(1.1) *hunc*$_i$ *sui*$_i$ *cives* *e* *civitate*
him-acc SUUS-nom.pl citizens-nom from city-abl
eiecerunt
throw-out-perf.ind
'His own citizens threw him [i.e. Hannibal] out of the city.' (Cic. Sest 142)

As *suus* can be used in this way, it is difficult to use it to make strong claims about the distribution and binding of Latin. This thesis will therefore mostly be concerned with *se*. The inflectional paradigm for *se* is given in (1.2)[2]:

(1.2)

[1] I will in the following text use the glosses *SE* and *SUUS* for the two anaphors.

[2] In the accusative and the ablative, a complex form of *se*, *sese*, is sometimes used. Searches I have conducted in [the PROIEL corpus] have revealed that *sese* allows both local and non-local antecedents. I will therefore consider *sese* simply as a variant of *se* in the present thesis.

Acc	se
Gen	sui
Dat	sibi
Abl	se

The corpus The data for this thesis is collected from two main sources. Firstly I have conducted searches in a subcorpus of [the PROIEL corpus], consisting of parts of Julius Caesar's *De bello Gallico*. This corpus is a dependency treebank with quite detailed syntactic annotations, a big advantage when studying a phenomenon like long-distance anaphora. The disadvantage, however, is that the Caesar subcorpus, which currently is the only subcorpus with classical Latin texts in [the PROIEL corpus], is for the time being quite small. The version on which I have conducted my searches, consists of approximately 14000 words[3].

Due to the small size of my corpus, I have had to rely quite extensively on my second source, namely collections of examples in the philological literature. Long-distance anaphora is fortunately a well-documented phenomenon, and it is therefore relatively easy to obtain even more marginal examples. However, the lists of examples are often biased by the explanations in the grammar books which they are meant to illustrate. Also, Latin grammars often have a prescriptive aim. They are written to teach students "good Latin", and some of the more marginal phenomena are only mentioned in passing as "errors". An exception worth mentioning is Kühner's *Lateinische Grammatik* ([Kühner-Stegmann 1914 I],[Kühner-Stegmann 1914 II]), which, among other things, gives an extensive list of LDAs in indicative clauses, a phenomenon left unnoticed in many grammars and only briefly mentioned in others (c.f. section 2.2).

When citing from Caesar's *De bello Gallico*, I use the text as it appears in [the PROIEL corpus]. When I cite Latin examples from other texts, I indicate where I have found the example. However, examples from grammar books and dictionaries are cited as they occur in [Perseus Digital Library], or if they are lacking there, in [The Latin Library], as examples in grammars and dictionaries sometimes are shortened and simplified without appropriate indication. Examples from modern scholarly articles are assumed to be correct[4].

1.1 The basics of anaphora and classical binding theory

Before entering into the core of the matter, it is useful to briefly show what properties anaphors have in the local domain, how local anaphora is treated in classical binding theory, and why LDAs are problematic in such a theory. This section draws quite extensively on the introductory chapter of [Hicks 2009] and [Sundaresan 2011].

[3] That is, book 1.1-25, 2.1-26, and all of book 3 and 4 of *De bello Gallico*. I downloaded the corpus in September 2010. During the spring semester of 2011 the corpus has expanded somewhat, and book 1 and 2 are now completed. This addition happened too late for me to include them in my searches, however.

[4] I use the abbreviations for classical texts used in [the PROIEL corpus] and [Perseus Digital Library]. For text lacking in [Perseus Digital Library], I use the abbreviations in [O.L.D].

A fundamental difference between pronouns and anaphors concerns their ability to refer: Pronouns can refer freely to salient entities in the context, whether they are mentioned earlier or not. This is illustrated in examples (1.3 a) and (1.3 b). *He* in (1.3 a) refers to *John*, the subject of the preceding sentence. In (1.3 b), *him* can refer either to *John*, *Andrew*, or to an extra-sentential referent implied from the context.

(1.3) (a) *John$_i$ is a nice guy. He$_i$ makes a cake for all his colleagues every Friday.*

(b) *John$_i$ told Andrew$_j$ that Mary loved him$_{i/j/k}$.*

Anaphors cannot refer to entities in the discourse in this way, as the unavailability of (1.4 a) illustrates. Rather, anaphors must be *bound*, i.e. they must be c-commanded by a constituent with the same reference (c.f. [Hicks 2009, 4]), as in (1.4 b). This antecedent must be local. In (1.4 a) neither John nor Andrew can serve as antecedents, even though they c-command the anaphor, as they are not in the same clause as the anaphor. (1.4 c) illustrates that c-command is necessary.

(1.4) (a) **John$_i$ told Andrew$_j$ that Mary loved himself.*

(b) *John$_i$ annoys himself$_i$.*

(c) **[John$_i$'s fame] annoys himself$_i$.*

Anaphors and pronouns are assumed to be in complementary distribution. Pronouns are usually felicitous in the environments where anaphors are disallowed, as in (1.5 a) and (1.3 b) above. However, a pronoun cannot be locally bound, c.f. (1.5 b).

(1.5) (a) *[John$_i$'s fame] annoys him$_i$.*

(b) **John$_i$ annoys him$_i$.*

Anaphors and pronouns differ, in turn, from full DPs such as names and definite descriptions, known in binding theory as R(eferential)-expressions. Unlike pronouns they have fixed reference in a given context, or even across contexts. *The royal palace* will always refer to a single building when the subject of discussion is Oslo. However, the reference will not be the same e.g. if the discussion concerns Stockholm. The name *Oslo*, on the other hand, will have the same reference in all context. R-expressions differ from anaphors (and pronouns) in that they cannot be bound, either locally, as in (1.6 a), or non-locally, as in (1.6 b).

(1.6) (a) **John$_i$ annoys John$_i$.*

(b) **John$_i$ told Andrew$_j$ that Mary loved John$_i$.*

In classical binding theory; that is, the one developed by Noam Chomsky in the early 80ies, these binding properties were described in terms of the features [±anaphoric] and [±pronominal], specified on the different types of DPs (c.f. [Chomsky 1981], [Hicks 2009, 22-27]). Anaphors are [+anaphoric,-pronominal], pronouns are [+pronominal,-anaphoric] and R-expressions are [-pronominal,-anaphoric]. These elements are supposed to obey three different conditions,

called the Binding Conditions. Elements specified as [+anaphoric] obey Condition A, elements specified as [+pronominal] obey Condition B, elements which are specified as neither, obey Condition C. The conditions are as follows:

Condition A: An anaphor is bound in its governing category.

Condition B: A pronominal [=pronoun] is free in its governing category.

Condition C: An R-expression is free. ([Chomsky 1981, 188])

Condition A states that binding is obligatory in the local domain, formally defined as the governing category. Condition B bans locally bound pronouns, while condition C bans bound R-expressions.

These conditions depend on the notion of *governing category*. The governing category for an anaphor or pronoun is the minimal category which contains the anaphor or pronoun, a governor for it and a subject accessible to it. This definition depends, in turn, on the technical notion of *governor*[5]. A lexical head is a governor for its complements. Government can cross TP, but not CP in cases when a lexical head takes a clausal complement (c.f. [Hicks 2009, 23]). (Also, finite Infl governs its subject.) In a sentences like (1.4 b), the anaphor is bound within its governing category, because the anaphor has an accessible subject and is governed by the verb, of which it is the complement. The subordinate clause in (1.4 a) is also a governing category for the same reasons. As the binder is outside of the governing category, Condition A is violated. As government cannot cross a CP boundary, the subject of a complement clause cannot be bound from the matrix clause, c.f. (1.7 a). However, the subject of an ECM clause can be bound from the matrix clause, as in (1.7 b). This is predicted, as ECM clauses are assumed to be TPs.

(1.7) (a) **He$_i$ believes [$_{CP}$ that himself$_i$ has the best car in the neighborhood].*

(b) *He$_i$ believes [$_{TP}$ himself$_i$ to have the best car in the neighborhood].*

Within Minimalism binding must be treated differently; government is abandoned, and locality must be explained in some other way, e.g. in terms of phases. However, some earlier approaches to Latin long-distance anaphora, discussed in the following section, do assume the notion of government. While binding must be treated differently today, the descriptive generalizations of the binding conditions do indeed hold: An anaphor must normally be locally bound, while a pronoun cannot be. The possibility of long-distance binding of anaphors in Latin, as in (1.8), is therefore unexpected and in need of an explanation.

(1.8) *Ubii$_i$ ... magnopere orabant [ut sibi$_i$ auxilium ferret].*
Ubii-nom greatly entreat-imperf.ind that SE-dat help-acc bring-imperf.subj
'The Ubii (a tribe) entreated with insistance that he should bring them help.' (Caes. B.G. 4.16.5)

[5]It also depends on the notion of accessible subject. Here I will assume that this simply means the syntactic subject in the category containing the anaphor or pronoun, although the definition is, in fact, more complex (c.f. [Hicks 2009, 24-26]).

The dative anaphor *sibi* is bound, not within its own clause, but by the matrix subject, and therefore violates Condition A as it is stated above. This thesis will aim to explain how this is possible. I will not consider anaphors in participial constructions, control infinitives and impersonal constructions, but will limit myself to LDAs in indicative and subjunctive clauses and the so-called *Accusativus-cum-Infinitivo*-construction.

1.2 Previous accounts of Latin long-distance anaphora

1.2.1 Latin grammars and [Bertocchi 1986]

LDAs in Latin are very frequent in complements of verbs of speech/thought, such as (1.9 a) and (1.9 b) (=(1.8)), and very rare elsewhere. Latin grammars have therefore traditionally assumed that there is a relationship between the syntax of reported speech/thought and that of long-distance anaphora (c.f. [Kühner-Stegmann 1914 I, 607-614], [Menge 2000, 126-129], [Ernout-Thomas 1964, 182-186]).

(1.9) (a) *[De numero eorum omnia se$_i$*
about number-abl PersPron-gen.pl everything-acc SE-acc
habere explorata] Remi$_i$ dicebant
have-pres.inf explore-PerfPart.acc Remi-nom say.imperf.ind
'The Remi (a tribe) said that they had knowledge of everything concerning their number [i.e. the number of members of another tribe].' (Caes. B.G. 2.4.4)

(b) *Ubii$_i$ ... magnopere orabant [ut sibi$_i$*
Ubii-nom greatly entreat-imperf.ind that SE-dat
auxilium ferret].
help-acc bring-imperf.subj
'The Ubii (a tribe) entreated with insistance that he should bring them help.' (Caes. B.G. 4.16.5)

The generative analysis of Latin LDAs proposed in [Bertocchi 1986] also assumes a correlation between indirect speech and long-distance binding. In Latin, verbs of speech/thought take two kinds of complements, either infinitive clauses with accusative subject, the so-called *Accusativus-cum-Infinitivo* construction (Henceforth: *AcI*), as in (1.9 a) or subjunctive complements, (1.9 b). What distinguishes these two types of complements is far from a trivial matter. The subjunctive is typically used with verbs expressing some kind of intensionality, such as verbs of ordering, encouraging, etc., but also with verbs of fear and for indirect questions. Reported declarative complements are expressed by the AcI, but the AcI is also used for other complements (c.f. [Torrego 1986]). A property of both the subordinate clause subjunctive and the infinitive in Latin is that they cannot refer to the actual utterance time, unlike indicative clauses. Subjunctive clauses are characterized by the so-called *sequence of tense* (henceforth: SoT), according to which the tense of the dependent clause must be the same as the tense of the matrix clause. Infinitives have no tense inflexion at all. They do, however, have perfect and future forms, and the event of a perfect infinitive is interpreted as having occurred before the matrix event,

a future infinitive occurs after the matrix event, and the present infinitive is simultaneous with the matrix event. The infinitive, therefore, does not refer to the utterance time, only to the time of the matrix event. [Bertocchi 1986] suggests that clauses which refer directly to the utterance time have the feature [+TENSE], and that the extension of the binding domain of anaphors is possible only in clauses lacking [+TENSE].

1.2.2 Benedicto's analysis of Latin LDAs

[Benedicto 1991] argues against approaches which relate long-distance binding to mood or reported speech/thought, as there are examples such as (1.10), in which an LDA occurs in an indicative relative clause; that is, a clause which neither has SoT nor is an environment of reported speech/thought:

(1.10) *Epaminondas*$_i$ ... *ei* $\lceil_{relCl}$ *qui* *sibi*$_i$ *ex*
Epaminondas-nom him-dat RelPron-nom SE-dat from
lege *praetor* *successerat*$\rfloor$ *exercitum* *non*
law-abl praetor-nom succeed-pluperf.ind army-acc not
tradidit
transfer-perf.ind
'Epaminondas did not transfer the army to the one who had succeeded him as a praetor according to the law.' (Cic. inv. 1.55)

Benedicto proposes an analysis of Latin Latin long-distance binding which also should account, not only for LDAs in reported speech/thought, but also for such sentences as (1.10). She draws on the concept of a *dynasty*; that is, "a chain of governors such that each governor governs the minimal domain containing the next governor" ([Benedicto 1991, 172]). In Latin, an anaphor can be bound, not only within its own governing category, but also by a subject outside of its governing category, as long as there is a dynasty between the governing category of the subject and that of the anaphor. This approach predicts that subjects of verbs which take clausal complements should be able to bind reflexives within those complements, as in (1.9 a) and (1.9 b), as a verb governs its complements. It is also supposed to handle cases of long-distance binding in restrictive relative clauses to nominal complements, as in (1.10): A restrictive relative clause and its head are both assumed to be daughters of an NP. In (1.10) the matrix verb governs the NP containing the head, *ei*, and the relative clause, as this NP is a complement of the verb. However, *ei* does not govern the relative clause, and a dynasty is therefore established between the relative clause containing the reflexive and the matrix clause. Long-distance binding is, according to this approach, blocked into adjunct clauses, as a verb does not govern adjuncts. Non-restrictive relative clauses should also block long-distance binding, as they are assumed not to be embedded under an NP, but have a higher level of attachment in the clause.

This approach is rather elegant in that it gives a unified account of LDAs both in reported speech/thought and in relative clauses. However, as I will argue in the next chapter, there seems to be strong empirical support for the claim that the syntax of reported speech/thought is relevant for long-distance binding, and that a unified account cannot be obtained of the binding patterns in (1.9 a)-(1.9 b) and (1.10).

Chapter 2

The data

The main purpose of this chapter is to investigate the distribution of LDAs in Latin, based on the data I have collected. Specifically, I wish to show that LDAs in reported and non-reported contexts differ in important respects. In section 2.1 I will account for LDAs in reported contexts. I call this type of LDA the *normal Latin LDA*s, as it is by far the most common type[1]. In section 2.2 I will focus on what I call the *special Latin LDA*, LDAs in non-reported contexts. My focus is on the personal reflexive *se*, but I also occasionally consider the behavior of *suus* when this is relevant.

2.1 The normal Latin LDA

2.1.1 The domains of binding: [the PROIEL corpus]

I have looked at all occurrences of *se* and the variant *sese* in the Caesar subcorpus of [the PROIEL corpus], and have determined whether they are locally bound or long-distance bound. In this data a reflexive is long-distance bound in four different environments:

1. AcI complements LDAs occur in AcI complements expressing reported speech/thought. When the (accusative) subject of such a clause is coreferent with the subject of the verb of speech/thought, the AcI subject is usually a reflexive, as in (2.1 a) (=(1.9 a)). However, LDAs can also be objects, as in (2.1 b), oblique arguments, as in (2.1 c), or a part of an adjunct PP, as in (2.1 d).

(2.1) (a) *[$_{AcI}$ De numero eorum omnia se$_i$*
about number-abl PersPron-gen.pl everything-acc SE-acc
habere explorata] Remi$_i$ dicebant
have-pres.inf explore-PerfPart.acc Remi-nom say-imperf.ind
'The Remi (a tribe) said that they had knowledge of everything concerning their number [i.e. the number of members of another tribe].' (Caes. B.G. 2.4.4)

[1] All instances of LDAs I have found in [the PROIEL corpus] are in fact of this type.

(b) *Hostes*$_i$ [$_{AcI}$ ... *de* *flumine* *transeundo*
enemies-nom about river-abl go-over-gerundive.abl
spem *se*$_i$ *fefellisse]* *intellexerunt*
hope-acc SE-acc deceive-perf.inf understand-perf.ind
'The enemies understood that their hope of crossing the river had deceived them.' (Caes. B.G. 2.10.4)

(c) *[ubi* *Crassus*$_i$ *animadvertit,* [$_{AcI}$ ... *minus*
when Crassus-nom notice-perf.ind less
commode *frumentum* *commeatumque* *sibi*$_i$
conveniently corn-acc supplies-acc+and SE-dat
supportari *...]]* *non* *cunctandum* *existimavit*
bring-pres.pass.inf not delay-gerundive-acc think-perf.ind
[quin *pugna* *decertaret]*
comp battle-abl fight-imperf.subj
'When Crassus noticed that the corn and the supplies could not be brought to him conveniently, he thought that he should not delay in engaging in battle.' (Caes. B.G. 3.21.7)

(d) *Caesar*$_i$ ... [$_{AcI}$ *cohortes* ... *secum*$_i$ *in*
Caesar-nom cohorts-acc SE-abl+with to
eam *partem* *proficisci]* *iussit.*
that-acc part-acc proceed-pres.inf order-perf.ind
'Caesar ordered that the cohorts should advance with him to that part [of the district].' (Caes. B.G. 4.32.2)

2. Subjunctive complements LDAs occur in subjunctive complement clauses of reported speech/thought. As for the AcIs, I have found examples of LDAs which are objects, oblique arguments (dative and PP) and adjunct PPs. However, *se* cannot function as a subject in a subjunctive complement clause, as there is no nominative form of *se*. (2.2 a) (=(1.8)) is an example of a dative LDA in a complement clause with the complementizer *ut*; (2.2 b) is an LDA in an indirect question:

(2.2) (a) *Ubii*$_i$ ... *magnopere* *orabant* [$_{CompCl}$ *ut*
Ubii-nom greatly entreat-imperf.ind that
sibi$_i$ *auxilium* *ferret].*
SE-dat help-acc bring-imperf.subj
'The Ubii (a tribe) entreated with insistance that he should bring them help.' (Caes. B.G. 4.16.5)

(b) *ostendit*$_i$ [$_{CompCl}$ *quae* *separatim* *quisque*
show-pres.ind InterrogPron-acc apart each one
de *eo* *apud* *se*$_i$ *dixerit].*
about him-abl before SE-acc say-perf.subj
'[Caesar] shows [Divitiacus] what each one has said about him [i.e. Divitiacus' brother] privately in his [i.e. Caesar's] presence.' (Caes. B.G. 1.19.4)

3. Clauses embedded within indirect speech An LDA can occur in an adjoined subjunctive subordinate clause which depends on an AcI or a subjunctive complement clause of indirect speech. An important use of the subjunctive mood is to express that a clause is reported. A clause which would have been in the indicative if it were a part of the assertion of the utterer of the sentence, e.g. adverbial clauses and relative clauses, can be put in the subjunctive in order to express that the clause represents the thought of someone else. This use of the subjunctive is sometimes called the *oblique subjunctive*. Adjunct clauses to complements of indirect speech will be in the subjunctive if they are themselves part of what is reported. It appears to be the case that an LDA can occur in any kind of subordinate clause in this position when it is marked with the subjunctive of indirect speech, and is therefore a part of the reported speech/thought itself. In (2.3) the LDA is in an adverbial (conditional) clause in an AcI complement[2].

(2.3) *⌈AcI ⌈AdvCl quorum si principes ac senatus sibi$_i$*
their-gen.pl if chiefs-nom and senate-nom SE-dat
iure iurando fidem fecisset⌋, ea
oath-abl loyalty-acc do-pluperf.subj that-abl
condicione ⌈RelCl quae a Caesare
condition-abl RelPron-nom by Caesar
ferretur⌋ se$_{(i)}$ usuros⌋ ostendebant$_i$
bring-imperf.pass.subj SE-acc use-fut.inf show-imperf.ind
'[The Germans] assured [Caesar] that they would accept such conditions as might be proposed by him, if their chiefs and senate [i.e. those of the Ubii, a Gallic tribe] would assure them their loyalty by oath.' (Caes. B.G. 4.11.3)

It is hard to say, on the basis of searches in a very limited corpus, if LDAs are completely excluded from indicative clauses embedded within reported speech/thought; that is, in clauses which are asserted by the actual speaker, not by the person whose thought or speech is reported. It is at least the case that LDAs are regular in subjunctive adjunct clauses within a reported complement, while they are very rare in indicative clauses in that environment, and indeed in any indicative clauses. Grammars do mention a few examples of LDAs in indicative clauses embedded within reported contexts, which I will discuss in section 2.2. I think there are good reasons to give these examples a special treatment, as I will show.

LDAs can also occur in reported complement clauses within a reported complement. In (2.4) an LDA is in an AcI, complement of a verb which is itself a subjunctive of indirect speech. The binder is the subject of the highest speech verb[3].

[2]When a subject binder is not overtly expressed, I put the index marker on the verb. I put parentheses around index markers which are not directly relevant to the question under discussion.

[3]This is in fact not the only possibility in such deeply embedded clauses, c.f. examples (2.23 a) and (2.23 b) below.

(2.4) *Huic* *imperat$_i$* *[$_{CompCl}$* ... *[$_{AcI}$* *seque$_i$* *celeriter*
him-dat order-pres.ind SE-acc+and quickly
eo *venturum]* *nuntiet].*
there come-fut.inf announce-pres.subj
'[Caesar] orders him to ... and to announce that he will quickly come to that place.' (Caes. B.G. 4.21.8)

4. Independent indirect speech LDAs also occur in what can be called *independent indirect speech*, that is AcIs and subjunctive clauses of indirect speech which do not overtly depend on any verb of speech. Passages of independent indirect discourse usually follow a first sentence with a verb of speech, and it is plausible that the initial verb of speech is implied for the sentences without an overt verb (this is the analysis adopted in [the PROIEL corpus]). The syntax of clauses of independent indirect speech does not differ substantially from complements of overt speech verbs, and independent subjunctive clauses are often introduced by overt complementizers[4]. In (2.5 a) an LDA occurs in an AcI with no overt verb of speech, in (2.5 b) it occurs in an independent subjunctive clause.

(2.5) (a) *hos* *a* *se* *coerceri* *non* *posse.*
they-acc by SE-acc restrain-pass.inf not can-pres.inf
'[Liscus says that] they cannot be constrained by him' (Caes. B.G. 1.17.5)

(b) *vel* *sibi* *agros* *attribuant* *vel* *patiantur*
either SE-dat fields-acc assign-pres.subj or allow-pres.subj
eos *tenere* *quos* *armis* *possederint*
those-acc keep-inf RelPron-acc.pl. arms-abl occupy-perf.subj
'either they [i.e. the Romans] should assign them [i.e. the Germans, who are speaking] fields, or permit [them] to retain those which they had occupied with the help of arms' (Caes. B.G. 4.7.4)

To sum up my findings from my searches in [the PROIEL corpus]: I have found that LDAs occur in complement clauses of verbs of speech/thought, both when the selecting verb is present and when it is implied. An LDA can occur in any syntactic position in the clause, whether adjunct or argument. However, as there is no nominative personal reflexive in Latin, the subject of a subjunctive clause cannot be an anaphor [5].

Note that reported complements do not need to depend on verbs. Nouns and adjectives can also take reported complements, c.f. (2.16 a) and (2.16 b) in section 2.1.5.

2.1.2 The domains of binding: [Kühner-Stegmann 1914 I]

My corpus being quite limited, I have also checked examples in grammar books. [Kühner-Stegmann 1914 I, 607-608] has a collection of examples from a variety

[4]Complementizer deletion, as in (2.5 b), also frequently occurs in complements of overt verbs of speech.

[5]The subject of such a clause can be associated with a personal possessive reflexive, though, as in example (2.6 a) below.

of authors of LDAs in indirect speech. Many of the examples do, of course, involve complements of verbs of speech/thought. Also complements of verbs of fear have LDAs, as in (2.6 a)[6]. This example, which is the only one with a verb of fear in [Kühner-Stegmann 1914 I], has the possessive anaphor *suus*. Example (2.6 b), which I found through searches in [Perseus Digital Library], shows that also long-distance bound *se* can occur in complements of verbs of fear.

(2.6) (a) *Ille*$_{(i)}$ ... *ad* *maturandum* *concitatus*
He-nom to accelerate-gerundive-acc stimulate-perf.pass.ind
est, *verens*$_i$ $\lceil_{CompCl}$ *ne* *prius* *consilium*
aux fear-PresPart.nom comp earlier plan-nom
aperiretur *suum*$_i$, *quam* *conata*
uncover-pres.pass.subj SUUS-nom than effords-acc
perfecisset].
execute-pluperf.subj

'He was stimulated to accelerate [the execution of his plan], fearing that his plan would be uncovered before he had executed what he had in mind to do' (Nep. Di. 8.5)

(b) *aequato* *omnium* *cultu* *quid*
make-equal-PerfPart.abl all-gen.pl clothing-abl what-nom
unaquaeque$_i$ *vestrum* *veretur* $\lceil_{CompCl}$ *ne*
each one-nom.fem you-gen.pl fear.pres.ind.3p comp
in *se*$_i$ *conspiciatur]?*
in SE-abl notice-pres.subj.pass

'As the clothing of all is made alike, what is it that each one of you fears will be noticed in her?' (Liv. 34 4.12)

I have until now used the term *reported speech/thought* without clearly defining it. Latin seems to treat complements expressing someone's speech, such as complements of verbs of saying, commanding, asking etc., in the same manner as complements expressing someone's thought, which includes not only complements of verbs of thinking, knowing etc., but also complements of verbs of fear. All of these complements are either in the subjunctive or are AcI, and all of them readily allow LDAs. [Fruyt 1987] accounts for this by suggesting that both verbs of speaking and thinking are conceived of as communication verbs, although nobody is party to the communicated message in the case of thought. I find it more meaningful to consider thought the crucial factor: Both verbs of speech and thought take complements which, in some sense, express someone's thought. Whether or not this thought is communicated to an interlocutor is not relevant, at least not to the choice of mood or the availability of long-distance binding. It might be that the domain of long-distance binding can be further specified as complements expressing *propositional attitudes*; that is, a mental attitude of the subject towards the truth of the embedded proposition (c.f. [Giorgi 2006], [Clapp 2006]). This term covers most complements of saying and thinking, including complements of the type in (2.6 a): Fearing is having an attitude of fear towards the proposition that a specific event will happen or has already happened. In section 3.2.4 in the analysis chapter, I will

[6] The complement clause depends on a present participle controlled by the matrix subject.

explore whether the concept of propositional attitudes accounts for the Latin data in a meaningful way.

2.1.3 LDAs in adjunct clauses?

Some of the examples given in [Kühner-Stegmann 1914 I] are not complement clauses at all. What they have in common, however, is that they have an *oblique subjunctive*; that is, a subjunctive expressing that the clause reports the speech/thought of someone else (c.f. [Kühner-Stegmann 1914 II, 199-200]).

In (2.7) an LDA occurs in a temporal adjunct clause with the complementizer *priusquam*, 'before' and an oblique subjunctive. When *priusquam* is used with a subjunctive, it expresses a notion of purpose on behalf of the superordinate subject (c.f. [Sjöstrand 1960, 372-373], [Eitrem 1999, 129-130]). This is hard to render in the translation. The subjunctive in (2.7) expresses that he not only took possession of his own property before you sold it to him, but also that he did that so that you should not get the chance to sell it to him.

(2.7) $[_{AdvCl}$ *Priusquam* *tu* *suum*$_i$ *sibi*$_i$ *venderes],*
before you-nom SUUS-acc SE-dat sell-imperf.subj.2p
ipse$_i$ *possedit.*
he take-possession-of-perf.ind
'Before you got the chance to sell him his own property, he took possession of it.' (Cic. Phil. 2.96)

[Kühner-Stegmann 1914 II] also gives an example of a purpose clauses with the complementizer *ut*, 'in order that', containing an LDA:

(2.8) *Cuncti*$_i$ *ad* *me* *publice* *saepe* *venerunt,* $[_{AdvCl}$
Everyone-nom to me-acc publicly often come-perf.ind
ut *suarum*$_i$ *fortunarum* *omnium* *causam*
in order that SUUS-gen.pl property-gen.pl all-gen.pl cause-acc
defensionemque *susciperem].*
defense-acc+and undertake-imperf.subj.1p
'Everyone frequently came to me in public, in order that I undertake the cause and defense of all their fortunes' (Cic. Div. Caec. 1.2)

A relative clauses with an oblique subjunctive contains an LDA in (2.9):

(2.9) *mittebat*$_i$ $[_{RelCl}$ *qui* *rumores* ... *celeriter* *ad*
send-imperf.ind RelPron-nom rumors-acc quickly to
se$_i$ *referrent].*
SE-acc bring-back-imperf.subj.pl.
'[Deiotarus] sent [some men], so that they could bring back the rumors [they heard] to him' (Cic. Deiot. 9.25)

[Fruyt 1987, 207] treats example (2.8) and (2.9) as complement clauses. The verb *mitto*, 'send', which is used in (2.9), quite regularly takes a reported complement, meaning 'send someone [to say] ...'. Fruyt apparently suggests that this use of *mitto* can be extended to (2.9), where a relative clause is used. She also claims that *venio*, 'come', used in (2.8), has the same behavior as *mitto*, meaning 'come [to say] ...'.

[Kühner-Stegmann 1914 I] cites some examples of comparative clauses with *quasi* (also written *quam si*), 'as if'. It is not obvious to me that these express the thought of the superordinate subject, although [Kühner-Stegmann 1914 I] claims that they do. Being hypothetical, they would have had the subjunctive anyway:

(2.10) (a) *accepit*$_i$ *ad sese, haud secus quam si ex*
receive-perf.ind to SE-acc, not otherwise as if from
se$_i$ *simus natae.*
SE-abl aux be-born-perf.subj.1p.p.
'She received us not otherwise than if we were her children' (Pl. Rud. 2.3.79)

(b) *Quasi sua res aut honos*
as if SUUS-nom property-nom and honor-nom
agatur, ita diligenter Sex. Naevi ...
drive-pres.pass.subj thus diligently Sextus Naevus-gen
studio morem gerunt.
eagerness-dat habit-acc bear-pres.ind
'They indulge Naevus' eagerness diligently, as if concerned with their own property and honor' (Cic. Quinct. 2.9)

In example (2.11) an LDA occurs in a conditional clause. This clause would have had a subjunctive whether or not it expressed the thought of the superordinate subject. In this example too, I find it hard to see how the subordinate clause expresses the thought of the superordinate subject in any way, although [Kühner-Stegmann 1914 I] claims that it expresses indirect thought.

(2.11) *Sulla*$_i$, $[_{RelCl}$ *si sibi*$_i$ *suus*$_i$ *pudor ac*
Sulla-nom if SE-dat SUUS-nom modesty-nom and
dignitas non prodesset], *nullum auxilium*
honor-nom not be-useful-imperf.subj no-acc help-acc
requisivit.
seek-perf.ind
'If his modesty and honor could not be useful to him, Sulla did not seek any other help.' (Cic. Sul. 15)

Something which complicates the picture further, is that several of the examples given in [Kühner-Stegmann 1914 I, 607-608] only have the possessive reflexive *suus*, not *se*, such as (2.9) and (2.10 b) above. It is difficult to exclude the possibility that *suus* is used in its non-reflexive sense. In [Menge 2000, 127], (2.10 b) is indeed given as one of the examples of non-reflexive *suus*. I have not seen any convincing examples, for instance, of a purpose-clause with *ut* with a long-distance bound *se*. ([Ros 2001, 258] gives one example from B.G. 1.47. When seen in its textual context, however, it is quite clear that it is a question of a complement *ut*-clause, not an adjunct purpose clause.) Adjunct purpose clauses with *ut* are indeed very common, and it is therefore a bit surprising that no examples of long-distance bound *se* have turned up in my searches in [the PROIEL corpus], and that no examples are found in the literature I have checked. In section 2.2 below I will show that what I call the *special Latin LDA* typically occurs in relative clauses, correlative clauses and other clause

which take an antecedent in the superordinate clause. Several of the examples above do in fact involve clauses which refer to an antecedent, such as examples (2.10 a) and (2.10 b) with *quam si* and example (2.7) with *priusquam*: *quam si* arguably relates a clause with the complementizer *si*, 'if' to an adverb in the matrix clause, *quam*, 'as'; *Prius*, 'earlier' and the complementizer *quam*, 'than', are regularly written in two words, which are often not even adjacent. I will in the following assume that these examples are to be analyzed as special LDAs. More data is necessary, however, to settle the question of whether or not normal LDAs can occur in adjunct clauses.

2.1.4 The indicative/subjunctive distinction

In theories on long-distance anaphora which assume a correlation between sequence of tense and long-distance binding, such as [Giorgi 2006] and [Bertocchi 1986], reported indicative clauses are not supposed to contain LDAs. This is hard to test in Latin: While modern Romance languages have an indicative/subjunctive distinction in the complement position of verbs of speech/thought, Latin has an AcI/subjunctive distinction in this position. There are, however, two types of verbs which can take indicative complements: Verbs expressing that the subject has a certain sentiment because of some situation, such as *doleo*, 'suffer', *gaudeo*, 'be glad', *glorior*, 'boast, brag', *queror*, 'complain', are often followed by a clause with the complementizer *quod*. In the same way, verbs meaning to praise or thank someone, or to accuse or blame, e.g. *gratias ago*, 'give thanks', *reprehendo*, 'blame', can take a clause with *quod*. The *quod*-clause expresses the cause of the sentiment or the reason for the thanking, blaming, etc. (c.f. [Ernout-Thomas 1964, 295-299], [Touratier 1994, 586-587]). The *quod*-clause can be either in the indicative, as in (2.12 a) and (2.12 b), or in the subjunctive, as in (2.12 c) and (2.12 d) ([Touratier 1994, 586-587]):

(2.12) (a) *sane* *gaudeo* *[quod* *te* *interpellavi]*
truly be-glad-pres.ind.1p comp you-acc interrupt-perf.ind.1p
'I am truly glad that I interrupted you' (Cic. Leg. 3.1)

(b) *Utinam* *illum* *diem* *videam* *[cum* *tibi*
if only that-acc day-acc see-pres.subj when you-dat
agam *gratias* *[quod* *me* *vivere*
conduct-pres.subj thanks-acc comp me-acc live-pres.inf
coegisti]]!
compel-perf.ind.2p
'May that day come when I thank you for having compelled me to live!' (Cic. Att. 3.3)

(c) *multo* *etiam* *gravius* *[quod* *sit* *destitus]*
much still vivid comp aux abandon-perf.subj
queritur
complain-pres.ind
'He complains with still more insistance over having been abandoned' (Caes. B.G. 1.16.6)

(d) *graviter eos accusat [quod ... tam necessario*
severely them-acc blame-pres.ind comp so urgent-abl
tempore, tam propinquis hostibus ab iis non
time-abl so near-abl enemies-abl by them-abl not
sublevetur]
assist-pres.pass.subj
'He blamed them for not bringing him assistance at a so urgent moment and with the enemies being so near.' (Caes. B.G. 1.16.5-6)

According to [Ernout-Thomas 1964, 295], the indicative is the unmarked mood for a *quod*-clause. It expresses a fact, asserted by the speaker, which is the cause of the sentiment of the subject. The use of the subjunctive here is a typical example of an oblique subjunctive: If the *quod*-clause is in the subjunctive, it expresses the thought or speech of the subject, and the proposition of the clause is not asserted by the speaker.

When in the subjunctive, complement *quod*-clauses can readily take LDAs. There is one example of this in my corpus, given in (2.13 a)[7]. [Benedicto 1991, 172-173] mentions the example in (2.13 b).

(2.13) (a) *Caesar*$_{(i)}$ *questus*$_i$ *[quod, [*$_{AdvCl}$ *cum*
Caesar-nom complain-PerfPart-nom comp when
ultro in continentem legatis
voluntarlily to continent-acc ambassadors-abl
missis pacem ab se$_i$ *petissent],*
send-PerfPart-abl peace-acc from SE-acc seek-pluperf.subj
bellum sine causa intulissent] ignoscere
war-acc without cause-abl inflict-pluperf.subj forgive-pres.inf
se imprudentiae dixit
SE-acc ignorance-dat say-perf.ind
'Caesar, having complained about the fact that they had made war on him after having sent ambassadors to the continent and asked for peace with him, said that he would forgive their thoughtlessness.' (Caes. B.G. 4.27.5)

(b) *Decima legio*$_i$ *... ei gratias*
Tenth-nom legion-nom him-dat thanks-acc
egit [quod de se$_i$ *optimum iudicium*
conduct-perf.ind comp about SE-abl exellent-acc opinion-acc
fecisset]
make-pluperf.subj
'The tenth legion gave him thanks for having expressed such an exellent opinion of them.' (Caes. B.G. 1.41.2)

I have found no examples of LDAs in indicative complement *quod*-clauses, either in my corpus or in the literature. As traditional grammars generally have assumed that LDAs are limited to AcIs and oblique subjunctive, it would probably not have been left unnoticed if LDAs occured in complement *quod*-clauses, regardless of mood. Note, however, that Benedicto's analysis predicts that LDAs should occur in any type of complement *quod*-clause.

[7] The binder in this example is the controller of a controlled participle.

Does this suggest that the indicative blocks long-distance anaphora in Latin reported clauses? Not necessarily. While subjunctive *quod*-clauses quite clearly express reported speech/thought, it is not necessarily the case that an indicative *quod*-clause reports the thought of the subject. A plausible interpretation is that, when the clause is in the indicative, only the speaker asserts that it is the cause of the sentiment of the subject. Whether or not the subject conceives it as the cause, or agrees that it is the cause, is not grammatically expressed. A subjunctive, on the other hand, expresses the cause as conceived by the subject, without it being a part of the speaker's assertion. I know of no examples of complement *quod*-clauses in the indicative which are clearly not asserted by the subject, only by the speaker. Examples (2.12 a) and (2.12 b) will not do, as the speaker and the subject are the same person. Without access to native speaker judgements, it might be hard to test whether indicative *quod*-clauses should be considered as reported clauses.

In summary, it is difficult to say with certainty whether mood has a direct role in enlarging the binding domain in Latin, as indicative clauses usually are not used as reported complements. While LDAs probably do not occur in indicative complements with *quod*, it is not clear whether these clauses grammatically express reported speech at all.

Note that it is not uncontroversial to consider these clauses complements (c.f. [Benedicto 1991, 183, n4], [Ros 2001, 258-259]). *Quod* is also used as the complementizer of causal adverbial clauses (c.f. section 2.2.2), and it might be that *quod*-clauses with verbs of thanking etc. are adverbial clauses of this type too. However, such verbs occur very frequently with *quod*-clauses, and it is frequently assumed that they subcategorize for such clauses, both in traditional grammars (e.g. [Kühner-Stegmann 1914 II, 276-277]) and in the linguistic literature on Latin complementation (c.f. [Touratier 1994, 586-587], [Torrego 1986]).

2.1.5 "Who" is the binder

In most cases, an LDA is bound by the subject of the verb of saying/thinking, as in (2.18 a) and (2.14 b) (= (2.1 b) and (2.2 a)):

(2.14) (a) *Hostes*$_i$ *[*$_{AcI}$ ... *de flumine transeundo*
enemies-nom about river-abl go-over-gerundive.abl
spem se$_i$ *fefellisse]* *intellexerunt*
hope-acc SE-acc deceive-perf.inf understand-perf.ind
'The enemies understood that their hope of crossing the river had deceived them.' (Caes. B.G. 2.10.4)

(b) *Ubii*$_i$ ... *magnopere orabant* *[*$_{CompCl}$ *ut*
Ubii-nom greatly entreat-imperf.ind that
sibi$_i$ *auxilium ferret].*
SE-dat help-acc bring-imperf.subj
'The Ubii (a tribe) entreated with insistance that he should bring them help.' (Caes. B.G. 4.16.5)

[Benedicto 1991, 173-174] claims that when an LDA occurs in an adjunct clause depending on a clausal complement, the binder is still the matrix subject, not the immediate superordinate subject. This claim is consistant with what

grammars say ([Kühner-Stegmann 1914 I, 608-609]), and I know of no counter-examples to it. This is not apparent in (2.3) above, as the two subjects happen to be coreferent. In (2.15), however, it is clear that the matrix subject, not the subject of the AcI, is the binder (example and translation from [Benedicto 1991, 173]).

(2.15) *Ariovistus*$_i$ ... *respondit* ... $[_{AcI}$ *nos*$_j$ *esse*
Ariovistus-nom answer-perf.ind we-acc be-pres.inf
iniquos $[_{AdvCl}$ *quod* *in* *suo*$_i$ *iure* *se*$_i$
unfair-acc because in SUUS-abl jurisdiction-abl SE-acc
interpellaremus]]
obstruct-imperf.subj.1p.p.
'Ariovistus replied that we were unjust in obstructing him in his own jurisdiction.' (Caes. B.G. 1.44.8)

Not all LDAs are subject-oriented. [Benedicto 1991] mentions the following examples of non-subject-oriented binding. In (2.16 a) a possessive dative functions as binder, in (2.16 b) a dative depending on the adjective *pergratae*, 'very agreeable', has that function, while in (2.16 c) a genitive depending on *interest* 'it concerns/interests' binds the reflexive (In all examples from [Benedicto 1991] below, I adopt her translation):

(2.16) (a) *Iam* *inde* *ab* *initio* *Faustulo*$_i$ *spes*
already since from beginning-abl Faustulus-dat hope-nom
fuerat $[_{AcI}$ *regiam* *stirpem* *apud* *se*$_i$
be-pluperf.inf royal-acc stock-acc next-to SE-acc
educari]
educate.pass.inf
'Since the beginning, Faustulus had hoped that [someone of] royal stock was being educated with him' (Liv. 1.5.5)

(b) *Annali*$_i$ *litterae* *pergratae* *fuerunt,* $[_{CompCl}$
Annalis-dat letter-nom very-agreeable-nom be-perf.ind
quod *curares* *de* *se*$_i$ *diligenter]*
because worry-imperf.subj.2p about SE-abl diligently
'Annalis was very pleased with your letter, because you worried very much about him.' (Cic. Quint. 3.1.20)

(c) *Aratoris*$_i$ *interest* $[_{AcI}$ *ita* *se*$_i$ *frumenta*
farmer-gen it interests-pres so SE-acc crops-acc
habere *[ut* *quam* *plurimo* *decumae* *venire*
have-pres.inf comp as much-sup tithes-nom come
possint]]
can-pres.subj
'To the farmer it is important to have crops so heavy that the tithes may fetch the highest prices.' (Cic. Verr. 3.147)

[Benedicto 1991] claims that the binder has the theta-role *experiencer* in all these examples. As these sentences lack an agent subject, the experiencer is the most prominent argument on the thematic hierarchy, and is therefore assumed to be an appropriate binder.

Such an explanation does not account for cases, mentioned in [Menge 2000, 127], where someone sends out a representative, e.g. an ambassador, to convey a message. In that situation, the one who sends the message binds LDAs. I found the following examples of this through my searches in [the PROIEL corpus]:

(2.17) (a) *[Ad quos, cum Caesar$_i$ nuntios$_{(j)}$*
to them-acc when Caesar-nom messengers-acc
misisset, [qui$_j$ postularent [$_{CompCl}$
send-pluperf.subj RelPron-nom ask-imperf.subj
eos [$_{RelCl}$ qui sibi$_i$ Galliaeque bellum
they-acc RelPron-nom SE-dat Gaul-dat+and war-acc
intulissent] sibi$_i$ dederent]]],
inflict-pluperf.subj SE-dat surrender-imperf.subj
responderunt:
answer-perf.ind

'When Caesar had sent messengers to them [i.e. the Usipetes and the Tenchtheri, two tribes], who were to ask that they surrender to him those who had made war on him and on Gaul, they answered: ...' (Caes. B.G. 4.16.3)

(b) *legatos$_{(j)}$ ad eum mittunt$_i$ ..., [qui$_j$*
ambassadors-acc to him-acc send-pres.ind RelPron-nom
dicerent [$_{AcI}$ sibi$_i$ esse in animo ...
say-imperf.subj. SE-dat be-pres.inf in mind-abl
iter per provinciam facere]]
voyage-acc through province-acc make-inf

'[The Helvetii] send ambassadors to him [i.e. Caesar], who are to say that they [the Helvetii] have in mind to pass through the province' (Caes. B.G. 1.7.3)

(c) *legati$_i$ ab iis$_j$ venerunt, [quorum$_i$ haec*
ambassadors from them-abl come-perf.ind RelPron this-nom
fuit oratio]: ... vel sibi$_j$ agros
be-perf.ind speech.nom either SE-dat fields-acc
attribuant vel patiantur eos tenere
assign-pres.subj or allow-pres.subj those-acc keep-pres.inf
[quos armis possederint]
RelPron-acc.pl. arms-abl occupy-perf.subj

'Ambassadors came from them [i.e. the Germans] [to the Romans], who pronounced the following speech: ... either they [i.e. the Romans] should assign them [i.e. the Germans] fields, or permit [them] to retain those which they had occupied with the help of arms.' (Caes. B.G. 4.7.2,4)

In (2.17a) and (2.17b) the subjects of the verbs of speech are the ambassadors. However, it is clearly those who has sent the ambassadors who serve as antecedents for the LDAs, not the ambassadors. In (2.17c) (=(2.5 b)) the LDA occurs in independent indirect speech (The introductory phrase and the subjunctive clause is separated by several sentences in independent indirect speech). The subject of the sentence which introduces the passage of indirect

speech is *legati*, 'ambassadors'. The binder of the LDA is the Germans, who sent the ambassadors.

It is difficult to account for examples (2.17 a), (2.17 b) and (2.17 c) based on the syntactic position of the binder. In (2.17 a) and (2.17 b) the subject of the matrix clause is admittedly the binder and the LDA is embedded within a relative clause with an oblique subjunctive[8]. However in (2.17 c) the binder is a part of an argument PP to the matrix verb, and the mood within the relative clause is indicative. It is hard to imagine a unified account based on the syntactic position of the subject, which can account for examples (2.16 a)-(2.16 c) and (2.17 a)-(2.17 c). While the binder can occupy a variety of syntactic positions, its semantic function seems to be the same in all the above examples: The LDAs in all the above examples are bound by the person whose thought the reported clause expresses. I will, in the following text, refer to this person as the *Thinker*. If this is the correct generalization, the frequent subject-orientation of LDAs is not an effect of syntax, but of the fact that the subject of a verb of speech/thought in most cases also is the Thinker. For example, in (2.18 a) (=(2.1 b)), which is an example of a typical subject-oriented LDA, the matrix subject is not the binder by virtue of being a subject, but because the subject of the verb *intellego*, 'understand', trivially is the person whose thought content the complement clause expresses.

(2.18) (a) *Hostes*$_i$ ... *[*$_{AcI}$ *de* *flumine* *transeundo*
enemies-nom about river-abl go-over-gerundive.abl
spem *se*$_i$ *fefellisse]* *intellexerunt*
hope-acc SE-acc deceive-perf.inf understand-perf.ind
'The enemies understood that their hope of crossing the river had deceived them.' (B.G. 2.10.4)

Examples (2.16 a)-(2.16 c) are different from (2.18 a), and other typical sentences with verbs of speech/thought, in that the matrix subject is not equal to the Thinker. In (2.16 a) Faustulus is the one who hopes that the embedded proposition is true, but this relationship is syntactically represented, not by means of a subject and a verb of thought, but by means of the noun *spes*, 'hope'. Faustulus is a dative experiencer of this hope. In (2.16 b), the attitude is represented by an adjective, *pergratae*, 'very agreeable', and the Thinker is represented as a dative argument of that adjective. In (2.16 c) a verb which does not take nominative subjects is used, *interest*, 'it interests'. The person who has an interest towards the embedded proposition, is expressed with a genitive argument.

In (2.17 a) and (2.17 b) the situation is different. Normal verbs of speech are used. However, the subject of the verbs of speech, the actual speaker, conveys, not his own thought, but that of the person who has sent him. Therefore, the subject of the speech verb and the Thinker refer to different persons.

[8] Also, both in (2.17 a) and (2.17 b) and in (2.9), the matrix verb is mitto, 'send'. This verb can in fact take reported complements in Latin, meaning 'send someone to say...'. These complements can contain LDAs. To account for (2.9), [Fruyt 1987, 207] appears to suggest that this use of *mitto* is extended to cases where this verb is followed by a relative clause with an oblique subjunctive. If this is right, then (2.17 a) and (2.17 b) can indeed be accounted for as normal cases of subject-oriented long-distance binding. Fruyt may be right in her claim. However, the approach I am arguing for in this section can account for both these examples and (2.17 c) on independent grounds.

Another case mentioned by [Benedicto 1991] is (2.19), where an LDA is bound from an agentive PP. [Benedicto 1991] suggests that the agentive PP in this example is in topic position, and that LDAs in Latin are allowed to be bound by topics. As she notes herself, this means that binding must be allowed from an A'-position.

(2.19) *A* *Caesare*$_i$ *valde* *liberaliter* *invitor* $[_{CompCl}$
by Caesar-abl very generously invite-pres.pass.ind.1p
sibi$_i$ *ut* *sim* *legatus*]
SE-dat comp be-pres.subj legate-nom
'Caesar most liberally invites me to take a place on his personal staff' (Cic. Att. 2.18.3)

While it might in fact be true that the agentive PP is in topic position or some other prominent position in the clause, given the word order here, this is not needed in order to explain the binding facts if my hypothesis is correct: In (2.19) a verb of speech is passivized, which means that the speaker, who is also the Thinker, no longer is the matrix subject, but must be expressed in an agentive PP. When going through the examples of LDAs with non-subject antecedents in [Menge 2000, 127] and [Kühner-Stegmann 1914 I, 608-609], I find other examples of binding from agentive PPs in the case of passive forms of speech verbs, such as (2.20 a) ([Menge 2000]) and (2.20 b) ([Kühner-Stegmann 1914 I]). The agentive PP does not need to be in a prominent position in the sentence, as (2.20 a) shows:

(2.20) (a) *Rogatus* *sum* *a* ... *matre*$_i$ *tua,* ...
ask-per.pass.ind.1p aux by mother-abl your-abl
$[_{CompCl}$ *ut* *venirem* *ad* *se*$_i$]
comp come-imperf.subj.1p to SE-acc
'I was asked by your mother to come to her' (Cic. ad Brut. 24.1)

(b) *ab* *L.* *Roscio*$_i$ ... *certior* *factus*
by Lucius-abl Roscius-abl certain-nom make-perf.pass.ind
est $[_{AcI}$ *magnas* *Gallorum* *copias* ...
aux great-acc Gauls-gen troops-acc
oppugnandi *sui*$_i$ *causa* *convenisse*]
attack-gerundive-gen SE-gen purpose-abl assemble-perf.inf
'[Caesar] was informed by Lucius Roscius that great troops had assembled with the purpose of attacking him [i.e. Roscius]' (Caes. B.G. 5.53.6)

[Kühner-Stegmann 1914 I, 608-609] gives other interesting examples of non-subject binders which are Thinkers. In (2.21 a), the verb *audio*, 'hear', is used with the preposition *ex*, 'from', meaning 'hear something from someone'. The person who conveys the message, the complement of the preposition, binds the LDA in the complement clause. In (2.21 b) a clause is read from a testament. The author of the testament binds the LDA.

(2.21) (a) *Vos* *ex* *M.* *Favonio*$_i$ *audistis*
You-nom.pl from Marcus-abl Favonius-abl hear-perf.ind.2p.p
$[_{AcI}$ *Clodium* *sibi*$_i$ *dixisse* ... $[_{AcI}$ *periturum*
Clodius SE-dat say-perf.inf die-fut.inf

Milonem]]
Milo-acc
'You have heard from Marcus Favonius that Clodius had said to him that Milo would die' (Cic. Mil. 44)

(b) *Elogium* *recitasti* *de* *testamento* *Cn.*
clause-acc recite-perf.ind.2p from testament-abl Gnaius-gen
Egnati *patris*$_i$ ... *[*$_{AcI}$ *idcirco* *se*$_i$
Egnatus-gen father-gen therefore SE-acc
exheredasse *filium]*
disinherit-perf.inf son-acc
'You read a clause from the father of Gnaius Egnatus [which said] that he therefore had disinherited his son' (Cic. Clu. 135)

[Benedicto 1991] does not predict the existence of such examples, as the binder is neither the most prominent argument on the thematic hierarchy, nor in topic position. If we assume that LDAs are bound by the Thinker, however, we can readily account for such examples.

Similar binding facts as those found in Latin are found in Italian (c.f. [Giorgi 2006]) and Icelandic (c.f. [Thrainsson 1997, 465-501]). [Giorgi 2006] shows that the reflexive possessive *proprio* can be long-distance bound by the matrix object when it is embedded within a subjunctive complement clause to a psych-verb, as in (2.22 a) ([Giorgi 2006, 1015]). [Thrainsson 1997, 470] gives the example in (2.22 b), where a noun which can be said to denote a thought, is associated with a copular verb and a subjunctive clause. The Thinker, expressed by a genitive attribute to the matrix subject, binds the LDA in the complement. This example is parallel to sentence (2.16 a) above.

(2.22) (a) *[Che* *la* *propria*$_i$ *figlia* *sia* *andata* *in* *campeggio*
that the ReflPoss daughter aux go-perf.subj to camping
da *sola]* *preoccupa* *molto* *Gianni*$_i$
prep alone worry a lot Gianni
'That his daughter is camping by herself worries Gianni a lot'

(b) *Skoðun* *Helgu* *er* *[að* *sig* *vanti* *hæfileika]*
opinion Helga-gen is that Refl-acc lack-subj talent
'Helga's opinion is that she lacks talent'

If the binder of LDAs is the Thinker, we have an explanation for why LDAs in adjunct clauses to reported complement clauses are not bound by the immediately superordinate subject, as in (2.15) above: As the adjunct clauses are part of the reported thought, the Thinker will be the same individual both for the complement clause and the adjunct clause. However, if new reported complements are embedded within a reported complement clause, there should potentially be several possible binders for the LDAs, as there are several possible Thinkers. These predictions are borne out. In (2.23 a) (from [Fruyt 1987, 211]) there are two reported complements embedded within each other, and there are two different Thinkers. The deepest embedded complement contains two LDAs, referring to different Thinkers. The LDAs in (2.23 b) (from [Kühner-Stegmann 1914 I, 612]) occur in independent indirect speech. I indicate in parentheses the verb of speech initiating the passage of indirect speech.

The LDA in the topmost reported clause refers to the subject of the initial verb of speech. The LDA in the deepest embedded reported clause refers to the subject of the immediate superordinate clause.

(2.23) (a) *cum* *aliquot* *post* *annis* *Maximus* *id*
when some after years-abl Maximus-nom that-acc
oppidum *recepisset* *rogaretque* *eum*$_{(j)}$
town-acc take-back-pluperf.subj ask-imperf.subj+and him-acc
Salinator$_i$, *[ut* *meminisset*$_j$ *[opera* *sua*$_i$
Salinator-nom comp remember-pluperf.subj effort-abl suus-abl
se$_j$ *Tarentum* *recepisse]]* ...
SE-acc Tarentum-acc receive-perf.inf
'When Maximus had taken back that town some years later and Salinator asked him to remember that he [i.e. Maximus] had taken back Tarentum through his [i.e. Salinator's] efforts, ...' (Cic., de orat. 2.273)

(b) *(Galli*$_i$ ... *dixerunt)* ... *[*$_{AcI}$ *Lentulum*$_j$ *sibi*$_i$
Gauls-nom say-perf.ind Lentulus-acc SE-dat
confirmasse ... *[*$_{AcI}$ *se*$_j$ *esse* *tertium* *illum*
confirm-perf.inf SE-acc be-pres.inf third-acc that-acc
Cornelium]]
Cornelius-acc
'The Gauls said ... that Lentulus had confirmed to them that he was that third Cornelius' (Cic. Cat. 3.9)

(2.24) might at first glance seem problematic to my approach (example and translation from[Benedicto 1991, 180]). The problem here is that the matrix verb *significo*, 'signify', often does not imply thought at all. "The green light signifies that you can drive" indeed does not imply that the green light can think. In this example, the LDA is bound by *canum*, 'dogs-gen', which modifies an abstract noun subject [9]. [Benedicto 1991] suggests that *canum* can function as binder, as it is in topic position.

(2.24) *Canum*$_i$ *tam* *fida* *custodia* ... *quid*
dogs-gen such trusty-nom watchfulness-nom what-acc
significat *aliud* *nisi* *[*$_{AcI}$ *se*$_i$ *ad* *hominum*
signify-pres.ind else-acc except SE-acc for humans-gen
commoditates *esse* *generatos?]*
comfort-acc aux create-perf.pass.inf.masc.pl
'The trusty watchfulness of the dogs, what else does it mean, except that they were created for human comfort?' (Cic. N.D. 2.158)

A possible solution is that *significo* does not mean 'signify' here, but has the sense 'show, demonstrate' ([O.L.D, 1758]) . The choice of the abstract noun *custodia*, 'watchfulness', as subject would then be a sort of a metonymical substitution for *dogs*. The meaning would be something like 'What else do

[9] That the genitive binds the reflexive, not the abstract noun, is seen from the fact that the periphrastic perfect infinitive in the embedded clause agrees with *canum* in gender and number.

dogs show through their thrusty watchfulness, except that they were created for human comfort?'. This explanation gets independent support from the fact that the *backs of oxen* is used with the more plausible speech verb *declaro*, 'declare, make known' in the very next paragraph.

(2.25) *quorum*$_i$ *ipsa* *terga* *declarant* $[_{AcI}$ *non* *esse*
their-gen very-nom backs-nom declare-pres.ind not aux
se$_i$ *ad* *onus* *accipiendum*
SE-acc for load-acc receive-gerundive-acc
figurata]
fashion-perf.pass.inf.neutr.pl
'Their [i.e. the oxen's] very backs declare that they are not fashioned for accepting loads' (Cic. N.D. 2.159)

These sentences are probably examples of figurative speech and fancy rhetoric rather than true challenges to the theory that the Thinker binds LDAs. (2.26) is more difficult to account for. [Kühner-Stegmann 1914 I] refers to it in the section on LDAs in clauses which are not indirect speech/thought (which will be treated in section 2.2) ([Kühner-Stegmann 1914 I, 613]). In the entry for *se* in [O.L.D], however, it is cited among the normal LDAs, which, it claims, occur in clauses "representing the words, thoughts, or intentions of the subject of the clause on which it depends" ([O.L.D, 1715]).

(2.26) *unum* *hoc* *scio,* $[_{AcI}$ *hanc*$_i$ *meritam*
only-acc this-acc know-pres.ind.1p she-acc deserve-perf.inf
esse $[_{CompCl}$ *ut* *memor* *esses* *sui*$_i$*]]*
aux that mindful-nom be-imperf.subj SE-gen
'I know only this, that she has deserved that you remember her.' (Ter. An. 281)

In this sentence, the LDA occurs within a complement clause to the verb *mereor*, which here has the sense 'deserve, have the right to' (this verb, in turn, is within an AcI, but the LDA cannot refer to the matrix subject here). It is hard to conceive of this verb as a verb of thought, as it seems to imply an exterior evaluation rather than a thought of the subject. It does, however, take a complement with the complementizer *ut* and the negative complementizer *ne*. Subordinate clauses introduced by *ut/ne* are traditionally categorized as *final clauses* or *purpose clauses*, and generally imply an intention of the matrix subject ([Ernout-Thomas 1964, 300-303], [Woodcock 1959, 101-108]). A clause indicating a non-intended consequence, a *consecutive clause*, is also constructed with *ut,* but *ut non* is used instead of the negative complementizer *ne*. For *mereor*, *ne* is used, which might indicate that it actually implies some intention of the superordinate subject. Judging from the meaning of the verb, I find it difficult to see how this can be the case, however, and example (2.26) occurs to me as rather difficult to account for.

2.1.6 Summary

In Latin, LDAs are very frequent in AcI and subjunctive complements of reported speech and thought, and in adjunct clauses to these complements, provided that these are themselves marked with the subjunctive of reported speech

or thought, the so-called oblique subjunctive. LDAs also frequently occur in independent indirect speech, which probably can be considered complements to an implied verb of speech/thought. This can be restated more precisely: LDAs occur in clauses which express someone's thought, whether or not this thought is communicated to others.

LDAs in reported clauses are most often bound by the matrix subject, but this is not always the case. It seems difficult to account for the cases which are not subject-oriented in an approach based on the binder's syntactic position, as there is great variation in the positions in which a binder can occur. By assuming that the LDAs are bound by the Thinker, the person whose thought the clause expresses, a unified account can probably be given, both of the subject-oriented and non-subject-oriented LDAs in reported complements[10]. This hypothesis receives additional support from the cases where a messenger or an ambassador pronounces a message. In these cases, LDAs are not bound by the subject of the speech verb, the messenger, but by the person who has sent the message, whose opinion the conveyed message expresses.

2.2 The special Latin LDA

In this section I will try to account for LDAs occurring in non-reported contexts. Such contexts can either have indicative mood or a non-oblique subjunctive. The existence of LDAs in non-reported contexts suggests that there is a syntactic configuration for long-distance binding which does not depend on the syntax of reported speech/thought. This does not imply, of course, that such LDAs avoid reported contexts. It might be, for example, that the examples of LDAs in reported adjunct clauses, mentioned in 2.1.3, are examples of special LDA, not the normal LDA which is found in reported complement clauses. Due to the lack of examples I will not explore this issue further, and will in the following text limit myself to LDAs in non-reported contexts.

2.2.1 Method of investigation

There are no examples of LDAs in non-reported contexts in [the PROIEL corpus], and I have therefore had to rely only on collections of examples in grammar books. Most of the examples are from[Kühner-Stegmann 1914 I, 613-614], but there are also a few from [Lebreton 1901, 122-123] and [Menge 2000, 128]. I found a total of 66 examples, 41 with *se* and 25 with *suus*. References to all the examples considered for this section are given in the appendix.

2.2.2 The domains of binding

In my collection of examples I found that *suus* is attested in more environments than *se*. Some of the examples of *suus* are clearly not reflexive, and it is hard to argue for domains of long-distance only on the basis of examples with *suus*. I will therefore mostly concentrate on *se*, and only briefly review the examples of *suus*.

[10] [Fruyt 1987] comes to a very similar conclusion.

se [Benedicto 1991], who limits herself to *se* only, claims that, in addition to complement clauses, LDAs occur in restrictive relative clauses, but not in adjunct clauses and non-restrictive relative clauses. In my collection of examples, restrictive relative clauses do indeed constitute the most common environment: at least 27 of the 41 examples with *se* occur in restrictive relative clauses, both in the indicative, as in (2.27a), and with a non-oblique subjunctive, as in (2.27b):

(2.27) (a) *Caesar*$_i$ ... *omnibus* [$_{RC}$ *qui* *arma*
Caesar-nom everyone-dat RelPron-nom arms-acc
contra *se*$_i$ *tulerant],* *ignovit*
against SE-acc bear-pluperf.ind forgive-per.ind
'Caesar forgave everyone who bore weapons against him' (Vell 2.56.1)

(b) *Qui*$_i$ *ipsi* *sat* *habent,* [$_{RC}$
They-nom themselves-nom enough have-pres.ind
quod *in* *se*$_i$ *possit* *vere* *dicier]*
RelPron-nom in SE-abl can-pres.subj truly say-pres.pass.inf
'They have themselves enough of that which truly can be said in their disfavor.' (Pl. Cur. 479)

However, there are also a few examples of LDAs in non-restrictive relative clauses, as in (2.28):

(2.28) *Epaminondas* *a* *Thebanis* *morte* *multatus*
Epaminondas-nom by Thebans-abl death-abl punish-perf.ind
est, [*quod* *eos* *coegit*$_i$ ... *superare*
aux because them-acc force-perf.ind overthrow-pres.inf
Lacedaemonios, [$_{RC}$ *quos* *ante* *se*$_i$ *imperatorem,*
Lacedaemonians-acc RelPron-acc before SE-acc emperor-acc
nemo *Boeotorum* *ausus* *sit* *aspicere* *in*
noone-nom Boeotians-gen dare-perf.subj aux observe.pres.inf in
acie]]
pupil-abl
'Epaminondas was punished with death by the Thebans, because he forced them to overthrow the Lacedaemonians, whom none of the Boeotians had dared look in the eye before he was emperor.' (Nep. Ep. 8.3.)

In addition to standard relative clauses modifying nouns, Latin has a number of other clause types which some way or other take an antecedent in the matrix clause. One of these types is the *correlative clauses*. In the standard cases of correlation, the main clause contains a demonstrative or qualifying element. This can be a normal demonstrative pronoun, a qualifying determiner such as *talis*, 'such', or *tantus*, 'of such size', or an adverb, e.g. *ibi*, 'there', or *ita*, 'thus'. Furthermore, the sentence has a subordinate clause, a correlative clause, which qualifies the element in the main clause, and which has a corresponding determiner or adverb in its leftmost position. If the antecedent in the matrix clause is a normal demonstrative pronoun, the correlative element in the correlative clause is a relative pronoun. *Talis* has the corresponding

correlative determiner *qualis*, *tantus* has *quantus*, *ibi* has *ubi*, *ita* has *ut* etc. The correlative is a sort of wh-element, having a syntactic function in the subordinate clause ([Eitrem 1999, 29-30], [Touratier 1994, 696-700]). Example (2.29 a) (from [Haudry 1973, 156]) is with a demonstrative pronoun, example (2.29 b) is constructed with a correlative determiner (*quantum* modifies *spatium* in the subordinate clause), (2.29 c) with an adverb (from [the PROIEL corpus, 696]). Note that correlative clauses differ from relative clauses in that they do not contain a trace. The relative pronoun in (2.29 a) is in itself the object of the subordinate, just as the corresponding pronoun is the object of the main clause. In (2.29 b) *quantum* in the subordinate clause is the determiner of *spatium*, 'space', while the corresponding *tantam* in the main clause is the determiner of *multitudinem*, 'multitude-acc'.

(2.29) (a) *[$_{CorrC}$ quos ferro trucidari*
RelPron-acc.pl iron-abl slaughter-pres.pass.inf
oportebat], eos nondum voce
ought-imperf.ind DemPron-acc.pl not yet voice-abl
volnero
injure-pres.ind.1p
'I do not yet injure with words those who ought to be slaughtered by the sword' (Cic. Catil. 1.4.9)

(b) *tantam eorum multitudinem nostri interfecerunt*
so-great-acc them-gen multitude-acc ours-nom kill-perf.ind
[$_{CorrC}$ quantum fuit diei spatium]
CorrDet-nom be-perf.ind day-gen interval-nom
'Ours killed as many of them as the length of the day allowed' (Caes. B.G. 2.11.6)

(c) *[$_{CorrC}$ ut sementem feceris], ita*
CorrAdv sowing-acc do-fut.perf.ind.2p thus
metes
reap-fut.ind.2p
'As you have sowed you will reap' (Cic. de Orat. 2.261)

LDAs occur in correlative clauses in several of the examples I have collected. There is one example with *ut*, (2.30 a) and one with *ubi,* (2.30 b). Note that the antecedents of these correlative clauses are not in complement position; In (2.30 b) *ubi* refers to an adverb, *eo*, 'there'. Quite often the correlative has no corresponding element in the main clause. It is reasonable to assume that this element is implied in such cases, as the grammatical function of the correlative clause depends on the syntactic position of the antecedent. In (2.30 a) an implied clausal adverb probably serves as antecedent for *ut*. Such cases of long-distance binding are unexpected in Benedicto's approach, as LDAs should be restricted to complements or adjuncts to complements.

(2.30) (a) *quem Caesar$_{(i)}$, [[$_{CorrC}$ ut erat de se$_i$*
him-acc Caesar-nom CorrAdv aux from SE-abl
meritus et de re publica], ... ab
deserve-pluperf.ind and from republic-abl from
octavis ordinibus ad primum pilum se$_i$ traducere]
8th-abl rank-abl to first-acc unit-acc SE-acc transfer-inf

pronuntiavit
pronounce-perf.ind
'Caesar pronounced that he would advance him from the 8th rank to the first unit, as he deserved from him and from the state.' (Caes. Civ. 3.53.5)

(b) *Volero*$_i$ *..., [*$_{CorrC}$ *ubi indignantium*
Volero-nom CorrAdv be-indignant-PresPart.gen.pl
pro se$_i$ *acerrimus erat clamor], eo*
for SE-abl sharp-nom.sup be-imperf.ind shout-nom there
se in turbam confertissimam recepit
SE-acc in turmoil-acc dense-acc.sup receive-perf.ind
'Volero went to the place in the turmoil where the shouts of those who were indignant on his behalf were very loud.' (Liv. 2.55.6)

There are also five examples in my data with the, probably idiomatic, clause *quantum in se est*, 'as much as there is for SE'. *Quantum* might be analyzed as a nominalized version of the correlative determiner *quantus*, '(as much) as', and functions as the subject of the subordinate clause. The idiomatic correlative clause plausably refers to an unpronounced *tanta*, modifying *pondera* in (2.31 a). Whatever the analysis of (2.31 b) should look like, the correlative clause seems to carry some kind of adverbial function.

(2.31) (a) *sursum nitidae fruges arbustaque crescunt,*
up bright-nom crops-nom trees-nom+and grow-pres.ind
[pondera, [$_{CorrC}$ *quantum in se*$_i$ *est], cum*
weight-acc quantum-nom in SE-abl be-pres.ind while
deorsum cuncta ferantur$_i$*]*
downwards all-acc bring-pres.pass.subj
'The bright crops and the trees grow upwards, while they are brought down by all the weight they have in them' (Lucr. 2.189-190)

(b) *pater*$_i$*, [*$_{CorrC}$ *quantum in se*$_i$ *fuit],*
father-nom quantum-nom in SE-abl be-perf.ind
Thraecem me genuit
Thracian-acc me-acc procreate-perf.ind
'My father made me a Thracian, as far as it was in his power' (Nep. Iph. 3.4)

LDAs also occur in adjunct clauses with the complementizer *quod*. [Haudry 1973] argues that *quod*-clauses, at least from a diachronic perspective, are correlative clauses. This is most evident in cases where a *quod*-clause has a demonstrative antecedent in the main clause, as in (2.32 a). It can, however, also have a noun as antecedent, as in (2.32 b). The *quod*-clauses express a fact which the pronoun or noun refers to. A demonstrative pronoun and *quod* can often be translated by 'the fact that...' Latin grammars refer to this use of *quod* as *quod explicativum*, 'explanatory *quod*'.

(2.32) (a) *Caesar et ex eventu navium suarum et*
Caesar and from incident-abl ships-gen SUUS-gen and
ex eo [$_{CorrC}$ *quod obsides dare*
from that-abl comp hostages-acc give-pres.inf

intermiserant] *[fore* *id* *[quod*
stop-pluperf.ind be-fut.inf that-acc RelPron-nom
accidit]] *suspicabatur*
happen-perf.ind suspect-imperf.ind

'Caesar suspected that that would happen which actually happened, from the incident with his ships and from the fact that they had stopped sending hostages.' (Caes. B.G. 4.31.1)

(b) *Ad* *eam* *sententiam* ... *haec* *ratio* ...
to that-acc opinion-acc this-nom consideration-nom
eos *deduxit,* *[$_{CorrC}$* *quod* *[Diviciacum* *atque*
them-acc lead-perf.ind comp Diviciacus-acc and
Haeduos *finibus* *Bellovacorum* *adpropinquare]*
Haedui-acc territories-dat Bellovaci-gen approach-pres.inf
cognoverant]
learn-pluperf.ind

'This consideration led them to this opinion, namely that they had learned that Diviciacus and the Haedui apporached the territories of the Bellovaci.' (Caes. B.G. 2.10.5)

Quod-clauses often express causal relations, frequently referred to as *quod causale*, 'causal *quod*'. Originally, according to [Haudry 1973], such clauses were clauses of the same type as in the preceding examples, which referred to a pronoun or noun expressing a cause. This is often still the case in classical Latin: A *quod*-clause often refers to *propter ea* (often written in one word, *propterea*), 'because of this (, namely that...)' or to locutions such as *ob eam causam*, 'for this reason (, namely that...)'. However, a causal *quod*-clause very frequently occurs without an overt antecedent. It is likely that such clauses have undergone reanalysis in classical Latin and have become clausal adjunct clauses expressing cause. *Quod*-clauses with emotion verbs and verbs of thanking etc., mentioned in section 2.1.4, are also originally correlative clauses, according to Haudry, modifying a pronoun expressing the cause of the emotion. In classical Latin these have been reanalyzed as complement clauses.

Long-distance bound *se* occurs both in *quod*-clauses with an overt antecedent, as in (2.33 a), and in causal *quod*-clauses without an antecedent, as in (2.33 b) (The unusual binding in this example will be treated in section 2.2.3):

(2.33) (a) *una* *eum$_i$* *res* ... *maxime*
one-nom him-acc thing-nom particularly
angebat, *[$_{CorrC}$* *quod* *[qui* *Macedonum*
trouble-imperf.ind comp RelPron-nom Macedonians-gen
ab *se$_i$* *defecerant* *in* *bello],* *in* *eos*
from SE-abl betray-pluperf.ind in war-abl to them-acc
ius *saeviendi* *ademptum* *ei* *ab*
right-nom rage-ger.gen withdraw-perf.ind him-dat by
senatu *erat*
senate-abl aux

'One thing particularly troubled him, namely that he was deprived by the senate the right to punish those of the Macedonians who had betrayed him in the war' (Liv. 39.23.6)

(b) *ipsam* *ictu* *calcis* *occidit*$_i$, *[quod* *se*$_i$ ...
her-acc kick-abl kill-perf.ind because SE-acc
conviciis *incesserat]*
reproaches-abl attack-pluperf.ind

'He kicked her to death, because she had scolded him.' (Suet. Nero 35.3)

Se also occurs in causal clauses with the complementizer *quia*, 'because', in one of the examples I have collected, c.f. (2.34). *Quia*-clauses were originally correlative clauses ([Haudry 1973, 158]). In classical Latin they usually occur without an overt antecedent, but they can also have an overt antecedent in the main clause, such as *propterea* or *idcirco*, 'therefore'.

(2.34) *[quia* *res* *in* *Graecia* *tranquillas* *et*
because affairs-acc in Greece-abl calm-acc and
profectio *Attali* *fecerat* *et* *in* *tempore*
departure-nom Attalus-gen do-pluperf.ind and in time-abl
laborantibus *sociis* *latum* *ab* *se*$_i$
strive-PresPart.dat.pl allies-dat bring-PerfPart-nom by SE-abl
auxilium], *retro* *in* *regnum* *concessit*$_i$
assistance-nom back to kingdom-acc retire-perf.ind

'Because the departure of Attalus and the opportune assistance brought by him to his striving allies had calmed affairs in Greece, he retired back to his kingdom' (Liv. 28.8.14)

[Benedicto 1991, 179] mentions an example of long-distance bound *se* in a clause with the complementizer *cum*, 'when, since, while', (2.35). *Cum*-clauses, too, were originally correlative, referring to the adverb *tum*, 'then', in the main clause ([Haudry 1973, 158-159]). A *cum...tum* relation still exists in classical Latin, but it usually does not signify a correlative *when-then* relation anymore. Rather, *cum...tum* is used to coordinate two clauses, with the meaning 'not only...but also'. It is therefore hard to make the argument that subordinating *cum* is underlyingly a correlative clause. It is probably a clausal adjunct.

(2.35) *Haec* *propterea* *de* *me* *dixi* *[ut* *mihi*
that-acc therefore about me-abl say-perf.ind.1p comp me-dat
Tubero$_i$ *[cum* *de* *se*$_i$ *eadem* *dicerem]*
Tubero-nom comp about SE-abl the same-acc say-imperf.subj.1p
ignosceret]
forgive-imperf.subj

'I spoke in that way about myself, so that Tubero should forgive me when I said the same about him' (Cic. Lig. 8)

To sum up, it is difficult to specify a unified domain for long-distance binding of *se* in non-reported contexts. In the examples I have collected it is most frequently found in clause-types which take an antecedent in the superordinate clause, such as relative and correlative clauses. It also occurs, however, in causal clauses with *quod* and *quia*, and in clauses with the complementizer *cum*. Causal clauses with *quod* and *quia* might be analyzed as correlative clauses, as they can have an overt antecedent in the superordinate clause. Independent

evidence would be desirable for such an analysis, however. *Cum*-clauses, on the other hand, are probably not correlative in classical Latin, as there is no equivalent with an overt antecedent.

Long-distance anaphora in relative clauses is not unique to Latin. It is also found in Norwegian and Faroese (c.f. [Lødrup 2009] and [Strahan 2009]). In Faroese LDAs are possible also in clausal adjunct clauses, but the judgments are more varied than for relative clauses ([Strahan 2009]). Helge Lødrup (personal communication) reports that he has found examples of LDAs in adjunct clauses of time and manner in Norwegian.

Suus There are 25 examples of the reflexive possessive *suus* in my list of LDAs in non-reported contexts. 11 of these occur in restrictive relative clauses, and there are also examples in non-restrictive relative clauses and correlative clauses. There are 6 examples of *suus* in clausal adjunct clauses, 2 with *quia*, 3 with *cum* and 1 with *etiamsi*, 'even if, although'. As I have mentioned before, *suus* is not obligatorily bound, and it is therefore difficult to make strong arguments on the basis of this lexical item. There are examples of non-bound *suus* among the examples, e.g. (2.36), where *suus* in the main clause is coreferent with a constituent in a subordinate clause.

(2.36) *[vitis$_i$ si macra erit], sarmenta sua$_i$ concidito minute*
vine-nom if thin be-fut branches SUUS cut-fut.imp nicely
'if the vine is thin, cut its branches nicely.' (Cato Agr. 37.3)

Due to the non-reflexive use of *suus*, I will only consider examples with *se* in the remainder of this section.

2.2.3 "Who" is the binder?

Long-distance bound *se* in non-reported contexts is generally subject-oriented, as in (2.37) (=(1.10)) and most of the examples given above.

(2.37) *Epaminondas$_i$ ... ei [$_{relCl}$ qui sibi$_i$ ex*
Epaminondas-nom him-dat RelPron-nom SE-dat from
lege praetor successerat] exercitum non
law-abl praetor-nom succeed-pluperf.ind army-acc not
tradidit
transfer-perf.ind
'Epaminondas did not transfer the army to the one who had succeeded him as a praetor according to the law.' (Cic. inv. 1.55)

The antecedent does not need to be in the immediate superordinate clause. There are a few examples of binding over two clause boundaries. In all these examples, however, both subordinate clauses are of the type which generally allow long-distance binding. In other words, there does not seem to be a situation parallel to that of reported contexts, where a reflexive can be bound within any type of clause which is a part of the indirect speech (c.f. example (2.3)). In (2.38 a) a reflexive occurs within a clause with the *quod explicativum*. This clause is the complement in a copular construction within a relative clause. The binder is the matrix subject. In (2.38 b) the LDA is embedded within a

(probably non-oblique) subjunctive to the subject of an adjunct clause with the *quod causale*. The subject of the clause dominating the adjunct clause is the binder.

(2.38) (a) *Caesar*$_i$ ... *duabus de causis Rhenum*
Caesar-nom two-abl from reasons-abl Rhine-acc
transire constituit, [quarum una
cross-pres.inf decide-perf.ind which-gen.pl. one-nom
erat [quod auxilia contra se$_i$ *Treveris*
be-imperf.ind comp assistance-acc against SE-acc Treveri-dat
miserant]]
send-pluperf.ind
'Caesar decided to cross the Rhine for two reasons, of which the first was that [the Germans] had sent assistance to the Treveri against him.' (Caes. B.G. 6.9.1)

(b) *[cuius cum adventu maxime perturbatus*
his as arrival-abl especially trouble-pluperf.pass.subj
esset Antonius$_i$, *[quod ea [quae sibi*$_i$
aux Antonius-nom because those-nom RelPron-nom SE-dat
iussu vestro denuntiarentur] auctoritate
order-abl your-abl announce-imperf.pass.subj authority-abl
erant et sententia Ser. Sulpici
aux and thought-abl Servius-gen Sulpicius-gen
constituta], declaravit [quam
form-pluperf.pass.ind declare-perf.ind how much
odisset senatum]
hate-pluperf.subj senate-acc
'Antonius was particularly troubled by his arrival, because [the commands] which had been announced to him on your order, had been formed from the authority and wisdom of Servius Sulpicius. He therefore declared how much he hated the senate.' (Cic. Phil. 9.3.7)

A rather interesting binding pattern is found in non-reported relative clauses embedded within reported speech/thought. Clauses, including relative clauses, which are themselves part of reported speech/thought, are marked with an oblique subjunctive. However, the reported clauses can also contain embedded clauses which are not a part of what is reported, but which is asserted by the actual speaker of the sentence. Such clauses will be in the indicative (c.f. [Ernout-Thomas 1964, 425-426]). When an LDA occurs within an indicative relative clause of this kind, there are two possibilities: Either the LDA is bound by the Thinker, as in (2.39 a), or it is bound by the immediate superordinate subject, as in (2.39 b). Note that the latter option is not available for LDAs in clauses which are themselves part of the indirect speech. However, the binding options are the same as if the antecedent of the relative clause were itself an anaphor or contained an anaphor, as the reflexive can be bound either by a coargument of the antecedent, or by the Thinker. It would have been interesting to have more examples of the pattern in (2.38 b), but I have only found this one example. In (2.38 b) an alternative interpretation is conceivable, according to which *sibi* is an indirect object of *faciendum* and bound by the Thinker. The

meaning would then be 'They say that he did what he was supposed to do to them'. From the context it is clear, however, that *sibi* should be understood as an agentive dative, bound by *eum* (c.f. [Melo 2010, 92]).

(2.39) (a) *Dicit$_i$* *[capram,* *[quam* *dederam*
say-pres.ind she-goat-acc RelPron-acc give-pluperf.ind.1p
servandam *sibi$_i$],* *suae* *dotem* *uxoris*
serve-gerundive-acc SE-dat SUUS-gen dowry-acc wife-gen
ambedisse]
devour-inf.perf

'He says that the goat, which I had given him to serve him, has devoured the dowry of his wife.' (Pl. Mer. 238-239)

(b) *Eum$_i$* *fecisse,* *aiunt* *[sibi$_i$* *quod*
he-acc do-perf.inf say-pres.ind SE-dat RelPron-nom
faciendum *fuit].*
do-gerundive-nom be-perf.ind

'They say that he did what he was doomed to do [i.e. he died]' (Pl. Poen. 956)

Two examples from Livy show another interesting binding pattern. In (2.40 a) (=(2.33 a)) a clause with *quod explicativum* modifies the subject of a psych-verb. (2.40 b) is probably the same construction, the only difference being that the subject is implied. The reflexives within the modifying *quod*-clauses are bound by the accusative argument of the psych verb.

(2.40) (a) *una* *eum$_i$* *res* ... *maxime*
one-nom him-acc thing-nom particularly
angebat, *[$_{CorrC}$* *quod* *[qui* *Macedonum*
trouble-imperf.ind comp RelPron-nom Macedonians-gen
ab *se$_i$* *defecerant* *in* *bello],* *in* *eos*
from SE-abl betray-pluperf.ind in war-abl to them-acc
ius *saeviendi* *ademptum* *ei* *ab*
right-nom rage-ger.gen withdraw-perf.ind him-dat by
senatu *erat*
senate-abl aux

'One thing particularly troubled him, namely that he was withdrawn by the senate the right to punish those of the Macedonians who had betrayed him in the war.' (Liv. 39.23.6)

(b) *Hannibalem$_i$* *ante* *omnia* *angebat* *[quod*
Hannibal-acc before everything-acc trouble-imperf.ind comp
Capua, *pertinacius* *oppugnata* *ab*
Capua-nom perseveringly-compar attack-PerfPart.nom by
Romanis *quam* *defensa* *ab* *se$_i$,* *multorum*
Romans-abl than defend-PerfPart.nom by SE-abl many-gen
Italiae *populorum* *animos* *averterat]*
Italy-gen states-gen minds-acc turn-away-pluperf.ind

'[The fact] that Capua, which was more perseveringly attacked by the Romans than defended by him, had turned the regard of many

of the states of Italy away from him, troubled Hannibal more than anything.' (Liv. 26.38.1)

A somewhat parallel binding pattern is found for local anaphors. [Bertocchi 1986, 67-68] shows that an accusative argument which has the role of experiencer, can function as binder with psych-verbs such as *paenitet*, 'it displeases, offends', *piget*, 'it disgusts' and *pudet*, 'it shames'. These take a genitive argument for what causes the offense, shame etc., and an accusative argument of the experiencer of those sentiments. If the genitive argument contains a reflexive, the accusative will function as binder, c.f. (2.41) (cited in [Bertocchi 1986]):

(2.41) *num* *igitur,* *si* *Scipio* *ad* *centesimum* *annum*
question-particle then if Scipio-nom to 100th-acc year-acc
vixisset, *senectutis* *eum*$_i$ *suae*$_i$
live-pluperf.subj old-age-gen him-acc SUUS-gen
paeniteret?
displease-imperf.subj
'If Scipio had lived to his 100th year, would his old age have displeased him?' (Cic. Sen. 19)

Ango, 'cause pain, trouble', the verb used in (2.40 a) and (2.40 b), takes a nominative argument indicating the cause of the trouble, but the semantics of the verbs is close to psych-verbs of the type in 2.41. I do not know if a similar binding pattern is found with local anaphors in the case of *ango*.

To sum up, it seems to be the case that when an LDA occurs within a non-reported relative clause, or another clause which has an antecedent constituent in the superordinate clause, the binding options are the same as if the antecedent of the clause were itself a reflexive or contained a reflexive: When the clause containing the reflexive has an antecedent in a non-reported superordinate clause, as in (2.37), the binder is the matrix subject. An object experiencer can bind local anaphors in psych-verb constructions, and (2.40 a) and (2.40 b) show a somewhat parallel behavior with LDAs. When a non-reported clause modifies a constituent within reported speech/thought, either the subject within the reported speech or the Thinker serves as binder. This situation is particularly interesting, because it distinguishes the behavior of special LDAs from normal LDAs: While normal LDAs are bound by the Thinker, not the subject within the reported speech, the special LDA can be bound by either one. Again this is similar to local anaphora; if the antecedent constituent of the clause containing the LDA itself were a reflexive or contained a reflexive, this reflexive could also be bound by either the local subject or the Thinker. If it turns out to be correct that the special LDA has the same binding options as the antecedent would have had and that this is not accidental, it seems likely that there is a connection between clauses taking antecedents and long-distance binding within such clauses. It is then left unexplained why special LDAs also can occur within clauses functioning as clausal adjuncts, as these do not have an antecedent constituent.

2.3 Competition

In section 1.1 I shortly introduced the classic theory of binding. Two binding conditions regulate the distribution of anaphors and pronouns in the local

domain: Condition A states that anaphors must be bound in the local domain, while condition B states that pronouns must not be bound in that same domain. In other words, pronouns and anaphors are in complementary distribution. For LDAs the domain of binding is extended, and it is conceivable that LDAs compete with other nominal elements within their domain of binding, in the same way as local anaphors do. There are, in in my view, two scenarios which need to be tested: The first is whether long-distance binding interferes with local binding. When the binding domain is extended, so that it for example includes a whole reported complement clause, will the minimal clause still be a relevant domain of binding? In other words, will local anaphors be available in the domain where LDAs are available? I will address this question in section 2.3.1.

The second possible scenario is that LDAs are in complementary distribution with pronouns, in the same way that local anaphors are. Can pronouns have the same antecedents as LDAs, or will a pronoun in the domain of binding of LDAs obligatorily be interpreted as having a different antecedent as an LDA would have had? This question will be addressed in section 2.3.2.

[Benedicto 1991] does not explicitly discuss the first scenario, but her theory probably predicts that long-distance binding should not interfere with local binding: As we have seen, she extends the binding domain of LDAs by proposing that governors form a chain, a dynasty, and that there must be a dynasty between an LDA and its antecedent. In addition to forming a dynasty with other governors, each governor also heads a governing category; the local domain of binding in classic binding theory. Long-distance binding should therefore not interfere with local binding. On the other hand, [Benedicto 1991] assumes that there is complementary distribution between LDAs and pronouns: The dynasty not only extends the domain in which LDAs can be bound, it also extends the domain in which pronouns must not be bound (c.f. [Benedicto 1991, 177-178]). This does not seem to me to be a necessary consequence of her theory, however: It is conceivable that the dynasty, which extends the domain in which anaphors can be bound, does not extend the domain in which pronouns must not be bound.

2.3.1 Local anaphora

Some newer theories of binding (e.g. [Reinhart-Reuland 1993] and [Lidz 2001]) distinguish between anaphors which occur in predicates which are lexically specified as reflexive, and anaphors which occur as arguments of non-reflexive predicates or in adjunct position. As will become clear in section 3.1 below, there are good reasons to expect that the syntax of these two types of anaphors are somewhat different. If long-distance binding does have an effect on local binding, it might be that it only affects one or the other of these types.

Many languages have distinct lexical items for the two anaphor types. As Latin does not have distinct lexical items, and as there are no native speakers that we can consult, it is difficult to sort out with certainty which predicates are inherently reflexive and which are not. It might be possible to use semantic considerations in sorting out inherently reflexive predicates. In a language like Norwegian, where lexically reflexive predicates can be distinguished on the basis of the type of anaphor they take, lexically reflexive verbs usually denote actions which a person typically performs on himself, such as *wash*, *shave* etc. Verbs

such as *kick* and *kill*, which denote actions which are not typically performed on oneself, take a different anaphor when they are reflexivized. A Latin verb which frequently occurs with a reflexive in my corpus, is *dedo*, 'give up, surrender'. To surrender is typically something you do to yourself, not to others, and I suspect this to be a lexically reflexive predicate. Reflexive *dedo* does occur in reported contexts, as in (2.42).

(2.42) *Ad haec Caesar respondit [se magis*
to this-acc Caesar-nom respond-perf.ind SE-acc rather
consuetudine sua quam merito eorum civitatem
custom-abl SUUS-abl than merit-abl their state-acc
conservaturum, [si [prius quam murum aries
conserv-fut.inf if before wall-acc battering ram-nom
attigisset] se_i dedidissent$_i$]]
touch-pluperf.subj SE-acc surrender-pluperf.subj
'To this Caesar replied that he would conserve the state, rather through habit than because they had merited it, provided that they surrendered themselves before the battering ram touched the wall.' (Caes. B.G. 2.31.1)

It turned out to be more difficult to find examples of local reflexives in an argument position of non-reflexive verbs in reported complements. (2.43 a) is the only possible example I found. The sentence is an example of independent indirect speech. In [the PROIEL corpus], the anaphor is annotated as a dative argument of the verb *postulo*, 'claim, demand'. I am not entirely convinced that the dative in this sentence is an argument and not an adjunct, however. Local anaphors are available certainly in adjunct position in reported complements, as in (2.43 b).

(2.43) (a) *hos_i posse conficere armata milia*
These-acc can-pres.inf raise-pres.inf armed-acc thousand-acc
centum, pollicitos ex eo numero
hundred promise-perf.inf from that-abl number-abl
electa milia sexaginta totiusque belli
selected-acc thousand-acc sixty whole-gen war-gen
imperium $sibi_i$ postulare
command-acc SE-dat claim-pres.inf
'[The Remi said] that these [i.e. the Bellovaci] could raise 100 000 armed men, that they had promised 60 000 elected soldiers from that number, and that they claimed for themselves the command of the whole war.' (Caes. B.G. 2.4.5)

(b) *Cum esset Caesar in citeriore*
when be-imperf.subj Caesar-nom in near-abl.compar
Gallia in hibernis ... crebri ad eum
Gaul-abl in winter camp-abl frequent-nom to him-acc
rumores adferebantur litterisque item
rumors-nom bring-imperf.pass.ind letters-abl+and likewise
Labieni certior fiebat [omnes
Labienus-gen certain-nom become-imperf.ind all-acc

Belgas$_i$ ... *contra* *populum* *Romanum*
Belgians-acc against people-acc Roman-acc
coniurare *obsidesque* *inter* *se*$_i$ *dare]*
conspire-pres.inf hostages-acc between SE-acc give-pres.inf

'When Caesar was in Hither Gaul in winter camp, frequent rumors were brought to him and he was made certain through letters from Labienus that all the Belgians conspired against the Roman people and that they exchanged hostages between them.' (Caes. B.G. 2.1.1)

The fact that anaphors can be long-distance bound in reported complements does not seem to affect the possibility of long-distance binding in such complements. I have not found clear examples of local anaphors in the argument position of predicates which are not inherently reflexive, but I find it highly likely that I would have found such examples in a bigger corpus. If such anaphors were not available, it would not be possible to say e.g. "John said that Mary kicked herself.".

2.3.2 Are LDAs and pronouns in complementary distribution?

I have searched for instances of pronouns in reported complements. The Latin pronominal system is quite complex, and it is therefore useful to briefly introduce some of the most important pronouns before turning to the result of the searches. Latin has several demonstrative pronouns with subtle differences in meaning. There is an opposition between *hic*, 'this', which refers to objects with a proximal reference, and *ille*, 'that', referring to distal objects. The demonstrative *ipse* shows interesting behavior. This pronoun is, like *hic*, typically used for objects with a near reference, but it also implies an opposition: It emphasizes the proximal object, as opposed to some other object (c.f. [Ernout-Thomas 1964, 189-190]). Example (2.44) (from [Sjöstrand 1960, 221]) illustrates this well. In the first sentence in the example we are concerned with where Caesar sent Labienus. The second sentence concerns the destination of Caesar himself, and *ipse* is used to refer to Caesar as opposed to Labienus.

(2.44) *hibernis* *Labienum* *praeposuit.*
winter camp-dat Labienus-acc place in command of-perf.ind
ipse *in* *citeriorem* *Galliam* *ad* *conventus*
he himself-nom to near-compar.acc Gaul-acc for assemblies-acc
agendos *profectus* *est*
conduct-gerundive.acc depart-perf.ind aux

'[Caesar] placed Labienus in command of the winter camp. He himself depared for Hither Gaul to conduct assemblies there' (Caes. B.G. 1.53.2-3)

The pronoun *is* differs from the the pronouns I mentioned above, in that it does not imply any specific location of its referent, but simply refers to a known entity in the context. *Is* is also used as the default third person personal pronoun. As the forms of *is* are not entirely transparent, I show its inflectional paradigm in (2.45):

(2.45) Paradigm for *is*

Sing.	**Masc**	**Fem**	**Neutr**
Nom	is	ea	id
Acc	eum	eam	id
Gen	eius	eius	eius
Dat	ei	ei	ei
Abl	eo	ea	eo
Pl. Nom	ii	eae	ea
Acc	eos	eas	ea
Gen	eorum	earum	eorum
D/Abl	iis	iis	iis

[Benedicto 1991] holds that *se* should be in complementary distribution with pronouns, also when it is long-distance bound. She points out, however, that the pronoun *is* sometimes is found instead of an anaphor in adjunct clauses to a reported complement clause, as in (2.46) (example and translation from [Benedicto 1991, 178]). She does not attempt to explain this.

(2.46) *namque* *is*$_i$ *pollicitus* *est* *regi* *[se* *eum*
for he-nom promise-perf.ind aux king-dat SE-acc him-acc
interfecturum *[si* *ei*$_i$ *rex* *permitteret* *ut* ...
kill-fut.inf if him-dat king-nom permit-imperf.subj that
]]

'For he [Mithrades] had promised the king to kill him [Datames], provided that the king would allow him to ...' (Nep. Dat. 10.1)

I have looked up all instances of *is* in complement clauses in the Caesar subcorpus of [the PROIEL corpus], and have found examples of *is* where long-distance bound *se* is expected. It is not restricted to adjunct clauses to reported complements, as the two following examples illustrate:

(2.47) (a) *Persuadent*$_i$ *Rauracis* *et* *Tulingis* *et*
persuade-pres.ind Rauraci-dat and Tulingi-dat and
Latobrigis *finitimis,* *[uti* ... *una* *cum* *iis*$_i$
Latobrigi-dat neighbors-dat that together with them-abl
proficiscantur]
set out-pres.subj

'They persuade the Rauci, the Tulingi and the Latobrigi, their neighbors, to set out together with them.' (Caes. B.G. 1.5.3)

(b) *Coniurandi* *has* *esse* *causas:* *primum*
conspire-ger.gen these-acc be-inf.pres reasons-acc first
quod *vererentur*$_i$ *[ne,* *omni* *pacata*
because fear-imperf.subj comp all-abl pacify-PerfPart.abl
Gallia, *ad* *eos*$_i$ *exercitus* *noster*
Gaul-abl to them-acc army-nom our-nom
adduceretur]
lead-imperf.pass.subj

'They conspired for the following reasons: first because they feared

that, when all of Gaul had been pacified, our army would be lead to them.' (Caes. B.G. 2.1.2)

[O.L.D, 416] reports that *ipse* is often used in indirect speech to refer to the speaker, especially when the speaker is emphasized. In other words, *ipse* can have the same antecedent as an an LDA. I have looked up all instances of *ipse* within complement clauses in the Caesar subcorpus of [the PROIEL corpus]. Several of them did indeed refer to the speaker. However, all of the occurrences of speaker-oriented *ipse* were subjects of subjunctive complements. As *se* lacks a nominative form, it cannot occur in this position. Such nominative subjects are not exempt from the possibility of long-distance binding, however, as possessive reflexives can occur there. Normally this position is filled either by a noun or a pro-dropped subject. (2.48) is a passage of independent indirect discourse, where Diviciacus, a Gaulish leader, talks of his brother, Dumnorix. In an adverbial clause *ipse*, referring to Diviciacus, is opposed to *ille*, ' he (over there)', referring to Dumnorix. It might be the case that the contrastive behavior of *ipse* is exploited in this position because *se* is not available to disambiguate between different possible antecedents.

(2.48) *scire* *se*$_i$ *[illa* *esse* *vera,* *nec*
know-pres.inf SE-acc those-acc be-pres.inf true-acc not+and
quemquam *ex* *eo* *plus* *quam* *se*$_i$ *doloris*
anyone-acc from that-abl more than SE-acc pain-gen
capere, *propterea* *[quod,* *[cum* *ipse*$_i$
receive-pres.inf therefore comp when he himself-nom
gratia *plurimum* *domi* *atque* *in* *reliqua* *Gallia,*
influence-abl most-acc at home and in rest-abl Gaul-abl
ille$_j$ *minimum* *propter* *adulescentiam* *posset],*
he-nom least-acc because of youth-acc can-imperf.subj
per *se*$_i$ *crevisset*$_j$*]*
through SE-acc gain power-pluperf.subj

'[Diviciacus said] that he knew that those [charges] were true, and that noone suffered more from that than him, because, while he himself had great power at home and in all of Gaul by his own influence, but the other [i.e. Dumnorix] could do very little because of his young age, [Dumnorix] had gained power through him [i.e. Diviciacus].' (Caes. B.G. 1.20.2)

Speaker-oriented *ipse* is not limited to nominative subject position. [Sjöstrand 1960, 417] gives the example of independent indirect discourse in (2.49), where *ipse* is in the genitive. This example is particularly interesting, because *ipse* is contrasted with a locally bound possessive reflexive, *sua*. In other words, Caesar avoids having to write *sua* twice by using *ipse* to refer to the speaker[11]:

(2.49) *(convocato* *consilio* *...* *vehementer* *eos*
convoke-PerPart.abl council-abl vigorously them-acc
incusavit$_i$*:)* *...* *Aut* *cur* *de* *sua*$_j$ *virtute* *aut*
accuse-perf.ind either why of SUUS-abl strength-abl or

[11] For convenience I include in parentheses the sentence which introduces the passage of independent indirect discourse.

de *ipsius*$_i$ *diligentia* *desperarent*$_j$*?*
of his own-gen diligence-abl despair-imperf.subj
'Having convoked the council he accused them vigorously [with these words]: ... Why should they despair either of their own strength or his diligence?' (Caes. B.G. 1.40.4)

The frequent speaker orientation of *ipse* could be seen as an argument for considering *ipse* itself an LDA. In sentence (2.50) ambassadors are sent out on behalf of Caesar. One instance of *ipse* refers, not to the ambassadors, but to Caesar, the Thinker, as would be expected if it were an LDA. However, there is a second instance of *ipse*, this time in the plural, which refers to the receivers of the message, which would not be possible for a bound anaphor. *Ipse* is clearly a demonstrative pronoun. Its frequent orientation towards the speaker/Thinker is the result of its semantics: In main clauses it refers to a prominent person in the discourse, as in (2.44), where it refers to Caesar as opposed to Labienus. In reported contexts, the speaker/Thinker is typically such a prominent person, but other individuals may be prominent too, as is seen in (2.50).

(2.50) *Interim* *ad* *praefectos*$_j$ ... *mittit*$_i$ *[qui*
meanwhile to prefects-acc send-pres.ind RelPron-nom
nuntiarent *[ne* *hostes* *proelio*
announce-imperf.subj comp enemies-acc battle-abl
lacesserent, *et* *[si* *ipsi*$_j$
provoke-imperf.subj and if they themselves-nom
lacesserentur], *sustinerent* *[quoad* *ipse*$_i$
provoke-imperf.subj sustain-imperf.subj until he himself-nom
cum *exercitu* *propius* *accessisset]]]*
with army-abl nearer approach-pluperf.subj
'Meanwhile [Caesar] sends to the prefects in order that they announce that they should not provoke the enemies to engage in battle, and if they were themselves provoked, they should sustain the attack until he himself had come closer with the army.' (Caes. B.G. 4.11.6)

Null pronouns Latin, being a pro-drop language, does not need overt pronouns in subject position. This is also true of subjunctive clauses in indirect speech. A pro-dropped subject in this position may refer to the speaker/Thinker, as in (2.51 a), or to another entity, as in (2.51 b). In generative grammar a pro-dropped subject is usually thought of as a pronoun with no phonology, referred to as *pro*. I will indicate explicitly the relevant occurrences of *pro* in the following examples.

(2.51) (a) *[quae* pro$_i$ *in* *eo* *reprehendat]*
InterrogPron-acc in him-abl blame-pres.subj
ostendit$_i$
show-pres.inf
'He points out what he blames him for.' (Caes. B.G. 1.20.5)

(b) *Is*$_i$ ... *civitati*$_j$ *persuasit* *[ut* pro$_j$ *de*
he-nom state-dat persuade-perf.ind comp from
finibus *suis* *cum* *omnibus* *copiis*
land-abl SUUS-abl with all-abl possessions-abl

exirent]
go-out-imperf.subj
'He persuaded the [members of the] state to leave their land with all their possessions.' (Caes. B.G. 1.2.1)

As pointed out above, *se* cannot occur in subjunctive subject position. However, subjects of AcIs can also be pro-dropped. If there is complementary distribution between *se* and *pro*, it would be expected that an AcI with a pro-dropped subject could never have the Thinker as subject. To find out whether this was the case, I went through all AcIs in the Caesar subcorpus of [the PROIEL corpus] and sorted out all examples without overt subjects. In this list I left out all examples of coordination of two AcIs where the subject was present in only one of them, as they might be examples of something other than pro-drop, e.g. VP-coordination or ellipsis. In my examples it was mostly the subjects in independent indirect speech which were dropped. The subject could refer to the Thinker, as in (2.52 a), or to another referent, as in (2.52 b)[12].

(2.52) (a) *(legati* *ab* *iis*$_i$ *venerunt,*
ambassadors-nom from them-abl come-perf.ind
quorum *haec* *fuit* *oratio:)* *...* *si*
RelPron-gen.pl this-nom be-perf.ind speech-nom if
suam *gratiam* *Romani* *velint,* pro$_i$
SUUS-acc favor-acc Romans-nom want-pres.subj
posse *iis* *utiles* *esse* *amicos*
can-pres.inf them-dat useful-acc be-pres.inf friends-acc
'(Ambassadors came from them [i.e. the Germans], who said this:) ... If the Romans wanted to gain their favor, they would be useful friends for them to have.' (Caes. B.G. 4.7.4)

(b) *(Remi*$_i$ *dicebant)* *...* pro$_j$ *fines* *latissimos*
Remi-nom say-imperf.ind land-acc wide-superl.acc
feracissimosque *agros* *possidere*
fertile.superl.acc+and fields-acc possess-pres.inf
'(The Remi said:) ... that [the Suessiones] possessed huge amounts of land and very fertile fields.' (Caes. B.G. 2.4.6)

There were also a few examples in complements of (overt) verbs of speech/thought. Again, both types of antecedents are attested, c.f. (2.53 a)[13] and (2.53 b). As I ended up with only 30 relevant examples, it is hard to say whether or not it is a coincidence that most of the examples were of independent indirect speech.

(2.53) (a) *[*pro$_i$ *satis* *et* *ad* *laudem* *et* *ad* *utilitatem*
enough and for merit-acc and for utility-acc
profectum] *arbitratus*$_i$ *se* *in* *Galliam*
advance-perf.inf think-PerfPart-nom SE-acc to Gaul-acc
recepit$_{(i)}$ *pontemque* *rescidit*
retreat-perf.ind bridge-acc+and destroy-perf.ind
'Thinking that he had advanced far enough both for his own merit

[12] Again, I include in parentheses the sentence introducing the independent indirect speech.
[13] The antecedent of *pro* is the controller of a controlled participle.

and for the utility [of the expedition], Caesar retreated back to Gaul and destroyed the bridge' (Caes. B.G. 4.19.4)

(b) *Helvetii*$_{(i)}$ ... *[quod* [pro$_j$ *re* *frumentaria*
Helvetii-nom because grain supply-abl
intercludi *posse]* *confiderent*$_i$*],* ...
cut-off-pres.pass.inf can-pres.inf believe-imperf.subj
nostros *a* *novissimo* *agmine* *insequi*
our-acc.pl from rear-superl.abl column-abl pursue-pres.inf
ac *lacessere* *coeperunt*
and harass-pres.inf begin-perf.ind

'The Helvetii began to pursue and harass our [men] from the backmost column, because they believed that they could cut them off from the grain supply.' (Caes. B.G. 1.23.3)

If there were independent evidence for complementary distribution between pronouns and LDAs in Latin, examples such as (2.52 a) and (2.53 a) could maybe have been argued to be instances of control, as control involves an unpronounced anaphoric subject. As we have seen from the behavior of the overt pronouns *is* and *ipse*, however, LDAs and pronouns are not in complementary distribution in Latin. There is therefore no reason to assume that the subjects of (2.52 a) and (2.53 a) are bound.

From the data I have collected it can be concluded that LDAs are not the only lexical items which can refer to the Thinker in indirect speech/thought. Such a reference can also be obtained through pronouns. I have not tested whether or not local anaphors are in complementary distribution with pronouns in Latin. I suspect that they are. Checking it would, however, involve a substantial amount of data collection, as all local anaphors and pronouns would have had to be checked. Also, complementary distribution in the Caesar subcorpus of [the PROIEL corpus] would not be a strong argument for there being complementary distribution in classical Latin in general, as this corpus is too small and partial to use to make valid statistical claims. In the following text I will assume that local anaphors are in complementary distribution with pronouns, as well as full DPs, and that they differ from LDAs in this respect.

Complementary distribution and the special LDA I have searched for occurrences of *is* and *ipse* in relative clauses in the Caesar subcorpus. The search gave only limited results (23 in all). There are a few examples of *is* being coreferent with the matrix subject. (2.54) is the most relevant example I found. The pronoun is found in what [Haudry 1973] would classify as a correlative clause, taking the demonstrative *haec* as its antecedent.

(2.54) *Germani*$_{(i)}$ *importatis* *non* *utuntur,* *sed*
Germans-nom imported-abl.pl not use-pres.ind but
[quae *sunt* *apud* *eos*$_i$ *nata,* *parva*
RelPron-nom be-pres.ind by them-acc born-nom small-nom
atque *deformia],* *haec* *cotidiana* *exercitatione* *[summi*
and deformed-nom these-acc daily-abl exercise-abl highest-gen
ut *sint* *laboris]* *efficiunt*$_i$
comp be-pres.subj.pl labor-gen render-pres.ind

'The Germans do not use imported [cattle], but they render, through daily exercise, the small and deformed [animals] which are born in their country, capable of the most demanding labor' (Caes. B.G. 4.2.2)

Searching for pronouns in clauses with the complementizer *quod*, I found the following two examples, in which there is coreference between the embedded pronoun and the superordinate subject:

(2.55) (a) *Horum* *omnium* *fortissimi* *sunt* *Belgae$_i$,*
these-gen all-gen strongest-nom be-pres.inf Belgians-nom
propterea *[quod* *a* *cultu* *atque* *humanitate*
therefore comp from civilization-abl and culture-abl
provinciae *longissime* *absunt,* *minimeque*
province-gen far-superl. be-absent-pres.ind little-superl.+and
ad *eos$_i$* *mercatores* *saepe* *commeant]*
to them-acc traders.nom often travel-pres.ind
'The Belgians are the strongest of all these [tribes], because they live furthest away from the [Roman] province, and because traders very seldom travel to them.' (Caes. B.G. 1.1.3)

(b) *ii$_i$* *paulo,* *quamquam* *sunt* *eiusdem*
they-nom somewhat although be-pres.ind same-gen
generis, *sunt* *ceteris* *humaniores,*
origin-gen be-pres.ind others-abl civilized-compar.nom
propterea *[quod* *Rhenum* *attingunt* *multumque* *ad*
therefore comp Rhine-acc border-on-pres.ind often+and to
eos$_i$ *mercatores* *ventitant]*
them-acc traders-nom keep-coming-pres.ind
'They are somewhat more civilized than the rest, although they are of the same origin, because they border on the Rhine, and because traders come to them very regularily.' (Caes. B.G. 3.19.3)

2.4 Conclusion

In this chapter I have shown that it is unlikely that a unified account can be given of long-distance anaphora in Latin. Rather, there are two types of LDAs with slightly different behaviors. The type I have called *normal Latin LDAs* occurs in AcI or subjunctive complement clauses which report someone's thought, and in adjunct clauses to such complements which are themselves part of the reported thought (and therefore marked with the oblique subjunctive). This type of LDAs is not necessarily subject oriented, but is obligatorily bound by the Thinker, the person whose thought the clause expresses. The *special Latin LDAs*, which are not restricted to reported contexts, are much more uncommon than the former type. In the examples I have found, they typically occur in clauses which have an antecedent in the superordinate clause, such as relative and correlative clauses. However, there are also examples in clausal adjunct clauses. Such LDAs are normally subject-oriented, but when they are embedded within a reported complement clause, they can either take the superordinate subject or the Thinker as binder. Grammars suggest that LDAs

also occur in adjunct clauses with an oblique subjunctive. The examples of this are few, and I suspect that they might be instances of the special LDAs.

While anaphors can be long-distance bound in reported complements, local anaphors are also available in this environment. In other words, extending the domain in which an anaphor can be bound does not imply that local binding is not available. As anaphors and pronouns probably are in complementary distribution in the local domain, it is also conceivable that pronouns are in complementary distribution with LDAs. I have shown that this is not the case, however: Demonstrative and personal pronouns can refer to the Thinker, as well as the null pronoun *pro*.

Chapter 3

A syntactic analysis

We have previously seen that the analysis of Latin long-distance anaphora proposed in [Benedicto 1991] does not make correct predictions. In this chapter I will propose an analysis of the Latin data based on Alessandra Giorgi's theory of long-distance anaphora presented in [Giorgi 2006] and [Giorgi 2007]. Section 3.1 briefly introduces the predicate-centered binding theory, which Giorgi draws on, and presents Giorgi's theory. In section 3.2 I propose an analysis of normal Latin LDAs. In section 3.3 suggest a syntactic account of the special Latin LDAs.

3.1 Giorgi's theory of long-distance anaphora

The theory of long-distance anaphora presented in [Giorgi 2006] and [Giorgi 2007] is proposed on the basis of analyses of Italian and Chinese data. This data resembles the Latin data in that LDAs occur in reported contexts. The antecedent descriptively seems to be the one whose thought the clause reports also in these languages. Discourse grammar and the concept of logophoricity is often referred to in order to explain such facts (c.f. [Sells 1987]). Giorgi's approach is explicitly conceived of as an alternative to logophoricity, where long-distance binding is attributed to sentence grammar rather than discourse grammar ([Giorgi 2006, 1027-1028]). The binding of local and long-distance anaphors is assumed to be instances of the same mechanism, as would be expected from the fact that the same lexical items are used in both cases.

Predicate-centered binding theory [Reinhart-Reuland 1993] proposed a theory of binding according to which reflexivity is a property of predicates, not nominal elements. This approach to reflexivity has been quite influential in minimalist work on binding. Giorgi's theory assumes a predicate-based approach to binding, and specifically refers to the variant of it proposed in [Lidz 2001] (c.f. [Giorgi 2007, 324-327]). In a nominal approach to binding, such as the one briefly laid out in section 1.1, the distribution of anaphors and pronouns is determined by their referential properties: A nominal element specified as [+anaphoric], must have an antecedent within its local domain, while a [+pronominal] element must not have an antecedent within that domain. In a predicate-based approach, these binding conditions are explained as properties of predicates. [Reinhart-Reuland 1993] argues that there are two

types of anaphors, *SE anaphors* and *SELF anaphors*, distinguished by different forms in some languages, such as Norwegian and Dutch, but not all. In Latin and English there is only one form for both types. A SELF anaphor can occur in an argument position of most two- or three-place predicates, and is then interpreted as coreferent with a c-commanding coargument of that predicate. In Norwegian a SELF anaphor is realized as *seg selv*; that is, the SE anaphor *seg* and an additional element, *selv*. SELF anaphors are often morphologically complex in languages with separate forms, while the SE anaphors are simplex ([Reinhart-Reuland 1993, 658]). In (3.1 a) *seg selv* is used with the verb *sparke*, 'kick'[1]. This verb can, and indeed most often does, occur with a pronoun or a full DP, as is shown in (3.1 b). A pronoun cannot be interpreted as coreferent with the subject, (3.1 c):

(3.1) (a) *Per*$_i$ *sparker* *seg* *selv*$_i$
Per kick-pres SELF
'Per kicks himself'

(b) *Per* *sparker* *Knut*
Per kick-pres Knut
'Per kicks Knut'

(c) *Per*$_i$ *sparker* *ham*$_{j/*i}$
Per kick-pres him
'Per kicks him'

As examples (3.1 b) and (3.1 c) show, a predicate such as *X sparker Y* can take objects which are not anaphors, and which therefore necessarily refer to someone other than the subject. Reflexivity is therefore not an inherent property of this predicate. The predicate can be made reflexive, however, by adding a SELF anaphor, as in (3.1 a). The function of SELF anaphors is to reflexivize predicates.

The SE anaphor, realized as *seg* in Norwegian, occurs only with certain verbs. Some of these, such as *late*, 'laze', can only take *seg* as object, not nouns (or pronouns) or *seg selv*, c.f. (3.2 a)-(3.2 c):

(3.2) (a) *Per*$_i$ *later* *seg*$_i$
Per laze-pres SE
'Per lazes about'

(b) **Per*$_i$ *later* *Knut*
Per laze-pres Knut

(c) **Per*$_i$ *later* *seg* *selv*$_i$
Per laze-pres SELF

According to [Reinhart-Reuland 1993], predicates such as these are lexically specified as reflexive; the subject and object are obligatorily interpreted as coreferent. Therefore, a pronoun cannot occur in the object position, as in

[1] In this section I use the glosses *SE* and *SELF* for the two kinds of anaphors. I will continue to gloss Latin *se* as *SE*, however. I do this solely to distinguish it from the Latin possessive reflexive, glossed *SUUS*, and it is therefore not to be seen as a claim that Latin *se* is always a SE anaphor.

(3.2 b). As the predicate is already lexically specified as reflexive, it cannot be reflexivized through association with a SELF anaphor, hence the unavailability of (3.2 c).

There are also verbs which take both SE anaphors and nouns, such as *barbere*, 'shave'. These also allow SELF anaphors, c.f. (3.3 a)-(3.3 c):

(3.3) (a) Per_i *barberer* seg_i
Per shave-pres SE
'Per shaves'

(b) Per_i *barberer* *Knut*
Per shave-pres Knut
'Per shaves Knut'

(c) Per_i *barberer* *seg* $selv_i$
Per shave-pres SELF
'Per shaves himself'

According to the theory in [Reinhart-Reuland 1993], verbs like *barbere* have two lexical entries in the lexicon: one which forms an inherently reflexive predicate, as in (3.3 a), and one which forms a non-reflexive predicate, as in (3.3 b). Non-reflexive *barbere* can, however, be reflexivized using a SELF anaphor, as in (3.3 c) (c.f. [Reinhart-Reuland 1993, 666]).

The Binding Conditions from [Chomsky 1981], presented in section 1.1, can be reformulated in the following manner[2]:

> *Condition A*
> A reflexive-marked (syntactic) predicate is reflexive.
> *Condition B*
> A reflexive (semantic) predicate is reflexive-marked. [Lidz 2001, 125]

These conditions are based on these definitions:

> a. A predicate is *reflexive* iff two of its arguments are coindexed.
> b. A predicate is *reflexive-marked* iff
> i. it is lexically reflexive, or
> ii. one of its arguments is a SELF anaphor.
>
> A SELF anaphor is a morphologically complex anaphor. [Lidz 2001, 125]

The binding conditions are reformulated, not as conditions on nominals, but as conditions on predicates. (3.1 a) satisfies both binding conditions, as it is both reflexive, two of its arguments are coindexed, and reflexive-marked, its object is a SELF anaphor. If *ham* in (3.1 c) is interpreted as coreferent with the subject, the predicate violates condition B, as two of the arguments then would be coindexed without the predicate being reflexive-marked. (3.2 a) satisfies both

[2] I borrow the formulations in [Lidz 2001], as the formulations in[Reinhart-Reuland 1993] would require a more thorough explanation of their theory. I will not explain the difference between syntactic and semantic predicates, as this is not directly relevant to the present analysis.

conditions: The predicate is interpreted as reflexive, and because it is lexically reflexive, it is also reflexive-marked.

It is important to note that the conditions and definitions do not make reference to SE anaphors. Lexically reflexive predicates are reflexive-marked solely from the fact that they are lexically reflexive. Predicates which are not lexically reflexive, can be reflexive-marked by a SELF anaphor. However, a SE anaphor cannot reflexivize a predicate, and a sentence like (3.4) is to be considered a condition B violation: It is reflexive, because it contains a coreferent object, but it is not reflexive marked, because *sparke* is not lexically reflexive and it is not associated with a SELF anaphor.

(3.4) *Per$_i$* *sparker* *seg$_i$*
Per kick-pres SE
'Per kicks himself'

An interesting consequence of this theory is that SE anaphors pattern with pronouns in certain respects: They are subject to condition B violations and they do not reflexivize predicates. They differ from pronouns, however, in that they cannot directly refer to the context, but must have an antecedent. As SE anaphors do not reflexive-mark predicates, they can be used as LDAs without violating the binding conditions. This explains the contrast in the following minimal pair from Dutch (from [Lidz 2001, 125]). (3.5 a) contains a SE anaphor which is coreferent with the matrix subject. This example escapes the binding conditions, as these conditions do not make reference to SE anaphors. (3.5 b) is a violation of condition A: The SELF anaphor reflexive-marks the embedded predicate without it being reflexive[3]. As reflexivity is a property of predicates, not of nominals, LDAs must get their antecedent through some other strategy. This strategy is not assumed to be strictly syntactic in this theory, but rather that of logophoricity ([Reinhart-Reuland 1993, 659-660, 672-673]).

(3.5) (a) *Max$_i$* *hoorde* *mij* *over* *zich$_i$* *praten*
Max heard me about SE talk
'Max heard me talk about him'

(b) **Max$_i$* *hoorde* *mij* *over* *zichzelf$_i$* *praten*
Max heard me about SELF talk
'Max heard me talk about him.'

The predicate-centered binding theory, as presented by [Reinhart-Reuland 1993], claims that a predicate can be reflexive in two ways: either through being lexically reflexive or through syntactic reflexive marking by a SELF anaphor. The binding conditions do not make specific reference to the two types of reflexive-marking, but only require reflexive-marked predicates to be reflexive. This predicts, according to [Lidz 2001], that lexically and syntactically reflexive-marked predicates should be semantically uniform; they should form a natural class. However, Lidz shows that this is not entirely the case. SELF anaphors can, given the right context, refer to a representation of the subject rather than being strictly coreferent, while a SE anaphor must be strictly coreferent. Lidz gives the following context: Ringo Starr goes to the Madame Tussauds

[3] I do not use Norwegian examples here, as Norwegian does, in fact, seem to allow long-distance bound SELF anaphors, c.f. several of the examples in [Lødrup 2009].

wax museum and sees a statue of himself. The statue has a beard. The Dutch verb for 'shave' has, like the Norwegian counterpart discussed above, a lexically reflexive variant and a non-reflexive one, which can be associated with a SELF anaphor. When the SELF anaphor is used, as in (3.6 a), the sentence can both mean that Ringo shaves himself or that he shaves his statue, while the latter reading is not available with SE, as is shown in (3.6 b) (examples from [Lidz 2001, 128]):

(3.6) (a) *Ringo$_i$* *scheert* *zichzelf$_i$*
Ringo shaves SELF
'Ringo shaves himself/his statue'

(b) *Ringo$_i$* *scheert* *zich$_i$*
Ringo shaves SE
'Ringo shaves himself/*his statue'

A similar pattern is seen in the case of comparative deletion. When a SELF anaphor is used, both a strict and a sloppy interpretation is available, as in (3.7 a). With a lexically reflexive predicate, only a sloppy reading is available, as in (3.7 b) (examples from [Lidz 2001, 129]). In other words, in the case of a lexically reflexive predicate, the only available reading is the one where the binder and the anaphor are strictly identical.

(3.7) (a) *Zij* *verdedigde* *zichzelf* *beter* *dan* *Peter*
she defended SELF better than Peter
'She defended herself better than Peter defended himself/her.'

(b) *Zij* *verdedigde* *zich* *beter* *dan* *Peter*
she defended SE better than Peter
'She defended herself better than Peter defended himself/*her.'

Both examples (3.6 a)-(3.6 b) and (3.7 a)-(3.7 b) show that, while a strict identity is required between the subject and the reflexive in the case of lexical reflexivity, a SELF anaphor additionally allows a reading where the anaphor does not refer to the exact same entity as the subject. Lidz refers to this reading as *near-reflexive*, while lexically reflexive predicates have a *pure-reflexive* reading. I will from now on refer to SELF anaphors as *near-reflexive anaphors* and SE anaphors as *pure-reflexive anaphors*, to avoid confusion with the theoretical notions of [Reinhart-Reuland 1993]. Lidz represents the semantic difference in the following manner:

(3.8) a. $\lambda x[P(x,x)]$ (semantic/pure-reflexive)

b. $\lambda x[P(x,f(x))]$ (near-reflexive) ([Lidz 2001, 129])

A pure-reflexive predicate is a predicate in which the two arguments are identical, while a predicate associated with a near-reflexive anaphor is a predicate in which the anaphor argument is interpreted as a function taking the first argument as its input and giving a representation of the first argument as its output. The reading where the two arguments are referentially identical is possible when this function is used, but it is not the only available reading (c.f. [Lidz 2001, 129-130]).

Lidz claims that near-reflexive anaphors have something in their lexical specification which makes the near-reflexive reading available. Pure-reflexive anaphors, on the other hands, are pure variables which do not have any independent semantic contribution. They are always interpreted as identical to a syntactically determined binder.

In Lidz's framework lexically reflexive predicates are subject to the following condition:

(3.9) *Condition R*

$\lambda x[P(x,x)] \longleftrightarrow (\theta 1 = \theta 2)$

semantics θ-grid [Lidz 2001, 131]

This condition is formulated as a two-way implication. The left side of the implication indicates the semantics of a reflexive predicate, namely that the two arguments of a reflexive predicate must be strictly coreferential, excluding near-reflexivity. The right side of the implication represents the lexical specification of a reflexive predicate: A verb, head of a reflexive predicate, has as a part of its lexical specification the requirement that the first and the second theta-position must be assigned to identical arguments. In other words, a predicate is interpreted as strictly reflexive if and only if it is lexically specified as reflexive[4]. This condition has the consequence that pure-reflexive and near-reflexive anaphors not only have a different interpretation, they are the results of quite different syntactic operations. While pure-reflexive anaphors, if they are used in local reflexive constructions, are coreferent with the subject due to the lexical specification of the verb, the coreference or near-coreference of near-reflexive anaphor must have a different origin, presumably a lexical specification of the anaphor itself.

Condition R only constrains the interpretation of lexically reflexive predicates, and therefore does not exclude that an anaphor can be long-distance bound in the argument position of predicates which are not lexically reflexive. This point will be important in Giorgi's use of Lidz' theory, as will be explained in the following section. Condition R does not make any predictions regarding near-reflexive anaphors or anaphors in non-argument positions (c.f. [Lidz 2001, 134]).

LDAs as unsaturated positions [Giorgi 2007] makes Lidz's variant of predicate-centered binding theory the point of departure for a theory of long-distance binding. In Italian and Chinese LDAs have the same strict interpretation as SE anaphors in lexically reflexive constructions, according to Giorgi. However, when locally bound, the same lexical items might be used with a near-reflexive meaning. The Italian possessive reflexive *proprio* illustrates this. When locally bound, *proprio* can be used as a near-reflexive. In (3.10) the reading is allowed where the reflexive refers to a statue of the subject, e.g. in the context of a visit to Madame Tussaud's (example from [Giorgi 2007, 328]):

(3.10) *Ringo ammirò il proprio viso*
Ringo admired the PossRefl face

[4]Note that this condition cannot be adopted as it is in a standard minimalist framework, as the subject is assumed to be an argument of a different head than the other arguments. I return to this question in section 3.2.2.

'Ringo admired his face/the face of his statue.'

When *proprio* is long-distance bound, the strict-identity reading is the only one which is available, c. f. (3.11) (example from [Giorgi 2007, 329]):

(3.11) *Ringo$_i$ temeva [che i visitatori dannegiassero il proprio$_i$*
Ringo feared that the visitors might-damage the PossRefl
viso]
face

'Ringo feared that the visitors might damage his face/*the face of his statue.'

To account for the fact that the strict-identity-reading is the only reading available both for lexically reflexive predicates and LDAs, [Giorgi 2007] proposes that the anaphoric position in both these cases is an unsaturated position. An unsaturated position is a position in the theta-grid of a predicate which is not associated with an argument whatsoever. The anaphor is the spell-out of this unsaturated position. Upon interpretation, the unsaturated position is saturated through an interpretive process called *theta-identification*. This process was first proposed in [Higginbotham 1980, 563-564] to account for the semantics of predicate modification, and has the function of identifying two theta-positions with each other. Giorgi makes use of this process to account for the binding of unsaturated theta-positions. Instead of saturating the position through association with an argument, the position is theta-identified with a c-commanding antecedent. As a result, the unsaturated position and the antecedent are interpreted as identical. In the case of lexically reflexive predicates, the unsaturated position is identified with a coargument (most often the subject). A near-reflexive is presumably not an unsaturated position, but a lexical item with a specific syntactic behavior. Giorgi does not propose a specific treatment of near-reflexives.

As LDAs have the same strict-identity reading as anaphors in lexically reflexive predicates, these are also unsaturated positions. For these, however, the theta-identification does not identify the position with a coargument, but with a syntactic element pertaining to the temporal interpretation of the clause. Before explaining how this is done, it is necessary to explain Giorgi's analysis of tense in certain types of complement clauses.

Propositional attitudes, tense and long-distance binding [Giorgi 2006] is an analysis specifically of LDAs in Italian and Chinese, which links the long-distance effect to the temporal anchoring of complement clauses to the tense of the superordinate clause. In these languages, LDAs are restricted to complement clauses which express *propositional attitudes*. The term *propositional attitude* has its origin from logic, and is used to account for the interpretation of sentences such as (3.12 a), (3.12 b) and (3.12 c):

(3.12) (a) *John fears that Mary is ill.*

(b) *John doubts that Mary is ill.*

(c) *John says that Mary is ill.*

In such sentences, a rational animate individual, the superordinate subject, has a certain mental attitude towards the truth of the embedded proposition, *a propositional attitude*. In (3.12 a) the attitude is that of fearing that the embedded proposition is true, in (3.12 b) it is that of doubting that it is true. (3.12 c) is a communication verb, and as such it also expresses an attitude, in this case that of asserting that the embedded proposition is true (c.f. [Clapp 2006]). [Giorgi 2006] shows that languages as different as English, Italian and Chinese have a specific temporal interpretation in complements expressing propositional attitudes: In all three languages the embedded tense is *anchored* to the attitude event. In other words, the embedded tense expresses simultaneity, precedence or futurity with respect to the event in which the superordinate subject fears, doubts, says etc. that the embedded proposition is true. However, the languages vary when it comes to the anchoring of the embedded tense to the utterance time: The embedded tense does not necessarily relate to the moment when the sentence is actually uttered in all of the languages.

In English the embedded proposition is anchored both with respect to the attitude event and the utterance event, as is exemplified by the fact that the so-called double access reading (DAR) is obligatory in sentences such as (3.13) (from [Giorgi 2006, 1028]):

(3.13) *Gianni said that Maria is pregnant.*

The superordinate verb, expressing the attitude event, is past, while the embedded verb is present. The only available reading of this sentence is the DAR, according to which the embedded present is interpreted as present both with respect to the attitude event and the utterance event: For (3.13) to be true, Maria must have been pregnant both at the time when Gianni said "Maria is pregnant" and at the time when (3.13) is uttered.

In Italian, complements which express propositional attitudes can either be in the indicative or the subjunctive, depending on the verb which selects the complement. When the complement is in the indicative, the DAR is the only available reading. (3.14) (from [Giorgi 2006, 1028]) has the exact same interpretation as (3.13):

(3.14) *Gianni ha detto che Maria è incinta*
Gianni aux say-perf.ind that Maria is-pres.ind pregant
'Gianni said that Maria is pregnant.'

In the subjunctive there is so-called *sequence of tense* (SoT), which means that a present or past tense in the superordinate verb is obligatorily followed by present or past respectively also in the subordinate verb, c.f. (3.15) (from [Giorgi 2006, 1030]):

(3.15) *Gianni crede/*credeva che Maria*
Gianni believe-pres.ind/believe-past.ind that Maria
parta
leave-pres.subj
'Gianni believes/believed that Maria leaves'

There is no DAR in subjunctive complements: The embedded clause in (3.16) (from [Giorgi 2006, 1028]) can be interpreted as simultaneous with, before or after the utterance time, as the availability of the temporal adverbs show:

(3.16) *Gianni credeva che Maria partisse*
Gianni believe-past.ind that Maria leave-past.subj
oggi/ieri/domani
today/yesterday/tomorrow
'Gianni believed that Maria left today/left yesterday/would leave tomorrow.'

Chinese does not mark tense morphologically. However temporal relations can be expressed through auxiliaries. In (3.17) the auxiliary *hui*, marking futurity, is interpreted only with respect to the attitude event, not utterance time (example, glosses and translation from [Giorgi 2006, 1031]).

(3.17) *Zhangsan shuo/renwei Lisi hui chuli*
Zhangsan say/think Lisi will handle
'Zhangsan said/thinks Lisi would/will handle it.'

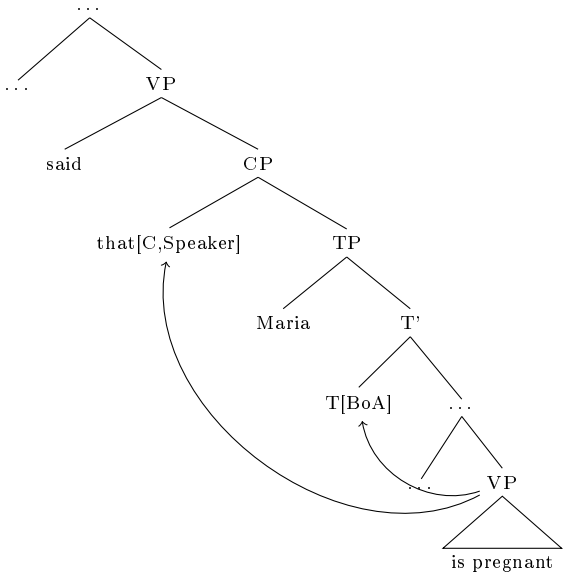
In Chinese, therefore, tense in attitude clauses is anchored only to the attitude event, not to utterance time. The same is also true for Russian, a language with morphological tense marking. The present tense in the attitude complement in (3.18) signifies simultaneity with the attitude event, but not necessarily with the utterance time (example from [Grønn-Stechow 2010, 110], glosses according to Maria Nordrum, p.c.). There is no DAR, in other words.

(3.18) *On skazal, čto živet pod Moskoj*
he-nom say-past that live-pres prep Moscow-instr.
'He said he was living outside Moscow.'

As we see, the languages vary with respect to whether or not attitude complements are anchored to utterance time. They are all anchored to the time of the attitude event, however. Giorgi suggests that this anchoring is an obligatory requirement of Universal Grammar ([Giorgi 2006, 1032]; c.f. also [Higginbotham 1995]).

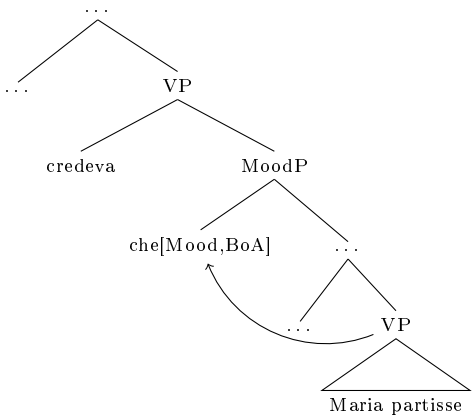
[Giorgi 2006] accounts for temporal anchoring by assuming that the temporal coordinates of the speaker of the sentence and the so-called *Bearer-of-Attitude* (BoA), the person who has the attitude towards the embedded proposition, are syntactically represented in the embedded clause. In the LF representation of an English sentence such as (3.13) and an Italian indicative attitude clause such as (3.14), the coordinates of the BoA are assumed to be in embedded T. The coordinates of the speaker are in the highest layer of an exploded C-domain of the embedded clause. According to the semantic theory Giorgi adopts, interpretation applies cyclically, and an interpretive cycle ends at the clause boundary. During the interpretive cycle of the embedded clause in (3.13) and (3.14), the event is interpreted twice, once with respect to the temporal coordinates of the BoA in T and once with respect to the speaker's coordinates in the highest C-layer. The DAR of this clause results from the fact that the clause is evaluated as present with respect to the coordinates of both the BoA and the speaker. (3.19) represents the LF of the embedded clause in (3.13), with arrows indicating temporal interpretation.

(3.19) LF-representation of (3.13)



In Italian, an indicative attitude clause will have a temporal interpretation similar to (3.19). A subjunctive clause, such as (3.16), is assumed to lack a T-node altogether. Also, it lacks the highest C-layer, but only has a lower C-layer, *MoodP*, containing the coordinates of the BoA. The SoT effect is a result of morphological agreement. As a result, a subjunctive clause is temporally interpreted only with respect to the BoA's coordinates, as is shown in the derivation of the LF representation of (3.16) in (3.20).

(3.20) LF-representation of (3.16)



In languages such as Chinese and Russian, the event in an attitude clause is only temporally interpreted with respect to the BoA, not the speaker. Whatever the exact structure of a Russian sentence like (3.18) is, the embedded clause might project a tense node, unlike (3.20), as the embedded clause has a present tense relation, indicating simultaneity with the attitude event, while the matrix verb is past tense with respect to utterance time.

Returning now to LDAs, [Giorgi 2006] proposes that long-distance binding is linked to the temporal interpretation of attitude clauses. In Italian, LDAs are limited to attitude complements in the subjunctive. Indicative attitude complements cannot contain LDAs, as the two following examples show (from [Giorgi 2006, 1033 and 1034]):

(3.21) (a) *Gianni*$_i$ *crede* *che* *Paolo*$_j$ *odi* *la*
Gianni believe-pres.ind that Paolo hate-pres.subj the
propria$_{i/j}$ *moglie*
PossRefl wife
'Gianni believes that Paolo hates his wife'

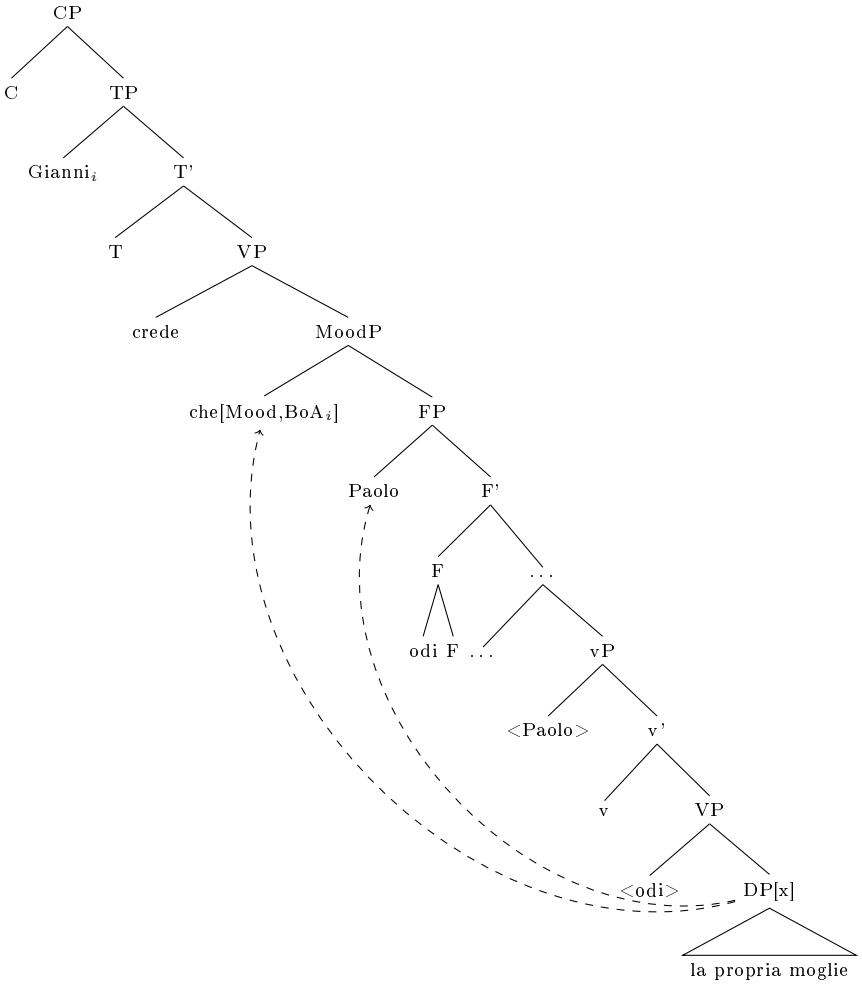
(b) *Gianni*$_i$ *ha* *detto* *che* *Maria*$_j$ *ama* *la*
Gianni aux say-perf.ind that Maria love-pres.ind the
propria$_{i*/j}$ *madre*
PossRefl mother
'Gianni has said that Maria loves her mother'

The indicative is also known to block long-distance binding in other languages with an indicative/subjunctive distinction in attitude complements, notably Icelandic (c.f. [Thrainsson 1997, 464-473]).

I explained above that anaphors with a strictly reflexive meaning were analyzed as unsaturated positions, and that LDAs also should be considered as unsaturated positions, due to the unavailability of a near-reflexive interpretation of them. Giorgi proposes that unsaturated positions which are not saturated by a coargument can be saturated by the temporal coordinates of the BoA when the event is evaluated with respect to these. (3.22) is the LF representation of (3.21 a). I have marked the DP containing the unsaturated position as DP[x][5]. Possible theta-identifications for the anaphor are marked by dashed arrows. I will discuss below how the coordinates of the BoA are interpreted as coreferent with the matrix subject. For the time being I mark the coreference between the matrix subject and the coordinates of the BoA by means of coindexation markers. As there is no embedded TP, I assume that the subject is in the specifier of some functional head, called *F* here. F is also the landing site of verb movement.

[5]Giorgi assumes that a possessive reflexive makes the whole DP an anaphoric item, c.f. [Giorgi 2006, 1033, n52].

(3.22) Derivation of (3.21 a)



The object DP in the embedded clause is marked as containing an unsaturated position. It can be saturated through theta-identification with the subject[6]. However, the whole MoodP can be marked as having an unsaturated position. In that case the temporal coordinates of the BoA can saturate the position. An interpretive cycle ends at the clause boundary, that is, at MoodP.

When a clause is interpreted with respect to the actual speaker of the sentence, all positions must be saturated. As a sentence such as (3.21 b) contains an attitude complement, the coordinates of the BoA are represented in embedded T. In principle, the unsaturated position could be identified with these coordinates. However, when the event is also interpreted with respect to the speaker's coordinates in the highest C-layer, the event interpreted with respect to the highest coordinates must be equal to the event evaluated with respect to the lower coordinates. If it contained an unsaturated position at the first

[6]This is actually not entirely correct in this example. As locally bound *proprio* allows the near-reflexive reading, its binding is presumably a result of some other mechanism than the saturation of an unsaturated position. [Giorgi 2006, 1034] passes over this detail in the derivation of (3.21 a), and so do I.

interpretive stage and no such positions at the second, the two events would not be equal, and this sameness requirement would be violated.

The blocking of long-distance binding in indicative clauses is predicted to take place only in languages in which the embedded event is interpreted with respect to the speaker in such complements. This blocking should therefore occur in languages such as English and Italian, which have the DAR in indicative attitude clauses, but languages such as Chinese should not be affected, as complements are not evaluated with respect to the speaker's coordinates. Italian subjunctive complements are assumed to have a very reduced clause structure, lacking both the higher C-layer and a T-node. However, it is not excluded in principle that languages with a more elaborate clause structure in embedded clauses can contain LDAs, as long as the embedded clause is not evaluated with respect to the speaker's coordinates. A language can for example have an embedded T-node, as Russian might have, without that blocking long-distance binding, as long as the embedded clause only is temporally interpreted with respect to the BoA, not the speaker.

In the case of multiple subjunctive attitude complements embedded within each other, such as (3.23) (from [Giorgi 2006, 1034]), the process outlined above can apply recursively, and different BoAs can be picked up as antecedents.

(3.23) [$_{S1}$ *Mario*$_i$ *supponeva* [$_{S2}$ *che* *Gianni*$_j$ *credesse*
Mario suppose-past.ind that Gianni believe-past.subj
[$_{S3}$ *che* *Paolo*$_k$ *odiasse* *la* *propria*$_{i/j/k}$ *moglie]]]*
that Paolo hate-past.subj the PossRefl wife
'Mario supposed that Gianni believed that Paolo hated his wife'

Giorgi is not explicit about how the derivation of this sentence proceeds. To me there seem to be two possible ways to derive the fact that *Mario* can serve as binder: The first alternative is that the unsaturated position in *S3* can avoid being saturated by the BoA which is locally available, *Gianni*, leaving the whole MoodP of *S3* marked as containing an unsaturated position at the end of the first interpretive cycle. At the next cycle, that of *S2*, the BoA available in that clause's MoodP, *Mario*, can be theta-identified with the deeply embedded unsaturated position. Note that this presupposes that theta-identification can apply across the domain of an interpretive cycle. Giorgi states that an interpretive cycle is concluded at the clause boundary, but does not say whether an interpretive cycle is to be interpreted as a phase. This alternative also presupposes that the unsaturated position can avoid being saturated by the BoA at the first interpretive cycle. The second alternative is that the unsaturated position in S3 is identified both with the BoA in S3 and the BoA in S2, leaving the sentence ambiguous. Which antecedent to choose would then be sorted out from the discourse context. If this is right, it presupposes that the saturation of an unsaturated position by a BoA is not definitive, and that the position can be saturated several times before the speaker's coordinates intervenes. The second alternative seems to be more plausible to me, as the unsaturated position in S3 does not need to somehow avoid being saturated by the local BoA. If an unsaturated position is cyclically identified with every BoA, it might also improve the difficulty of the first alternative that theta-identification crossed an interpretive cycle. It is not obvious to me, however, that this difficulty is improved, as this alternative still implies that a BoA in a higher interpretive

cycle can have an effect on positions in cycles which are already concluded. If interpretive cycles are phases, this continues to be problematic: While the BoA is in the C-domain, and therefore might be visible in the next phase, the unsaturated position is not. The position which is manipulated is the unsaturated position, not the BoA.

The identification of the BoA A question remains, which is how the temporal coordinates of the BoA are identified with the constituent which represents the BoA. Giorgi does not explicitly mention how this is done. She claims that long-distance binding in Italian and Chinese is mostly subject-oriented, but points out that this is not always true. In psych-verb constructions such as (3.24 a) (=(2.22 a)), the experiencer argument binds a reflexive within the clausal subject. When an animate noun is embedded under an inanimate DP in this experiencer argument position, the embedded noun can serve as binder, as in (3.24 b) (from [Giorgi 2006, 1041]). Giorgi calls this configuration *sub-command*.

(3.24) (a) *[Che la propria$_i$ figlia sia andata in campeggio*
that the ReflPoss daughter aux go-perf.subj to camping
da sola] preoccupa molto Gianni$_i$
prep alone worry a lot Gianni
'That his daughter is camping by herself worries Gianni a lot'

(b) *[Che la propria$_i$ figlia sia andata in campeggio*
that the ReflPoss daughter aux go-perf.subj to camping
da sola] preoccupa molto i sogni di Gianni$_i$
prep alone worry a lot the dreams of Gianni
'That his daughter is camping by herself disturbs Gianni's dreams a lot'

Note that the binder in both these cases can be said to be BoA: Gianni is the person who has an attitude of worry towards the truth of the embedded proposition in both cases. However, the DP *Gianni* does not c-command the clause containing the coordinates of the BoA in any of these examples.

In Italian sub-command is apparently only available in psych-verb-constructions, as in (3.24 b). An animate noun embedded within an inanimate DP serving as a normal subject, cannot bind LDAs. Giorgi suggests, therefore, that sub-command is possible only if the DP containing the BoA is not in agreement with the verb: When a phrase agrees with the verb, the LF has no access to subparts of that phrase. In languages without verbal agreement, sub-command can apply more freely, as it does in Chinese (c.f. [Giorgi 2006, 1041-1042]). Given this suggestion, Giorgi seems to imply that the identification of the antecedent of the coordinates of the BoA depends on syntactic relations in some way.

Leaving aside the question of a syntactic blocking of sub-command, a plausible alternative is that the identification of the coordinates of the BoA does not depend on syntax, but is determined by the context. The identification of the speaker's coordinates is clearly contextually determined. It might be that this is also the case for the coordinates of the BoA. When the coordinates of the speaker are determined, the context is that of the actual utterance of the sentence, while the coordinates of the BoA are determined from the context of

the attitude event, which is represented by the matrix verb. The speaker's coordinates then refer to the context of the "actual world", while the coordinates of the BoA refer to a sentence-internal context created by the matrix verb. As the context is sentence-internal, it is likely that the referent of a constituent in the matrix clause is identified as the BoA, often the agent of the matrix event.

3.2 Analysis of the normal Latin LDAs

In this section I will propose an analysis of the normal Latin LDAs, following and adapting Giorgi's theory. Subsection 3.2.1 is devoted to tense in complements of verbs of speech and thought in Latin. In subsection 3.2.2 I will propose an analysis which attempts to derive the attested patterns of the normal Latin LDAs, while 3.2.3 is devoted to the identification of the BoA, and to what extent pragmatic factors are relevant. Giorgi's theory links long-distance anaphora to clauses expressing propositional attitudes. Subsection 3.2.4 looks at the predictions this theory makes with respect to the relationship between attitudes, tense and binding.

3.2.1 Tense in reported complements

As I have shown above, verbs of speech/thought take for the most part subjunctive or AcI complements[7]. In spite of obvious morphological differences between subjunctives and infinitives, namely that the former inflect for tense and subject agreement while the latter do not, they have a rather similar tense interpretation. I will therefore hypothesize in this section that they have a common syntactic structure with respect to tense.

Independently of the question of tense interpretation, there seems at first sight to be a strong argument against analyzing AcIs and subjunctives as similar: While subjunctive clauses have nominative subjects, the subjects of AcIs are in the accusative. A plausible interpretation might be that AcIs are ECM constructions; they lack a left periphery altogether, and case features on the subject can therefore enter into an Agree relation with the node which assigns accusative case in the matrix clause (c.f. [Adger 2003, 311-315]). Subjunctive clauses, on the other hand, are full CPs, and nominative case is assigned from within the embedded clause.

In spite of surface similarities with ECM clauses in other languages, there are good reasons to assume that Latin AcIs are not cases of ECM: AcIs are not restricted to complement positions, but can occur in a variety of syntactic positions, including in positions where accusative case is not normally assigned (c.f. [Melazzo 2005]). [Melazzo 2005] suggests that accusative case is assigned from embedded C. I will not explore this issue further, as it is not central to my argument. The important point is that there is independent evidence for not analyzing AcIs as ECM constructions. If AcIs were ECM-clauses, the binding pattern would possibly be different from that of subjunctive clauses. The subject position of ECM clauses is for example often assumed to be transparent to local binding (c.f. section 1.1). Subject anaphors in Latin AcIs, on the other

[7] and maybe also indicative complements with the complementizer *quod*, c.f. section 2.1.4. I will return to these cases in section 3.2.2.

hand, differ from local anaphors in that they allow antecedents which do not c-command them, as in example (3.25) (=(2.21 b)).

(3.25) *Elogium* *recitasti* *de* *testamento* *Cn.*
clause-acc recite-perf.ind.2p from testament-abl Gnaius-gen
Egnati *patris*$_i$ ... $[_{AcI}$ *idcirco* *se*$_i$
Egnatus-gen father-gen therefore SE-acc
exheredasse *filium]*
disinherit-perf.inf son-acc
'You read a clause from the father of Gnaius Egnatus [which said] that he therefore had disinherited his son' (Cic. Clu. 135)

Returning to the tense interpretation in reported clauses, both AcIs and subjunctive clauses are temporally interpreted with respect to the event of the verb of speech/thought only, not with respect to utterance time. I will first treat the AcIs, and then move on to subjunctive clauses. As in other languages, Latin infinitives have a quite reduced morphology. They do not inflect for person and number and have no mood distinction, but they have what traditional grammars identify as three "tenses", *present*, *perfect* and *future infinitive*, as illustrated in (3.26) for the verb *amo*, 'love'[8]:

(3.26)

Present	**Perfect**	**Future**
ama-re	ama-v-isse	ama-t-ur-um esse

In more updated terms it is reasonable to assume that the present and perfect infinitives are not specified for tense at all. Rather, they realize imperfect and perfect aspect respectively. In AcIs the present, perfect and future infinitives express simultaneity, precedence or posteriority respectively with respect to the matrix event, but they do not relate the embedded event to utterance time, as is seen from examples (3.27 a) and (3.27 b) (from [Sjöstrand 1960, 299], constructed examples):

(3.27) (a) *puto* *[me* *recte* *facere/* *fecisse/*
think-pres.ind.1p me-acc correctly act-pres.inf -perf.inf
facturum *esse]*
-fut.inf aux
'I think that I act/acted/will act correctly'

(b) *putavi* *[me* *recte* *facere/* *fecisse/*
think-perf.ind.1p me-acc correctly act-pres.inf -perf.inf
facturum *esse]*
-fut.inf aux
'I thought that I acted/had acted/would act correctly'

While there is no tense inflection, aspectual morphemes are used to situate the embedded event with respect to the matrix event. It is not entirely clear what syntactic features the future infinitive spells out. It consists of the future participle, formed on the basis of the supine stem, and uses the infinitive of *sum*, 'to be', as auxiliary. As such, it is morphologically unrelated to the future tense,

[8] There is also an active/passive alternation, not relevant here.

found in the indicative, which is formed on the basis of the present stem. A periphrastic future with the participle and *sum* is also found in the indicative and, as we will see, in the subjunctive. I suggest that the periphrastic future in Latin is an instance of the so-called *prospective aspect*. This aspect, in its prototypical use, relates a state to a subsequent situation, as in the English expressions *to be about to*, *to be on the point of*. In this sense it is parallel to the perfect, which typically relates a state to a preceding situation (c.f. [Comrie 1976, 64-65]). When used in indicative clauses, the Latin periphrastic future means that someone has the intention of doing something, is destined to do something or is at the point of doing something (c.f. [Ernout-Thomas 1964, 278-279]). This fits rather well the description of prospective aspect in [Comrie 1976]. In AcI constructions the prospective aspect has a use analogous to the other aspects in that it relates the embedded event to the superordinate event.

The Latin subjunctive has a rather rich inflection. It agrees for person and number, and has what traditional grammars identify as four "tenses": *present*, *imperfect*, *perfect* and *pluperfect*. These can be analyzed as combinations of present and past tense and imperfect and perfect aspect. There are also periphrastic future forms with present or past subjunctive forms of *sum*, 'to be', and the future participle. This can be analyzed as prospective aspect. In (3.28) I have given the 1st person singular subjunctive paradigm for *amo*, 'love'. Traditional terms for the verb forms are given in parentheses:

(3.28)

	Present	**Past**
Imperfect	am-e-m (present)	ama-re-m (imperfect)
Perfect	ama-v-eri-m (perfect)	ama-v-isse-m (pluperfect)
Prospective	ama-t-ur-us sim	ama-t-ur-us essem

Latin has SoT in subjunctive complements, comparable to the Italian pattern explained above: If the superordinate verb has a present or future interpretation, the subjunctive complement has the present tense forms in (3.28); if the superordinate verb is interpreted as past, the subjunctive complement has the past tense forms in (3.28). The choice of imperfect, perfect or prospective aspect temporally relates the embedded event to the superordinate event: present or imperfect subjunctive signify simultaneity with the superordinate verb; perfect and pluperfect subjunctive signify precedence; prospective present and past subjunctive signifies posteriority. The Latin SoT can be illustrated by the examples (3.29 a) and (3.29 b) (from [Sjöstrand 1960, 285-286], constructed examples):

(3.29) (a) *scio* *[quid* *faciat/* *fecerit/*
know-pres.ind.1p InterrogPron-acc do-pres.subj -perf.subj
facturus *sit]*
-FutPart-nom be-pres.subj
'I know what he does/did/will do'

(b) *sciebam* *[quid* *faceret/*
know-imperf.ind.1p InterrogPron-acc do-imperf.subj
fecisset/ *facturus* *esset]*
-pluperf.subj -FutPart-nom be-imperf.subj
'I knew what he did/had done/would do'

When comparing the AcI and subjunctive complements we see that the temporal interpretation is quite parallel, despite the morphological differences: The embedded event is temporally situated with respect to the attitude event, expressed by the superordinate verb, by means of aspectual morphemes. However, no reference is made to the utterance time. In the infinitive there is no morpheme which could carry such a reference. In the subjunctive there are tense morphemes, but these are in obligatory agreement with the superordinate verb. No DAR is therefore possible: A present subjunctive cannot be embedded under a past attitude verb to signify simultaneity both with respect to the attitude event and utterance time, not even when the embedded clause represents a universally valid truth, as in (3.30) (from [Kühner-Stegmann 1914 II, 175]) (c.f. [Kühner-Stegmann 1914 II, 174-197]).

(3.30) *prima* *docuit* *maiores* *nostros* *[quam*
first-nom teach-perf.ind ancestors-acc ours-acc how
praeclarum *esset* *exteris* *gentibus*
noble-nom be-imperf.subj foreign-dat nations-dat
imperare]
rule-over-pres.inf

'She [i.e. Sicily], as the first, taught our ancestors how noble it is to rule over foreign nations' (Cic. Ver. 2.2.2)

As a first approximation, it may seem like the analysis [Giorgi 2006] proposes for Italian subjunctive complements can be adopted both for AcIs and subjunctive complements in Latin. Given that neither subjunctive complements nor AcIs are interpreted with respect to the utterance time, it might be that both lack the higher C-layer which contains the temporal coordinates of the external speaker. They only have the lower C-layer, containing the coordinates of the BoA.

Following Giorgi, we could also assume that AcIs and subjunctive complements lack a T node. AcIs and subjunctive complements differ, however, in that the latter have uninterpretable agreement features which ensure that the superordinate tense is spelt out on the embedded verb. This morphological agreement leads to the SoT effect illustrated in (3.29 a) and (3.29 b). As the subordinate verb and superordinate T are in different phases, the tense agreement is presumably a case of cyclic Agree, and there should therefore also be temporal agreement features in the embedded C-domain. AcIs differ from subjunctive complements in that they lack temporal agreement features, both in C and on the verb. As such features are uninterpretable, the absence of them in AcIs does not lead to a difference in the temporal interpretation of AcIs and subjunctive complements.

There are good arguments against treating SoT in Latin subjunctive clauses as a case of morphological agreement, however. If it were purely morphological, it would be expected that the tense features of the superordinate verb were copied on the subordinate verb, regardless of interpretation. This is not quite the case. A superordinate perfect will usually trigger past forms on the subordinate verb, even though a perfect consists of present tense and perfect aspect. It might be, however, that the perfect is considered as a past tense and therefore triggers past agreement. A perfect indicative does, indeed, in most cases refer to a past event with respect to utterance time. However, the

perfect may also be used to refer to a past event with present consequences, the so-called *perfectum logicum*. A *perfectum logicum* may trigger both present and past SoT, as is shown in the following example (from [Sjöstrand 1960, 286], constructed) (c.f. [Sjöstrand 1960, 286], [Comrie 1976, 53]).

(3.31) *Ad eum scripsi [quid de ea*
to him-acc write-perf.ind.1p InterrogPron-acc about this-abl
re sentiam/ sentirem]
affair-abl feel-pres.subj -imperf.subj
'I have written to him what I feel about this affair'

This variation is unexpected if SoT is morphological. The morphological agreement should not be able to see how the perfect is interpreted, as it applies independently of interpretation. The fact that there are two options when a *perfectum logicum* is used, seems to indicate that the embedded verb can get its tense either according to the form of the superordinate tense, if perfect is a past tense, or according to its interpretation. A similar case is found in narrations, where present tense often is used to refer to historic events, the so-called *praesens historicum*. A subjunctive complement clause following a *praesens historicum* can have present or past SoT (c.f. [Sjöstrand 1960, 286]). These facts suggest that Latin SoT is not simply morphological agreement. It does not necessarily follow from these facts, however, that reported complements are interpreted with respect to utterance time: Both a *perfectum logicum* and a *praesens historicum* are in some ways ambiguous: As the *perfectum logicum* refers to a past event with present consequences, it relates in a sense both to the time when the event started and to the present. The variation in SoT can be argued to reflect this ambiguity. Similarly, a *praesens historicum* can be said to be a literary technique, describing past events as if they occurred at present. Past SoT possibly relates to the actual past interpretation of the narrated events, while the present SoT relates to "imagined present" which the narrator creates, using a *praesens historicum*.

The hypothesis that reported complements do not contain the speaker's coordinates might be more seriously challenged by the phenomenon called *repraesentatio*. This is a literary technique which is used in reported discourse in historic narrations. While the verb of speech is in a past form, the reported subjunctive complements are in the present or perfect, not in the imperfect or pluperfect, as would be expected from the normal rules of SoT. This is especially common in long passages of independent indirect discourse where the speech verb of the initial sentence was in a past form. The sentences which follow will often vary between present and past forms (c.f. [Kühner-Stegmann 1914 II, 193-194], [Ernout-Thomas 1964, 430-432], [Woodcock 1959, 238]). (3.32) (from [Kühner-Stegmann 1914 II, 194]) is part of a longer passage of independent indirect discourse. The clause initiating the independent indirect speech is given in parentheses:

(3.32) *(Romulus legatos ... misit, qui*
Romulus-nom ambassadors-acc send-perf.ind RelPron-nom
societatem ... novo populo peterent:) urbes ...
alliance-acc new-dat state-dat ask-imperf.subj cities-acc
quas sua virtus ac dii
RelPron-acc.pl SUUS-nom power-nom and gods-nom

iuvent, *magnas* *opes* *sibi* *magnumque*
assist-pres.subj great-acc wealth-acc SE-dat great-acc+and
nomen *facere*
name-acc make-pres.inf

'Romulus sent legates to them to ask them to form an alliance with the new state: [the cities] which were assisted by his power and by the gods, gave him great wealth and a great name.' (Liv. 1.9.3)

While the reported discourse is introduced by a sentence with past verb forms, a present subjunctive is found in a relative clause within the independent indirect discourse. According to normal SoT rules, this subjunctive should have had past SoT in accordance with the speech verb. The discourse is in a sense reported as if the reader were actually present, hearing Romulus' discourse. To make this interpretation possible, it seems like the reported complements have access to the speaker's temporal coordinates, as the reported discourse somehow relates to the speaker's present. I believe that this is not necessarily the case, however. Note that (3.32) does not have a DAR: The present subjunctive does not in any sense imply that the proposition holds both at the time when Romulus spoke, and at the time of utterance. It is obviously wrong that the cities which were aided by Romulus at the time when he spoke, still are aided by Romulus when this text is written several hundred years later. So, however the phenomenon of *repraesentatio* might be analyzed, it probably does not imply an evaluation of the event with respect to the actual utterance time. I therefore do not believe that it represents a serious challenge to the hypothesis that the speaker's coordinates are not present in reported discourse. However, it is an additional argument in favor of a somewhat more complex account of SoT than the claim that it is pure morphological agreement.

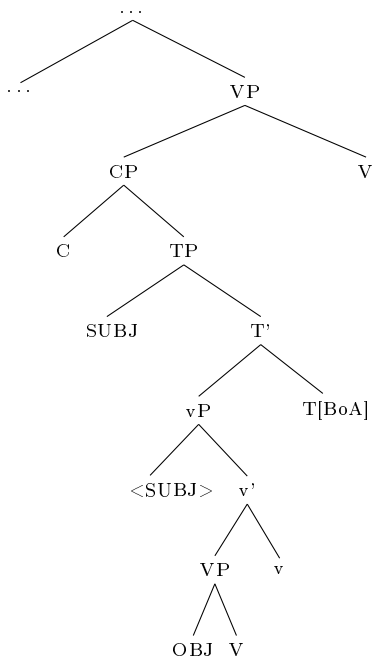
As subjunctive clauses and AcIs do not have a DAR interpretation, we can still maintain that they lack the higher C-layer which contains the coordinates of the external speaker. They do, however, have a lower C-head. I will simply use the label C for this head whenever it is the only C-head present. Subjunctive complements also spell out tense, which, as we have seen, cannot be the result of morphological agreement. They therefore probably have a T-node. Giorgi assumes that the coordinates of the BoA are represented in T for clauses with independent tense (c.f. [Giorgi 2006, 1030]). If clauses with dependent tense also have a T-node, it is reasonable to assume that also these have the coordinates of the BoA in T.

The combination of a T node and the presence of the coordinates of the BoA only should result in a tense inflexion similar to the Russian pattern explained above: An embedded present should be interpreted as present with respect to the the attitude event, an embedded past form should result in a past interpretation etc. As we have seen, this is not the case. I have no concrete explanation for why the Latin subjunctive usually has the same tense as the superordinate verb. However, there are good reasons to believe that an embedded subjunctive does not contain the coordinates of the speaker, as the temporal interpretation of it relates it to the event of the embedding clause only. Therefore, the mechanism resulting in the SoT of subjunctive clauses should not be a potential blocker for long-distance binding.

I assume that AcIs have a non-finite tense node, which is not spelt out as a tense morpheme and which does not assign nominative case. Both AcIs and

subjunctive clauses have an Asp(ect) node. The aspect features ensure that the embedded event is interpreted as preceding, following or being simultaneous to the attitude event. The clausal structure of AcIs and subjunctive complements also includes additional functional structure, not relevant here. Leaving out the differences between the T-node of subjunctive complements and AcI, we can schematically represent the syntactic structure of complements of verbs of speech or thought, as in (3.33)[9]:

(3.33)



3.2.2 Deriving the Latin LDAs

There is an obvious difficulty when testing syntactic theories on Latin, namely that there are no native speakers to consult for grammaticality judgments. This problem arises if we want to test Giorgi's theory on the Latin data. The following analysis will predict that LDAs in Latin allow a strict identity reading only, not the near-reflexive reading, as they are considered unsaturated positions. On the basis of the corpus to which I have access, it is not possible to test whether or not this prediction is borne out for Latin.

Latin has no complex anaphor, but only has the simplex anaphor *se*. I assume that, in the local domain, *se* is ambiguous between being a near-reflexive, when it is used with predicates which are not inherently reflexive, and being

[9] I also assume that Latin is mostly head-final, but that nodes in the C-layer take complements to the right. I do not assume anything with respect to verb movement. Latin word order is a rather complicated issue, and my derivations in the following are not intended to mirror the word order exactly. Complement clauses sometimes precede, sometimes follow the verb. It might be that AcIs typically precede the verb and subjunctive complements typically follow them. I will not investigate this issue further, but will simply assume that attitude verbs can take complements both to the right and to the left.

the spell-out of an unsaturated position, when it is used with inherently reflexive predicates and when it is long-distance bound. Lexical items which are ambiguous in this way are not specific to Latin. The Chinese reflexive *ziji* also has such a double interpretation (c.f. [Lidz 2001, 133-134]). That *se* is chosen as the spell-out of unsaturated positions in Latin makes sense, given the morphology of *se*. An unsaturated position is a theta-position not assigned to an argument whatsoever, and is for that reason unable to have any independent semantics. The language is therefore expected to choose a rather unmarked lexical item to spell out that position (c.f. [Giorgi 2007, 332]). *Se* is 3d person, but does not inflect either for number or gender, unlike most other pronouns.

Turning now to the long-distance binding of unsaturated positions in Latin, if AcIs and subjunctive complements both lack the C-layer with the coordinates of the external speaker, but are interpreted with respect to the coordinates of the BoA in T, the derivation of LDAs should be mostly the same for AcIs and subjunctive complements. The exception is subject anaphors, which are only available in AcIs. I will return to such cases below. A clause such as (3.34) (=(2.1 b)), where an LDA is in the object position of an attitude complement, can be derived rather straightforwardly in Giorgi's system:

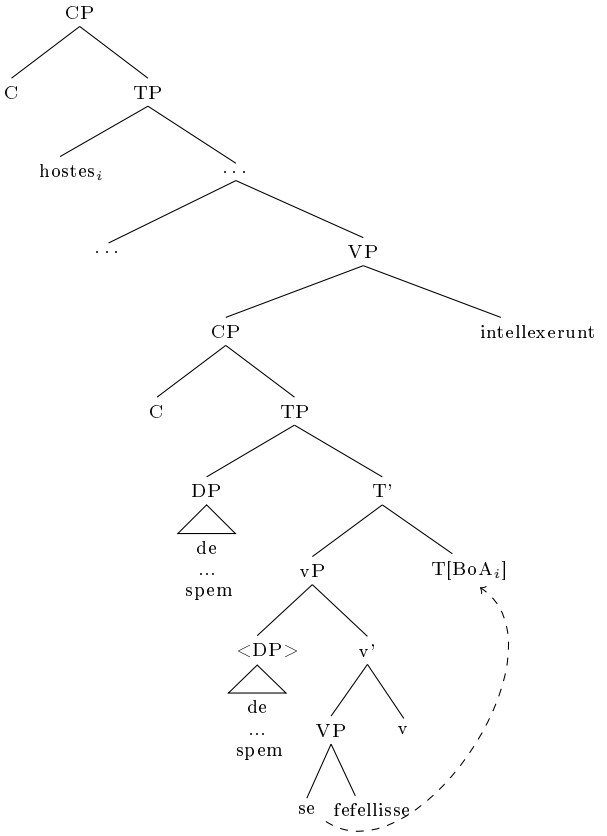
(3.34) *Hostes*$_i$ *[*$_{AcI}$ ... *de* *flumine* *transeundo*
enemies-nom about river-abl go-over-gerundive.abl
spem *se*$_i$ *fefellisse]* *intellexerunt*
hope-acc SE-acc deceive-perf.inf understand-perf.ind
'The enemies understood that their hope of crossing the river had deceived them.' (Caes. B.G. 2.10.4)

(3.35) is the LF representation of (3.34)[10]. The unsaturated position fails to be saturated by the local subject, as the predicate is not inherently reflexive. Therefore, the unsaturated position can be theta-identified with the next available binder, the temporal coordinates of the BoA in T[11]. This is represented by a dashed arrow. As the clause is not evaluated with respect to the speaker's coordinates, long-distance binding is not blocked.

[10]The Asp head is left out here and in the following derivations, as it is not directly relevant to the binding of LDAs.

[11]I mark with coindexation markers the coordinates of the BoA and the constituent which these coordinates represent. The identification of these coordinates will be discussed in section 3.2.3.

(3.35) LF-representation of (3.34)



In sentences like (3.36) (=(2.15)) an LDA is within an adverbial clause which depends on a reported complement. The adverbial clause has an oblique subjunctive, indicating that it is itself part of what is reported. The subject of the complement clause is not an available binder, only the matrix subject.

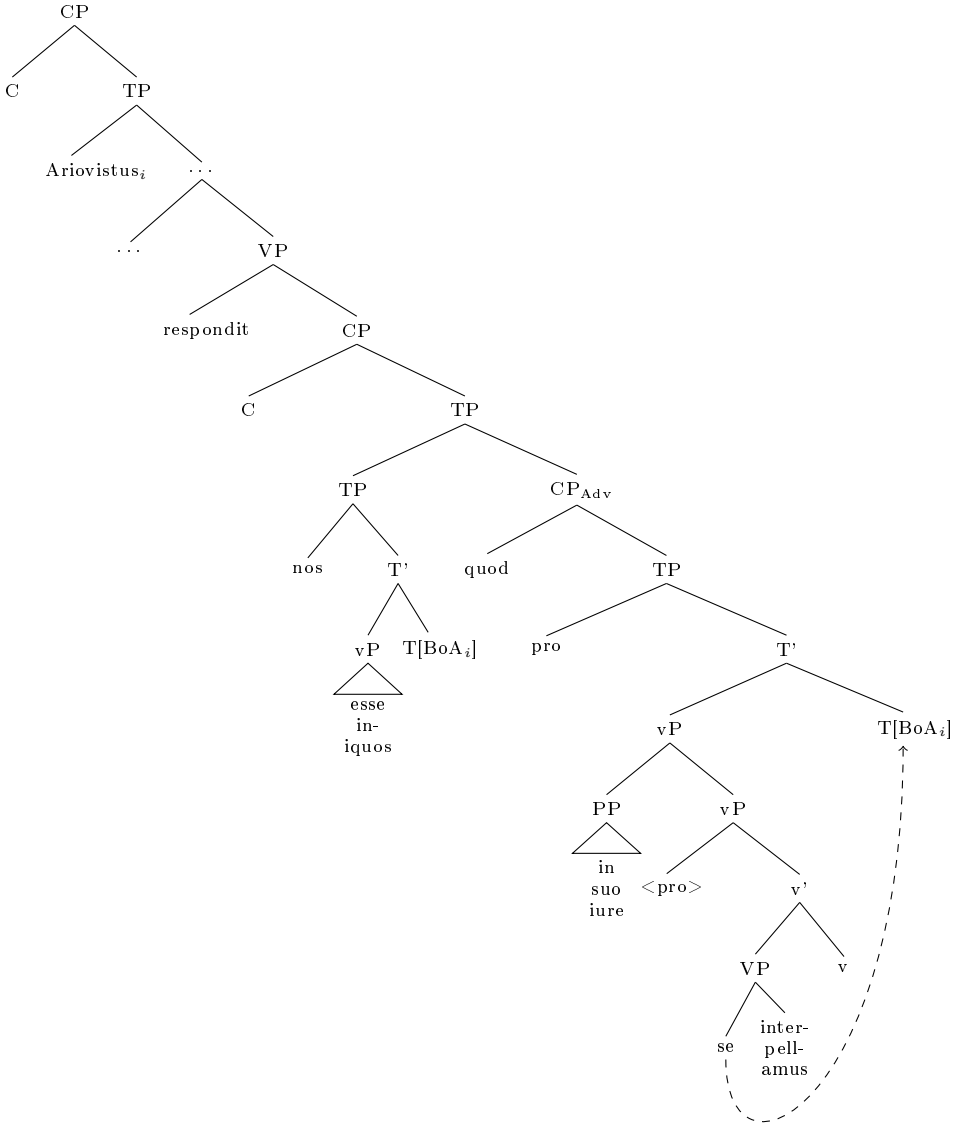
(3.36) *Ariovistus$_i$* ... *respondit* ... *[$_{AcI}$* *nos$_j$* *esse*
Ariovistus-nom answer-perf.ind we-acc be-inf
iniquos *[$_{AdvCl}$* *quod* *in* *suo$_i$* *iure* *se$_i$*
unfair-acc because in SUUS-abl jurisdiction-abl SE-acc
interpellaremus]]
obstruct-imperf.subj.1p.p.
'Ariovistus replied that we were unjust in obstructing him in his own jurisdiction.' (Caes. B.G. 1.44.8)

An adverbial clause which is in the subjunctive because it is part of the reported speech will anchor its tense to the verb of speech/thought, not the complement tense ([Woodcock 1959, 223-224])[12]: the verb in the adverbial clause in (3.36) has an imperfect subjunctive, which marks simultaneity with the matrix clause

[12]The situation is somewhat more complicated for adverbial clauses which also have the subjunctive in non-reported environments, c.f. [Woodcock 1959, 223].

perfect, and there is no temporal relation with the tense of the complement clause[13]. In other words, the adverbial clause must also be interpreted with respect to the BoA. As interpretation applies cyclically for each clause, this entails that the adverbial clause must contain its own representation of the BoA in T, as I have shown in the LF-representation of (3.36) in (3.37):

(3.37) LF-representation of (3.36)



As the adverbial clause is interpreted with respect to the temporal coordinates of the BoA, represented locally, the LDA can be theta-identified with these

[13]Note that this is an additional argument against SoT being purely morphological agreement, as C of the AcI then also would have needed to have tense agreement features with which the verb of the adverbial clause could agree.

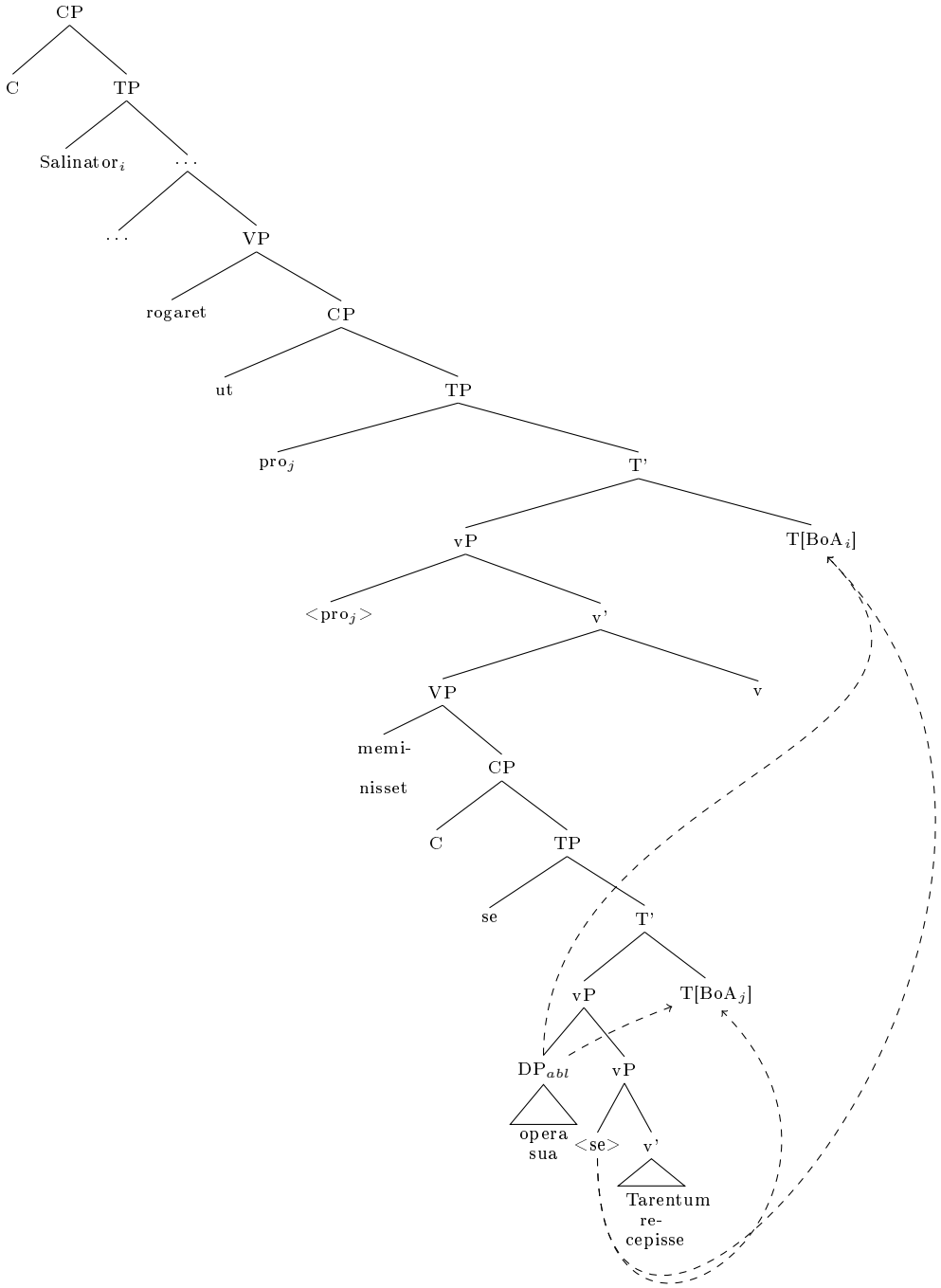
coordinates, as the dashed arrow in (3.37) indicates. The subject of the complement clause, however, is not a BoA for the adverbial clause, and is therefore not accessible as binder for the unsaturated position.

Giorgi's theory makes the correct predictions for sentences where an LDA is embedded within a reported complement which is itself part of a reported complement. Sentence (3.38) (=(2.23a)) has two LDAs in the deepest embedded complement clause, each bound by a different BoA.

(3.38) *cum* *aliquot* *post* *annis* *Maximus* *id* *oppidum*
when some after years-abl Maximus-nom that-acc town-acc
recepisset *rogaretque* *eum*$_{(j)}$ *Salinator*$_i$,
take-back-pluperf.subj ask-imperf.subj+and him-acc Salinator-nom
[ut *meminisset*$_j$ *[opera* *sua*$_i$ *se*$_j$
comp remember-pluperf.subj effort-abl suus-abl SE-acc
Tarentum *recepisse]]*
Tarentum-acc receive-perf.inf
'When Maximus had taken back that town some years later and Salinator asked him to remember that he [i.e. Maximus] had taken back Tarentum through his [i.e. Salinator's] efforts, ...' (Cic., de Orat. 2.273)

As I have shown in (3.39), both LDAs are theta-identified with both BoAs; first in the interpretive cycle of the deepest embedded complement, then in the interpretive cycle of the superordinate complement. The sentence is therefore ambiguous, and the correct interpretation must be deduced from the context:

(3.39) Derivation of (3.38)


CP
C
TP
Salinator$_i$
...
...
VP
rogaret
CP
ut
TP
pro$_j$
T'
vP
T[BoA$_i$]
<pro$_j$>
v'
VP
v
memi-
nisset
CP
C
TP
se
T'
vP
T[BoA$_j$]
DP$_{abl}$
vP
opera
sua
<se>
v'
Tarentum
re-
cepisse

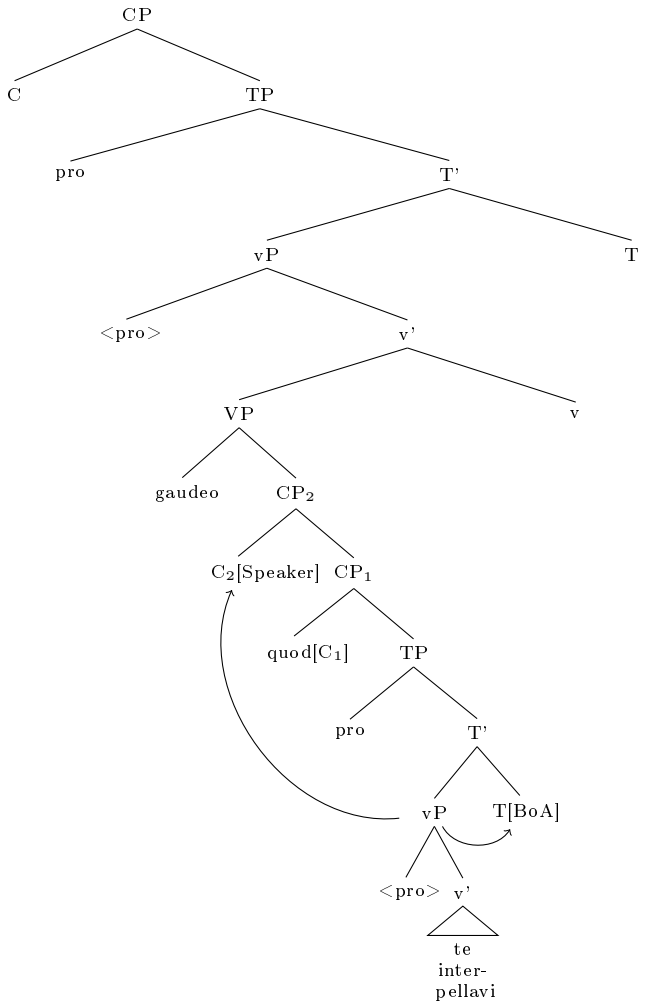
The indicative/subjunctive distinction As we have seen, Latin differs from its descendant, Italian, in that verbs of speech/thought usually do not take indicative complements, but express reported speech/thought with AcIs or subjunctive complements. In addition to this, adjunct clauses are consistently put in the subjunctive if they express the thought of an internal protagonist, the so-called *oblique subjunctive*. It is therefore hard to test if the indicative serves as a blocker for long-distance binding, as it does in Italian or Icelandic. In Latin, quite plausibly, all clauses which express propositional attitudes are either AcIs or subjunctive clauses. Therefore, no indicative clauses will contain the coordinates of the BoA.

There is a possible exception to this generalization, discussed in section 2.1.4, namely the complements of verbs such as *doleo*, 'suffer', *gaudeo*, 'be glad', *glorior*, 'boast, brag' and *queror*, 'complain' and verbs meaning to praise or thank someone, or to accuse or blame. These take complement clauses with the complementizer *quod*, indicating the cause of the expressed sentiment. The indicative is the unmarked mood, while the subjunctive is a typical oblique subjunctive, expressing the cause as it is seen from the perspective of the matrix subject or the main protagonist of the sentence. Only subjunctive clauses take LDAs. While a subjunctive *quod*-clause quite clearly expresses a propositional attitude, as the matrix subject has an attitude of suffering, happiness etc. towards the truth presented by the *quod*-clause, it is less clear that an indicative in this position expresses a propositional attitude. It might be that an indicative simply gives the cause of the sentiment as seen from the external speaker's perspective.

If we assume that indicative complements of such verbs do express propositional attitudes, it is reasonable to expect that they are temporally anchored, both to the coordinates of the BoA and those of the external speaker, as indicative clauses in Latin can refer directly to utterance time. The clause in (3.40 a) (=(2.12 a)) would then have the LF representation in (3.40 b).

(3.40) (a) *sane* *gaudeo* *[quod* *te* *interpellavi]*
truly be-glad-pres.ind.1p comp you-acc interrupt-perf.ind.1p
'I am truly glad that I interrupted you' (Cic. Leg. 3.1)

(b) LF-representation of (3.40 a):



The embedded clause in (3.40 b) has two complementizer positions, which I have called C_2 and C_1. C_1 is the position which is present also in subjunctive clauses. I assume that the complementizer *quod* is located here, as the same complementizer is spelt out both in indicative and subjunctive clauses. C_2 is the higher complementizer position, which AcIs and subjunctive clauses lack. It contains the temporal coordinates of the external speaker. The temporal coordinates of the BoA are located in T. The embedded event is temporally evaluated, both with respect to the coordinates of the BoA and the external speaker, as the arrows indicate. Because the event is interpreted with respect to the speaker, the binding of LDAs is blocked in the same way as long-distance binding is blocked in Italian attitude complements. A subjunctive *quod*-complement lacks the C_2-layer, and the embedded event is only in-

terpreted with respect to the BoA in T. An LDA can therefore be saturated by the BoA, as in any reported subjunctive complement.

If, on the other hand, indicative *quod*-clauses do not express propositional attitudes, there is no attitude event to which they can be anchored, and they will therefore only be evaluated with respect to the external speaker's coordinates. In that case there is no available antecedent for LDAs in the subordinate clause.

The availability of local reflexives As I showed in section 2.3.1 above, the possibility of long-distance binding in reported contexts does not block the availability of local anaphors in that same context. My analyses must reflect this fact. As we have seen, local anaphors which occur in the argument position of predicates which are not inherently reflexive, allow a near-reflexive reading in several languages. They are therefore assumed not to be unsaturated positions, but have some independent semantics (c.f. section 3.1). Some other syntactic process must be responsible for their reflexive interpretation, and they are therefore not in direct competition with LDAs.

The situation is different for anaphors in the argument position of lexically reflexive predicates. They presumably are unsaturated positions, and their coreference with the local subject is due to a lexical specification on the verbal head. In [Lidz 2001] it is suggested that it is specified in the lexical entry of a reflexive verb that two theta-positions are identical to each other. This proposal cannot be adopted as it is in a minimalist framework: In Minimalism it is standardly assumed that an agentive subject is not an argument of the verb. Rather, it is the argument of a functional head, *v*, in the extended verbal projection ([Kratzer 1996], [Adger 2003, 131-141]). In a lexically reflexive predicate, the reflexive position is most often, possibly always, identified with the subject. If the subject is not an argument of the verb, the lexical entry of a reflexive verb cannot contain the information that the subject and e.g. the object are identical. A possible alternative is that the reflexive interpretation is due to a functional head, let us call it *Refl*, which is required in the extended projection of a lexically reflexive verb, and which is present only in that case. This head enforces the identification of an unsaturated theta-position with the local subject. When this head is absent, however, the subject is not an available binder. In this way, the two-way implication of Lidz' Condition R is derived in (c.f. (3.9) above): A predicate is interpreted as reflexive only in the present of the functional head Refl, and Refl is present only when the verb is lexically specified as reflexive[14].

According to this analysis, LDAs and local (strict-)reflexives are predicted to coexist in reported complements. In sentence (3.41) (=(2.42)), the reflexive is bound by the local subject. In section 2.3.1 I argued that the verb *dedo*, 'give up, surrender' is lexically reflexive.

(3.41)	*Ad*	*haec*	*Caesar*	*respondit*	*[se*	*magis*
	to	this-acc	Caesar-nom	respond-perf.ind	SE-acc	rather

[14] It is an open question how local anaphors in non-argument positions should be treated in this framework. [Giorgi 2006] claims that local possessive anaphors in Italian have a near-reflexive reading. It is not clear to me whether this is true also for anaphors adjoined to a verb or embedded within an adjunct PP.

consuetudine *sua* *quam* *merito* *eorum* *civitatem*
custom-abl SUUS-abl than merit-abl their state-acc
conservaturum, *[si* *[prius* *quam* *murum* *aries*
conserv-fut.inf if before wall-acc battering ram-nom
attigisset] *se*$_i$ *dedidissent*$_i$*]]*
touch-pluperf.subj SE-acc surrender-pluperf.subj

'To this Caesar replied that he would conserve the state, rather through habit than because they had merited it, provided that they surrendered themselves before the battering ram touched the wall.' (Caes. B.G. 2.31.1)

Given that *dedo* is lexically reflexive, it requires the Refl-head to be present in its extended projection. This head ensures that the unsaturated object position is saturated by the local subject. The position cannot take the BoA as antecedent, because the unsaturated position is already saturated when the event is interpreted with respect to the temporal coordinates of the BoA. If no Refl-head is present, the local subject is not an available binder, and an unsaturated position is not saturated until the cyclic interpretation has reached the coordinates of the BoA in T. Note that recursive theta-identification is not possible in the case of local anaphora, while it is possible for long-distance anaphora (c.f. the derivation in (3.39)). A recursive interpretation would lead to a potential violation of Condition R, as a lexically reflexive predicate then could receive a non-reflexive interpretation.

Non-complementarity of LDAs and pronouns Neither [Lidz 2001] nor [Giorgi 2007] explicitly discuss how complementary distribution between pronouns and anaphors obtains in the local domain. A possible solution is to say that, if the reflexive theta-position is an unsaturated position, it cannot be filled by a (non-anaphoric) pronoun, because a pronoun obligatorily will be interpreted as an argument, due to the fact that it can refer independently. An unsaturated position is precisely defined as a theta-position not associated with an argument, and the lexical item inserted there is a pure placeholder with no independent semantics[15]. Inserting a pronoun would therefore not be in accordance with the requirement on the Refl head that the predicate should be reflexive.

If the approach I am arguing for here is correct, complementary distribution can be said to be a consequence of the presence of the Refl head. As LDAs are not associated with such a head, no complementary distribution is predicted between LDAs and pronouns. In reported context, positions can be left unsaturated and subsequently be theta-identified with the BoA in T, but a pronoun can also freely refer to the BoA in the same way as it can refer to other salient entities in the discourse context. While long-distance binding might be the default strategy of referring to the BoA, an overt pronoun will be chosen instead, e.g. when needed for clarity. One such situation is when an anaphor would be ambiguous, as in (3.42) (=(2.49)), discussed in section 2.3.2. A locally bound possessive anaphor is already present, and inserting a new long-distance bound possessive anaphor would make it difficult to sort out

[15][Giorgi 2007, 340] suggests that the unsaturated position is spelt out, due to a requirement that positions which receive case, cannot be phonologically null.

the referents. Therefore, the genitive of the contrastive demonstrative *ipse* is used to refer to the BoA.

(3.42) *(convocato* *consilio* ... *vehementer* *eos*
convoke-PerPart.abl council-abl vigorously them-acc
incusavit$_i$:) ... *Aut* *cur* *de* *sua$_j$* *virtute* *aut*
accuse-perf.ind either why of SUUS-abl strength-abl or
de *ipsius$_i$* *diligentia* *desperarent$_j$?*
of his own-gen diligence-abl despair-imperf.subj
'Having convoked the council he accused them vigorously [with these words]: ... Why should they despair either of their own strength or his diligence?' (Caes. B.G. 1.40.4)

The null pronoun *pro* can also refer to the BoA. This is commonly the case of subjects of subjunctive reported complements, as in (3.43) (=(2.51 a)), because the anaphor *se* is illicit in this position.

(3.43) *[quae* pro$_i$ *in* *eo* *reprehendat]* *ostendit$_i$*
InterrogPron-acc in him-abl blame-pres.subj show-pres.inf
'He points out what he blames him for.' (Caes. B.G. 1.20.5)

The subject position of subjunctive complements is not somehow exempt from long-distance binding. A possessive reflexive can occur there, as in (3.44) (from [Lewis-Short 1879, suus]).

(3.44) *ita* *eum* *placidum* *mollemque* *reddidi,* *ut*
thus him-acc calm-acc weak-acc+and render-perf.ind.1p that
non *auderet,* ... *iterum* *dicere$_i$* *[quot* *milia*
not dare-imperf.subj again say-pres.inf how many miles-acc
fundus *suus$_i$* *abesset* *ab* *urbe]*
farm-nom SUUS-nom be-distant-imperf.subj from city-abl
'I made him so calm and weak that he did not dare to repeat a second time how many miles his farm was from the city' (Cic. Caec. 10.28)

This situation is not specific to Latin. Anaphors are banned from syntactic positions where they are in agreement with the verb in many languages. This ban, known as the *Anaphor Agreement Effect* (henceforth: AAE), does not only concern nominative subjects, but also anaphor objects in languages with object agreement (c.f. [Woolford 1999]). It is therefore not case which is responsible for the AAE. The AAE does not rule out possessive anaphors embedded within subject DPs, which are attested in several languages ([Woolford 1999, 272-276]).

3.2.3 Identifying the BoA

As discussed in section 3.1, Giorgi appears to suggest that the identification of the coordinates of the BoA with their antecedent depends on syntactic relations, as she claims that verbal agreement blocks the possibility of sub-command in Italian. It is not entirely clear how this identification takes place, however, as the antecedent does not c-command the coordinates in all cases. The alternative to a syntactic solution would be that the identification is in

some sense pragmatic: Any constituent can in principle serve as antecedent for the coordinates, as long as it is recognized as the BoA from the discourse context. In Latin, the binder of LDAs can occur in a great variety of syntactic positions, as I showed in section 2.1.5. As I argued there, it is probably not possible to account for the binding patterns based on the syntactic position of the binder. I have found no evidence, either, for any syntactic restrictions on available binders. Sub-command is indeed possible from within a subject agreeing with the verb, as is shown in (3.45) (=(2.24)).

(3.45) *Canum*$_i$ *tam* *fida* *custodia* ... *quid*
dogs-gen such trusty-nom watchfulness-nom what-acc
significat *aliud* *nisi* *[*$_{AcI}$ *se*$_i$ *ad* *hominum*
signify-pres.ind.3p else-acc except SE-acc for humans-gen
commoditates *esse* *generatos?]*
comfort-acc aux create-perf.pass.inf.masc.pl
'The trusty watchfulness of the dogs, what else does it mean, except that they were created for human comfort?' (Cic. N.D. 2.158)

The Latin data suggests, therefore, that syntax is not relevant for long-distance binding. What is relevant is that the binder serves as Thinker for the reported complement. I will discuss in section 3.2.4 whether the notion of *propositional attitude* is relevant for the binding of normal LDAs in Latin. For the time being, I will assume that it is relevant, and that what I called the Thinker in chapter 2 is, in fact, the BoA. If Giorgi's theory of long-distance anaphora is to be maintained for Latin, we must conclude that whichever constituent has the semantic function of BoA for the reported complement, will also serve as antecedent for the coordinates of the BoA, regardless of syntactic position. It is likely that the speaker must have access to information about the discourse context in order to figure out who the BoA is. In a sentence such as (3.46) (=(2.17c)), you must at least know that ambassadors usually do not speak on behalf of themselves, in order to figure out whether the Germans or the ambassadors function as BoA.

(3.46) *legati*$_i$ *ab* *iis*$_j$ *venerunt,* *[quorum*$_i$
ambassadors-nom from them-abl come-perf.ind RelPron
haec *fuit* *oratio]:* ... *vel* *sibi*$_j$ *agros*
this-nom be-perf.ind speech.nom either SE-dat fields
attribuant *vel* *patiantur* *eos* *tenere*
assign-pres.subj or allow-pres.subj those-acc keep-pres.inf
quos *armis* *possederint*
rel-acc.pl. arms-abl occupy-perf.subj
'Ambassadors came from them [i.e. the Germans] [to the Romans], who pronounced the following speech: ... either they [i.e. the Romans] should assign them [i.e. the Germans] fields, or permit [them] to retain those which they had occupied with the help of arms' (Caes. B.G. 4.7.2,4)

We end up, then, with a theory of long-distance anaphora which takes into account both syntactic and pragmatic factors. There is, however, a clear division of labor: Syntax is responsible for the domain restriction of LDAs, as an

unsaturated position can only occur in a clause in which the coordinates of the BoA are locally represented; that is, in complements expressing propositional attitudes. Pragmatics is relevant in figuring out the identity of the BoA. This might seem somewhat inelegant, as long-distance binding cannot be treated in a single module of the grammar. Such a theory might be justified for Latin, however, as both pragmatic and syntactic factors seem to be involved. Syntax cannot, as we have seen, account for which antecedents a normal LDA can take. On the other hand, if syntax had no part in Latin long-distance anaphora, a domain restriction to complements of a specific type would be unexpected. It would be conceivable, for example, that all clauses which in some ways could be said to be reported, could contain LDAs, regardless of the complement/adjunct distinction[16].

A second, related question concerns the presence of the coordinates of the BoA themselves. In Giorgi's theory, complement clauses of verbs expressing propositional attitudes contain the coordinates of the BoA, and the presence of these coordinates in such clauses is responsible for both the temporal anchoring of the embedded event to the attitude event and for the binding of LDAs. Giorgi also discusses Italian sentences similar to (3.36), in which LDAs occur in adverbial clauses to attitude complements. Such LDAs cannot be bound by the superordinate subject, but only the matrix subject ([Giorgi 2006, 1014]). Giorgi is, as far as I can tell, not very explicit about how this domain restriction is derived, however. The idea seems to be that verbs referring to a thought event require that their complements are temporally located with respect to that event (c.f. [Giorgi 2006, 1029]). This is obtained by the representation of the coordinates of the BoA in T of the embedded clause. In that way, an obligatory temporal relation is established between the superordinate event and the subordinate event. A question which Giorgi, to my knowledge, does not answer, is why adjunct clauses which in some sense express thought content, such as purpose clauses and the Latin clauses with an oblique subjunctive, cannot be constructed in the same way. It is conceivable that such clauses also contain the coordinates of the BoA, which relate them to their own thought event. This thought event is of course implied in the case of adjunct clauses, and not overtly expressed by a superordinate verb of speech and thought. A possible answer might be found in the scholarly tradition to which Giorgi belongs. Giorgi analyzes tense as anchoring to syntactically represented contextual coordinates. Other phenomena, such as the syntax of indexicals, are also often described in terms of anchoring to contextual coordinates (c.f. [Schlenker 2003], [Bianchi 2010], [Sigurdsson 2004]; see also section 5.2). Indexicals and tense are, in non-reported environments, anchored to coordinates which refer to the utterance context, the speaker's coordinates in Giorgi's terminology. However, a verb of communication and thought is assumed to introduce new contextual coordinates in its complement clause, pertaining to the thought or communication event to which the verb refers. Such verbs are said to quantify over contexts (c.f. [Schlenker 2003, 32-33;73-74]). Based on this, a possible difference between reported complements and reported adjunct clauses could be derived. While the latter do, in some ways, report on the thought of

[16]There might be counter-examples to the claim that the normal LDAs do not occur in reported adjuncts, c.f. section 2.1.3. These might also be analyzed as special LDAs, as I have argued there.

someone, they are not within the scope of verbs which require new contextual coordinates. The former depend on such verbs, and must therefore contain contextual coordinates introduced by that verb. This will also be true for adjunct clauses to reported complements, as they are within the c-commanding domain of such verbs.

3.2.4 Thought in general or propositional attitudes?

Giorgi's theory links the binding of LDAs to the anchoring of tense in complements expressing propositional attitudes. This makes two predictions of interest to us: Firstly, LDAs should be restricted to clauses expressing propositional attitudes; secondly, there should be a correlation between clauses with anchored tense and clauses which allow LDAs.

In section 2.1 we saw that the normal LDAs occur in complements of verbs of speech and thought, and that the Thinker, the person whose thought the clause reports, serves as binder. This is also true when the thought is communicated by someone other than the Thinker. If the first prediction of Giorgi's theory is borne out, the complement clauses in which LDAs occur should express propositional attitudes, and the Thinker should be the BoA. In other words, the sentences with the normal LDAs should be of the sort that the BoA has some mental attitude towards the truth of the embedded proposition (c.f. [Clapp 2006], [Giorgi-Pianesi 2001b]). As a part of my data collection from the Caesar subcorpus of [the PROIEL corpus] I made a list of verbs selecting reported complement clauses in the subcorpus which depended on a verb. To see if the prediction is borne out, I have selected all verbs in this list which signify thought or communication. I further divided these verbs into four main groups: verbs of thought, feeling, perception and communication[17].

The verbs of thought include verbs meaning to know, such as *intellego*, 'understand', *scio*, 'know', verbs of belief, e.g. *arbitror*, 'think, judge', and *dubito*, 'doubt', verbs meaning to remember, such as *memini*, 'remember', and *commemoro*, 'recall', and verbs of learning , e.g. *disco*, 'learn', and *invenio*, 'discover'. All these verbs imply a mental attitude towards the truth of the embedded proposition, whether it is that of believing or doubting that it is true, or knowing for certain or learning that it is true. Verbs of feeling, such as *cupio*, 'wish, desire', *timeo*, 'fear' and *gaudeo*, 'be glad', also imply attitudes: The BoA has a certain feeling towards the truth of the embedded proposition. Verbs of perception, e.g. *audio*, 'hear', *video*, 'see', and *sentio*, 'perceive, feel' have common properties with verbs of thinking; hearing or seeing some state of affairs has the result that the perceiver knows that it is true.

Many communication verbs also imply propositional attitudes. Communicating a declarative message, as with verbs such as *dico*, 'say', and *ostendo*, 'show', usually implies that the communicator (or the author of the message) believes that what she says is true. Verbs of commanding or exhorting, such as *impero*, 'order' or *hortor*, 'exhort', also imply an attitude, namely that of an intention. However, one type of communication verbs might not fit so easily with the concept of propositional attitudes, namely verbs which signify that the subject communicates a message which he knows to be false. There is one

[17] I do not claim that this list of categories is exhaustive for the types of verbs which allow LDAs in their complements.

such verb in my corpus, namely *simulo*, 'pretend'. As example (3.47) shows, LDAs may occur in the complement of this verb:

(3.47) *[reverti* *se*$_i$ *in* *suas*$_i$ *sedes* *regionesque]*
return-pres.inf SE-acc to SUUS-acc home-acc regions-acc+and
simulaverunt$_i$
pretend-perf.ind
'They pretended that they were returning to their own homes and settlements' (Caes. B.G. 4.4.5)

The context of this sentence is a battle. One of the armies makes it look like they are retreating, and in that way deliberately communicates to their enemies that they are going home and that the battle therefore is over. However, this message is a lie: They return and take the enemy by surprise. The complement clause in (3.47) clearly expresses the thought of the army, as it is a message they are communicating to their enemy, but it is different from that expressed by the complements of the other verbs of thinking and communication, as the Thinkers in this case know that their message is false. A more thorough semantic analysis of such verbs is necessary in order to decide whether they are truly problematic for the analysis or not. It might be possible to say that also examples like (3.47) imply an attitude towards the embedded proposition, such as knowing it to be false, but that the BoAs deliberately act contrary to that attitude.

One type of reported complements is classified by Giorgi as not expressing propositional attitudes, namely complements of the verb *dream* (c.f. [Giorgi-Pianesi 2001b]). In Giorgi and Pianesi's view, there is a semantic difference between verbs like *believe* in a sentence such as (3.48 a) and *dream* in (3.48 b):

(3.48) (a) *John believed that Mary came to the party.*
(b) *John dreamt that Mary came to the party.*

In (3.48 a), John has a mental attitude, a belief, towards the proposition "Mary came to the party". He believes this proposition to be true of the actual world. In (3.48 b), however, the verb *dream* does not imply that John holds "Mary came to the party" to be true of the actual world in any sense. While propositional attitude verbs establish a relation between a subject (or rather, a BoA) and the actual world, *dream* does not imply such a relation ([Giorgi-Pianesi 2001b, 53-57]). Giorgi and Pianesi claim, moreover, that complements of *dream* need not be temporally anchored in Italian, unlike attitude complements. If the binding of LDAs depends on temporal anchoring to the superordinate event and dream complements are not temporally anchored in this way, then LDAs should not occur in such complements[18]. To test if this is true in Latin, I looked up the verb *somnio*, 'dream' in [O.L.D], and checked the references given there. This verb usually takes AcI complements, but there are also examples with subjunctive complements. LDAs are allowed, as in the following example:

[18] [Giorgi-Pianesi 2001b] does not discuss LDAs. In Italian, dream complements are in the indicative, and LDAs are blocked in indicative clauses on independent ground, as we have seen.

(3.49) *[cum dedicatam in Capitolio eadem*
as dedicate-PerfPart.acc in Capitol-abl likewise
Tonanti Iovi assidue frequentaret],
Thunderer-dat Jupiter-dat regularly frequent-imperf.subj
somniavit$_i$ [queri Capitolinum Iovem$_{(j)}$
dream-perf.ind complain-pres.inf Capitolinus-acc Jupiter-acc
[cultores sibi$_{(j)}$ abduci] seque$_i$
worshipers-acc SE-dat take-away.inf.pres.pass SE-acc+and
respondisse [Tonantem pro ianitore ei
answer-perf.inf Thunderer-acc as doorkeeper-abl him-dat
appositum]]
place-perf.inf.pass

'Likewise, as [Augustus] regularily frequented the temple which he had dedicated to Jupiter the Thunderer, he dreamt that Jupiter Capitolinus complained that worshipers were taken from him, and that he answered that the Thunderer was put as doorkeeper for him.' (Suet. Aug. 91.2)

The claim that dream reports are not propositional attitudes is not an uncontroversial one. According to [Giannakidou 2007, 10-11], for example, *dream* implies an attitude towards the truth of the embedded proposition. However, the truth of the proposition is not evaluated with respect to the state of affairs of the actual world, but with respect to those of the world created by the dream. If this is the right way to analyze dream reports, then dream reports are presumably temporally anchored, in some way, to the matrix event, in the same way as other attitude complements are temporally achored. I will not explore this further. The important point is that it might be Giorgi and Pianesi's theory on dream reports in [Giorgi-Pianesi 2001b] which needs revision, not necessarily the theory of long-distance anaphora in [Giorgi 2006].

The second prediction Giorgi's theory makes, is that there is a correlation between dependent tense and the possibility of long-distance anaphora. In general, indicative clauses in Latin have independent tense, while most types of subjunctive clauses have obligatory SoT (c.f. [Ernout-Thomas 1964, 407-415]). The subjunctive is not only used in reported environments, but also in certain temporal clauses, consecutive clauses etc., which do not allow LDAs. It might be that the SoT in non-reported subjunctive clauses does not have the exact same syntactic explanation as in reported clauses, and I will therefore leave them out of the discussion. As we have seen, LDAs frequently occur in reported complement clauses, while they are probably not allowed in purpose clauses and other adjunct clauses which, in some sense, express the thought of a sentence-internal protagonist. However, such adjunct clauses are no different from complement clauses when it comes to SoT (c.f. [Ernout-Thomas 1964, 414-415], [Woodcock 1959, 108-109]). The parallel is particularly striking with respect to purpose clauses. Just like complement clauses of verbs such as *oro*, 'ask for, entreat', and *impero*, 'order', purpose clauses are constructed with the complementizer *ut* or the negative complementizer *ne* and the subjunctive, and both types of clauses have the same pattern of SoT, c.f. (3.50 a) (=(1.8)) and (3.50 b) (from [Eitrem 1999, 124]). However, LDAs probably only occur in the complement clauses.

(3.50) (a) *Ubii$_i$ ... magnopere orabant $\lfloor_{CompCl}$ ut*
Ubii-nom greatly entreat-imperf.ind that
sibi$_i$ auxilium ferret\rfloor.
SE-dat help-acc bring-imperf.subj
'The Ubii (a tribe) entreated with insistance that he should bring them help.' (Caes. B.G. 4.16.5)

(b) *maiores nostri ab aratro adduxerunt*
ancestors-nom our-nom from plow-abl lead-away-perf.ind
Cincinnatum ..., $\lfloor_{PurposeCl}$ ut dictator
Cincinnatus-acc comp dictator-nom
esset\rfloor
be-imperf.subj
'Our ancestors lead Cincinnatus away from the plow, in order that he might become dictator' (Cic. Fin. 2.12.)

These clause types not only have the same complementizer, they also have quite a similar semantics: Both when they are used as complements and as adjuncts, *ut*-clauses of this type typically express a wish or an intention. It is therefore reasonable to assume that they have dependent tense for the same reason. If Giorgi's theory is to be maintained, either a unified explanation of the SoT in clauses such as (3.50 a) and (3.50 b) must be abandoned, or long-distance binding into an adverbial clause such as (3.50 b) should be blocked for some other reason. It might be that (3.50 a) and (3.50 b) are different in that (3.50 a) depends on a verb which introduces new contextual coordinates, while (3.50 b) does not, and that the dependent tense of (3.50 a) is not a result of the local presence of the coordinates of the BoA (c.f. section 3.2.3). I find it quite problematic, however, to give a different account of the tense dependency in clause types as similar as (3.50 a) and (3.50 b).

3.3 The special Latin LDAs

The most serious challenge to Giorgi's theory is the special Latin LDAs. These occur in clauses which neither express propositional attitudes nor have dependent tense, and their existence is therefore unexpected. As we have seen in section 2.2, the special LDAs occur in clauses which are not reported and which are in the indicative. Indicative clauses in Latin have independent tense (c.f. [Ernout-Thomas 1964, 410-412]). If Giorgi's theory is to be adopted for the normal LDAs, it seems to me that we are forced to assume that the normal and the special LDAs are unrelated phenomena. In this section I will explore a possible syntactic analysis of the special LDAs, based on the type of clauses in which they occur.

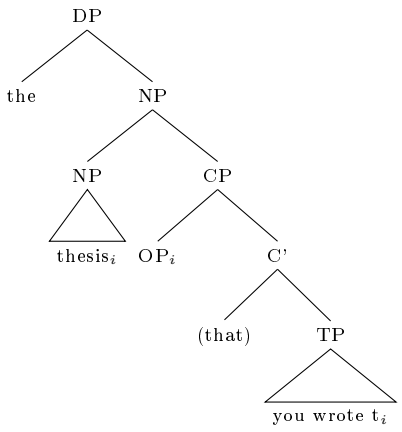
The special Latin LDAs typically occur in clauses with an antecedent constituent in the superordinate clause, such as relative clauses and correlative clauses. In the examples I have found, the binder is for the most part the superordinate subject. If these observations are more than a mere coincidence, these LDAs typically occur in a domain with a common syntactic property, and the binding is oriented towards a constituent with the syntactic function of being subject. These facts might suggest that there is a syntactic explanation to this type of long-distance binding.

I concluded in section 2.2 that the binding pattern of the special LDAs typically was the same as if the antecedent of the clause containing the LDA was reflexive. A reasonable hypothesis is therefore that this kind of long-distance anaphora has common properties with local anaphora: A binding relation is established between the matrix subject and a constituent within the matrix clause. The difference from local anaphora would be that the binding in this case would reach into a clause embedded within the constituent in the matrix clause[19]. If a predicate-centered binding theory is adopted, however, it is obviously wrong that the presence of an LDA in a relative clause to a matrix clause constituent reflexivizes the matrix predicate. Also, the LDA is not always embedded within an argument. I therefore assume that the binding of the special LDAs is similar to that of non-argument anaphors. A similar situation would be that of possessive anaphors, which also are embedded within a larger constituent.

This hypothesis makes two important predictions: Firstly, it presupposes that the relevant subordinate clauses form, in some way, a single constituent with their antecedent; secondly, binding must be able to cross the clause boundary. If we focus firstly on relative clauses, it is quite uncontroversial that at least restrictive relative clauses form a constituent with their antecedent. The classic analysis of a restrictive relative clause such as (3.51 a) is given in (3.51 b) (c.f. [Alexiadou et al. 2000]):

(3.51) (a) *The thesis (that) you wrote*

(b)



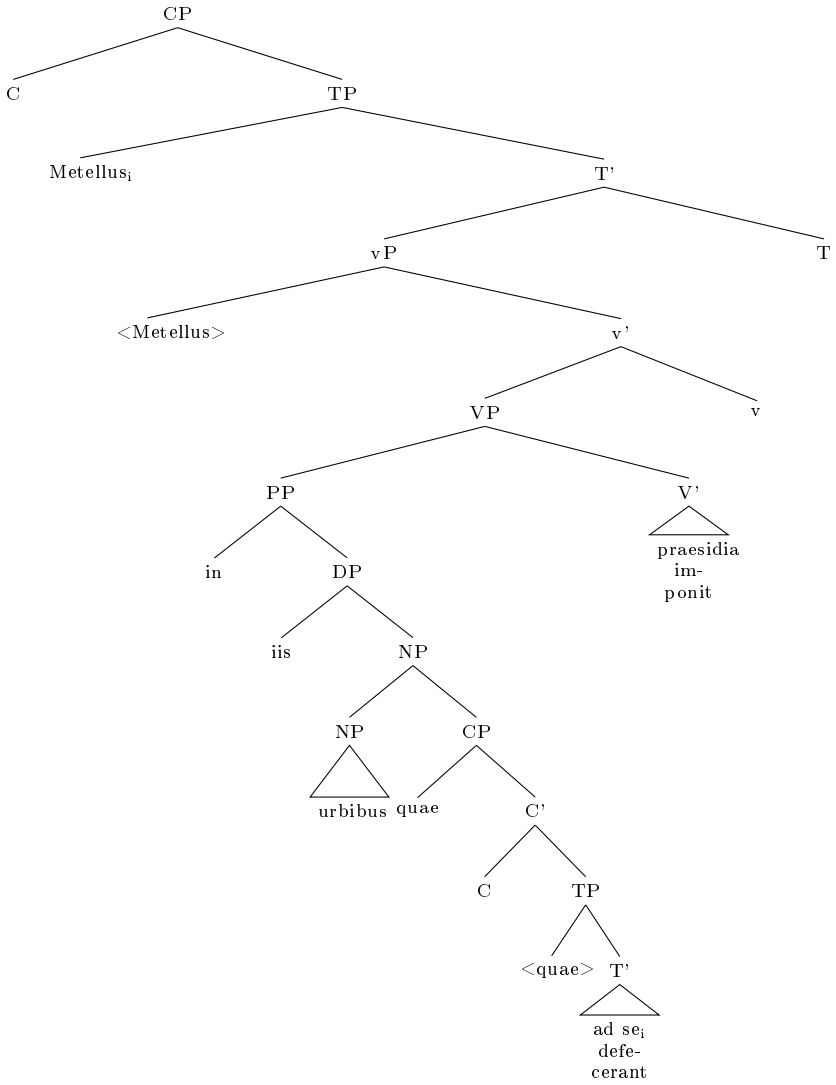
The relative clause is adjoined to the NP of its head noun. One of the argument positions in the relative clause contains an operator, which moves to spec-CP and leaves a trace in the base position. This operator can be silent, as in the English example in (3.51 a), or overtly realized as a relative pronoun as it always is in Latin. The head noun outside of the relative clause and the operator in spec-CP are identified with each other through some interpretive procedure.

[19] [Fruyt 1987, 219] suggests that this might be the way to go, though without proposing a specific analysis.

(3.52 a) is an example of a "canonical" Latin relative clause containing an LDA. Given a structure like (3.51 b) for relative clauses, the derivation of (3.52 a) will look something like (3.52 b)[20]:

(3.52) (a) *Metellus$_i$* ... *in* *iis* *urbibus,* *[quae* *ad*
Metellus-nom in those-abl cities-abl RelPron-nom to
se$_i$ *defecerant]* ... *praesidia* *imponit*
SE-acc revolt-pluperf.ind garrisons-acc impose-pres.ind
'Metellus placed garrisons in the cities which had revolted [and gone over] to him.' (Sall. Iug. 61.1)

(b)



The relative clause containing the LDA is adjoined to the NP *urbibus*. The relative pronoun subject moves to spec-CP of the relative, and is identified

[20]The PP containing the relative clause is probably an argument, and I have therefore, by way of suggestion, placed it in spec-VP.

with *urbibus*. As the relative clause is embedded within the DP containing its head noun, it is c-commanded by the matrix subject *Metellus*, which is the binder of the LDA.

It is not obvious how binding should be able to cross the clause boundary of the relative clause. The CP is assumed to be a phase, and the complement of C, TP, should therefore be inaccessible. However, the C-domain is accessible both to the higher and the lower clause. It might be, therefore, that binding passes through some element in the C-domain of the relative clause. The relative pronoun in spec-CP might be such an element. It is an argument of the relative clause, but its interpretation depends on the higher clause, as it is identified with *urbibus*. Restrictive relatives might fit the hypothesis that the binding of the special LDAs is a special case of local binding: The relative clause forms a constituent with its antecedent in the matrix clause; there is also an element which might function as a "bridge" between the higher and lower phase, namely the relative pronoun. It remains to figure out, of course, specifically how the relative pronoun can function as a "bridge" for binding.

The correlative clauses turn out to be more problematic for such a hypothesis. In spite of surface similarities between correlatives and relative clauses, there is good evidence that their underlying structure is quite different (c.f. [Srivastav 1991], [Bianchi 2000]). One important difference is that correlative clauses do not contain a trace. Often, the correlative element in the subordinate clause is coreferent with the corresponding element in the matrix clause. However, both elements can be overtly realized, as in (3.53 a) (example and translation from [Bianchi 2000, 54]). Both the relative determiner *quibus* and the corresponding determiner, *isdem*, head DPs with the noun *diebus*, 'days-abl' overtly realized. Example (3.53 b) (=(2.29 b)) shows that the correlative element in the subordinate clause does not even need to have the same reference in Latin. *quantum*, is the determiner of the embedded subject *spatium*, 'interval', while the corresponding element in the matrix clause, *tantam*, is the determiner of the object, *multitudinem*, 'multitude-acc'.

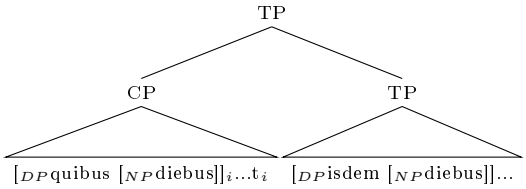
(3.53) (a) *[Quibus diebus] Cumae liberatae sunt*
RelPron-abl.pl days-abl Cuma-nom release-perf.pass.ind aux
obsidione, [isdem diebus] ... Tib.
siege-abl same-abl days-abl Tiberius-nom
Sempronius ... prospere pugnat
Sempronius-nom successfully fight-pres.ind
'Tiberius Sempronius won a victory in the same day in which Cuma was released from the siege' (Liv. 23.37.10)

(b) *tantam eorum multitudinem nostri interfecerunt*
so-great-acc them-gen multitude-acc ours-nom kill-perf.ind
[$_{CorrC}$ quantum fuit diei spatium]
CorrDet-nom be-perf.ind day-gen interval-nom
'Ours killed as many of them as the length of the day allowed' (Caes. B.G. 2.11.6)

While there is some correspondence relation between *isdem* and *quibus* and *tantam* and *quantum*, it is not the same as the one between the head of a relative clause and the relative operator: A relative operator leaves a trace in the relative clause in its argument position when it moves to spec-CP. When the

relative operator is identified with the head of the relative clause, this trace is interpreted as identical with the head. In the correlative clause in (3.53 a) and (3.53 b) there is no open argument position, and *tantam* and *quantum* in (3.53 b) are parts of DPs with different reference. [Srivastav 1991], who studies the correlative construction in Hindi, advances additional evidence for not giving a unified analysis of relative and correlative clauses. She proposes, rather, that the correlative clause is adjoined to the main clause, as (3.54) illustrates[21]. The relationship between the correlative clause and the corresponding element in the matrix clause is not one of strict identity, but involves quantification.

(3.54)



The structure in (3.54) is problematic for the hypothesis that the binding of the special LDAs is a special case of local binding. Firstly, the correlative clause is not a part of the antecedent constituent. Also, if it adjoins as high up in the clause structure as TP, it is even outside the domain of c-command of the matrix subject in spec-TP. Secondly, it is not certain that the correlative element in the embedded clause in (3.54) establishes a relationship with the superordinate clause in a way analogous to the relative pronoun in (3.52 b): In the latter case, the relative pronoun is identified with an element of the superordinate clause. In the former case no such identification takes place. Finally, if relative and correlative clauses are syntactically as different as (3.52 b) and (3.54) suggest, it is hard to see how they syntactically pattern together with respect to binding[22]. In section 4.2.2 I will try out a different approach to the special LDAs.

[21] This derivation is the same as (3) in [Bianchi 2000, 55], but there the correlative clause is adjoined to IP, not TP.

[22] [Bianchi 2000] assumes that relative and correlative clauses do have common syntactic properties, though none which are relevant to the issue under investigation here.

Chapter 4

A discourse approach

In this chapter I will see if a discourse approach to long-distance binding can account for the Latin facts. Section 4.1 will present the theory of logophoricity presented in [Sells 1987], which will be the basis of my analysis. In section 4.2 I will apply this theory to Latin: Subsection 4.2.1 will be concerned with the analysis of the normal Latin LDAs, while subsection 4.2.2 will be devoted to the special LDAs. Section 4.3 points out some issues raised by this approach to long distance anaphora.

4.1 Logophoricity

An influential view on long-distance anaphora is that, in spite of the morphological similarity with local anaphors, LDAs are in fact a special kind of pronouns, logophors, referring to individuals with a special role in the discourse. The concept of *logophoricity* is originally conceived for a group of pronouns in certain African languages, which typically occur in reported context and refer to the one whose thoughts, feelings or discourse are reported (c.f. [Sells 1987, 445-450]). In this section I will present an influential logophoric approach to long-distance anaphora, namely that of [Sells 1987].

According to Sells, it is not possible to give a cross-linguistically unified account of logophoricity. Languages differ as to what kind of antecedent logophors can take. The variation can be captured, however, by assuming three discourse roles: SOURCE, SELF and PIVOT. The SOURCE is the intentional agent of the communication, e.g. the speaker; the SELF is the person whose thought content or attitude the clause reports; the PIVOT is the person whose physical point of view is adopted (c.f. [Sells 1987, 456-457]). In normal direct discourse, all three roles are external, that is, they are borne by the actual utterer of the sentence: She will be the SOURCE and SELF, as the sentence represents her discourse and thought. She will also most often be the holder of the physical perspective, the PIVOT. However, one or more of the roles can be clause-internal: The external speaker can say something which represents the discourse, thought or point of view of the internal protagonist. In complements of speech verbs, as in (4.1), all three roles will be sentence-internal.

(4.1) *Mary said that John would come to the party.*

The complement clause represents what Mary said, and Mary therefore serves as SOURCE. She is also the SELF, as the clause represents her thought and propositional attitude, and she will be the one whose physical perspective is adopted, the PIVOT.

Complements of psych verbs will have an internal SELF and PIVOT, but an external SOURCE, c.f. (4.2).

(4.2) *That John didn't come to the party worried Mary.*

The complement clause represents the thought of Mary and is seen from her point of view. However, it does not represent her discourse. It is the external speaker who communicates Mary's state of mind.

It is also possible for only the PIVOT to be internal. This occurs in what Sells calls *third-person-point-of-view* (3POV) examples, when the speaker chooses to see the situation described in a clause from the main protagonist's "camera angle" instead of her own. [Sells 1987, 460] gives the example in (4.3):

(4.3) *Max was reading when Maria came to visit him.*

Max is the PIVOT in the adverbial clause, as is seen from the use of the verb *come*. This verb implies a movement from some distant point towards a center of deixis. In (4.3) the center of deixis is occupied by Max, not the external speaker. The external speaker is, however, both the intentional agent of the adverbial clause and the person whose thoughts it represents.

The internal use of three discourse roles form an implicational hierarchy of the following type: PIVOT>SELF>SOURCE. If the SOURCE is internal, then the SELF and the PIVOT must be internal too; if the SELF is internal, so is the PIVOT. The PIVOT, however, can be internal while the two other roles are external. The logic behind this is that, if the external speaker utters the discourse of the sentence-internal protagonist, the thought of this protagonist is also adopted. If the thought of the sentence-internal protagonist is presented, the point of view will also be hers, the mind being a part of the body (c.f [Sells 1987, 456]).

Constituents associated with one of the discourse roles can serve as antecedents for logophors. Languages differ, however, with respect to which discourse roles are relevant for logophoric binding. In Japanese, the relevant role is PIVOT. Example (4.4 a) involves a speech verb, and all three roles are therefore internal, attributed to Takasi. In (4.4 b) a psych-predicate is used, and SELF and SOURCE are attributed to Mitiko. (4.4 c) is a 3POV example, and only the PIVOT is internal. Note that subjecthood is not necessary for logophoric binding. In (4.4 b) an anaphor in a subject-marked clause is bound by an object-marked experiencer.

(4.4) (a) *Takasi$_i$ wa Taroo ni [Yosiko ga zibun$_i$ o*
Takasi Top Taroo Dat Yosiko Subj self Obj
nikundeiru koto] o hanasita
be-hating Comp Obj told
'Takasi$_i$ told Taroo that Yosiko hated him$_i$'

(b) *[Yosiko ga zibun$_i$ o nikundeiru koto] ga Mitiko$_i$*
Yosiko Subj self Obj be-hating Comp Subj Mitiko
o zetuboo e oiyatta
Obj desperation to drove

'That Yosiko hated her$_i$ drove Mitiko$_i$ to desperation.'

(c) *Takasi$_i$* *wa* *[Yosiko* *ga* *zibun$_i$* *o* *tazunete-kita* *node]*
Takasi Top Yosiko Subj self Obj visit-came because
uresigatta
happy
'Takasi$_i$ was happy because Yosiko came to visit him$_i$.'

These examples show that internal SOURCE or SELF is not necessary for Japanese long-distance binding. What shows that the relevant factor is internal PIVOT is the contrast between (4.4 c) and (4.5) (examples, glosses and translations from [Sells 1987, 453, 464-465]):

(4.5) **Takasi$_i$* *wa* *[Yosiko* *ga* *zibun$_i$* *o* *tazunete-itta* *node]*
Takasi Top Yosiko Subj self Obj visit-went because
uresigatta
happy
'Takasi$_i$ was happy because Yosiko went to visit him$_i$.'

In (4.4 c) the verb in the subordinate clause, glossed as 'visit-came', reveals that Takasi is the center of deixis, as the verb implies a movement towards such a center. In (4.5) the verb glosses 'visit-went' is used. The implied movement is from the center of deixis, and the PIVOT must therefore be the external speaker, not Takasi. As Takasi is not PIVOT, he cannot serve as antecedent for the anaphor in the embedded clause.

The distribution of internal SOURCE and SELF is not free. Rather, certain complement-taking verbs lexically specify that SOURCE and/or SELF should be internal[1]. A verb of speech will specify an internal SOURCE and SELF, while a psych-verb or a verb of thought will specify an internal SOURCE. Internal SOURCE and SELF cannot be specified on an adjunct clause or on the matrix clause, however[2].

The distribution of internal PIVOT is not determined by the lexical specification of a verb. The external speaker can, in many cases, choose to take the point of view of the main protagonist of a clause. However, some types of adverbial clauses are more compatible with an internal-PIVOT-reading than others. A causal clause will typically imply such a reading, while this is more unlikely in a temporal clause. A causal clause involves making judgments about the causal relationship between two events. Such judgments typically involve taking the internal protagonist's point of view. A temporal clause does not generally involve making such judgments (c.f. [Sells 1987, 466]). However, an internal PIVOT can be specified for the whole sentence, which also will be accessible for logophoric binding from within a subordinate clause.

4.2 Latin LDAs as logophors

4.2.1 SELF-oriented binding

I have previously shown that the antecedents for the normal Latin LDAs probably cannot be determined on the basis of syntactic position. Here, I suggest

[1] Complement-taking nouns and adjectives can presumably have the same property.

[2] [Sells 1987, 475] mentions a possible counter-example from Icelandic, where SELF-oriented binding appears to be possible into purpose clauses.

that they are rather oriented towards the discourse role SELF, and that the complements in which normal LDAs are found are complements of heads which select for an internal SELF.

In section 3.2.4 I suggested a categorization of verbs taking reported complements into, at least, verbs of thinking, feeling, perception and communication. With verbs of thinking, such as *intellego*, 'understand', the complement expresses the content of the thought. In a similar way, verbs of feeling, such as *vereor*, 'fear', express in the complement the mental state which provokes the feeling. However, these verbs do not imply that the thought or feeling is intentionally communicated. They will therefore specify an internal SELF (and consequently an internal PIVOT), but the SOURCE will be external. Logophoric binding should be subject oriented, provided that the verbs are active, as the subject of such verbs corresponds to the agent of the thinking event or the experiencer of the feeling. This is exemplified in (4.6 a) and (4.6 b) (=(2.1 b) and (2.6 b)).

(4.6) (a) *Hostes*$_i$ *[*$_{AcI}$ ... *de flumine transeundo*
enemies-nom about river-abl go-over-gerundive.abl
spem se$_i$ *fefellisse]* *intellexerunt*
hope-acc SE-acc deceive-perf.inf understand-perf.ind
'The enemies understood that their hope of crossing the river had deceived them.' (Caes. B.G. 2.10.4)

(b) *aequato omnium cultu quid*
make-equal-PerfPart.abl all-gen.pl clothing-abl what-nom
unaquaeque$_i$ *vestrum veretur* *[*$_{CompCl}$ *ne*
each one-nom.fem you-gen.pl fear.pres.ind.3p comp
in se$_i$ *conspiciatur]?*
in SE-abl notice-pres.subj.pass
'As the clothing of all is made alike, what is it that each one of you fears will be noticed in her?' (Liv. 34 4.12)

Nouns denoting thoughts and feelings can also take reported complements and will also select internal SELF. This is the case in (4.7) (=(2.16 a)). In such contexts the SELF will not be associated with the subject. In (4.7) a dative argument carries the role. This is no problem, as the roles are pragmatically, not syntactically determined.

(4.7) *Iam inde ab initio Faustulo*$_i$ *spes*
already since from beginning-abl Faustulus-dat hope-nom
fuerat *[*$_{AcI}$ *regiam stirpem apud se*$_i$
be-pluperf.inf royal-acc stock-acc next-to SE-acc
educari]
educate-pres.pass.inf
'Since the beginning, Faustulus had hoped that [someone of] royal stock was being educated with him' (Liv. 1.5.5)

In section 2.1.5 we saw several examples of long-distance binding where the binder was within an agentive PP and the complement-taking verb was a passive. This binding option is predicted by this theory, as the agent of a verb

of thought or communication usually will be the person whose thought is expressed; that is, the SELF.

Perception verbs, such as *video*, 'see', will pattern with verbs of thinking and feeling in that they specify an internal SELF and an external SOURCE. Perception is not only that the senses mechanically react to the external world, it also involves the recognition of the sensations, which is a mental act. The perceiver is the same person as the thinker, and an agent subject of a perception verb will therefore usually be the SELF, c.f. (4.8).

(4.8) *[Postquam [omnes Belgarum copias in unum locum*
after all-acc Beligans-gen troops-acc in one-acc place-acc
coactas ad se_i venire] $vidit_i$] ...
gather-PerfPart-acc to SE-acc come-pres.inf see-perf.ind
exercitum traducere maturavit
army-acc lead-over-pres.inf hurry-perf.ind
'After he had seen that all the Belgian troops, which were gathered in one place, came towards him, he hastened to lead the army over [the river]' (Caes. B.G. 2.5.3)

However, perception verbs can also be used in a slightly different way: It is possible to perceive an act of communication. This is the case in (4.9) (=(2.21 a)). As the act of communication expresses the thought of someone else, namely Marcus Favonius, he serves as SELF.

(4.9) *Vos ex M. $Favonio_i$ audistis $[_{AcI}$*
You-nom.pl from Marcus-abl Favonius-abl hear-perf.ind.2p.p
Clodium $sibi_i$ dixisse ... $[_{AcI}$ periturum Milonem]]
Clodius-acc SE-dat say-perf.inf die-fut.inf Milo-acc
'You have heard from Marcus Favonius that Clodius had said to him that Milo would die' (Cic. Mil. 44)

Verbs of communication, such as *dico*, 'say', select both an internal SOURCE and SELF: They imply both an intentional communication act and a communicated thought. An agentive subject of such a verb will be the intentional agent of the communication act, i.e. the SOURCE. In most cases, the bearer of the role SOURCE expresses her own thoughts, and therefore also serves as SELF. This is the case in (4.10) (=(2.1 a)).

(4.10) *$[_{AcI}$ De numero eorum omnia se_i*
about number-abl PersPron-gen.pl everything-acc SE-acc
habere explorata] $Remi_i$ dicebant
have-pres.inf explore-PerfPart.acc Remi-nom say-imperf.ind
'The Remi (a tribe) said that they had knowledge of everything concerning their number [i.e. the number of members of another tribe].' (Caes. B.G. 2.4.4)

However, this is not always the case. In some contexts the SOURCE and SELF, though both internal, can refer to different individuals: When an ambassador is sent out on behalf of someone else, the SOURCE is the ambassador, but the SELF

is the person on behalf of whom the ambassador speaks[3]. This is illustrated in (4.11 a) (=(2.17 b)). A similar situation arises in (4.11 b) (=(2.21 b)), where the SOURCE reads out loud a text written by someone else.

(4.11) (a) *legatos*$_{(j)}$ *ad eum mittunt*$_i$ …, *[qui*$_j$
ambassadors-acc to him-acc send-pres.ind RelPron-nom
dicerent *[*$_{AcI}$ *sibi*$_i$ *esse in animo* …
say-imperf.subj. SE-dat be-pres.inf in mind-abl
iter per provinciam facere]]
voyage-acc through province-acc make-pres.inf

'[The Helvetii] send ambassadors to him [i.e. Caesar], who are to say that they [the Helvetii] have in mind to pass through the province.' (Caes. B.G. 1.7.3)

(b) *Elogium recitasti de testamento Cn.*
clause-acc recite-perf.ind.2p from testament-abl Gnaius-gen
Egnati patris$_i$ … *[*$_{AcI}$ *idcirco se*$_i$
Egnatus-gen father-gen therefore SE-acc
exheredasse filium]
disinherit-perf.inf son-acc

'You read a clause from the father of Gnaius Egnatus [which said] that he therefore had disinherited his son' (Cic. Clu. 135)

This analysis sheds new light on the sentences (4.12 a) and (4.12 b) (=(2.24) and (2.25)). In section 2.1.5 I concluded that they were examples of fancy Ciceronian rhetoric, and did not challenge the idea that LDAs referred to the Thinker. We can now comment further on what Cicero is actually doing.

(4.12) (a) *Canum*$_i$ *tam fida custodia … quid*
dogs-gen such trusty-nom watchfulness-nom what-acc
significat aliud nisi [$_{AcI}$ *se*$_i$ *ad hominum*
signify-pres.ind else-acc except SE-acc for humans-gen
commoditates esse generatos?]
comfort-acc aux create-perf.pass.inf.masc.pl

'The trusty watchfulness of the dogs, what else does it mean, except that they were created for human comfort?' (Cic. N.D. 2.158)

(b) *quorum*$_i$ *ipsa terga declarant [*$_{AcI}$ *non esse*
their-gen very-nom backs-nom declare-pres.ind not aux
se$_i$ *ad onus accipiendum*
SE-acc for load-acc receive-gerundive-acc
figurata]
fashion-perf.pass.inf.neutr.pl

'Their [i.e. the oxen's] very backs declare that they are not fashioned for accepting loads' (Cic. N.D. 2.159)

In (4.12 b) the communication verb *declaro*, 'declare', is used. When I discussed these examples, I claimed that the matrix verb in (4.12 a), *significo*, was used

[3]Sells do not consider cases like this, and seems to assume that internal SOURCE and SELF always refer to the same individual (c.f. [Sells 1987, 456]).

with the communicative meaning 'show' rather than 'signify', which is used in the translation I have borrowed from [Benedicto 1991, 180]. I proposed the following, less literal, translation: 'What else do dogs show through their trusty watchfulness, except that they were created for human comfort?'. The subject is an abstract noun in (4.12 a): *custodia* 'watchfulness'. (4.12 b) has a body part as subject: *tergum*, 'back'. These are used metaphorically as intentional agents of the communicative act, as SOURCE. The animals in question, dogs in (4.12 a) and oxen in (4.12 b), serve as SELF[4]: The zeal and loyalty dogs are showing in protecting their owners is their way of expressing their purpose in life; the rugged backs of oxen declare to those who see them that their vocation is not to carry loads.

In this analysis, the crucial factor for whether or not a clause can take LDAs is the perspective taken by the external speaker: If the external speaker expresses her own thought, long-distance binding is excluded; if she imagines herself as being in the mind of another, so to speak, and expresses the thoughts of this other person, long-distance binding is available. There is no restriction on what kind of thought the clause expresses. It can be thoughts which unquestionably are propositional attitudes, as in the examples previously cited in this section, but also lies, as in (4.13 a) (=(3.47)), and fictional predicates, as in (4.13 b) (=(3.49)):

(4.13) (a) *[reverti* *se*$_i$ *in* *suas*$_i$ *sedes*
return-pres.inf SE-acc to SUUS-acc home-acc
regionesque] *simulaverunt*$_i$
regions-acc+and pretend-perf.ind

'They pretended that they were returning to their own homes and settlements' (Caes. B.G. 4.4.5)

(b) *[cum* *dedicatam* *in* *Capitolio* *eadem*
as dedicate-PerfPart.acc in Capitol-abl likewise
Tonanti *Iovi* *assidue* *frequentaret],*
Thunderer-dat Jupiter-dat regularly frequent-imperf.subj
somniavit$_i$ *[queri* *Capitolinum* *Iovem*$_{(j)}$
dream-perf.ind complain-pres.inf Capitolinus-acc Jupiter-acc
[cultores *sibi*$_{(j)}$ *abduci]* *seque*$_i$
worshipers-acc SE-dat take-away.inf.pres.pass SE-acc+and
respondisse *[Tonantem* *pro* *ianitore* *ei*
answer-perf.inf Thunderer-acc as doorkeeper-abl him-dat
appositum]]
place-perf.inf.pass

'Likewise, as [Augustus] regularily frequented the temple which he had dedicated to Jupiter the Thunderer, he dreamt that Jupiter Capitolinus complained that worshipers were taken from him, and that he answered that the Thunderer was put as doorkeeper for him.' (Suet. Aug. 91.2)

[4]In (4.12 a), *canum* is clearly the binder of the reflexive, not *custodia*, as the embedded periphrastic perfect infinitive agrees for masculine plural, not feminine singular, as it would if *custodia* were the binder. In (4.12 b), the periphrastic infinitive agrees for neuter plural, which could correspond both to the oxen and the backs. I assume that the oxen serve as antecedent, as these sentences are constructed in a parallel manner.

Turning now to clauses embedded within reported complements, it seems at first sight unexpected that LDAs should occur in adverbial clauses to reported complements, as in (4.14) (=(2.3)):

(4.14) *[$_{AcI}$ [$_{AdvCl}$ quorum si principes ac senatus sibi$_i$*
their-gen.pl if chiefs-nom and senate-nom SE-dat
iure iurando fidem fecisset], *ea condicione*
oath-abl loyalty-acc do-pluperf.subj that condition-abl
[$_{RelCl}$ quae a Caesare ferretur] *se$_{(i)}$*
RelPron-nom by Caesar bring-imperf.pass.subj SE-acc
usuros] *ostendebant$_i$*
use-fut.inf show-imperf.ind

'[The Germans] assured [Caesar] that they would accept such conditions as might be proposed by him, if their chiefs and senate [i.e. those of the Ubii, a Gallic tribe] would assure them their loyalty by oath.' (Caes. B.G. 4.11.3)

An internal SELF cannot occur freely, but heads which select complements specify that the complements should have internal SELF. Therefore SELF-oriented binding should be restricted to complements. In (4.14), however, the adverbial clause modifies a clause which already is specified for internal SELF. The LDA can refer to the SELF-specification in the higher clause. In examples such as (4.14), long-distance binding would have been blocked if the adverbial clause were in the indicative. [Sells 1987, 473] discusses a similar case in Icelandic, and suggests that a subjunctive is transparent to the role-specifications of the higher clause, while an indicative will block this possibility. This suggestion seems quite reasonable from a Latin perspective: An indicative within a reported complement will in Latin be interpreted as asserted by the external speaker only, while an adverbial clause which is part of what is reported, will obligatorily be in the subjunctive. Therefore, an indicative will not be part of the thought content of the SELF at all, while a subjunctive clause will.

If LDAs occur in a new, reported complement within a reported complement, they can either refer to the SELF specified locally or the SELF in the next clause up, yielding ambiguous sentences such as (4.15 a) (=(2.23 a)):

(4.15) (a) *cum aliquot post annis Maximus id*
when some after years-abl Maximus-nom that-acc
oppidum recepisset *rogaretque* *eum$_{(j)}$*
town-acc take-back-pluperf.subj ask-imperf.subj+and him-acc
Salinator$_i$, [ut meminisset$_j$ *[opera sua$_i$*
Salinator-nom comp remember-pluperf.subj effort-abl suus-abl
se$_j$ Tarentum recepisse]]
SE-acc Tarentum-acc receive-perf.inf

'When Maximus had taken back that town some years later and Salinator asked him to remember that he [i.e. Maximus] had taken back Tarentum through his [i.e. Salinator's] effords, ...' (Cic., de Orat. 2.273)

When a clause is specified for internal SELF, the PIVOT should also be internal. It could therefore be argued that LDAs in Latin refer to the PIVOT, not

the SELF. Furthermore, in section 4.2.2 I propose that the special LDAs are PIVOT-oriented. It would therefore seem reasonable to assume that the normal LDAs are also PIVOT-oriented. One type of complement clauses reveals, I think, that SELF is the relevant role for normal LDAs. In section 2.1.4 we saw that verbs such as *gaudeo*, 'be glad', *queror*, 'complain', and verbs and expressions such as *gratias ago*, 'give thanks', and *reprehendo*, 'blame' are followed by a complement clause with the complementizer *quod*, expressing the reason for the sentiment expressed. The complement clause can contain either an indicative or subjunctive verb, and LDAs only seem to occur in the latter case. The indicative/subjunctive distinction probably corresponds to the assertion/non-assertion of the external speaker. A reasonable assumption is that an internal SELF is specified only in the subjunctive, while an indicative complement obligatorily specified an external SELF, since it involves speaker assertion. While the SELF might be external, an indicative *quod*-clause quite likely still represents the point of view of the one who is glad, complains, etc., i.e. that person probably is the PIVOT, as the clause expresses the reason for the expression of that sentiment. If the normal LDA were PIVOT-oriented, therefore, LDAs should be just as accessible in indicative *quod*-clauses as they are in subjunctive ones, contrary to facts.

4.2.2 PIVOT-oriented binding

I concluded in section 3.3 that I could not find an obvious syntactic motivation for the special LDAs. An alternative is that also the special LDAs are pragmatically determined. A suggestion in that direction has been proposed in [Bertocchi 1994], although in quite a different theoretical framework to that of [Sells 1987][5]. Leaving out the technicalities of her theory, she proposes that, when LDAs occur in causal *quod*-clauses and relative clauses, they function as a device to assign a subjective interpretation to the sentence[6]. By a subjective interpretation she means that the internal protagonist, which most often is the matrix subject, is committed to the truth of the proposition. She illustrates this with examples such as (4.16 a) and (4.16 b) (from [Bertocchi 1994, 18]):

(4.16) (a) *Dexo$_i$* *hic,* *[quem* *videtis],* ... *[non*
Dexo-nom this-nom RelPron-acc see-pres.ind.2p.p not
quae *privatim* *sibi$_i$* *eripuisti,*
RelPron-acc as a private citizen SE-dat take-away-perf.ind.2p.s
sed *unicum* *miser* *abs* *te* *filium* ...
but only-acc unhappy-nom from you-abl son-acc
flagitat]
demand-pres.ind

[5] Bertocchi had also by this time abandoned the GB-style analysis of long-distance anaphora she proposed in [Bertocchi 1986], c.f. section 1.2.1.

[6] She claims that the subjunctive is another device with the same function, and she appears to suggest that a relative clause or *quod*-clause with a subjunctive regularly will express reference to the matrix subject through LDAs (c.f. [Bertocchi 1994, 17-18]). She might be right about that, though it seems to me that LDAs are quite rare outside of reported complements, whether or not the mood is subjunctive. Note also that she considers as adjuncts *quod*-clauses with verbs of thanking and verbs such as *gaudeo*, 'be glad', *queror*, 'complain' etc., in which LDAs regularly occur. I consider such clauses complements, following [Touratier 1994], [Torrego 1986] and others (c.f. section 2.1.4 and 4.2.1).

'This Dexo, who you(pl.) see here, does not demand of you(sg.) what you took from him as a private citizen; this unhappy man only demands of you his only son.' (Cic. Verr.II 5.128)

(b) *Metellus*$_i$ ... *in* *iis* *urbibus,* *[quae* *ad*
Metellus-nom in those-abl cities-abl RelPron-nom to
se$_i$ *defecerant]* ... *praesidia* *imponit*
SE-acc revolt-pluperf.ind garrisons-acc impose-pres.ind

'Metellus placed garrisons in the cities which had revolted [and gone over] to him.' (Sall. Iug. 61.1)

What these examples are meant to illustrate, is presumably that the point of view in the clause containing the LDA is that of the matrix subject. (4.16 a) is a court defense of someone whose property and goods have been stolen, and the situation is described from the poor Dexo's point of view to gain our sympathy. Something similar might be argued for (4.16 b): Assuming Metellus' perspective, we see the need to defend the cities which have recently revolted to him, and which the enemy therefore might want to take back. Arguments of this kind can indeed be made for many of the examples with special LDAs I have found in grammars, such as (4.17 a) (=(2.27 a)) and (4.17 b) (=(2.33 b)).

(4.17) (a) *Caesar*$_i$ ... *omnibus* *[*$_{RC}$ *qui* *arma*
Caesar everyone-dat RelPron-nom arms-acc
contra *se*$_i$ *tulerant],* *ignovit*
against SE-acc bear-pluperf.ind forgive-per.ind

'Caesar forgave everyone who bore weapons against him' (Vell 2.56.1)

(b) *ipsam* *ictu* *calcis* *occidit*$_i$, *[quod* *se*$_i$ ...
her-acc kick-abl kill-perf because SE-acc
conviciis *incesserat]*
reproaches-abl attack-pluperf.ind

'He kicked her to death, because she had scolded him.' (Suet. Nero 35.3)

This is less obvious for other examples, however, e.g. (4.18) (=(1.10)).

(4.18) *Epaminondas*$_i$ ... *ei* *[*$_{relCl}$ *qui* *sibi*$_i$ *ex*
Epaminondas-nom him-dat RelPron-nom SE-dat from
lege *praetor* *successerat]* *exercitum* *non*
law-abl praetor-nom succeed-pluperf.ind army-acc not
tradidit
transfer-perf.ind

'Epaminondas did not transfer the army to the one who had succeeded him as a praetor according to the law.' (Cic. inv. 1.55)

I believe that it might be possible to argue that point of view is relevant in explaining the special LDAs. I find Bertocchi's notion of *subjective interpretation* too strong, however. It is not obvious to me that the matrix subject is particularly committed to the truth expressed in the relative clauses in (4.16 a) and (4.16 b), and even less so in (4.18). The weaker notion of PIVOT might be more fitting. In clauses like (4.16 a) and (4.16 b) and (4.17 a) and (4.17 b),

where the external speakers are somehow sympathetic to the situation of the matrix subjects, their spatial point of view can also be taken; the situation is seen from their "camera angle". It might be possible to argue for an internal spatial point of view also in (4.18): The verb *succedo*, 'succeed', is composed of the prefix *sub*, 'under, behind' and *cedo,* 'go', and the meaning 'succeed' arguably draws on the metaphor of someone following after or walking behind someone else. The subject of the relative clause can be said to be the one who follows after or walks behind Epaminondas. This spatial ordering of the embedded subject and Epaminondas is possible if the point of view is that of Epaminondas. The argument is not very strong, however. To distinguish a speaker's point of view from an internal point of view, it is crucial to find prepositions or spatial expressions which will be different from these two points of view. *To the right of*, for example, is potentially different depending on the point of view (c.f. [Oshima 2007, 23-25]). Walk behind is probably also consistent with an external point of view. I have not found any examples with spatial expressions which would be different in this sense.

According to [Sells 1987], PIVOT-oriented binding is not restricted to complement clauses; an internal PIVOT can also be specified on an adjunct clause. However, some adjunct clauses are better candidates for receiving an internal PIVOT. We have seen that causal clauses are well suited for PIVOT-oriented binding, as they imply making judgments about the relationship between the matrix event and the embedded event, judgments which often make it necessary to take the internal protagonist's perspective. In Latin the special LDA does indeed occur in causal clauses, as in (4.17 b). However, the most common environment for the special LDA in Latin is relative clauses, correlative clauses and other clauses with an antecedent in the matrix clause (c.f. section 2.2). Such clauses do, at least in some cases, imply judgments analogous to those of causal clauses. In (4.16 b), for example, the matrix event is the placing of garrisons in certain cities by Metellus, and the embedded event is that of these cities revolting and going over to Metellus. A sort of a causal relation is implied between the two events: Metellus placed garrisons in these cities specifically, because they had revolted and therefore were potential targets for attacks from their former dominators. In (4.18) a judgment is also implied: Epaminondas should have transferred the army to his successor according to the law, but he did not do it. (4.19) (=(2.30 b)) has a correlative clause referring to a spatial adverb.

(4.19) *Volero$_i$* *..., [$_{CorrC}$* *ubi* *indignantium*
Volero-nom CorrAdv be-indignant-PresPart.gen.pl
pro *se$_i$* *acerrimus* *erat* *clamor],* *eo*
for SE-abl sharp-nom.sup be-imperf.ind shout-nom there
se *in* *turbam* *confertissimam* *recepit*
SE-acc in turmoil-acc dense-acc.sup receive-perf.ind
'Volero went to the place in the turmoil where the shouts of those who were indignant on his behalf were very loud' (Liv. 2.55.6)

Also in this case a judgment is implied: Volero went to that particular place, in spite of the fact that it was a dangerous place for him to go. While arguments like this can be made for relative and correlative clauses, there is possibly a greater range of clauses for which the argument can be made. This might there-

fore not fully explain why relative clauses and other clauses with an antecedent seem to constitute a relevant environment for the special LDA. Another alternative would be that such clauses are more transparent to an internal PIVOT specified on the matrix clause. In Japanese, this type of binding can be distinguished from binding as a result of internally specified PIVOT, in that the latter forces a sloppy reading, while the former does not (c.f. [Sells 1987, 467-471]). Such differences are hard to test for Latin, and it is therefore difficult to say if it is the PIVOT of the matrix clause or the PIVOT of the embedded clause which is relevant.

I showed in section 2.2 that the special LDA was predominantly subject-oriented, and that the binding options in relative clauses and relative-like clauses are for the most part the same as if the antecedent of the relative clause were itself an anaphor. If the special LDAs are PIVOT-oriented anaphors and if local anaphors are syntactically determined, then the similar binding patterns between local and long-distance anaphors should be a coincidence. Although the main protagonist of the matrix clause will most often be the subject, this is not always the case. If the binding is PIVOT-oriented, a non-subject should therefore be able to serve as antecedent, and examples looking something like (4.20) should be grammatical, given the right context:

(4.20) *Exercitus* *ab* *Epaminonda*$_i$ *ei* *[qui* *sibi*$_i$
Army-nom by Epaminondas-abl him-dat RelPron-nom SE-dat
ex *lege* *praetor* *successerat]* *non*
from law-abl praetor-nom succeed-pluperf.ind not
traditus *est*
transfer-perf.pass.ind aux
'The army is not transferred by Epaminondas to the one who had succeeded him as a praetor according to the law.' (Constructed)

If only subjects are available as binders, on the other hand, it might suggest that a syntactic account should be sought. Non-subject binders are attested with the verb *ango*, 'trouble', as in (4.21) (=(2.40 b)). However, such examples resemble certain local binding patterns with psych-verbs (c.f. section 2.2.3).

(4.21) *Hannibalem*$_i$ *ante* *omnia* *angebat* *[quod*
Hannibal-acc before everything-acc trouble-imperf.ind comp
Capua, *pertinacius* *oppugnata* *ab*
Capua-nom perseveringly-compar attack-PerfPart.nom by
Romanis *quam* *defensa* *ab* *se*$_i$, *multorum*
Romans-abl than defend-PerfPart.nom by SE-abl many-gen
Italiae *populorum* *animos* *averterat]*
Italy-gen states-gen minds-acc turn-away-pluperf.ind
'[The fact] that Capua, which was more perseveringly attacked by the Romans than defended by him, had turned the regard of many of the states of Italy away from him, troubled Hannibal more than anything.' (Liv. 26.38.1)

In this example, a clause with the complementizer *quod* functions as subject. In fact, a nominative subject is probably implied, which is the antecedent of the *quod*-clause (c.f. section 2.2.3). The accusative complement, Hannibal,

functions as experiencer of the trouble. I suggest that an example like (4.21) can be treated as an instance of PIVOT-binding: As Hannibal is the one who experiences the trouble, it is reasonable to see the cause of the trouble from his perspective. I think there are good reasons not to suppose an internal SELF in (4.21). The *quod explicativum*, the *quod*-clause which takes a nominal antecedent in the superordinate clause, is not an environment which usually takes SELF-oriented binding, and the mood is indicative, which normally should mean that the clause expresses the thought of the external speaker. Also, the content of the *quod*-clause can be said to represent the thought of Livius, the author, rather than Hannibal: The claim that Capua is more perseveringly attacked by the Romans than defended by Hannibal is an unlikely assertion by Hannibal himself, as it presents the Romans, his enemy, in a favorable way and him in an unfavorable way.

When an indicative relative clause containing an LDA is embedded within indirect speech, we have seen that the LDA can have either the SELF of the reported clause as antecedent, as in (4.22 a), or the immediate superordinate subject, as in (4.22 b) (=(2.39 a) and (2.39 b)). Indicative clauses within indirect speech are not part of what is reported, but represent the external speaker's thought (c.f. [Ernout-Thomas 1964, 425-426]).

(4.22) (a) *Dicit*$_i$ *[capram,* *[quam* *dederam*
say-pres.ind she-goat-acc RelPron-acc give-pluperf.ind.1p
servandam *sibi*$_i$*],* *suae* *dotem* *uxoris*
serve-gerundive-acc SE-dat SUUS-gen dowry-acc wife-gen
ambedisse]
devour-inf.perf
'He says that the goat, which I had given him to serve him, has devoured the dowry of his wife.' (Pl. Merc. 238-239)

(b) *Eum*$_i$ *fecisse,* *aiunt* *[sibi*$_i$ *quod*
he-acc do-perf.inf say-pres.ind SE-dat RelPron-nom
faciendum *fuit].*
do-gerundive-nom be-perf.ind
'They say that he did what he was doomed to do [i.e. he died]' (Pl. Poen. 956)

Matrix clauses in Sells' framework are usually specified for external PIVOT, but they can optionally be specified for internal PIVOT. A PIVOT-oriented anaphor in an embedded clause can either refer to an internal PIVOT specified on the matrix clause or to an internal PIVOT in the subordinate clause. A clause with internal SELF, such as the complement clauses in (4.22 a) and (4.22 b), obligatorily has an internal PIVOT, as internal SELF presupposes internal PIVOT. In (4.22 a), the internal PIVOT of the AcI is therefore the matrix subject. The anaphor within the relative clause refers to the PIVOT of the AcI. In (4.22 b) the matrix subject is of course also the PIVOT of the AcI. However, the relative clause is also specified for an internal PIVOT, which refers to the subject of the AcI.

We have to account for examples such as (4.23 a) and (4.23 b) (=(2.38 a) and (2.38 b)), in which the anaphor finds its antecedent higher up than the immediately dominating clause.

(4.23) (a) *Caesar*$_i$ ... *duabus de causis Rhenum*
Caesar-nom two-abl from reasons-abl Rhine-acc
transire constituit, [quarum una
cross-pres.inf decide-perf.ind which-gen.pl. one-nom
erat [quod auxilia contra se$_i$ *Treveris*
be-imperf.ind comp assistance-acc against SE-acc Treveri-dat
miserant]]
send-pluperf.ind
'Caesar decided to cross the Rhine for two reasons, of which the first was that [the Germans] had sent assistance to the Treveri against him.' (Caes. B.G. 6.9.1)

(b) *[cuius cum adventu maxime perturbatus*
his as arrival-abl especially trouble-pluperf.pass.subj
esset Antonius$_i$, *[quod ea [quae sibi*$_i$
aux Antonius-nom because those-nom RelPron-nom SE-dat
iussu vestro denuntiarentur] auctoritate
order-abl your-abl announce-imperf.pass.subj authority-abl
erant et sententia Ser. Sulpici
aux and thought-abl Servius-gen Sulpicius-gen
constituta], declaravit [quam
form-pluperf.pass.ind declare-perf.ind how much
odisset senatum]
hate-pluperf.subj senate-acc
'Antonius was particularly troubled by his arrival, because [the commands] which had been announced to him on your order, had been formed from the authority and wisdom of Servius Sulpicius. He therefore declared how much he hated the senate.' (Cic. Phil. 9.3.7)

In examples such as these, both the clause which is immediately dominated by the matrix clause, and the deepest embedded clause are of the type which allow PIVOT-oriented binding. One way to account for this binding pattern is to assume that the intermediate clause is specified for an internal PIVOT, and that the anaphor in the deepest embedded clause refers to the role of the intermediate clause. Conceivable alternatives would be that the deepest embedded clause could take the matrix subject as PIVOT or that the anaphor could refer directly to the PIVOT two clauses up. Such explanations might work for the examples in (4.23 a) and (4.23 b), where there is no obvious constituent in the intermediate clause which could take the role as PIVOT. In other sentences where this occurs, however, the intermediate clause also has a prominent protagonist. As PIVOT-oriented binding is supposed to occur into adjunct clauses only when there is some sort of close semantic relationship between the event of the superordinate clause and that of the embedded clause, it is hard to see how the deepest embedded clause can refer, somehow, to a PIVOT two clauses up.

Finally, it is useful to say a word on the relationship between mood and long-distance anaphora. In the analysis of the normal and special LDAs which I am arguing for here, mood does not directly block the possibility of long-distance binding. However, LDAs will occur in AcIs and subjunctive complements in the great majority of the cases: Only such complements specify an internal

SELF, and LDAs in Latin are usually SELF-oriented. PIVOT-orientation also exists as a more marginal strategy, and internal PIVOT can be specified both in clauses with an indicative and a subjunctive. Indicative clauses embedded within indirect speech, for example, will usually not have LDAs, as such clauses are obligatorily interpreted as asserted by the external speaker only. However, examples like (4.22 a) and (4.22 b) do sometimes occur, where the LDAs refer, not to an internal SELF, but to the PIVOT. The marginal status of PIVOT-oriented binding accounts for the fact that the special LDAs are rare, whereas the normal, SELF-oriented anaphors are very common.

4.3 Issues raised by this analysis

Sells theory accounts rather well for binding in reported clauses, as it does not refer to subjecthood or syntactic position, but rather to the three discourse roles. The distinction between SOURCE and SELF is quite meaningful in this environment, as normal LDAs are always oriented towards the originator of the thought, but not necessarily to the one who communicates that thought. His theory might also offer an explanation of what is going on in clauses with the special LDAs, although the evidence is less clear in that environment. Sells also assumes that there is a relationship between the availability of SELF-oriented binding and complementhood. Complement-taking verbs select for internal SELF and SOURCE, and these roles cannot be freely specified independently of such environments. This makes the right predictions for Latin, as the normal LDA occurs predominantly, and maybe exclusively, in complement clauses. However, this claim cannot be accepted as it is in a modular view of language. In Minimalism the selection of complements is a part of the syntactic module, which should be context-independent. The assignment of SELF and SOURCE, on the other hand, should happen at some other level of representation, as it depends on the discourse context. The assignment of discourse roles should not be able to interact directly with complement selection. There might however be a way to adopt Sells theory to a modular approach, a posibility which will be explored in section 5.2.

A second issue concerns the determination of the domain of PIVOT-oriented binding. The special LDA in Latin occurs predominantly in relative and relative-like clauses. In Japanese, which [Sells 1987] discusses, long-distance binding into adjunct clauses appears to be restricted to causal clauses. Such restrictions occur to me to be difficult to explain, given that internal PIVOT can be quite freely specified, and that an anaphor can refer both to an internal PIVOT specified on the subordinate clause and on the superordinate clause. As I explained above, Sells suggests that the restriction to causal clauses is due to the fact that causal clauses imply making judgments about the relationship between the superordinate event and the embedded event. I find this explanation rather vague, and it is not sufficient to explain why relative and relative-like clauses are favored environments for long-distance binding in Latin. If internal PIVOT can be freely specified and does not depend directly on argument selection, this domain restriction seems rather mysterious.

Chapter 5

Discussion

In the two preceding chapters I have applied two theories of long-distance anaphora to the Latin data, those of [Giorgi 2006] and [Giorgi 2007], and [Sells 1987]. In section 5.1 I will compare these two theories. While both theories make desirable predictions, there are theoretical and empirical reasons for not fully adopting one or the other. Section 5.2 sketches out what an analysis might look like which combines the advantageous points of both theories.

5.1 Giorgi vs. Sells

Giorgi explicitly conceives of her theory as an alternative to Sells', which analyzes long-distance binding as a part of sentence grammar rather than discourse grammar. This move is desirable to the extent that long-distance anaphora can be shown to be sensitive to syntactic factors. Giorgi's approach also has the theoretical advantage of linking long-distance anaphora to elements needed in the grammar for independent reasons, namely the tense interpretation of embedded clauses. In that way she avoids positing discourse roles to account for the antecedents of LDAs (c.f. [Giorgi 2006, 1009-1011], [Giorgi 2006, 1027-1028]).

As I have shown in the preceding chapters, the antecedent of Latin LDAs is probably determined by discourse factors rather than syntactic position. However, there are good reasons to assume that the normal Latin LDAs are restricted to complements. Giorgi's theory offers a way to formalize this: The coordinates of the BoA are located in a syntactic layer of the type of complement clauses attitude verbs take. At LF, these coordinates serve as anchor for tense interpretation and antecedent for LDAs. This approach is theoretically appealing, as the restriction to a syntactic environment, namely complements, can be handled in the syntactic module of the grammar. Sells also assumes a restriction to complements for SELF-oriented LDAs. In his framework, certain verbs select for internal SELF and SOURCE. If his theory is to be adopted in a minimalist framework, we need some way of implementing this selectional requirement in the syntactic module of the grammar. Such an implementation should ideally not be stipulative; there should be independent reasons for proposing such a selectional requirement.

While syntax is involved in the domain restriction of long-distance binding, discourse is clearly relevant in determining the antecedent for LDAs in Latin.

Both theories can in principle handle this. As we have seen, Giorgi is not specific when it comes to the identification of the coordinates of the BoA with the constituent which represents the BoA in the matrix clause. A reasonable assumption, however, is that the identity of the BoA is determined when the structure is interpreted with respect to the discourse. The antecedent will be the one who bears a propositional attitude towards the embedded proposition. This makes the right predictions in most cases of normal LDAs. Dream reports might be problematic, as we have seen, as Giorgi assumes that they do not express propositional attitudes. It is also not entirely clear to me how lies should be treated. It might well be that also these types of clauses can be adapted to fit Giorgi's framework. If such clause types can be treated as propositional attitudes, Giorgi's and Sells' theories make mostly the same predictions with respect to the antecedent of the normal Latin LDAs. If we are right in considering these as SELF-oriented anaphors, the binder is the individual whose thought or consciousness the clause expresses. In most, possibly all, cases this individual will also be a BoA.

Both theories also link long-distance anaphora to a sentence-internal perspective in the clauses where LDAs occur. According to Sells, such clauses have internal discourse roles; Giorgi, on the other hand, assumes that clauses of this type contain a representation of the coordinates of an internal protagonist, namely the BoA. However, Giorgi links long-distance anaphora to the mechanism responsible for dependent temporal interpretation. This does not make the right predictions for Latin. Firstly, dependent tense is not restricted to attitude complements, but is also obligatory in purpose clauses and other reported adjunct clauses, which probably do not allow the normal LDAs. Secondly, the special LDAs typically occur in clauses with independent tense. Also, while an internal perspective might be relevant also in clauses with special LDAs, such clauses do not necessarily express propositional attitudes. Sells' theory does not link long-distance binding to the mechanism responsible for tense. While it is conceivable that dependent tense is evidence for an internal perspective in some way, there is not necessarily a one-to-one relationship between clauses with dependent tense and clauses with internal discourse roles. In addition to this, Sells allows for a finer grained typology of types of long-distance anaphora, as LDAs can refer to different discourse roles. As I have argued above, I believe that Latin not only has SELF-oriented anaphors, but that PIVOT-orientation also exists as a marginal strategy.

The two approaches differ with respect to the status of the LDA itself. According to Giorgi, it is an unsaturated position with no independent semantics. In Sells' framework, on the other hand, an LDA is a particular kind of pronoun which has the property of referring to an internally specified discourse role. Giorgi's approach has the advantage that it allows for a unified treatment of local and long-distance anaphors. Both mark unsaturated positions and are saturated through the same interpretive mechanism, namely theta-identification. Her theory also explains why LDAs tend not to allow a near-reflexive reading. It is less clear from Sells' perspective why local and long-distance anaphors make use of the same lexical item: While local anaphors can be said to be referentially deficient, LDAs are a certain kind of referring pronoun.

In spite of this difficulty, it might be advantageous to consider LDAs as referring pronouns. Although [Sells 1987] does not make that parallel, there is arguably a correspondence between the function of first person personal

pronouns and LDAs. As we have seen, LDAs in reported context refer to the internal SELF, the person whose thought the clause expresses. In direct speech the first person of the personal pronoun is used to refer to the person who expresses her own thoughts. It might be possible, therefore, to say that this form of the personal pronoun has the property of referring to the external SELF. LDAs in reported clauses always correspond, as far as I can tell, to first person pronouns in the direct discourse equivalent, c.f. (5.1 a) (=(2.1 b)) and (5.1 b).

(5.1) (a) *Hostes*$_i$ *[*$_{AcI}$ ... *de* *flumine* *transeundo*
enemies-nom about river-abl go-over-gerundive.abl
spem *se*$_i$ *fefellisse]* *intellexerunt*
hope-acc SE-acc deceive-perf.inf understand-perf.ind
'The enemies understood that their hope of crossing the river had deceived them.' (Caes. B.G. 2.10.4)

(b) *De* *flumine* *transeundo* *spes* *nos*
about river-abl go-over-gerundive.abl hope-nom us-acc
fefellit
deceive-perf.ind
'The hope of crossing the river has deceived us.' (Constructed)

If we say that LDAs and first person pronoun both refer to a SELF, either internal or external, this correspondence receives a comprehensive explanation. In Giorgi's theory, this correspondence is close to a contingency: The personal pronoun presumably is a constituent with independent semantics, which accounts for its referring property. An LDA, on the other hand, is the spell-out of an unsaturated position, and its reference is determined by interpretive mechanisms external to it.

To summarize, Giorgi's theory is attractive in that it offers a good division of labor between syntax and discourse: LDAs are restricted to reported complements, because such complements contain a syntactic representation of the antecedent. The exact identity of this antecedent is figured out from the context. Her theory also offers a unified treatment of local and long-distance anaphors. However, linking long-distance anaphora to dependent tense is problematic in Latin, and the special LDAs are unexpected in her framework. Within Sells' theory it may be possible to explain both the normal and the special LDAs. While his theory does not explain why LDAs make use of the same lexical item as local anaphors, it makes it possible to explain the correspondence in use and meaning between LDAs and first person pronouns. In order to explain the domain restriction to complements within a modular approach to language, Sells' theory needs to be syntactically formalized in some way.

5.2 Anchoring to the context

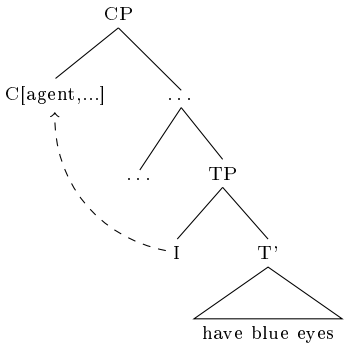
There might be a way to combine the insights of Sells with the theoretical advantages of Giorgi, building on recent works on indexical expressions[1]. In section 3.1 we saw that tense interpretation can be analyzed as an anchoring to utterance time and, in attitude clauses, to the attitude event. Building

[1] Thanks to Sandhya Sundaresan (p.c.) for pointing out to me the connection between Sells and these works.

on theories by the logician David Kaplan, there are good reasons to assume that indexicals, such as *I*, *she*, *yesterday*, *here*, *now*, etc., also need a similar anchoring. The special property of indexicals is that they are sensitive to the utterance context. The sentence *I have blue eyes* is the same, unambiguous sentence whether it is uttered by me or someone else. However, its truth varies depending on the person who is uttering it. When I utter it, it is a true proposition, as I happen to have blue eyes, while it will be false if uttered by someone with brown eyes, as *I* obligatorily refer to the utterer. In the same way, to evaluate the sentence *The police were here yesterday*, we must have access to the spatial context, in order to figure out the reference of *here*, and the temporal context, to figure out the reference of *yesterday* and the past tense morpheme. In a Kaplanian framework, a context is a set of parameters or coordinates, including, at least, an agent or speaker, an addressee, a spatial location, a temporal location and a world in which the utterance is located: *Context=<agent, addressee, space, time, world...>*. Indexicals are anchored to such coordinates, i.e. they are interpreted with respect to them. *I* is anchored to the agent, *you* to the addressee, *here* to the spatial coordinates, temporal adverbs and tense to the temporal coordinates, and so on (c.f. [Bianchi 2010], [Braun 2010]).

It has been proposed in several recent treatments of indexicals that the contextual coordinates are represented in the syntactic structure (c.f. [Bianchi 2010], [Sigurdsson 2004], [Sundaresan, forthcoming], [Schlenker 2003]). The C-domain is a likely location for these coordinates, as this domain usually is assumed to mediate between the clause and the context (c.f. [Bianchi 2010, 1]). In order for e.g. a first person personal pronoun to be interpreted, a relation must be established between the pronoun and the agent-coordinate, as the dashed line in (5.2) indicates:

(5.2)

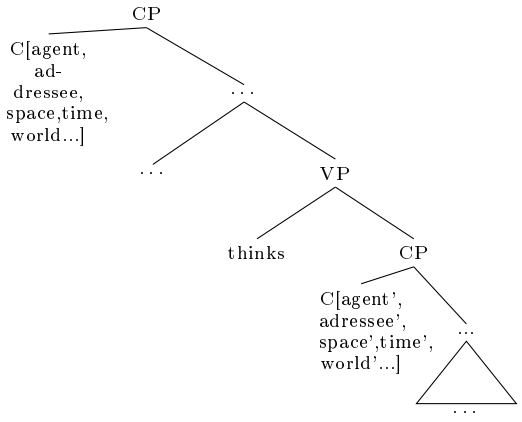


The relation in (5.2) can either be a relation established when the indexical element is interpreted at LF, along the lines in [Giorgi 2006], or it could be a relation established in the syntax (e.g. as in [Sigurdsson 2004]).

Until now we have only considered context outside of reported contexts. What happens in complements of verbs of speech and thought? [Schlenker 2003] proposes that a verb of speech/thought introduces a new set of contextual coordinates, reflecting the context of the speech/thought event to which that verb refers. This is exemplified in (5.3), where *agent'*, *space'* etc. refers to the

internal speech/thought event[2].

(5.3)



Indexicals within the embedded clause will be anchored to the internal coordinates[3]. Within a framework like this, it might be possible, at least in part, to give a syntactic account of Sells' theory. I suggest that LDAs referring to an internal SELF are in fact indexical pronouns anchored to the internal agent. If this is right, it would seem plausible that the pronoun were spelt out as a normal first person pronoun. Such pronouns do in fact exist, e.g. in Amharic ([Schlenker 2003]). However, in many languages this is not possible. Schlenker suggests that the first person pronoun found in English has the featurs [+C(ontextual)], which ensures that it is anchored to the context, and [+actual], which restricts it to the context of the actual (external) speech event. An Amharic first person pronoun is underspecified for [±actual]. Schlenker does not discuss LDAs, but treats the logophoric pronouns in African languages. These have the feature combination [+C,-actual], which anchors them to internal contexts only[4]. I suggest that also the normal LDAs are indexical pronouns, specified as [+C,-actual], referring to the agent[5]. In the same way as the reference of an external coordinates must be determined by the discourse context, e.g. when someone utters "I have blue eyes", also the reference of the internal coordinates is determined from the context. Given the semantics of verbs of speech and thought, an internal agent will often refer to the subject of the superordinate verb. In many contexts, however, the agent will be different from the matrix subject.

There is an apparent problem with this approach: We have seen that, in Sells' framework, SELF is the relevant discourse role in Latin, and that a SELF

[2][Schlenker 2003] does not specifically claim that the coordinates are located in the C-domain.

[3]The external context does also need to be accessible in some way, e.g. so that the first person of the personal pronoun within reported discourse can refer to the external agent.

[4]In fact, this system is significantly refined later in the article, where the [±actual] feature is derived from independently needed semantic principles. This first attempt will be sufficient for the present purpose, however.

[5]Giorgi also holds that the reference of pronouns depends on anchoring to contextual coordinates (c.f. [Giorgi 2006, 1039 n57]). As we have seen, however, she claims that LDAs do not have independent referring properties, and that their reference is determined by the temporal interpretation of the clause.

can bind LDAs, even when the SOURCE refers to a different individual. If an LDA refers to the agent, it would seem like it is SOURCE which is relevant, not SELF. However, an agent in a Kaplanian framework does not refer to the intentional agent of a communicative act, as the SOURCE does. The context in question in such a theory is not that of an utterance, but that of a linguistic expression. The expression *I have blue eyes* is true for me and false for someone else, whether or not this expression is uttered (c.f. [Braun 2010, 3.6]). In the same way, the expression *I am silent* cannot be true if it is uttered. However, it can be true of me in a context where I am not speaking, that is, a context where there is no SOURCE whatsoever (example from [Braun 2010, 3.6]). Also, thought events have agents, and verbs of thought will specify an internal agent in the same way as verbs of speech. A crucial property of indexicals referring to the agent, is that they are obligatorily interpreted *de se*: The person using the indexical is consciously referring to himself. If a person looks at the window and sees the reflexion of a man with burning pants, he might think or say either "his pants are on fire" or "my pants are on fire". While both expressions might refer to the same individual in the real world, only the latter implies that the person realizes that the man with the burning pants is in fact himself (example from Kaplan cited in [Schlenker 2003, 34]). Interestingly, LDAs are usually claimed to be obligatorily *de se* (e.g. in [Giorgi 2006])[6]. As agent-referring indexicals also occur in thoughts, and as a person consciously refers to himself when he uses it, we can probably conclude that a Kaplanian agent is quite close in meaning to Sells' SELF.

The situations where ambassadors speak on behalf of someone else, as in (5.4 a) (=(2.17 a)), might be problematic for this account. If the LDAs are agent-oriented indexicals, we would expect that agent-oriented indexicals were used in the direct discourse counterpart, given in (5.4 b). However, the first person singular pronouns in (5.4 b) will hardly be interpreted as referring to Caesar if uttered by the ambassadors.

(5.4) (a) *[Ad quos, cum Caesar$_i$ nuntios$_{(j)}$*
to them-acc when Caesar-nom messengers-acc
misisset, [qui$_j$ postularent [$_{CompCl}$
send-pluperf.subj RelPron-nom ask-imperf.subj
eos [$_{RelCl}$ qui sibi$_i$ Galliaeque bellum
they-acc RelPron-nom SE-dat Gaul-dat+and war-acc
intulissent] sibi$_i$ dederent]]],
inflict-pluperf.subj SE-dat surrender-imperf.subj
responderunt:
answer-perf.ind

'When Caesar had sent messengers to them [i.e. the Usipetes and the Tenchtheri, two tribes], who were to ask that they surrender to him those who had made war on him and on Gaul, they answered: ...' (Caes. B.G. 4.16.3)

(b) *dedite mihi eos qui mihi*
surrender-imp.pl me-dat they-acc RelPron-nom me-dat

[6] SELF-oriented LDAs are obligatorily *de se*, according to [Sells 1987], but the question is more complicated for PIVOT-oriented LDAs.

Galliaeque *bellum* *intulerunt!*
Gaul-dat+and war-acc inflict-perf.ind
'Surrender to me those who have made war on me and on Gaul!'
(constructed)

It might be that such examples imply that the ambassadors utter direct quotations. In other words, they say something like "Caesar says: "Surrender to me those who have made war on me and on Gaul!"". Such an embedded direct citation is probably implied in (5.5 a), where a text written by someone else is read out loud.

(5.5) (a) *Elogium* *recitasti* *de* *testamento* *Cn.*
clause-acc recite-perf.ind.2p from testament-abl Gnaius-gen
Egnati *patris*$_i$ ... *[*$_{AcI}$ *idcirco* *se*$_i$
Egnatus-gen father-gen therefore SE-acc
exheredasse *filium]*
disinherit-perf.inf son-acc
'You read a clause from the father of Gnaius Egnatus [which said] that he therefore had disinherited his son' (Cic. Clu. 135)

In section 2.3.2 we saw that there is not complementary distribution between LDAs and referring pronouns in Latin. The difference between them, however, was that LDAs always referred to the Thinker (leaving aside the special LDAs), while the pronouns could refer more freely. I now argue that also LDAs are referring pronouns. Why are the LDAs not ambiguous in the way the other pronouns are? The pronouns we discussed were the third person of the personal pronoun, *is*, and the demonstrative *ipse*. Such pronouns are what Kaplan calls *true demonstratives*. They do not refer directly to the contextual coordinates, but depend on the speaker's intention of referring to a specific object or person. In face-to-face conversation, this intention can be accompanied by a pointing gesture. Such referring pronouns are expected to have several possible referents, as the speaker's intentions may vary. Agent-oriented pronouns, on the other hand, are *pure indexicals*; that is, they refer unambiguously to a contextual coordinate, and do not depend on intentions or a pointing gesture ([Braun 2010, 1.3,2]).

It might also be possible to describe PIVOT-oriented binding in this framework. I suggest that LDAs in Latin marginally can refer to internal spatial coordinates, and that internal spatial coordinates can be specified also in contexts where the agent is external. This approach implies that the spatial coordinates are not only a point in space, but refer to a person (i.e. the main protagonist) occupying that point[7]. If this is the right approach, relative and correlative clauses appear to be a favorable domain for internal spatial coordinates in Latin. We still lack good motivation for this domain restriction, however.

While I believe that this might be a fruitful way to give Sells' intuitions a syntactic explanation, there are many questions which are left to be answered. The most important is why the reflexive pronoun is used as an indexical in Latin and in other languages, as a reflexive pronoun used locally appears not to be

[7] Giorgi seems to make a similar assumption for the temporal coordinates of the BoA.

indexical. One property which LDAs and local anaphors share, is that they are not true demonstratives, unlike many other pronominal elements. It might be that the reflexive pronoun is the best available candidate in the pronominal system for that reason. Another important question is the blocking of LDAs in indicative clauses. As we have seen, it is not so obvious that there is such a blocking in Latin, but the question is more pressing if a similar approach is adopted for languages such as Italian and Icelandic.

If this approach is correct, the Latin LDAs depend in a way both on the external and the internal context. With respect to the internal context it is similar to a first person pronoun in that it refers to the agent. Morphologically, however, it is a third person element, which reflects its status with respect to the external agent. This double dependency is in a sense analogous to the sequence of tense in subjunctive clauses, described in section 3.2.1: While a subjunctive clause in reported environments is temporally interpreted only with respect to the internal event, not with respect to the actual utterance time, it most often carries the same tense morphemes as the superordinate verb. If tense interpretation and pronominal reference depend on anchoring to contextual coordinates, it might be that a unified account can be given for the double dependency found in both domains[8].

[8] [Sundaresan, forthcoming] makes a similar observation, based on very interesting data from Tamil.

Chapter 6

General conclusion

I announced in the introduction that I would argue for two main theses. My first thesis is that clauses of reported speech/thought constitute a relevant domain for long-distance binding in Latin. I believe that this thesis receives strong support from the data I presented in chapter 2. LDAs in Latin are not only very frequent in complement clauses expressing reported speech/thought and rare elsewhere, but LDAs in this environment also have binding properties which distinguish them from the LDAs in other environments. The LDAs in reported complement, which I have called *the normal Latin LDAs*, obligatorily take as antecedent the noun referring to the person whose thought the clause expresses. This happens regardless of the syntactic position of this noun. The group of LDAs which occur outside of reported contexts, *the special Latin LDAs* in my terminology, have their own domain restrictions and binding properties. They typically occur in relative clauses and other clauses which have an antecedent in the matrix clause, but there are also a few examples in adverbial clauses. The special LDAs are most often subject-oriented. When a non-reported relative clause is embedded within a reported complement, however, the binder can either be the person whose thought the reported complement expresses or the subject of the reported complement. This last binding option is not available for LDAs in reported adjunct clauses to reported complements.

This thesis was advanced against the unified treatment of the two kinds of LDAs given in [Benedicto 1991]. Benedicto's analysis is based on the claim that LDAs occur in complements or adjuncts to complements. In that way, complement clauses, adjunct clauses within complement clauses and relative clauses to complement nouns can contain LDAs. A domain restriction to complements probably is descriptively correct for the normal LDAs. It is not correct, however, for the special LDAs: While the special LDAs often occur in clauses which require an antecedent in the superordinate clause, this antecedent does not need to be a complement. Also, LDAs occur in correlative clauses, which are assumed not to adjoin to their antecedent, but have a higher point of attachment in the clausal structure.

While I have shown that complement clauses expressing the thought of a sentence-internal protagonist do constitute a relevant domain of long-distance binding in Latin, I have relied on a somewhat imprecise definition of the term *reported speech/thought*. Defining the term more precisely would necessitate a thorough analysis of the different verbs in Latin which take clausal complements

with LDAs. This would involve a data collection and analysis which exceeds that which has been possible for me to do in the present work. In future research on Latin long-distance anaphora, this is an important task to be undertaken.

While the first thesis is data-oriented, the second is mainly theory-oriented. I argue that both syntactic and pragmatic factors must be taken into account in the analysis of Latin LDAs. I have tested a syntactic and a discourse theory of long-distance anaphora, and conclude that the Latin data is best accounted for in an approach which combines insights from both. The syntactic theory of long-distance anaphora in [Giorgi 2006] and [Giorgi 2007] links long-distance binding to the temporal anchoring of complement clauses expressing propositional attitudes to the temporal coordinates of the bearer of the attitude. The predictions this theory makes are in part borne out in Latin: The distribution of the normal LDAs seems to be sensitive to the syntactic distinction between complements and adjuncts, as such LDAs probably only occur in complement clauses and adjuncts to complement clauses. It might also be correct that the relevant types of complement clauses are those which express propositional attitudes, although some Latin examples might not be entirely captured by Giorgi's definition of the term. It is probably not correct, however, that long-distance anaphora is related to temporal anchoring in Latin. Not only complement clauses, but also certain types of adjunct clauses, have dependent tense. However, the normal LDAs probably only occur in the former. Moreover, the special LDAs are unexpected in this approach, as they occur in clauses which do not express propositional attitudes and which have independent tense.

A discourse approach to long-distance anaphora based on [Sells 1987] can account for the attested patterns in a descriptively better way. By proposing that the normal LDAs refer to an internal SELF, we end up with deriving the correct binding patterns without assuming a connection with the temporal interpretation of the clause. It might also be meaningful to consider the special LDAs as oriented towards an internal PIVOT, as many of the examples seem to have an internal Point of view in some way. While Sells' theory makes empirically good predictions, it needs to be adapted in some way to a modular view of language. Syntax should play a part in such an adaptation, as the complement/adjunct distinction is relevant to long-distance anaphora in Latin. I have therefore suggested an approach to long-distance anaphora in Latin which combines insights from both theories. In this approach, LDAs are indexical pronouns anchored to internally specified contextual coordinates. Certain verbs, notably those which take reported complements, specify a new set of contextual coordinates, referring to the speech or thought event. The normal LDAs are anchored to internally specified agent-coordinates in such complements. I also tentatively suggest that the space-coordinates can be internally specified in certain non-reported environments, and that the special LDAs refer to such coordinates. This approach has much in common with Giorgi's theory in that it links long-distance anaphora to contextual anchoring. In my view, however, it is the LDAs themselves which are anchored to contextual coordinates; their identification with their antecedent is not a by-product of the temporal interpretation of the clause. The predictions this theory makes are mostly the same as those of Sells. However, the antecedents of LDAs are not discourse roles, but contextual coordinates represented in the syntactic structure. The actual reference of the contextual coordinates is determined from the discourse context. In that way, both the syntactic and pragmatic factors can be accounted

for within a modular approach to language.

The restriction of the normal LDAs to complements has been an important argument in favor of a syntactic treatment of LDAs in this thesis. However, examples of LDAs in adjunct clauses with an oblique subjunctive are cited in grammars (c.f. section 2.1.3). No such examples turned up in my data collection from [the PROIEL corpus], and the examples from the grammars are few. I suspect that they can be analyzed as special LDAs. There is, in fact, nothing which prevents special LDAs from occurring in adjunct clauses with an oblique subjunctive, and which therefore, in a way, represents internal thought. More extensive data collection is needed to find out if such examples represent a challenge to the theory presented here.

This thesis has been concerned with LDAs in finite clauses and AcIs only. However, long-distance bound anaphors can be found also in control clauses and in participial constructions such as the ablative absolute. I suspect that an internal perspective is also relevant in these environments. To my knowledge, anaphors in such constructions have never been analyzed in Latin, and it would be interesting to see if the approach argued for here can be extended to cover also these cases.

Appendix

Collected examples of special LDAs

From[Kühner-Stegmann 1914 I, 613-614]: *Caesar*: B.G. 6.9.2; Civ. 3.53.5. *Cato*: Agr. 31.2; Agr. 37.3. *Cicero*: Att. 2.7.5; Inv. 1.53; Inv. 1.55; Inv. 1.70; Inv. 2.7; Ver. 2.5.128. *De bello Africo*: 8.5. *De bello Hispaniensi*: 22.6. *Frontinus*: Str. 1.12.9; Str. 4.2.2. *Horace*: Ep. 2.1.83. *Livy*: 1.17.2; 2.43.6; 2.55.6; 7.37.3; 8.35.1; 25.6.12; 26.38.1; 27.51.13; 28.8.14; 37.25.4; 39.23.6. *Lucretius*: 2.190; 2.237. *Nepos*: Ag. 7.4; Att. 7.1; Att. 12.3; Att. 16.4; Cim. 3.1; Dat. 6.8; Ep. 3.5; Ep. 8.3; Iph. 3.4. *Ovid*: Fast. 6.601; Met. 15.819. *Plautus*: Cur. 180; Cur. 479; Mer. 238; Mil. 187; Poen. 955. *Sallust*: Jug. 61.1; Jug. 66.1; Jug. 88.4; Jug. 103.2. *Seneca*: Ben. 6.11.2; 7.15.3. *Suetonius*: Gal. 12.1; Jul. 34.2; Jul. 74.1; Nero 35.3. *Terence*: An. 281[1]; Clu. 25; Clu. 176; Fam. 6.7.2; Fin. 5.62; Hec 660; S. Rosc. 2.6. *Velleius*: 2.56.1.

From [Lebreton 1901, 122-123]: *Cicero*: Q. Rosc. 39.

From [Menge 2000, 128]: *Cicero*: Brut. 26.106; de Orat. 2.53.213; Phil. 9.3.7; Quinct. 4.14.

[1] Considered among the normal LDAs in section 2.1.5.

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