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Anaforické prvky v latině

Anaphoric items in Latin

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Prohlašuji, že jsem disertační práci vypracovala samostatně s využitím uvedených pramenů a literatury.

.....
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Abbreviations

A – Accusative

Ab - Ablative

D – Dative

F – Futurum

Fem – Feminine

G – Genitive

Ger – Gerundive

Gr – Gerund

I – Infinitive

Impf – Imperfect

Ind – Indicative

M – Masculine

N – Nominative

Neu – Neutrum

P – Plural

Part – Participle

Perf – Perfect

Pt – Particle

Pass – Passive

S – Singular

Sub – Subjunctive

Sup – Supinum

1 – 1st person

2 – 2nd person

3 – 3rd person

Abstrakt

Předkládaná disertační práce analyzuje způsob užití anaforických prvků v latině a určení jejich antecedentu. Základem rozboru je teorie vázání N. Chomského. Podle jeho klasifikace anaforických prvků jsou do analýzy zahrnuta reflexiva, reciproka, prázdný subjekt finitních klauzí *pro*, prázdný subjekt infinitivu PRO, zájmena a samostatně referující výrazy (*R-expressions*). Vyloučeny jsou stopy (*traces*), které jsou výsledkem přesunu (*movement*), jež pro latinu jako nekonfigurační jazyk nepředpokládám. Pro každý typ anaforických prvků jsou zkoumána omezení kladená na jeho antecedent. Tato omezení, pravidla a tendence mohou mít různý charakter (mohou být syntaktická, sémantická, kontextová i pragmatická). Cílem analýzy je určit míru působení jednotlivých typů omezení pro každý zkoumaný anaforický prvek, zejména ukázat možnosti a limity strukturních omezení formulovaných v teorii vázání ve formě principů A, B a C.

Abstract

The goal of this dissertation is to analyze the use of anaphoric items in Latin, as they are classified in Chomsky's Binding Theory, and the determination of their antecedents. According to Chomsky's classification, reflexives, reciprocals, the empty subject of finite clauses *pro*, the empty subject of infinitive PRO, pronouns and R-expressions are examined. Traces are excluded from the analysis, because they are result of movement which I do not suppose to exist in Latin as non-configurational language. For each type of anaphoric items, constraints put on its antecedent are examined. These constraints, rules and tendencies are of different nature (syntactic, semantic, contextual, pragmatic). The aim of the analysis is to determine the degree of impact of each type of constraint for each anaphoric item, and especially to show possibilities and limitations of structural constraints formulated in Binding Theory in the form of Principles A, B and C.

Introduction

One of the essential characteristics of natural language is its linearity. As a consequence, items are denoted in texts repeatedly. Between different acts of denoting the same item in the same text links are supposed to exist. These links are based on coreferentiality of the appropriate denotates and are usually called “anaphoric relations”.

Anaphora is a multi-faceted phenomenon where syntactic, semantic, pragmatic and textual factors play their roles. There are many theories which attempt to explain anaphora and each of them accentuates one or two of the factors involved.

The study of Asian languages such as Chinese, Japanese or Korean has shown that in these languages pragmatics plays the central role in determining anaphoric relations (cf. especially Huang (1994)). The applicability of the predominantly syntactic theories such as Binding Theory in these languages is therefore rather restricted. On the other hand, widely studied European languages such as English show a prevailing influence of syntactic rules in the use of (at least) intrasentential anaphora, and so they can be relatively easily described in syntactic terms. However, if we try to analyze intersentential anaphora, syntactic means naturally do not suffice and textual analysis involving pragmatic and semantic considerations must be provided in order to explain these phenomena.

As was just said, languages differ in the relevance of syntactic/semantic/pragmatic/textual factors for anaphora. In my work I analyze situation in Classical Latin with respect to these factors for each anaphoric item, as they are classified by Binding Theory. Preference will be given to anaphora resolution over anaphora production – conditioned by the fact that only „ready“ written texts and no native speakers are available who could provide their judgements about possible made-up examples.

The analysis will be based on Chomsky’s Binding Theory, as far as structural constraints are at work.

In Chapter 1, different analyses of anaphora, as they were provided in the history of linguistics, with emphasis on the modern anaphora research, are presented. Of course the overview is by no means complete. There exists very rich literature about the topic and it is neither possible nor meaningful to attempt to include all of them.

First of all, traditional approaches are shortly mentioned (1.1.1.1). Special attention is paid to Chomsky’s Binding Theory (see 1.1.1.2). Based on Chomsky, T. Reinhart and E. Reu-

land (1993) (see 1.1.1.3) developed an alternative approach which aims to explain issues of reflexive binding that are not captured by Binding Theory.

Other important structuralist approach which includes the whole range of anaphoric phenomena is provided by B. Palek (1968) and (1988) (presented in 1.1.2.2 and 1.1.2.3 respectively). The difference between the approaches of Chomsky and Reinhart, Reuland (1993) on the one side and Palek (1968) and (1988) on the other consists in the fact that Chomsky and Reinhart, Reuland (1993) take as their starting point anaphoric items, whereas Palek treats the phenomenon of anaphora as a whole and the analysis of anaphoric items, as classified by Binding Theory, is only a part of the discussion.

Other works which have had impact on the study of anaphora are introduced as well: the overall influential analysis of textual cohesion provided by M. A. K. Halliday and R. Hasan (1976) in 1.1.2.1, pragmatic theory of anaphora in terms of Grice's theory of meaning and communication and based on Chinese by Y. Huang (see 1.1.1.4). Further, functionalist approach as provided by T. Givón is presented in 1.1.2.6, and an analysis of the use of pronouns in texts by R. Harweg (see 1.1.2.4) and a short explanation of a dynamic interpretation of texts by M.-E. Conte (in 1.1.2.5) are mentioned.

I do not claim that the works which I have chosen as the means of introduction the topic of anaphora are a representative, let alone an exhaustive picture of anaphora research. It is only a selection of the broad and varied range of works with different starting points and different conclusions on different facets of the phenomenon of anaphora which were written in the last decades. The most important of them for my research is Chomsky's Binding Theory, which is the basis of the discussion. Works by B. Palek provide many useful insights. The interaction between *pro*, pronouns and R-expressions in Latin has been largely studied from the functionalist point of view (cf. works by A. M. Bolkestein quoted here). Other approaches mentioned in Chapter 1 are of rather illustrative character and do not have a relevant impact on my own research.

Chapter 2 constitutes the main part of the work. It is devoted to the analysis of functioning of anaphoric items in Latin. The discussion is based on Chomsky's Binding Theory, as was presented by Haegeman (1994). Following groups of anaphoric items are differentiated, according to Binding Principles which they are subject to: reflexives are discussed in section 2.3, reciprocals are analyzed in 2.4. *pro* follows in 2.5. Section 2.6 is devoted to PRO; 2.7 and 2.8 shortly describe pronouns and R-expressions respectively.

Reflexives in Latin (see 2.3) can be both local and logophoric, the latter violating Principle A of Binding Theory. Subjects are preferred antecedents of local reflexives (cf. 2.3.1.1); nevertheless local reflexives can have non-c-commanding, i. e. non-subject antecedents, thus not obeying Principle A (see 2.3.1.2). Several explanations of this problem are discussed, as they are provided by Bertocchi (1989), but none of them is uniform and completely satisfactory.

Logophoric reflexives (see 2.3.2) occur in logophoric contexts, which are defined by Bertocchi (1994) in terms of functional grammar as being propositional, not predicative, i. e. containing “speaker’s commitment” (cf. 2.3.2.1). A special type of logophoric contexts I have concentrated on is indirect speech (see 2.3.2.1.1). The antecedents of logophoric reflexives in indirect speech are determined on the basis of their functioning in text as participant-speaker (the term see 2.3.2.1.1), irrespective of their syntactic role. Nevertheless, pronouns in indirect contexts at lower levels of embedding can have participant-speaker as antecedent as well (cf. 2.3.2.1.1.2, 2.3.2.1.1.3), and local reflexives with local antecedents can occur inside logophoric contexts as well (see 2.3.2.1.1.1.1).

The only presumably universally valid structural constraints which I have found were the constraint functioning in the constructions of *coniugatio periphrastica activa* (cf. 2.3.2.1.1.4) and AcI-construction (see 2.3.2.1.1.5), both of them in logophoric contexts, where the antecedents of embedded reflexives are matrix subjects.

Reciprocals, discussed in 2.4, are claimed to be exclusively predicate-bound. In my opinion, it is essential to differentiate their logical and anaphoric part.

As for the anaphoric part of the relation, it depends on the presence of anaphoric items in reciprocity markers (classification of reciprocity markers and overview of anaphoric items which occur in them is provided in (81)). Anaphoric items contained in reciprocity markers behave as predicted by binding principles. Reflexives are, differently from their “genuine” use, only local. The only exception violating Principle B is the reciprocity marker consisting of two pronouns. It can have a local antecedent, as examples (84), (100) and (102) demonstrate.

In 2.4.3 I applied the reciprocity classification proposed by Langendoen (1978) to Latin examples. In individual cases it was seldom possible to decide with certainty between several competing types of reciprocity. This fact shows that a great deal of vagueness is present in expressing reciprocity by means of natural language.

pro, the empty subject of finite clauses, discussed in 2.5, occurs very frequently in Latin as non-configurational language. Antecedent resolution depends in this case on many

different factors – referential structure of predicate (cf. 2.5.3), prominence of the participant (the term see in 2.5.2, further discussed in connection with pronouns and R-expressions in 2.7 and 2.8 respectively), structure of the sentence (discussed at length in 2.5.4), semantic information (see 2.5.5), information from previous context (cf. 2.5.6), in some cases also shared background knowledge of discourse participants (mentioned in 2.5.7). *pro* can be expletive, as is shown in 2.5.8.

One of strict constraints put on antecedent of *pro* is induced by referential structure of matrix predicate. In a way similar to control of PRO, certain verbs determine the coindexation of embedded empty subjects. Therefore I call them “*pro*-control verbs” (see examples in 2.5.3)

In coordinate and asyndetically connected clauses, if second and following subject(s) are empty, they are necessarily coindexed with preceding subject. This constraint seems to be generally valid (see 2.5.4.1). In 2.5.4.1.1, a comparison with Czech examples is provided.

Czech is the reference language also in the analysis of subordinate constructions (see 2.5.4.2.1). Logically possible combinations of overt NPs or pronouns and *pro* in subject positions of embedding constructions with different clause-order of embedded and matrix clauses are discussed in 2.5.4.3. This analysis represents the main part of this section.

In section 2.6 on PRO, an overview of infinitive constructions in Latin is provided first of all. They are classified according to their embedding/non-embedding, overt or empty subject and Case of subject (see (183)).

In connection with subjects of infinitive constructions, the question of Case assignment to overt subjects of these constructions arises. In AcI-constructions, it is solved by Maraldi (1980) by supposing that certain matrix verbs are able to assign Accusative Case to embedded subjects (see 2.6.2.1.1). As for non-embedded infinitives, Maraldi (1983) supposes Latin Infl to be “richer” than the English one and consequently able to assign Case to its subject (cf. 2.6.2.1.1) However, both of the hypotheses does not seem to be satisfactory (discussion see 2.6.2.2.1 and 2.6.2.2.2).

Anaphoric PRO can be controlled or uncontrolled in Latin. Controlled PRO behaves as predicted by Control Theory, i. e. it has a c-commanding antecedent, the controller, in matrix clause. Examples of subject control are unproblematic from the viewpoint of GB-Theory (see 2.6.3.2.1.1). Object control constructions, however, overtly coincide with AcI-constructions, as is shown in 2.6.2.1.1. Nevertheless, both constructions can be differentiated on the basis of properties of matrix verbs. Both subject and object-control constructions behave as predicted by Control Theory, i. e. the antecedent is determined structurally.

Anaphoric PRO can be also uncontrolled, see 2.6.3.2.2. In such a case, the antecedent is determined on the basis of information from previous text. PRO can be also expletive, cf. 2.6.3.3.

Pronouns and R-expressions can be only shortly described. The area is too wide to be captured completely.

Anaphoric use of pronouns, discussed in 2.7, is analyzed on the basis of a concrete text (Caesar's *Commentarii de bello Gallico*). The criteria which are applied are (a) the syntactic role of antecedents and pronominal postcedents and (b) the difference between their intersentential and intrasentential uses. The results are summarized in table (211). Tendencies in the use of pronouns which have been revealed cannot be understood as general, but only as a tentative hypothesis that requires further research.

As for R-expressions (see 2.8), the special issue of rendering Latin NPs definite has been discussed more profoundly in 2.8.3.

The discussion in sections 2.5, 2.7 and 2.8 makes it clear that the use of *pro*, pronouns and R-expressions must be taken as mutually interconnected. Especially the term of prominent participant (see (114)) defines the criteria which are important in the choice between them. However, it is not the only factor, as the analysis in 2.8.2 and also references cited here show. The discussion here is only a brief sketch of the complex situation.

Chapter 3 contains an overview of the results of the research and concluding remarks.

1 General description of the phenomenon of anaphora

The property of a text to be interpreted as an interconnected whole is called *coherence*. E. g. Bußmann (1983) defines *Textkohärenz* as follows: “Syntaktischer, semantischer und pragmatischer ‚Zusammenhang‘ von aufeinanderfolgenden Sätzen bzw. Äußerungen, die aufgrund dieser „Kohärenz“ als Text klassifiziert werden.” (Bußmann (1983): 537). Coherence is therefore a defining property of a text.

Another term widely used when analyzing texts is *cohesion*. Cohesion is usually understood in a more concrete sense as different kinds of links in a text whose sum provides coherence of this text. There exist different kinds of cohesion of syntactic, semantic or pragmatic nature: referential dependence of different items in the text, conjunctions, tense succession, implications, presuppositions etc. (cf. Halliday and Hasan (1976), Bußmann (1983)).

Traditionally, items in the text which are in the relation of referential dependence to other items already present in the previous text are called *anaphoric items*. Their existence is a universal feature of natural languages. They can stand for different parts of texts – noun phrases, verb phrases, adverbials, adjectives, prepositional phrases or even whole clauses, sentences or larger parts of texts (Bußmann (1983): 32 – 33). They are one of the several different types of cohesion and therefore form an important part of the coherence of the text.

A broader definition of anaphora is provided in Asher, Simpson (1994): 116, s. v. Anaphora: “The term ‘anaphora’, as it has come to be used in modern grammatical theory, encompasses the phenomena of pronominal reference and various kinds of ellipsis. What these have in common is that an element or construction is dependent for its interpretation on being associated with something else in the context.” In this definition, also ellipsis, i. e. empty items, is contained.

In Palek (1988) anaphoric relations are defined on the basis of identity¹ or incidence of denotates (Palek (1988): 47). Endophoric relations arise if both antecedent and postcedent are present in the text². Endophoric relation can be anaphoric or cataphoric. In an anaphoric relation, the antecedent is expressed by an NP or an independent instaurator³ and the postcedent by a dependent/independent identifier⁴; in a cataphoric relation, the sequence is reversed: the antecedent is expressed by an identifier and postcedent by a noun phrase.

¹ In this work, I analyze prevalingly cases of identity of denotates.

² If antecedent is understood from situation, the relation is called *exophoric*. Cf. also Halliday, Hasan (1976), discussed in 1.1.2.1.

³ Instauration is a phenomenon which enables the addressee to gain an idea of denotates and their mutual relations. See Palek (1988).

⁴ A type of instaurator which identifies denotates (Palek (1988): 355).

In this work when I am speaking about anaphors or anaphoric relations, I mean solely relations between noun phrases in a text based on identity of denotates, as defined in Palek (1988). Relations between other parts of clauses or texts are not taken into account.

Referents can be denoted by different means in texts – pronouns, reflexives, R-expressions or empty categories.

The function of pronouns, reflexives and empty categories in the system of language is (inter alia, cf. 1.1.1.1 about demonstrative use of pronouns) to signalize referential dependence on another preceding (in some cases also following, cf. cataphora) item. These items are undoubtedly anaphoric. Relations of identity of denotates can nevertheless exist also between idiosyncratically referentially independent items, i. e. R-expressions. Their coreferentiality can be achieved through some kind of semantic relation: synonymy, hyponymy or hyperonymy.

The fact that different R-expressions which can but do not have to be synonymous in the language system are interpreted as coreferential in a text probably has to do with the general human expectation that a language message is coherent if not marked otherwise. This leads the recipient of a message to interpret nominal expressions as coreferent if possible, even in cases where none of the semantic relations between R-expressions (synonymy, hyponymy, hyperonymy) exists in the system of language. There must certainly be some relation between the meanings of different NPs for us to say that they are coreferential but the nature of this relation is not predictable only from the information gained from the language system (in this case the lexicon) but it encompasses a much wider area.

It is also necessary to mark an R-expression which should not be interpreted as coreferential, especially if there occur two different entities of the same kind in the text. Here, it is necessary to use alterators (term by Palek (1968)) like *other* when introducing the second and following entities of the same kind. It is the only way for them not to be interpreted as coreferential. Alterators should not be discussed here.

In this work, I will describe each type of items with anaphoric capacity which are classified by Binding Theory from the viewpoint of their functioning in texts. Texts will be analyzed from the point of view of the recipient. This is determined by the nature of the material I have chosen for interpretation, i. e. Classical Latin – from that period of course only written texts are available.

1.1 Overview of some analyses of anaphora

Descriptions of anaphoric relations can be divided roughly into two types. The first and historically preceding type is the one where the starting point is the inherently referentially dependent items, i. e. usually pronouns (especially in older approaches). This conception does not include coreferential R-expressions and usually empty categories are excluded as well. Anaphora has been studied from this viewpoint from the Antiquity till our time.

The other possible way of analysis is to start from the text, to define anaphoric relations inside it and then describe items entering them. This kind of analysis has been provided from the middle of the 20th century on by textual linguistics.

Another kind of division of analyses of anaphora can be done according the lines which were established by semiotics – syntactic, semantic and pragmatic approaches.

Anaphora has been widely studied in the whole course of linguistic studies and the following outline necessarily cannot be complete.

1.1.1 First approach to anaphoric relations – from anaphoric items to their functioning in texts

This kind of approach to the problem of anaphora starts with more or less intuitive identification of items of language which are referentially dependent. Their description is the focus of these approaches. In more recent approaches of this kind also non-pronominal noun phrases are included but the description nevertheless concentrates on pronominal items, as their distribution is more regulated than that of non-pronominal noun phrases.

1.1.1.1 Traditional descriptions

The first approach to the problem of anaphora can be seen already in Ancient Greek linguistics where the authors differentiated between anaphoric and deictic functions of pronouns. This division of pronouns into anaphoric and demonstrative goes back to the Greek grammarian Apollonios Dyskolos⁵. Demonstrative pronouns are those which identify the objects which are spoken about by deixis, “pointing” at present items. Anaphora is under this approach “pointing” to an object which is not currently present but already known or “pointing” to an image of such an object in the speaker’s mind (cf. Jedličková (1962)). Deixis and anaphora differ under this definition further in that deixis is connected with spatial differentiation of objects which is not possible with anaphora. Anaphora can be then described as deixis with no spatial differentiation⁶. How tightly these two functions are interconnected can

⁵ Description of the approach of Greek grammarians see Steinthal (1863).

⁶ An opposite approach, supposing spatial differentiation to be present also in anaphoric use of pronouns, see 2.7.1. I adopt this approach here.

be seen in the fact that very often demonstrative pronouns are used in anaphoric function (as in Latin, see section 2.7).

Some more recent approaches go in these lines as well. K. Brugmann in (Brugmann (1904)) in the framework of historical-comparative linguistics in the beginning of the 20th century says that the demonstrative use of pronouns in the sense of pointing to phenomena of extralinguistic reality was the more original one and it was tightly bound to pointing gestures. From this deictic use, the secondary anaphoric use developed, namely pointing at things already mentioned in the previous text.

The cohesive function of anaphoric relations is not mentioned in these conceptions as the interest in text and textual linguistics developed only later on in the history of linguistic research.

The most influential of recent theories of anaphora out of the lines of “traditional grammar” is Chomsky’s Binding Theory.

1.1.1.2 N. Chomsky: Binding Theory

The most comprehensive syntactic description of anaphoric relations inside the sentence is Chomsky’s Generative Grammar. It is an almost exclusively syntactic theory of grammar with a highly developed formal apparatus for the description of language. Generative Grammar was first introduced in Chomsky’s *Syntactic Structures* in 1957 and it developed then in several stages.

Anaphoric relations were paid much attention in the 1980s during one of the stages of development of Generative Grammar, the so-called Government and Binding Theory (henceforth GB-Theory). This theory consists of several interconnected modules, each of them dealing with a different part of grammar. One of them is Binding Theory which is devoted to the description of anaphoric relations and of a grammar regulating interpretation of all types of noun phrases.

GB-Theory is not the latest phase of the development of Generative Grammar. The more recent one, the so-called Minimalist Program (the successor of GB-Theory), does not provide any novelty in the description of anaphoric relations, compared with the previous phase. On the contrary, they were dealt with very minutely during GB-Theory and its module Binding Theory. This is why I find it more appropriate to use the apparatus of GB-Theory for my analysis.

The following description of Binding Theory is based prevalingly on Haegeman (1994).

Overt noun phrases are divided into three groups:

(1)

- a) **anaphors**, i. e. reflexives and reciprocals, which have the same possibility to restrict a domain of a referent as pronouns.
- b) **pronouns** which do not refer independently but only restrict a domain from which a referent is to be chosen (however, within a context their reference is usually unambiguous), and
- c) referential expressions or **R-expressions**, i.e. full nominal expressions which refer independently (i.e. select their referent from the universe of discourse),

(Empty categories see below.)

Anaphors, pronouns and R-expressions differ with respect to constraints put on the occurrence of their antecedents in governing category.

Binding theory introduces three syntactic principles governing the distribution and interpretation of each type of NPs (reflexives, pronouns and R-expressions). They are stated as follows:

(2) Binding theory:

“Principle A

An anaphor must be bound in its governing category.

Principle B

A pronoun must be free in its governing category.

Principle C

An R-expression must be free everywhere.” (Haegeman (1994): 228)

To understand the terms *binding* and *governing category*, several other concepts must be introduced. First of them is *c-command*.

(3) C-command

“A node A c-commands a node B if and only if

- (i) A does not dominate B

- (ii) B does not dominate A
- (iii) the first branching node dominating A also dominates B.” (Haegeman (1994): 212)

Dominance is defined as follows:

- (4) “Node A dominates node B if and only if A is higher up in the tree than B and if you can trace a line from A to B going only downwards.” (Haegeman (1994): 85)

And finally *binding* is defined in the following way:

- (5) “A binds B if and only if
 - (i) A c-commands B
 - (ii) A and B are coindexed.” (Haegeman (1994): 212)

For the description of governing category, the term *government* must be defined. There are several definitions of government and of governing category. They differ with respect to cross-linguistic variation and the purpose of linguistic description. The definition provided here is sufficient for the description of overt categories. For non-overt categories, governors are not only lexical heads but also antecedents.

(6) Government

“A governs B if and only if

- (i) A is a governor;
- (ii) A m-commands B;
- (iii) no barrier intervenes between A and B;
- (iv) minimality is respected

where

- (a) governors are lexical heads and tensed I;
- (b) governors are coindexed XPs” (Haegeman (1994): 160 and 479)

For the definition of m-command, the definition of c-command must be slightly modified (cf. (3)):

“C-command: A c-commands B if and only if A does not dominate B and every X that dominates A also dominates B.” (Haegeman (1994): 137)

When X is equated with first branching node we obtain the c-command definition given in (3). If X is interpreted as maximal projection, we say that A m-commands B.

(7) Minimality

“A governs B iff there is no node Z such that

- (i) Z is a potential governor for B;
- (ii) Z c-commands B;
- (iii) Z does not c-command A.” (Haegeman (1994): 479)

(8) Governing category

“The governing category for A is the minimal domain containing it, its governor and an accessible subject/SUBJECT.” (Haegeman (1994): 241)

(9) Subject/SUBJECT

- a. Subject: NP in [Spec, XP]
- b. SUBJECT corresponds to finite AGR.” (Haegeman (1994): 241)

(10) Accessible subject/SUBJECT

“A is an accessible subject/SUBJECT for B if the coindexation of A and B does not violate any grammatical principles.” (Haegeman (1994): 241)

A grammatical principle that could be violated by coindexation is e. g. the *i*-within-*i* filter which does not allow coindexation of the following kind:

(11) * $[_{A_i} \dots B_i \dots]$

Informally speaking, we can say that (coming back to (2)) an antecedent binding an item must be “higher up” in the tree representation of the clause (but not directly dominating it – cf. the definition of c-command and m-command) and it must be coindexed with the item.

As we can see, the definition of the types of NPs is semantic, whereas restrictions put on their distribution and interpretation are syntactic.

In GB-Theory, not only overt NPs play an important role but also their empty counterparts. These counterparts are so-called traces of NP-movement and wh-movement⁷, empty

⁷ It is supposed that a structure of the sentence undergoes changes on its way from the D-structure, which is a projection of lexical properties of its elements, to the surface structure – the actual sentence. These changes consist in “moving” elements away from their original D-structure positions. In the original positions, “traces” of the elements stay behind.

subject of finite clauses *pro* (called “small *pro*”), and empty subject of infinite clauses PRO (“big PRO”). With respect to binding principles, NP-traces share their properties with anaphors, *pro* underlies Principle B like pronouns, and *wh*-traces are similar to R-expressions in that they obey Principle C.

The situation with PRO is a little more complex. It should be both bound and free in its governing category (cf. (13)). This paradox is solved in Binding Theory by supposing PRO to be ungoverned, therefore there is no need of governing category. It is expressed by the so-called *PRO theorem*:

(12) PRO must be ungoverned. (Haegeman (1994): 285)

The NP types listed in (1) were re-defined in terms of feature matrices later during the development of GB-Theory. Categories which are subject to Principle A are characterized by the feature [+ Anaphor]. Categories subject to Principle B are [+ Pronominal]. We then obtain the following overview of NP types:

(13)

		overt	non-overt
[+ Anaphor]	[- Pronominal]	reflexives, reciprocals	NP-traces
[- Anaphor]	[+ Pronominal]	pronouns	<i>pro</i>
[- Anaphor]	[- Pronominal]	R-expressions	<i>wh</i> -traces
[+ Anaphor]	[+ Pronominal]	---- ⁸	PRO

Binding principles are then re-formulated:

(14) “Principle A

An NP with the feature [+Anaphor] must be bound in its governing category.

Principle B

An NP with the feature [+Pronominal] must be free in its governing category.”

(Haegeman (1994): 241)

⁸ An element underlying such requirements would have to be simultaneously bound and free in its governing category which is impossible. One way out of this situation is to say that the element does not have a governing category, i. e. it has no governor, as it is said for the empty element PRO (cf. (12)). This is impossible for overt NPs because the absence of a governor would mean that they would not have a Case – a violation of Case Filter (a condition of GB-theory saying that every overt NP must have a Case). There can be an empty element which has these features but not an overt one.

R-expressions are not subject to these principles as they are negatively specified for these features. About PRO see above.

In this work, I will analyze following types of NPs, according to the classification of Binding Theory: reflexives, reciprocals, pronouns, R-expressions, *pro* and PRO. An analysis of traces will not be pursued. The notion of *trace* is based on the conception of movement developed in configurational languages. I do not think that it is appropriate to use this conception in non-configurational languages, too; especially Latin shows a great extent of word-order variability, which is influenced by reasons originating in informational-structure considerations which are not included in GB-framework (Latin word order see in Adams (1976), Bolkestein (1996), (1998) and (2001), Cabrilla (1996), De Jong (1983) and (1989), Elerick (1990) and (1994), Spigariol (1990), among others). Movement types and possibilities would have to be dramatically broadened to account for Latin word-order options.

In non-configurational languages, the term of *proto-sentence*, in the sense of “abstract” word order capturing relations between clause members without respect to their surface order, as introduced in Palek (1989) and Palek, Nebeský (1989) seems to be more appropriate.

Chomsky and researchers working in terms of his theory have developed a very complex and comprehensive theory of anaphora. Nevertheless, its explanatory capacity is restricted by its confinement to syntax. Sentence is seen as the highest unit of language analysis. The applicability of Principles A, B and C of Binding Theory is limited to governing category. Whatever the definition of the term is, it does not go behind the boundary of a sentence. Therefore it is only intrasentential anaphoric relations which can be described by means of Binding Theory. If we limit ourselves to this domain, Binding Theory undoubtedly provides a very valuable explanation of the facts. As a natural consequence, inside Binding Theory attention is prevalingly paid to items with antecedents inside these boundary – reflexives and reciprocals. As for items underlying Principles B and C, Binding Theory only defines the domain where the antecedent must not occur, without providing any clue which would help to identify it. Its applicability for an analysis of anaphoric relations is therefore restricted.

1.1.1.3 T. Reinhart, E. Reuland: Conditions on predicates

The theory of Tanya Reinhart and Eric Reuland (presented in Reinhart, Reuland (1993)) is a reaction on Chomsky’s Binding Theory. It provides explanations of facts which cannot be possibly accounted for by means of Binding Theory.

According to Reinhart and Reuland, anaphora is subject not only to Binding theory but also Chain theory. Distinguishing binding effects from chain effects allows the binding conditions also work correctly in languages other than English.

According Reinhart, Reuland, anaphors⁹ fall into two types:

(15)

(a) long-distance anaphors such as Dutch *zich*¹⁰. Anaphors of this type are usually simplex expressions. Reinhart, Reuland (1993) refer to them as **SE anaphors**.

(b) local anaphors, e. g. English *himself* or Dutch *zichzelf*. These anaphors are usually complex expressions. They are called **SELF anaphors**.

Both types of anaphors may be used also logophorically¹¹.

Anaphors are referentially defective NPs. Binding may then be viewed as a process assigning the content necessary for their referential interpretation (Reinhart, Reuland (1993): 658). But the two types of anaphors differ in their grammatical functions. SELF anaphors function as reflexivizers; SE anaphors lack this function. Reinhart and Reuland then provide the following typology of anaphoric expressions, including SE and SELF anaphors and pronouns:

(16)

	SELF	SE	Pronoun
Reflexivizing function	+	-	-
R(eferential independence)¹²	-	-	+

(Reinhart, Reuland 1993: 659)

According to Reinhart and Reuland, each of the properties in the left column is governed by another module of linguistic knowledge – reflexivizing function is relevant for binding conditions (these are substantially different from Chomsky’s binding principles, cf. (18) and (22)), the property R falls under chain theory (together with NP-movement).

The domains of anaphora occurrence can be reduced to two types. The first is the domain of reflexivity (“local” domain), where a SELF anaphor obligatorily reflexivizes the

⁹ In fact, reflexives.

¹⁰ These anaphors are subject-oriented.

¹¹ Logophoric anaphors are such that their antecedent is not determined syntactically but by the discourse.

¹² This property is essentially the same as assumed in Chomsky’s Binding Theory for R-expressions, except that pronouns are – unlike to Chomsky – ascribed this property in Reinhart, Reuland (1993): 659.

predicate. Here, both pronouns and SE anaphors are excluded. The other domain is the domain allowing SE anaphors to be bound.

Binding conditions A and B, as re-formulated by Reinhart and Reuland, are conditions on reflexive predicates. Reflexive predicates are defined as follows:

- (17) “a. A predicate is reflexive iff two of its arguments are coindexed.
b. A predicate (formed of P) is reflexive-marked iff either P is lexically reflexive¹³ or one of P’s arguments is a SELF anaphor.” (Reinhart, Reuland (1993): 663)

Condition B of Reinhart and Reuland is then formulated in the following way:

- (18) “Condition B
A reflexive predicate is reflexive-marked.” (Reinhart, Reuland 1993: 663)

It means that arguments of a predicate which is not intrinsically reflexive¹⁴ can be coindexed only if one of the coindexed arguments is a SELF anaphor. This explains differences in Dutch cases like

- (19) **Max haat zich.*
Max hates SE

- (20) *Max schaamt zich.*
Max shames SE
,Max is ashamed’

- (21) *Max wast zich.*
Max washes SE

(All examples from Reinhart, Reuland (1993): 665f.)

Cases like these constitute a real challenge to the standard Binding Theory. The explanation under the modified binding theory in Reinhart, Reuland (1993) is the following. In (19), the

¹³ A verb is intrinsically (lexically) reflexive if it cannot take any object distinct from reference from the subject.

¹⁴ Examples of intrinsically reflexives predicates are e. g. the Dutch *schamen* (“to be ashamed”), Czech *stydět se* (“to be ashamed”), *bát se* (“to be afraid”), or German *sich schämen* (“to be ashamed”), *sich fürchten* (“to be afraid”).

predicate is reflexive because its arguments are coindexed but it is not reflexive-marked as it is neither inherently reflexive nor one of its arguments is a SELF anaphor. Therefore it is ruled out. In (20), the verb is reflexive (because its arguments are coindexed) and also reflexive-marked as it is intrinsically reflexive. Condition B of the modified binding theory is met. Verbs like *wassen* in (21) have two lexical entries: as a reflexive and as a non-reflexive (transitive). Their reflexive entry allows for the use of SE anaphors and their transitive entry occurs with a SELF anaphor¹⁵. (Reinhart, Reuland (1993): 665f.)

Condition A is re-formulated in the following way:

(22) “Condition A

A reflexive-marked predicate is reflexive.” (Reinhart, Reuland (1993): 671)

It means that if a predicate is intrinsically reflexive or has a SELF anaphor as an argument, its arguments must be coindexed.

As we see, neither Condition B nor Condition A of Reinhart, Reuland (1993) makes use of configurational notions like c-command or binding.

The new formulation of the Condition A explains the contrast in cases like the following ones:

(23) *There were five tourists in the room apart from myself.*

and

(24) **Five tourists talked to myself in the room.* (both examples by Reinhart, Reuland (1993): 669)

In (23), the SELF anaphor is an adjunct, not an argument of the predicate, therefore it is not ruled out by Condition A. The same is not true for (24). Here, the predicate is reflexive-marked by the SELF-anaphor argument without being reflexive (i. e. having coindexed arguments), therefore it is ruled out Condition A.

¹⁵ From this follows that the Dutch construction *Max_i wast zichzelf_i* should be grammatical as well, with the same meaning as (21); however, it is not used in Reinhart, Reuland (1995) and I am not able to judge whether it is really so.

See below the explanation of why in cases like (21) no pronoun is allowed.

Reflexivization contexts are the only contexts where SELF anaphors are in complementary distribution with pronouns. In logophoric (discourse) contexts where the syntax allows both a pronoun and a SELF anaphor to be coindexed with a given antecedent, the choice between them is motivated by discourse considerations (Reinhart, Reuland (1993): 672).

Pronouns and SE anaphors are undistinguishable with respect to Condition B. However, they differ in some respects. E. g. when the predicate is intrinsically reflexive, a SE anaphor, but not a pronoun, is allowed:

- (25) *Willem_i schaamt zich_i/*hem_i.*
Willem shames SE/*him
(Reinhart, Reuland (1993): 691)

Similar differences occur in ECM¹⁶ subject position:

- (26) **Jan_i hoorde zich_i/hem_i.*
Jan heard SE/him
- (27) *Jan_i hoorde [zich_i/*hem_i zingen].*
Jan heard [SE/him sing]
(Reinhart, Reuland (1993): 691)

Condition B of the modified binding theory captures the SE cases of the above examples. Pronouns must be accounted for in another way.

The explanation of the distribution of pronouns is found in a slightly modified Chain theory. In Chomsky's formulation of the Chain Condition, a coindexation is defined as an A-chain only if it has exactly one Case (in its head position), and exactly one θ -role. The assumption is that an A-chain necessarily forms one semantic argument (Reinhart, Reuland

¹⁶ The term E(xceptional) C(ase) M(arking) describes situations where a verb can govern into an IP and assign case to its subject NP. E. g. *John believes [him to be a liar]* (Haegeman (1994): 169f.) A further modification of the Chain Condition would be necessary to explain ECM cases fully; however, it is not of importance for this overview. See Reinhart, Reuland (1993): 699ff.

(1993): 694f.). Reinhart and Reuland formulate the Chain Condition in terms of the property R^{17} and Case:

(28) “General condition on A-chains

A maximal A-chain $(\alpha_1, \dots, \alpha_n)$ has

a. exactly one link $-\alpha_1-$ that is both +R and marked for structural Case

and

b. exactly one θ -marked link.” (Reinhart, Reuland (1993): 698)

The Chain Condition is then respected both by NP-movement chains and anaphor chains. In standard cases like *Felix_i behaves himself_i* the anaphor is Case-marked but $-R$. Therefore there is only one link $-Felix-$ which is both Case-marked and +R. In examples like **Felix_i behaves him_i* both of the links *Felix* and *him* are +R and Case-marked. Therefore such cases are ruled out by part a. of Chain Condition. Chain Condition also correctly filters out cases like **Himself praised Felix* where the chain is headed by a referentially dependent element. According to the Chain Condition the referentially independent element of the chain must c-command the referentially dependent element. Part b. of Chain Condition rules out cases with ECM subjects.

To sum up the most important message in Reinhart, Reuland (1993): (modified) binding conditions themselves contain no reference to either configurational or thematic hierarchy. Capturing anaphora is divided between two modules: binding theory, which is sensitive only to the reflexivizing function, and chain theory, which has to do with R property. Issues traditionally taken to be sensitive to c-command fall under chain theory as well.

The theory of Reinhart and Reuland is without any great significance for Latin. First, there is only one type of reflexive in Latin, so that no SE and SELF anaphors can be distinguished; second, there exist no intrinsically reflexive predicates like *schamen*¹⁸.

1.1.1.4 Y. Huang: Neo-Gricean pragmatic theory

It was already said that Chomsky’s Binding Theory is a syntactic one. There is also a pragmatic theory which can be said to fall into the approach *from items to functions*. It is Yan

¹⁷ See table (16).

¹⁸ In the conjugation of Latin verbs, three genera are traditionally differentiated: active, passive and medium. The forms of medium are identical with passive forms but their activity is described as “reflexive”, namely such that they express an activity, “die von dem Subjekte ausgeht und wieder auf dasselbe in irgend einer Weise (direkt oder indirekt) zurückgeht” (Kühner, Stegmann (1912a): 649), e. g. *lavor* – “I wash myself” (and also “I am washed”).

Huang's neo-Gricean theory presented e. g. in Huang (1994), Huang (2001) and other papers. The following description is based on the revised version of Huang's pragmatic theory contained in Huang (2001).

Grice's theory of meaning and communication has two parts: a theory of meaning-_{n[on]n[atural]} and a theory of conversational implicature. For the pragmatic theory of anaphora, theory of conversational implicature is of a special importance.

“In the theory of conversational implicature, Grice suggests that there is an underlying principle which determines the way in which language is used maximally efficiently and effectively to achieve rational interaction in communication.” (Huang (2001): 329 – 330). This principle he calls co-operative principle. The co-operative principle has nine maxims divided into four categories. The principle should ensure that in a communication, the right amount of information is provided.

(29) Grice's theory of conversational implicature

a. The co-operative principle

Be co-operative.

b. The maxims of conversation

Quality: Be truthful.

(i) Don't say what is false.

(ii) Don't say what lacks evidence.

Quantity: (i) Don't say less than is required.

(ii) Don't say more than is required.

Relevance: Be relevant.

Manner: Be perspicuous.

(i) Avoid obscurity.

(ii) Avoid ambiguity.

(iii) Be brief.

(iv) Be orderly.” (Huang 2001: 330)

Conversational implicatures are a set of non-logical inferences that contains conveyed messages which are meant without being explicitly said. They can arise by strictly observing or ostentatiously flouting the maxims.

Levinson reduces the original Grice's maxims to three neo-Gricean pragmatic principles: the Q[quantity], I[nformativeness] and M[anner] principles.

(30) Levinson's Q-, I- and M-principles

“a. The Q-principle

Do not say less than is required (bearing I in mind)

b. The I-principle

Do not say more than is required (bearing Q in mind)

c. The M-principle

Do not use a marked expression without reason.” (Huang (2001): 331)

The basic idea of Q-principle is that the use of an expression (a semantic weaker one) in a set of contrastive semantic alternates Q-implicates the negation of the interpretation associated with the use of another expression (a semantically stronger one) in the same set.

I-principle mirrors the effects of the Q-principle. It says that the use of a semantically general expression I-implicates a semantically specific interpretation. There is a whole class of I-implicatures.

Q- and I-principles function primarily in terms of semantic informativeness. The M-principle operates in terms of a set of alternates that contrast in form. According to M-principle, the use of a marked expression M-implicates the negation of the interpretation associated with the use of an alternative, marked expression in the same set.

According to Huang's neo-Gricean pragmatic theory of anaphora, the interpretation of certain patterns of anaphora can be made by utilizing general pragmatic inferences, depending on the language user's knowledge of the range of options available in the grammar, and of the systematic use or avoidance of particular anaphoric expressions or structures on particular occasions. Huang applies the Q-, I- and M-principles to the domain of anaphoric reference and derives a general pragmatic apparatus for the interpretation of zero anaphors (occurring in Chinese very frequently), reflexives and lexical NPs. The pragmatic apparatus of anaphora is described in the following scheme

(31) A revised neo-Gricean pragmatic apparatus for anaphora:

“(a) Interpretation principles

- (i) The use of an anaphoric expression x I-implicates a local coreferential interpretation, unless (ii) or (iii).

- (ii) There is an anaphoric Q-scale $\langle x, y \rangle$, in which case, the use of y Q-implicates the complement of the I-implicature associated with the use of x , in terms of reference.
- (iii) There is an anaphoric M-scale $\{x, y\}$, in which case, the use of y M-implicates the complement of the I-implicature associated with the use of x , in terms of either reference or expectedness.

(b) Consistency constraints

Any interpretation implicated by (a) is subject to the requirement of consistency with

- (i) The revised Disjoint Reference Presumption (DRP), namely the co-arguments of a predicate are intended to be disjoint, unless one of them is reflexive-marked (a reflexive-marked predicate is either an inherently reflexive verb, a verb with a reflexive affix attached to it, a predicate with a reflexive, or a grammatical lexeme is used, usually denoting body or body parts, Huang 2001: 344)
- (ii) Information saliency, so that
 - (a) implicatures due to matrix constructions may take precedence over implicatures due to subordinate constructions, and
 - (b) implicatures to coreference may be preferred according to the saliency of the antecedent in line with the following hierarchy: topic > subject > object, etc.; and
- (iii) General implicature constraints, namely
 - (a) background assumptions,
 - (b) contextual factors,
 - (c) meaning-_{nn}¹⁹ and

¹⁹ Meaning-_{n[on] n[atural]} is the non-natural, linguistic meaning of utterances, as opposed to the natural meaning in the external world. Theory of meaning-_{nn} was developed by Grice (1957) and Grice (1989) in terms of the speaker's intention in the following way (quoted in Huang (1994): 3):

“S means-_{nn} p by uttering U to H if and only if S intends:

- (i) H to think p ,
- (ii) H to recognize that S intends (i), and
- (iii) H 's recognition of S 's intending (i) to be the prime reason for H thinking p .

As meaning-_{nn} is not homogeneous, Grice suggests that it be divided into a number of different categories [...]

Grice's typology of meaning-_{nn}

meaning- _{nn} –what is said		
–what is implicated	–conventionally	
	–non-conventionally	–conversationally
		–non-conversationally.”

(d) semantic entailments.” (Huang 2001: 335)

According to Huang’s general pattern for anaphora, reduced, semantically general anaphoric expressions tend to prefer locally coreferential interpretations; full, semantically specific anaphoric expressions tend to prefer locally non-coreferential interpretations (Huang 2001: 337). A hierarchy of referentiality for NPs is R-expressions > pronominals > anaphors, i. e. R-expressions are more referential than pronominals, which are in turn more referential than anaphors (Huang 2001: 338).

1.1.2 Second approach: from relations in texts to items entering them

In the 1960s and 1970s a new linguistic approach developed – textual linguistics. It expanded the boundaries of linguistic analysis. Whereas until this time, sentence was the maximal linguistic unit which had been analyzed, in textual linguistics rules for the construction of texts were focused on.

Under this approach, text and relations in the text are the point of departure and items entering and creating these relations are identified after the relations have been defined.

This approach naturally encompasses linguistic items of more sorts than only pronouns or NPs. A relation can e.g. exist between a part of a sentence or a part of a text and an anaphoric item.

1.1.2.1 M. A. K. Halliday, R. Hasan: Cohesion

The classical work in the field of textual linguistics is Halliday, Hasan (1976). They intensively study the term of *cohesion*. As was already said (cf. 1), cohesion is the realization of coherence – the property which makes a text capable of being interpreted as a whole. According to Halliday and Hasan, “cohesion occurs where the INTERPRETATION of some element in the discourse is dependent on that of another.” (Halliday, Hasan (1976): 2f.) Cohesion is therefore a semantic concept, not a structural relation. Following types of cohesion are differentiated by Halliday and Hasan: reference, substitution, ellipsis, conjunction, and lexical cohesion. Reference²⁰ is a property of certain items in language which, instead of being interpreted semantically on their own right, make reference to something else for their interpretation (Halliday, Hasan 1976: 31). On the first sight reference seems to be very similar to cohe-

²⁰ The term *reference* is used by Halliday and Hasan in another way than in general semantics. In semantics, it means a relation of a linguistic item to an item in extralinguistic reality, whereas Halliday and Hasan use it to denote a property of a special class of items. I use the term in the first mentioned sense in this work, except in the description of Halliday and Hasan’s conception.

sion, but cohesion is a more general term. Reference is a defining property of a restricted class of items, whereas cohesion applies to a much wider set of items which are otherwise unrelated.

Reference can be either exophoric or endophoric. In the case which is denoted as exophoric reference, not both of the elements which are related by a cohesive tie are located within the text. One of the elements occurs within the text and the other outside of it. The interpretation of the element within the text is then dependent on some other element (therefore exophora matches the definition of cohesion) which is a part of the situation, whatever the definition of the term *situation* might be. In the traditional grammar, such elements are denoted as demonstratives (cf. 1.1.1.1 and 2.7.1 for Latin). As for endophoric cohesion, both of the elements are present within the same text. Endophora is also called *textual reference* (exophora is sometimes denoted as *situational reference*).

Lexical cohesion is achieved through selection of vocabulary. It could be either repetition of the same lexical item, use of a synonym, superordinate or a general word.

Ellipsis means substitution of some element by zero.

The conception of Halliday and Hasan is a very broad one. Criteria used for classification of linguistic material are different from those used in traditional grammar and also in Generative Grammar. The term *cohesion* involves many different phenomena, traditionally classified as belonging into different parts of grammar (semantics, syntax, pragmatics).

1.1.2.2 B. Palek: Hyper-syntax and cross-reference

A syntactic approach starting from the whole text and going over to the ways of expressing the anaphoric relations is provided by B. Palek in Palek (1968). According to him, *cross-reference* (term used roughly for anaphora) is a component of hyper-syntax which is a part of *langue*. (Another component of hyper-syntax is *sentence cohesion*, i. e. interdependence between sentences of a text which can be achieved also by cross-reference.) The basis of cross-reference is reference²¹.

Another important term is *alteration*. Whereas cross-reference is a term used on the syntactic level for the relation of identification of denotates, alteration corresponds to the semantic relation of differentiation of denotates on the syntactic level. It is necessary in case where we have two different denotates of the same kind. *Alterators* (i. e. means serving the differentiation of denotates) are e.g. expressions like *another, something else, someone else* etc. (Palek (1968): 44). The term used for denoting the means of identifying denotates is *indicator*.

²¹ In its usual semantic sense.

B. Palek develops a cross-referential mechanism, a mode of description of cross-reference and alteration. It includes different types of naming units (singularized and actualized naming units, context-bound and context-free descriptions, synonyms) which function either as indicators or alterators, and further the cross-referential sequence – the sequence of occurrences of naming unit used for all relevant denotates (Palek (1968): 48). The whole mechanism is presented by means of calculus of function. An important methodological assumption of the description is the direction from naming unit to denotate, not the reverse.

1.1.2.3 B. Palek: The structure of reference in a text

The theory is further developed in Palek (1988). Here, the crucial terms used for the explanation of anaphoric relations in texts are *denotation* and *denotate*. Denotation is opposed to reference. Reference is a binary, asymmetrical and intransitive relation between an expression as token and an object which is a part of the extralinguistic reality. Denotate is a “shadow” of the object (because an object cannot occur more times but it can be denoted more times in the text). The determination of denotate is given by the occurrence of a specific expression. The terms *instauration* and *instaurator* are introduced to capture the property of noun phrases to establish a denotate (not all NPs in a text are able to do so). “Instauration is the fact that in the perception of a text an addressee gains a gradual ideal of the individual denotates and, simultaneously, information as to their mutual relations, their arrangement, assuming of course that he understands the text, i. e. is capable of interpreting the different expressions. The devices which are used for instauration are instaurators.” (Palek (1988): 354) Instaurators can be morphemes, expressions etc. Relations between instaurators create the referential structure of a text. The relation can be either endophoric (including anaphora and cataphora; instaurators creating endophoric relations are then called *identifiers*) or alterator (instaurators are denoted as *alterators*). Instaurators can be classified according to different criteria – e. g. as autosemantic or synsemantic, simple or complex etc. A noun phrase usually has two components – nominal and instaurational.

The formal description includes as the basic concept the term *maximal denotational phrase*. The main property of maximal denotational phrases is that they do not overlap in the sentence structure. Two approaches to the topic of anaphora are outlined – an analytical one and a synthetic one. The main task of the analytic approach is the introduction of textual rules. These are applied first in the sentence, then for strongly and finally for weakly connected clauses.

The starting point of the synthetic approach is the predicate referential structure roughly defined as the scheme of a predicate the arguments of which are occupied by maxi-

mal denotational phrases (Palek (1988): 358). Then a set of possible denotational relations between arguments is defined for each predicate. The synthetic approach shows that

- (a) constraints applied to maximal denotational phrases which are members of the denotational relations in the domain of a clause are stronger than
- (b) constraints applied to maximal denotational phrases which are members of the denotational relations in the domain of a sentence which are stronger than
- (c) constraints applied to maximal denotational phrases which are members of the denotational relations in the domain of a text. (Palek (1988): 357).

In the domain of clause, the thesis is in accordance with Binding Theory. In the sentence, other factors than predicate referential structure play their roles: complementizer, transitivity/intransitivity and reflexivity of verbs, modality, adverbials of time and place, subcategorization of verbs (Palek (1988): 359).

The described analysis is more comprehensive than all outlined so far in that it includes more textual relations than only anaphoric and the role of predicates and other parts of text (complementizers etc.) is taken into account as well.

1.1.2.4 R. Harweg: Pronouns and the constitution of texts

Another formal definition of the text cohesion is provided by R. Harweg in Harweg (1968). The author pursues a formal analysis of linguistic units which are larger than sentences, i. e. texts. The method he uses is the description of means of the constitution of texts (*Textkonstitution*). One part of such text-constitutional means is pronouns. To describe pronouns on the basis of their functioning in texts means for Harweg to define the part of speech “pronouns” in a new way.

For the new definition of pronouns the phenomenon of *substitution* is most decisive, not their morphological-syntactic characteristics. Substitution is replacing of one linguistic expression by another linguistic expression (Harweg (1968): 20). First of the expressions is called *substituendum* by Harweg, the second one is *substituens*. The relation between *substituenda* and *substituentia* can be either paradigmatic (in case they can replace each other at the same place in the text) or syntagmatic (replace each other in the text successively). Both groups have in common certain relation of identity between *substituendum* and *substituens*. For the text constitution, syntagmatic substitution is more important (Harweg (1968): 21).

There are certain expressions like the German *er* (“he”) which are at the same time paradigmatic and syntagmatic (cf. Harweg (1968): 24). These are called *two-dimensional substituentia*. Such expressions can of course substitute syntagmatically, and, because their *substituendum* can be paradigmatically replaced by another expressions with different meaning,

two-dimensional substituentia through their mediation substitute also paradigmatically. It is shown in the next diagram (Harweg (1968): 25):

- paradigmatisch -
ein Knabe
ein Mann
ein Greis }
ein Lehrer } : *er*
ein Mensch
usw.
 - syntagmatisch -

Pronouns are then generally defined as two-dimensional substituentia. However, their paradigmatic component is not directly manifested in texts. For text constitution, syntagmatic substitution is still primary.

Harweg also defines one-dimensional substitution (pp. 26 – 28), expressions which are at the same time substituenda and substituentia (p. 28). His classification of expressions then compasses not only traditional pronouns, but also proper names, general nouns and noun phrases (like *der Schiller des Wilhelm Tell* or *der Mann, der einen schwarzen Anzug trug*, p. 33-35).

Based on these (and other) types of substitution, Harweg describes types of constitution of text from pronouns (in his sense).

The following two descriptions are not formal.

1.1.2.5 M.-E. Conte: Dynamic interpretation of a text

M.-E. Conte works in the framework of textual linguistics. In her paper on discontinuity in texts (Conte (1994)), she claims that coherence of a text is the product of an interpretation, a construction of the receiver. Coherence is the result of a dynamic interaction between the text and the receiver (a process going on in real time), not as a property of the static structure of the text (Conte (1994): 197). The construction of coherence is guided by textual structures. Based on this supposition, Conte proposes to understand the term *coherence* as coherence *a parte subiecti*, whereas the term *cohesion* is reserved for coherence *a parte obiecti*. Cohesion, which is an intrinsic property of texts, is based on those linguistic devices which connect sentences and parts of texts. The text is generally studded with cohesive de-

vices that function as instructions for the receiver for constructing coherence (Conte (1994): 197). The text also poses restrictions on possible sets of inferences.

1.1.2.6 T. Givón: Functionalism

Functionalist approach, of which Talmy Givón's book from 1995 is a representative example, is put in opposition to structuralist approaches. Anaphora is treated in terms of text and its cohesion and in connection with topicality, and thus cognitive accessibility of a referent²² in a text (Givón (1995): 78). The degree of topicality can be measured and quantified (Givón (1995): 79 and works cited there; means of measurement should not be discussed here). The assumption is that more topical – i. e. thematically important – referents tend to be more anaphorically accessible. “Accessible” means “represented in – and can be retrieved from – some pre-existing mental structure in the hearer's mind” (Givón (1995): 350). Mental structure can be of three kinds:

- (32) (a) current speech situation
- (b) permanent lexical-generic knowledge
- (c) current text (Givón 1995: 350)

Devices used in the (a) type of mental structure models are those indicating their spatial relation to speaker or hearer, or by indicating their temporal relation to the times of speech. In the traditional terminology, these would be deictic devices (pronouns, adverbs). Lexical-generic knowledge (b) is represented by items uniquely identifiable to all members of the relevant speech community at all times. As for (c), the main focus is centered on the referential distance of various reference-coding grammatical devices like zero anaphora, stressed and unstressed pronoun or full lexical noun (Givón (1995): 352). Zero anaphora and unstressed pronoun signal maximal continuity, whereas stressed pronoun and a full lexical noun signal discontinuity.

Functionalist approach described by Givón focuses on the explanation of how information is cued in the text and which role anaphoric devices play.

1.1.3 Summary

All approaches discussed so far have their share of explanatory power. However, each of them stresses another facet of this intriguing phenomenon. We find different definitions of

²² “Referent” is used by Givón nearly in the sense of “participant” in this work.

anaphora, and, as a consequence, different sets of what is called anaphoric devices and of course different explanations of their functioning.

In my opinion it is not possible to provide a homogeneous explanation for such a complex phenomenon like anaphora. Rather it is necessary to determine when is which module of language activated and what are rules of each of them.

In what follows, I shall first provide an overview of means available in Classical Latin for expressing anaphoric relations and to classify these means along the lines of Chomsky's Binding Theory. (It means I am working upon the first kind of approach – from items to their functions).

After determining classes of items, I will find out which class is governed by which kind of rules – whether syntactic, semantic or pragmatic, or by some kind of their combination or collaboration, and I shall state the respective share of each of these kinds of rules. This description is language-specific and must differ from language to language (cf. above about Asian languages).

The basis for the classification of items is the analysis of texts. That one must begin with an analysis of texts is given by the fact that only results of speech acts are available for a researcher. This situation is much more notable in case of Classical Latin, where no native speakers are available and written texts mostly of a high literary style are the only material at our disposal.

It should be noted that anaphora has been subject to many analyses carried out from the viewpoint of formal semantics, beginning with Peirce's analysis of indices (i. e. pronouns; Peirce's work is available in Czech in Palek (ed.) (1997)), further by H. Reichenbach (Reichenbach (1947)), H.-N. Castañeda, D. Kaplan and others which I am not quoting here. I will not take into account the semiotic side of anaphora because I do not consider it relevant for the analysis of Latin anaphors.

2 Anaphoric items in Latin

2.1 *Kinds of texts available from the period of the end of the Roman Republic*²³

The period of the late Roman Republic (2nd century B. C. – 1st third of the 1st century B. C.) is considered as one of the top periods in the development of Roman literature, above all prosaic – many historical, philosophical and rhetorical works, speeches, scientific books (juristic, agricultural, grammatical, geographical, astronomical), but also tales and of course theatre plays were written. During this period developed also poetry, both lyric and epic.

For the kind of research which I work on, prosaic works are more suitable than poetry, since in poetry stylistic, versological and rhythmical factors are influential and it is not always possible to differentiate them from the non-stylistic, i. e. grammatical, syntactic or contextual factors. However, also in prose stylistic and rhythmical factors are of importance but not in such a degree as in prose.

Texts available from this period are mostly literary texts written by highly educated élite writers. I have chosen prevalingly narrative texts for my analysis which include scarcely any exophoric means (these would be present in theatre plays²⁴ or speeches) and also 1st and 2nd person pronouns do not occur in such an extent as in non-narratives. 1st and 2nd person pronouns do not create anaphoric relations in the sense defined above (cf. 2.5.1).

Most, but by far not all examples come from Caesar's *Commentarii de bello Gallico*. I have chosen Caesar's work for its clear and simple style not too much influenced by rhetorical ornaments in order to exclude as much as possible stylistic factors eventually influencing anaphoric relations. Except Caesar's also Cicero's work is frequently used (although Cicero's style is more adorned than Caesar's) and occasionally other authors are quoted; they are prevalingly, but not only from the period of late Republic. Poetry is excluded (except a very few exceptions which cannot influence the result of the work).

I am well aware of the bias connected with this type of texts, as is mentioned by T. Givón (1995), namely that “coherence is much easier to demonstrate *prima facie* in a well-written text, where repeated cycles of careful editing have produced maximally-consistent global structures” (Givón (1995): 341). However, facing the impossibility of consulting native speakers it is necessary to accept given conditions and, being aware of limitations, to adapt the formulation of questions to the material available.

²³ The description of the literary situation in the late Roman Republic is based on Kuřáková et al. (1984): 7ff.

²⁴ Theatre plays are a very special kind of texts – in fact they are a “simulation of reality” and they “pretend” to function “here and now”, i. e. to be presented to a present audience in real time. Therefore I exclude them from my analysis.

A note should be made on word order. In accord with works on word order in Latin cited in 1.1.1.2 and in traditional grammars, I suppose basic Latin word order to be SOV.

2.2 Description of anaphoric items in Latin along the lines of Binding Theory

According to Binding Theory, noun phrases which shall be examined here are divided into four groups along the lines of binding principles which they are subject to (as was already said above in 1.1.1.2, cf. (1) and (2)):

- a) anaphors (reflexives and reciprocals),
- b) pronouns and *pro*,
- c) R-expressions and
- d) PRO.

(Recall that traces are excluded from the analysis.)

The use of all of these items differs with respect to the necessity of an antecedent for each of them. They are divided into groups according to the division provided by Binding Theory: reflexives and reciprocals must be bound in their governing category (Principle A), pronouns and *pro* are free in their governing category (Principle B), and R-expressions are free everywhere (Principle C). The status of PRO is special because it does not have a governing category (see 1.1.1.2, esp. (12)).

It should be mentioned that throughout the research of anaphora, article was one of the most important topics (cf. e.g. Christophersen (1939)). However, there is no article in Classical Latin, although it developed later in Romance languages (Jedličková (1962), Rosén (1994)). Therefore I am not going into details of article research here. (About expressing definiteness in Latin see 2.8.3.)

2.3 Principle A - Reflexives

Latin has special form of reflexive pronoun only in the 3rd person. In the 1st and 2nd persons, forms of personal pronouns ego (“I”) and tu (“you”) for singular and nos (“we”) and vos (“you”) in plural are used. 25

Personal reflexive has the following forms, identical for singular and plural and all three genders:

- Genitive *sui*

- Dative *sibi*

- Accusative and Ablative *se*.

(Nominative is lacking, because reflexive cannot occur in subject position, as Principle A of Binding Theory predicts.)

The reflexive *se* can be stressed by adding the enclitic particle *-met* (*semet*, *sibimet*) or the form of the pronoun *ipse* (“self”) to it (*seipsum*, *semetipsum*) or by doubling the reflexive itself (*se se*). However, there is no syntactic difference in the use of reflexives with and without particles or doubled forms²⁶.

Syntactically, personal reflexives are complements of the verb (but cf. in 2.3.2.1.1.5 about AcI-constructions).

Latin also has possessive reflexive *suus* (masculine), *sua* (feminine), *suum* (neutrum). It has different forms for each gender, it is declined like adjectives and it occurs in the [Spec, NP] position. Similarly to personal reflexive, it can have only 3rd person antecedents.

Personal reflexives

According to Principle A of Binding theory, reflexives require an antecedent in their governing category. Informally speaking, their antecedent must not be far away from them, usually inside the same clause. In Latin, personal reflexives are often subject-oriented. An example of the use of a subject-oriented personal reflexive is

(33) *pro_i Lavat se_i*

Wash:3S self:AS

“He/she/it washes himself/herself/itself.”

²⁵ An analysis of Latin reflexives can be found above all in Bertocchi (1986), Bertocchi, Casadio (1980) and Bertocchi, Casadio (1983), further in the traditional Latin grammar by Kühner, Stegmann (1912b), (1914).

²⁶ It should be noted that the difference between simplex SE and complex SELF anaphors outlined in Reinhart, Reuland (1993) – see 1.1.1.3 – cannot be applied here.

About non-subject antecedents see 2.3.1.2.

As was already said above (see 1.1.1.3), there exist long-distance reflexives and logophoric reflexives except local reflexives in many languages. What long-distance and logophoric reflexives have in common is that their antecedent is further away than inside their governing category (which is roughly speaking clause). In the case of long-distance reflexives, there are syntactic constraints put on the choice and position of their antecedent but it does not occur in their governing category, as Binding Theory requires. The choice of antecedents of logophoric reflexives is not determined syntactically but on the basis of discourse considerations. Antecedent is the participant whose “speech, thoughts, feelings, or general state of consciousness are reported” (G. N. Clements, quoted in Asher, Simpson (1994): s.v. Anaphora), or logophors occur in such embedded clauses “welche nicht als Gedanke des Schriftstellers, sondern aus der Seele eines anderen, besonders des Subjekts des Hauptsatzes ausgesprochen werden [...]” (Kühner, Stegmann (1912b): 607). In some languages there are special logophoric pronouns, in others reflexives function in this way. In Latin, the logophoric use of reflexive pronouns can be found in the so-called indirect contexts (see 2.3.2)²⁷.

I will show that there exist local and logophoric reflexives in Latin but no long-distance reflexives. At the first sight, long-distance reflexives occur in subject position of Latin *Accusativus-cum-Infinitivo*-constructions (henceforth AcI-constructions). However, it will be argued that they are local (see 2.3.2.1.1.5).

In traditional grammars, reflexives are usually divided into so-called direct and indirect reflexives. “Direct” reflexives have their antecedents inside the clause, i. e. they are local, the antecedent of “indirect” reflexives is outside the clause (cf. e. g. the terminology in Kühner, Stegmann 1912b: 600ff. or in articles by Bertocchi quoted here).²⁸

Here, I will use the classification into local and logophoric reflexives with the same meaning as the traditional direct and indirect reflexives.

Possessive reflexives

Possessive reflexives pose roughly the same picture as personal reflexives: they can be local or logophoric and their antecedents can be subjects as well as other parts of the sentence. An example of a simple subject-oriented possessive reflexive is e. g.

²⁷ On the other hand there exist languages with solely local reflexives. Czech is an example of a language with local, exclusively subject-oriented reflexives.

²⁸ According to Calboli (2001), in Latin prose more than 50 % of reflexives are indirect; in poetry direct reflexive prevails (Calboli (2001): 291).

(34) *Pater_i filium suum_i videt.*

father:NS son:AS self's:AS see:3S

“Father sees his son.”

More examples of possessive reflexives see in the next paragraphs where they will be analyzed together with personal reflexives.

2.3.1 Local reflexives

I assume clause to be governing category in Latin. Local reflexives have their antecedents inside the clause. However, not always Principle A is really met. Latin local reflexives can namely have both subject and non-subject antecedents.

2.3.1.1 Local reflexives with subject antecedents

It was already said that antecedents of Latin reflexives are predominantly subjects, as is in fact supposed by Binding Theory (although it is not expressed directly), like in the following examples:

(35) [...] **reliqui_i sese_i fugae mandarunt** [...] ²⁹ (*Caes. B Gall. 1, 12, 3*)

remaining:NP themselves:AP flight:DS betook:3P

“the rest betook themselves to flight, [...]”

(36) *Ea re impetrata **sese_i omnes_i flentes** Caesari ad pedes proiecerunt:* [...]

(*Caes. B Gall. 1, 31, 2*)

that:AbS thing:AbS achieved:AbSPart self:AP all:NP crying:NP Caesar:DS to foot:AP threw:3P

“That request having been obtained, they all threw themselves in tears at Caesar's feet”

with personal reflexives, and also with possessive reflexives:

(37) [...] a me **pro_i diligitur propter summam suam_i humanitatem** [...] (*Cic. Fam. 15, 14, 1*)

from me:AbS pro loved:3SPass because-of highest:AS his:AS humanity:AS

²⁹ Latin examples will be presented in the following way: the discussed item and its antecedent will be highlighted. Sources of translations are listed in references; my own translations are marked as such. If necessary for the correct understanding, morphological analysis will be added.

“he has been [...] valued by me for his exceeding kindness [...]”

Such cases are clearly captured by the Principle A of Binding Theory. Reflexives have c-commanding antecedents in their clauses, i. e. subjects of the clause.

However, it is only a part of the picture. In some cases, other clause members than the subject can function as antecedents of reflexives as well. Such cases will be discussed in 2.3.1.2.

2.3.1.2 Local reflexives with non-subject antecedents

Binding Theory is not able to capture such cases even though the antecedents are in the governing category of the reflexive, i. e. the clause. Antecedents do not c-command reflexives, which is a condition stated by Binding Theory (see (5)). These cases were analyzed above all in Bertocchi (1989), to which most of the following discussion is due.

2.3.1.2.1 *Theta-role hypothesis*

Following examples contain local reflexives (both personal, see (38) and (39), and possessive, cf. (40) and (41)) with non-subject antecedents:

(38) [...] *spes omnis consistebat Datami_i in se_i* [...] (Nep. 14, 8, 3)

hope:NS all:NS consisted:3S Datames:DS in self:AbS

“All hope consisted for Datames in himself.” (my translation, D. L.)

Principle A is not obeyed because the antecedent does not c-command the reflexive, although it is in its governing category, exactly was stated above. The same situation is in the following example:

(39) *cum litteris Attici_i nostri de tua summa liberalitate summoque erga se_i beneficio certior factus pro essem* [...] (Cic. Att. 15, 14, 2)

when letter:AbP Atticus:GS our:GS about your:AbS highest:AbS liberality:AbS highest:AbS-and towards self:AS kindness:AbS more-certain:NS made:NSPart pro be:1S

“Having on a previous occasion been informed by a letter from our friend Atticus of the great liberality and the very great kindness which you had shewn him;”

Similarly with possessive reflexives, cf. following example:

(40) [...] *Gallis_i prae magnitudine corporum suorum_i brevitās nostra contemptui est [...]*
 (Caes. B Gall. 2, 30, 4)

Gaul:DP because-of magnitude:AbS body:GP self's:GP shortness:NS our:NS contempt:DS is:3S

“[...] for our shortness of stature, in comparison to the great size of their bodies, is generally a subject of much contempt to the men of Gaul [...]”

(41) *homines [quos_i infamiae suae_i neque pro_{exp}³⁰ pudeat neque pro_{exp} taedeat]*
 (Cic. Verr. a. pr. 35, quoted in Bertocchi 1989:448)

people:NP whom:AS dishonor:GS self's:GS neither shame:3S nor abominate:3S

“people who are neither ashamed nor weary of their own dishonor” (my translation, D.L.)

Bertocchi (1989: 447ff.) solves this problem of non-subject antecedents by what she calls „semantic role hypothesis“. She says that non-subject antecedents of reflexives usually have the semantic role³¹ Agent or Experiencer. In (41) and similar cases with impersonal verbs like *piget* (“it grieves”), *paenitet* (“it repents”), *miseret* (“it regrets”) and others, the Accusative constituent expresses the person which is experiencing the psychological state of repentance, regret, and the like. This constituent is Experiencer. Examples (38) and (40) are according to Bertocchi also captured by the “semantic role” hypothesis. She supposes that Dative possessors can be labeled as Experiencers as well, based on Bolkestein (1983).

In example (39) the antecedent has according to Bertocchi the theta-role of Agent, although it is not expressed by an *ab*-PP, as is otherwise the rule with non-subject Agents. However, the NP *Attici* denotes the person who carried on the action of writing the letter, therefore it can be labeled Agent.

2.3.1.2.2 Informational structure hypothesis

As for possessive reflexives, neither the syntactic (subjecthood, cf. 2.3.1.1) nor the semantic (theta-role of antecedents, cf. 2.3.1.2.1) hypotheses cover all the possible occurrences. There are examples where the reflexive is bound neither to syntactic subject nor to an Agent or Experiencer constituent.

³⁰ Expletive *pro* see in 2.5.8.

³¹ For consistency reasons, I use the terminology of GB-Theory in the discussion of Bertocchi’s explanation.

(42) [...] **Pompeio**_i **sua**_i *domus patebit* [...] (Cic. Phil. 13, 10)

Pompeius:DS self's:NS house:NS open:3SFut

“[...] his own house will be open to Pompeius [...]”

Here, the possessive reflexive occurs even in the Specifier position of the subject NP, therefore without any possibility to be c-commanded by a coindexed clause mate. Similarly also with non-subject antecedents:

(43) **mentem**_i *ex sua*_i *sede* [...] *pro demovet* (Cic. parad. 1,5)

mind:As from self's:AbS seat:AbS pro banish:3S

“banishes the Mind from its seat” (my translation, D. L.)

Kühner, Stegmann (1912b: 603 f.) say about similar cases that “oft findet sich so *das Possessiv suus*, wenn es betont ist in der Bedeutung *sein (ihr) eigen* [...], *eigentümlich*”. According to Bertocchi, Casadio (1980) possessive reflexives in such cases “emphasize the possession” (Bertocchi, Casadio (1980): 27), sometimes they are labeled as “pseudo-reflexives” (De Bruyne (1961), quoted in Bertocchi, Casadio (1980): 28), i. e. emphatic possessives which preserve the reflexive form without having reflexive value, and which are not distinct in use from the non-reflexive *eius*³². Bertocchi, Casadio translate the examples by using the possessive *his*, confirmed still by the adjective *own*, cf. above the translation of (42).

De Bruyne (quoted in Bertocchi, Casadio (1980): 28) suggest a criterion based on a “minimal distance principle” in order to establish in which cases the pseudo-reflexive is used: when the possessive and the antecedent in the oblique Case occur very close one to another, *suus* is used; when the possessive and the antecedent are separated, *eius* occurs. The first possibility is documented in (42) and (43), the second in (44):

(44) **Antonium**_i, [*cum multa contra sociorum salutem, multa contra utilitatem provinciarum et pro faceret et pro cogitaret,*] *in mediis eius*_i *iniuriis et cupiditatibus mors oppressit.* (Cic. Verr. 2, 3, 213)

Antonius:AS [...] in middle:AbP he:GS injustice:AbP and covetousness:AbP death:NS overtook:3S

³² Genitiv of *is*, the exclusively anaphoric pronoun (see 2.7.2.6).

“In the middle of **his** course of injustice and covetousness death overtook Antony, while he was still both doing and planning many things contrary to the safety of the allies many things contrary to the advantage of our provinces.”

This seems to be a plausible explanation when we look at examples (42) - (44). However, counterexamples can be easily found, both with reflexive possessives which are separated from their antecedents:

(45) *Alexandrum*_i [*qui apud Pheraeos in Thessalia tyrannidem pro*_i *occuparat,*] *uxor sua*_i, *cui Thebe nomen fuit, noctu, cum simul pro*_i *cubaret, occidit.* (Cic. Inv. 2, 144)

Alexander:AS who:NS at Pheraei:AP in Thessaly:AbS absolute-rule:AS pro hold:3S wife:NS self's:NS who:DS Thebe:NS name:NS was:3S night:AbS when together pro laid:3S killed:3S

“Alexander, who was the tyrant of Pherae, a city in Thessaly, was slain by **his own** wife, whose name was Thebe, at night, when he was in bed with her;”

and non-reflexive possessives which are close to their antecedents:

(46) *eo die apud Pomponium*_i *in eius*_i *nuptiis pro eram cenaturus.* (Cic. Q. fr. 2, 3, 7)

the:AbS day:AbS at Pomponius:AS in he:GS wedding:AbP pro was:1S dine:NSPartF

“the day on which I am to dine with Pomponius on the occasion of **his** wedding.”

The explanation using the criterion of “minimal distance principle” is therefore not plausible.

Bertocchi (1989) explains cases like (42), (43) and (45) by what she calls “the pragmatic role hypothesis”³³. She says that in the above cases, antecedents have a special informational-structure function, namely that of Contrast or Topic (Bertocchi (1989): 451).

In the same way she explains the use of *suus* in association with the indefinite pronoun *quisque* (“each”, “everybody”, “whoever”). It may be considered as a kind of Contrast, that is, the contrast between “ownership” and “non-ownership”:

(47) *equites*_i *item suae*_i *cuique parti post principia pro conlocat.* (Liv. 3, 22, 6)

horsemen:AP also self's:DS each:DS part:DS behind forward-part:AP pro stations:3S

³³ The label “informational structure hypothesis” seems to me more appropriate.

“He stations the cavalry behind their respective divisions.”

However, it seems that also other factors than the semantic and that of informational structure are at play in the choice of antecedents of reflexives. As for possessives inside certain PPs like in (48) and (49), Bertocchi explains examples of this kind by supposing that the occurrence of reflexive/non-reflexive is correlated to the occurrence of the prepositions *propter* (“because of”) or *cum* (“with”). She says that *propter*-expressions refer “out of the sentence”, and therefore the non-reflexive possessive *eius* is used, while *cum*-expressions refer “inside the sentence”³⁴, and so the reflexive possessive occurs (Bertocchi (1989): 454). Cf. the difference between

- (48) [...] **Fabium**; *cum sua*; *legione pro remittit in hiberna* (*Caes. B Gall. 5, 53, 3*)
Fabius:AS with self’s:AbS legion:AbS pro send-back:3S to winter-quarters:AP
“[he] sends back Fabius with his legion to his winter-quarters;”

and

- (49) [...] *valdeque eum*; *pro diligo*[...] *propter summam probitatem eius*; [...] (*Cic. Fam. 9, 25, 2*)
very-and him:AS pro love:1S because-of highest:AS honesty:AS he:GS
“[...] and I am much attached to him [...] from his extreme honesty [...]”

The factor which is at play here is, according to Bertocchi, that the reflexive in Latin is used as a device for marking the speaker’s attitude towards the participants in the event he is describing. “When the speaker identifies himself with the subject’s (or topic’s) point of view, that is, when he presents the facts from the perspective of the subject (or of the topic), then the reflexive is used.” (Bertocchi (1989): 455) Usually, the “speaker’s attitude” explanation is used for examples of logophoric reflexives (see 2.3.2). Bertocchi extends it also for these cases of local reflexives. However, counterexamples can be easily found, cf. (37).

³⁴ Bertocchi does not explain what is meant by the expressions “outside the sentence” and “inside the sentence”. In my opinion, the difference between the two cases consists in the fact that by the proposition *cum* a certain kind of “union” is created between the antecedent and the NP of which the reflexive is Specifier; whereas with *propter* no such union arises and the NPs are considered as separated.

2.3.1.2.3 Transformational³⁵ hypothesis

One more hypothesis provided by Bertocchi (1989) aiming to explain the use of reflexives with non-subject antecedents should be mentioned. In some cases it could seem that at least at some level of derivation, the antecedent of the reflexive was subject, therefore c-commanding reflexive, so that Principle A would be met. Bertocchi (1989) presents the following example to support this hypothesis.

(50) *A Caesare; valde liberaliter pro; invidor [...] sibi; ut pro; sim legatus (C. Att. 2, 18, 3)*³⁶

by Caesar:AbS very kindly pro invite:1SPass self:DS that pro be:1SSub legate:NS

“I am invited by Caesar in a very gentlemanly manner [...] to act as legatus to himself”

The Agent, expressed by the PP *a Caesare*, is the D-structure subject, and therefore an expected antecedent of the reflexive³⁷.

Bertocchi (1989): 446f. argues against the transformational hypothesis by presenting examples in which the antecedent of reflexive is the surface subject of the passive construction, not its Agent (i. e. the *ab*-PP, corresponding with the English *by*-PP) (example (37), repeated here:)

(37) [...] *a me pro; diligitur propter summam suam; humanitatem [...]* (Cic. Fam. 15, 14, 1)

from me:AbS pro loved:3SPass because-of highest:AS his:AS humanity:AS

“he has been [...] valued by me for his exceeding kindness [...]”

Some cases could probably be plausibly explained by supposing binding relation to hold at D-structure instead of surface structure. However, there exist clear counterexamples where the situation is exactly the reverse, cf. (37). The transformational hypothesis must therefore be generally abandoned.

2.3.2 Logophoric reflexives

2.3.2.1 Description of logophoric contexts

Examples of logophoric reflexives, i. e. such which have non-clausal antecedents, cannot be captured by Binding Theory which only states conditions on governing category (till

³⁵ The term *transformational* is used by Bertocchi. It is probably a reflection of the Transformational Grammar of Standard Theory, one of the stages of Generative Grammar.

³⁶ This example is presented by Bertocchi (1989) as an example where Principle A could be met at D-structure. However, it is an example of logophoric reflexive, cf. 2.3.2, not a local one. In my opinion, it is explained by assuming participant-speaker to be antecedent of the reflexive, see 2.3.2.1.

³⁷ Although the reflexive would still not be local, cf. fn. 36.

now, clause was taken as governing category. About its broadening see 2.3.2.1.1.5). However, antecedents of logophoric reflexives are outside it. In traditional grammar, such reflexives are called *indirect reflexives*, cf. introduction of 2.3.

The use of logophoric reflexives is only possible in a special kind of contexts, called *indirect contexts* in the traditional terminology. I will use the term *logophoric contexts*. The opposite of indirect contexts are – traditionally speaking – *direct contexts* which I will call *non-logophoric*. The choice between non-logophoric and logophoric way of expressing the proposition consists in the attitude of the *author*³⁸ of text towards the expressed information. Author of text can present the information given in the text without expressing his attitude towards the information – i. e. *non-logophorically*. Or he can express his attitude towards the presented information, indicating his distance or disagreement and sometimes emphasizing that not he himself, but some participant of text (*participant-speaker*, cf. fn. 38) is presenting the piece of information from his own viewpoint. In such cases we speak about logophoric – traditionally, indirect - contexts in which reflexives are used logophorically.

That a context is logophoric is signalized by several means, and the use of non-local logophoric reflexives is only one of the signals. The verb mood is the other one. In logophoric contexts, subjunctive is used instead of the expected indicative³⁹. Moreover, AcI-constructions are used, above all in indirect speech (see 2.3.2.1.1.5).

Logophoric contexts can be introduced either by verbs of propositional attitudes or by verbs *dicendi*. In the latter case, we are speaking of indirect speech. However, they can be also without special introducing matrix verbs, as examples (51) and (52) show.

Indirect speech is ex definitione logophoric, being a presentation of a speech of a participant-speaker. (Indirect speech should be discussed separately in 2.3.2.1.1). Other contexts which allow the use of logophoric reflexives are final, causal and relative clauses. (Bertocchi, Casadio (1989): 29f.). These types of clauses can have both non-logophoric and logophoric variants and it depends on the author of text which of them he aims to express – the non-logophoric (then he uses personal pronouns and indicative mood) or the logophoric one (with logophoric reflexives and subjunctive at the same place where in the non-logophoric

³⁸ Usually the term *speaker* is used. However, it is necessary to differentiate between the one who writes the text (author) and the one who expresses the statement inside the text (participant-speaker). In my opinion the term *speaker* could be misleading or at least ambiguous with respect to this difference. Therefore I am using two other terms – *author of text* (meaning the author of the whole text, i. e. one standing “outside” text) and *participant-speaker* (i. e. speaker of the indirect speech inside the text). Bertocchi (1994) differentiated *original speaker* (in the sense of participant-speaker) and *actual speaker* (narrator, the 1st person, Bertocchi (1994): 2).

³⁹ It is not to say that there cannot be subjunctive in non-logophoric contexts. It just means that only subjunctive is used in logophoric contexts whereas there can be indicative or subjunctive if the same proposition were expressed non-logophorically. More about the use of verbal mood in logophoric contexts see below.

variant personal pronouns and indicative occurs). Other types of clauses (according to the classification of traditional grammar) allow non-logophoric use only.

Cf. the use of pronoun vs. reflexive, i. e. non-logophoric vs. logophoric use, in causal clauses. First, the non-logophoric variant:

(51) *Caesar_i non solum publicas sed etiam privatas iniurias ultus est, quod eius_i soceri [...]*
avum [...] Tigurini [...] interfecerant. (Caes. B Gall. 1, 12, 7)

Caesar:NS not only public:AP but also private:AP injustice:AP avenged:Part be:3S be-
cause he:GS father-in-law:GS grandfather:AS Tigurini:NP killed:3PInd

“In this Caesar avenged not only the public but also his own personal wrongs, because the Tigurini had slain [...] the grandfather of [...] his [Caesar's] father-in-law [...].”⁴⁰

The logophoric variant of a causal clause:

(52) *Decima legio_i [...] ei gratias egit, quod de se_i optimum iudicium pro fecisset.*
(Caes.B.G. 1, 41, 2)

tenth:NS legion:NS he:DS thank:AP did:3S because of self:AbS best:AS opinion:AS
pro made:3S

“The tenth legion was the first to return thanks to him, [...] for his having expressed this most favorable opinion of them;”

Reflexive in (52) could be possibly interpreted as a local one; however, the verb mood requires a logophoric interpretation of the clause. This interpretation is furthermore supported by the information from the context (recipient already knows that Caesar has praised 10th legion), and moreover by a general background knowledge which prevents us from assuming 10th legion to thank Caesar for praising himself.

To the devices which mark a context as logophoric belongs also the “logophoric” use of subjunctive, as was already mentioned. However, sometimes it is not clear whether the

⁴⁰ Note that the translator is forced to recur to the use of the R-expression *Caesar* to make clear which is the right antecedent of the possessive pronoun. Anaphoric relations and interpretation of anaphoric items in Latin are much more transparent even in very complex constructions than in English or other languages (like Czech or German, as far as I am able to judge). Generally, Latin is a language with the power of expressing complex facts concisely, yet clearly inside one sentence. This is inter alia conditioned by the extensive use of non-finite ways of expression, e.g. infinitive or participial constructions. Very complex sentential structures are traditionally called *periods*. However, the use of non-finite expressions cannot be the only explanation of their frequency. This issue deserves further research.

subjunctive is logophoric (i. e. employed to mark the author’s attitude towards the presented information) or whether the use of subjunctive has another reason and therefore is non-logophoric. A. Bertocchi (Bertocchi (1986): 76) supposes that the occurrence of logophoric⁴¹ reflexives is explainable on the basis of some property P which may or may not be assigned to the embedded clause. When P is present, a logophoric reflexive is found (i. e. the context is logophoric); it is not possible when P is absent. The contexts which allow logophoric reflexives are infinitival and subjunctive contexts. What they have in common is a special use of tense, namely that tense in embedded clauses is subject to *consecutio temporum* (sequence of tenses), that is, the temporal interpretation of the embedded clause is linked to the temporal interpretation of the matrix clause. And also the tense of infinitives is interpreted relatively to the tense of their matrix verb. The property P has therefore something to do with tense. However, no more precise characteristic of the property P is provided.

A more satisfactory solution is presented in Bertocchi (1994). The correlation between subjunctive mood and logophoric reflexives on the one side and the indicative mood and local reflexives on the other is not entirely sufficient, as the following examples show:

(53) *Epaminondas_i fuit etiam disertus ut nemo ei_i Thebanus par esset eloquentia.*

(*Nep. Epam. 5, 1, quoted in Bertocchi (1994): 7*)

Epaminondas:NS was:3S so eloquent:NS that nobody:NS he:3S Theban:NS equal:NS is:3SSub eloquence:AbS

“Epaminondas was so good a speaker that no Theban equaled him in eloquence.”

(Transl. by A. Bertocchi (1994))

versus

(54) *Metellus_i in eis urbibus quae ad se_i defecerant praesidia imponit.*

(*Sall. Iug. 61, 1, quoted in Bertocchi (1994): 7*)

Metellus in this:AbP town:AbP which:NP to self:AS went-over:3PInd garrison:AP place:3S

“Metellus placed garrisons in such of the town which had gone over to him.” (Transl. by A. Bertocchi (1994))

⁴¹ Bertocchi (1986) uses the traditional terminology and speaks about indirect reflexives.

Whereas in (53) subjunctive is used against expectation together with a pronoun, in (54) on the contrary a reflexive correlates with indicative mood.

A. Bertocchi proposes to relate the distinction in the choice of pronouns and reflexives to the distinction between predication and proposition in the sense of functional grammar, i. e. distinction between clauses containing and not containing the speaker's commitment (i. e. logophoric contexts and non-logophoric contexts, respectively), where the speaker's commitment can be expressed also by other means than verb mood⁴² (as examples (51) and (52) on the one hand and (53) and (54) on the other show). This explanation seems to me to be the most plausible one from the ones proposed.

Logophoric reflexives can have both subject (cf. (52)) and non-subject (cf. (50)) antecedents, similarly to local reflexives (about local reflexives cf. 2.3.1).

In logophoric contexts, local reflexives with antecedents inside the logophoric context can be used as well:

(55) *pro milites cohortatus, [...] uti suae; pristinae virtutis memoriam pro; retinerent [...], proelii commitendi signum dedit (Caes. B Gall. 2, 21, 2)*

pro soldiers:AP encouraged:NSPart that self's:GS

“Having encouraged the soldiers [...] that ‘they should keep up the remembrance of their wonted valor, [...]’ he gave the signal for commencing battle.”

That we are dealing with a logophoric context is signaled by the use of subjunctive and the presence of a verb dicendi (*cohortari* – „to encourage“) in the matrix clause. Despite of it, the reflexive is local, as the meaning of the clause confirms.

The decision between local or logophoric use of reflexives in (possibly) logophoric contexts depends on the world knowledge of the recipient and the meaning of the clause. More about local reflexives in logophoric contexts see 2.3.2.1.1.1.1.

2.3.2.1.1 Indirect speech

A special kind of logophoric context, the so-called indirect speech (*oratio obliqua*), will be analyzed more closely in this work.

⁴² Bertocchi (1994) denotes by *grammaticalization of the speaker* the expressing of the speaker's commitment by grammatical means (as distinct from lexical means), whereby grammatical means (e. g. verbal mood and the use of logophoric reflexives) are more relevant than lexical ones (Bertocchi (1994): 1).

Indirect speech is defined in Bußmann (1983) in the following way: “Wiedergabe von Aussagen oder Fragen, aber auch von Gedanken, Überlegungen oder Wünschen durch mittelbares Berichten (im Unterschied zur unmittelbaren, zitatartigen Wiedergabe in der ‘direkten’ Rede). In der Regel ist die indirekte Rede abhängig von einem (vorhandenen oder rekonstruierbaren) Ausdruck des ‘Sagens’.” (Bußmann (1983): 202)

2.3.2.1.1.1 Antecedents of logophoric reflexives in indirect speech

Indirect speech can be seen as a special kind of logophoric context where there is always a participant-speaker present because the indirect speech is presented from his point of view. Therefore it is possible to determine the antecedent of logophoric reflexives with certainty on the basis of its semantic role. The antecedent of logophoric reflexives in indirect speech is the speaker of the indirect speech (called *participant-speaker* here, cf. 2.3.2.1 and fn. 38), although its syntactic role does not necessarily have to be the subject (about non-subject antecedents of local reflexives cf. also 2.3.1.2). Compare the following examples:

(56) *eodem tempore Ambarri_i, [...] Caesarem certio_rem faciunt sese_i depopulatis agris non facile ab oppidis vim hostium prohibere. (Caes. B.G.1,11,4)⁴³*

same:AbS time:AbS Ambarri:NP Caesar:AS more-certain:AS make:3P self:AP devastated:AbPPart field:AbP not easily from town:AbP force:AS enemy:GP ward-off:I

“At the same time the Ambarri, [...] apprise Caesar, that it was not easy for them, now that their fields had been devastated, to ward off the violence of the enemy from their towns: [...]”

The antecedent of the reflexive inside the indirect speech is participant-speaker (i. e. speaker of the indirect speech), which is at the same time subject of the matrix clause.

A non-subject participant-speaker antecedent:

(57) *[...] ab Lucio Roscio_i, [...] certior factus pro est magnas Gallorum copias [...] oppugnandi suis_i causa convenisse neque longius milia passuum octo ab hibernis suis_i afuisse, [...] (Caes. B Gall. 5, 53, 6 - 7)*

by L. Roscius:AbS more-certain:NS made:NS pro is:3S large:AP Gaul:GP force:AP attacking:GGer self's:GS cause:AbS assemble:IPerf and-not further thousand:AP passus:GP eight from winter-camp:AbP self's:AbP be-distant:IPerf

⁴³ About AcI-constructions with reflexive subjects in indirect speech see 2.3.2.1.1.5.

“[...] he is informed by L. Roscius, [...] that large forces [...] of the Gauls, [...] had assembled for the purpose of attacking him and were not more than eight miles distant; [...]”

The antecedent of reflexives is not the subject but it is certainly the one from whom the indirect speech originates, the participant-speaker. Therefore we can conclude that the antecedent of logophoric reflexives inside indirect speech is the speaker of the indirect speech, without respect to its actual syntactic role⁴⁴.

In the examples presented till now, antecedents of logophoric reflexives were in the matrix clause (cf. (56) and (57)). Nevertheless, they can be also further in the sentence than the matrix clause (“higher-up” the tree), still bearing the role of participant-speaker:

- (58) I. *Quibus rebus cognitis, cum ad has suspiciones certissimae res accederent,*
 II. *quod per fines Sequanorum Helvetios pro_i traduxisset, [...],*
 III. *quod ea omnia non modo iniussu suo_j et civitatis, sed etiam inscientibus ipsis pro_i fecisset, [...]*
 IV. *satis esse causae pro_j arbitrabatur*
 V. *quare in eum_i aut ipse_j animadverteret [...]*⁴⁵ (*Caes. B Gall. 1, 19, 1*)

I. which:AbP thing:AbP learned:AbS when to these:AP suspicion:AP most-certain:NP thing:NP acceded:3P

II. that through territory:AP Sequani:GP Helvetii:AS pro led-through:3S

III. that that:AP all:AP not only without-order self's:AbS and state:GS but also not-knowing:AbP self⁴⁶:AbP pro did:3SSub

IV. enough be:I cause:GS pro considered:3S

V. why into he:AS either self:NS punish:3S

“I. After learning these circumstances, since to these suspicions the most unequivocal facts were added,

⁴⁴ However, we can suppose that its theta role will be that of Agent, namely Agent of the verb *dicendi*. In this way, example (39) is explainable.

⁴⁵ If the structure of sentence is too complex or if the piece of text cited is too long, it will be divided into smaller parts for the sake of clarity.

⁴⁶ The intensifying non-reflexive pronoun *ipse* is expressed in English in the same way as the reflexive *se*, cf. the translation of (25). I do not differentiate these two items in morphological analyses.

- II. viz., that he had led the Helvetii through the territories of the Sequani; [...]
- III. that he had done all these things, not only without any orders of his [Caesar's] and of his own state's, but even without their [the Aedui] knowing any thing of it themselves;
- IV. [...] he [Caesar] considered that there was sufficient reason,
- V. why he should either punish him himself [...]"

In this example, the antecedent of reflexive is not in the matrix clause, but in the next following clause "higher up" the tree, namely in [(58)-IV].

Indirect speech can stretch over a long part of the text containing, of course, several sentences, and the participant-speaker, the antecedent of logophoric reflexives, is often denoted only one time at the very beginning inside the clause containing the verb *dicendi*. Nevertheless, logophoric reflexives occur during the whole indirect speech, without participant-speaker being named again. Cf. following example:

(59) I. *Ei legationi Ariovistus; respondit:*

II. *si quid ipsi;⁴⁷ a Caesare; opus esset, sese; ad eum; venturum fuisse;*

III. *si quid ille; se; velit, illum; ad se; venire oportere.*

IV. *Praeterea se; neque sine exercitu in eas partes Galliae venire audere quas Caesar; possideret,*

V. *neque exercitum sine magno comaeatu atque molimento in unum locum contrahere posse.*

VI. *Sibi; autem mirum videri quid in sua; Gallia, quam bello pro; vicisset, aut Caesari; aut omnino populo Romano negotii esset. (Caes. B Gall. 1, 34, 2 - 4)*

"I. To this embassy Ariovistus replied,

II. that if he himself had had need of any thing from Caesar, he would have gone to him;

III. and that if Caesar wanted any thing from him he ought to come to him.

IV. That, besides, neither dare he go without an army into those parts of Gaul which Caesar had possession of,

V. nor could he, without great expense and trouble, draw his army together to one place;

VI. that to him, moreover, it appeared strange, what business either Caesar or the Roman people at all had in his own Gaul, which he had conquered in war."

⁴⁷ About *ipse* in indirect speech see 2.3.2.1.1.3.

Examples like (59) support the concept of the antecedent of a logophoric reflexive as the participant-speaker, without respect to its other (syntactic characteristics).

Participant-speaker can be repeated inside indirect speech, cf. (60)-[IV], as a speaker of an “embedded” indirect speech. Then *is* is a new antecedent for logophoric reflexives and a new chain of coindexation begins. In (60), the indirect speech (60)-[V] – (60)-[VII] is embedded into the original “matrix” indirect speech:

- (60) I. *His responsis ad Caesarem relatis, iterum ad eum **Caesar**_i legatos cum his mandatis mittit:*
 II. *quoniam tanto **suo**_i populique Romani beneficio adfectus, cum in consulatu **suo**_i rex atque amicus a senatu appellatus pro esset,*
 III. *hanc **sibi**_i populoque Romano gratiam pro referret ut in conloquium venire invitatus pro gravaretur neque de communi re dicendum sibi⁴⁸ et cognoscendum pro putaret,*
 IV. *haec esse quae ab eo **pro**_i postularet:*
 V. *primum ne quam multitudinem hominum amplius trans Rhenum in Galliam pro traduceret; [...]*
 VI. *Si [id] ita pro fecisset, **sibi**_i populoque Romano perpetuam gratiam atque amicitiam cum eo futuram;*
 VII. *si non pro impetraret, **sese**_i, [...] **se**⁴⁹ Haeduorum iniurias non neglecturum.*
 (Caes. B Gall. 1, 35, 1 - 4)

“I. When these answers were reported to Caesar, he sends ambassadors to him a second time with this message.

II. ‘Since, after having been treated with so much kindness by himself and the Roman people (as he had in his consulship been styled ‘king and friend’ by the senate),

⁴⁸ About this occurrence of *sibi* see below in the paragraph on periphrastic passive conjugation (2.3.2.1.1.4.

⁴⁹ In the text, there is a long passage after the first occurrence of the reflexive (*sese*), therefore it is repeated for a second time, cf. the full version:

sese, quoniam M. Messala M. Pisone consulibus senatus censuisset uti quicumque Galliam provinciam obtineret, quod commodo rei publicae lacere posset, Haeduos ceterosque amicos populi Romani defenderet, se Haeduorum iniurias non neglecturum.

„that **he** (forasmuch as in the consulship of Marcus Messala and Marcus Piso the senate had decreed that, whoever should have the administration of the province of Gaul should, as far as he could do so consistently with the interests of the republic, protect the Aedui and the other friends of the Roman people), will not overlook the wrongs of the Aedui.“

The repetition of *se* is on account of the long parenthesis. (Greenough, J.B., D'Ooge, B.L., Daniell, M.G.: Caesar's Gallic War, Boston, Ginn and Company 1898)

- III. he makes this recompense to [Caesar] himself and the Roman people, [viz.] that when invited to a conference he demurs, and does not think that it concerns him to advise and inform himself about an object of mutual interest,
- IV. these are the things which he requires of him;
- V. first, that he do not any more bring over any body of men across the Rhine into Gaul; [...]
- VI. if he would accordingly do this, [Caesar says] that ‘he himself and the Roman people will entertain a perpetual feeling of favor and friendship toward him;
- VII. but that if he [Caesar] does not obtain [his desires] that he [...] will not overlook the wrongs of the Aedui.’⁵⁰

In the special context of indirect speech, the reflexive can have its antecedent very far away. This is made possible by two factors: (a) The choice of antecedent is limited to only one possibility (the limitation is of semantic nature); (b) the context is strongly marked.

2.3.2.1.1.1.1 Reflexives with different antecedents in logophoric contexts

That reflexives inside the same indirect speech have different antecedents can be achieved in two different ways. First of them consists in the fact that one indirect speech can be embedded into another (cf. (60)), or there can be both local and logophoric reflexives in an indirect speech (see 2.3.2.1).

As was shown in connection with example (60), an indirect speech can be embedded into another indirect speech. In (60), the participant-speakers of both the “embedded” and “matrix” indirect speeches are identical, therefore reflexives which are coindexed with them are coindexed with each other as well. However, participant-speakers can be also different so that logophoric reflexives connected with them have disjoint reference. Cf.:

(61) I. *Ad haec Ariovistus; respondit:*

II. [...] *quod sibi; Caesar; denuntiaret*

III. *se; Haeduorum iniurias non neglecturum, [...] (Caes. B Gall. 1, 36, 1+6)*

⁵⁰ We can see that possibilities of keeping participants in a text apart are in Latin much more developed than in English. In the English translation, proper nouns must sometimes be used to make the reference clear. A similar situation is also in German (C. I. Caesar: *De bello Gallico/Der gallische Krieg*, übersetzt und herausgegeben von M. Deissmann, Philipp Reclam Jun., Stuttgart 1980 (Universal-Bibliothek Nr. 9960)):

VI. Wenn **Ariovist** sich danach richte, werde er selbst und das römische Volk ihm dauernde Freundschaft und Dankbarkeit bewahren.

VII. Gehe er jedoch nicht auf seine Forderungen ein, werde er, **Caesar**, Übergriffe gegen die Haeduer nicht zulassen, [...].

- I. to this Ariovistus:NS replied:3S
- II. as-to self:DS Caesar:NS declare:3SSub
- III. self:AS Haedui:GP injustice:AP not overlook:ASMPart

- “I. To this Ariovistus replied: [...]
- II. As to Caesar's threatening him,
- III. that he would not overlook the wrongs of the Aedui, [...]”

The reflexive in the “embedded” indirect speech, consisting of clause [III], has the participant-speaker of the “embedded” indirect speech, i. e. Caesar from [II], as its antecedent. The reflexive in [II], which is not contained in the “embedded” indirect speech, is coindexed with the “matrix” participant-speaker Ariovistus. Of course for the correct interpretation, the end of “embedded” indirect speech is that its end must be minded.

The other possibility of how reflexives in indirect speech can achieve different coindexation mentioned above was the possibility of their being both local and logophoric. It means that antecedent of a reflexive inside a logophoric context is either the participant-speaker (if the reflexive is logophoric) or the antecedent is inside the same clause (if the reflexive is local). Cf.

(62) *Scythae_i petebant, ut regis sui_i filiam matrimonio sibi_j pro_j iungeret.* (Curt. 8, 1, 9)

Scythae:NP asked:3P that king:GS self's:GS daughter:AS marriage:AbS self:DS pro unite:3S

“The Scythae begged that he may unite himself in marriage with the daughter of their king.” (my translation, D. L.)

It seems that in such cases, the only possible way how to interpret the reflexives correctly is for the recipient to rely on his background knowledge and information already gained from the text and, establishing different indexations with respect to the possible antecedents of reflexives, to decide which of them is most congruent with his background knowledge and textual information.

A combination of the two situations causing interpretation of reflexives in indirect speech as having disjoint reference from the expected antecedent participant-speaker, i. e.

embedded indirect speech with a participant-speaker different from the “matrix” participant-speaker and the occurrence of local reflexives in indirect speech, can be observed e. g. in (63), an extended version of (61). It represents a part of a long indirect speech which contains four reflexives, both personal and possessive, with three different antecedents. One of the reflexives is local, namely [IV-2], whose antecedent is subject of the embedded AcI-construction *neminem*. The other three reflexives ([II], [III] and [IV-1]) are logophoric, however with different antecedents: Antecedent of [II] and [IV-1] is the participant-speaker *Ariovistus* (which is the standard situation for indirect speech), antecedent of [III] is the speaker of the „embedded“ indirect speech contained inside the „main“ indirect speech, namely *Caesar* in [II], as was analyzed in (61):

(63) I. *Ad haec Ariovistus_i respondit:*

II. [...] *quod sibi_i Caesar_j denuntiaret*

III. [*se_j Haeduorum iniurias non neglecturum,*]

IV. *neminem_k secum_i(1) sine sua_k(2) pernicie contendisse. (Caes. B Gall. 1, 36, 1+6)*

I. to this Ariovistus:NS replied:3S

II. as-to self:DS Caesar:NS declare:3SSub

III. self:AS Haedui:GP injustice:AP not overlook:ASMPart

IV. nobody:AS self:AbS-without self's:AbS ruin:AbS contend:IPerf

“I. To this Ariovistus replied: [...]

II. As to Caesar's threatening him,

III. that he would not overlook the wrongs of the Aedui,

IV. [he said] that no one had ever entered into a contest with him [Ariovistus] without utter ruin to himself.”

It is also possible to have two reflexives in one clause with the same denotate (but not antecedent!), one of them local (here, both (2) and (3)), the other logophoric (namely the subject of an AcI-construction):

(64) [...] [*se_i(1) suis_i(2) copiis suoque_i(3) exercitu illis regna conciliaturum] **pro_i** confirmat.
(Caes. B Gall. 1, 3, 7)*

self:AS self's:AbP force:AbP self's:AbS-and army:AbS they:DP sovereignty:AP confirm:PartF pro assure:3S

“he assures them that he will, with his own forces and his own army, acquire the sovereignty for them.”

The antecedent of the personal reflexive *se*(1), the subject of the AcI-construction) is the empty subject *pro* of the matrix clause. The antecedent of both of the possessive reflexives (2) and (3) is the subject reflexive (1). The coordination of both NPs containing possessive reflexives is probably (among others) an (at least supportive) reason for their coindexation (cf. 2.5.4.1 about coindexation of small *pro* in coordinated constructions).

We have seen that the situation in indirect speech can be quite complex with respect to the possibilities of use of local/logophoric reflexives, and there seem to be no reliable syntactic or semantic reasons that would determine which variant we have before us. It seems that the only possibility to decide about the right indexation is for the recipient to rely on his background knowledge and information already gained from the previous text.

2.3.2.1.1.2 Reflexives vs. non-reflexives in logophoric contexts

Till now examples of the use of reflexives inside logophoric contexts have been discussed. It was said that the use of reflexives instead of non-reflexives (which is otherwise the usual way for non-clausal antecedents) is one of the means of how to mark a context as logophoric (cf. 2.3.2.1). Nevertheless, even in clearly logophoric contexts non-reflexive pronouns (mostly *is* (“he”) and *ille* (“that”), cf. (210)) are used with participant-speaker as antecedent, i. e. in a where logophoric reflexives normally occur. As Kühner, Stegmann (1912b): 611f. state⁵¹, at second and deeper levels of embedding usually non-reflexive personal pronouns occur, although reflexives are not excluded. It can be said that at deeper levels of embedding the use is not so strictly governed by the conventions operating at the first level of embedding, and the author of the text has a certain liberty to decide which of the means he will use, even if expressing his attitude to the information presented (cf. 2.3.2.1 about logophoric contexts).

⁵¹ Kühner, Stegmann (1912b) claim that a pronoun is used if it is in a “innerlich abhängiger Satz” – in our terminology, indirect clause) or in an AcI-construction if the matrix clause is “innerlich abhängig” itself (i. e. the verb is in subjunctive or it is an AcI-construction). Strictly considered, if there is such a sequence of “innerlich abhängige Sätze” there would have to be logophoric reflexives in all of them, whose antecedents would be the subjects of the respective matrix clauses. But, as Kühner, Stegmann further say, it “aber nicht selten tritt dafür, je nachdem bei dem Schreibenden der Gedanke an das eine der beiden Subjekte vorwiegt, in Beziehung auf das Andere eine Form von *is* (*ille*) ein (manchmal auch im Interesse der Deutlichkeit)” (Kühner, Stegmann (1912b): 610).

So we can find non-reflexives whose antecedent is the participant-speaker, as following two examples demonstrate:

(65) I. **Haedui**_i [...] *legatos ad Caesarem mittunt rogatum auxilium*:

II. *ita se*_i *omni tempore de populo Romano meritos esse*,

III. *ut paene in conspectu exercitus nostri agri vastari, liberi eorum*_i *in servitutem abduci, [...] non pro*_i *debuerint. (Caes. B Gall. 1, 11, 2 - 3)*

I. Aedui:NP legate:AP to Caesar:AS send:3P ask:Sup help:AS

II. so self:AP all:AbS time:AbS of people:AbS Roman:AbS deserved:APPart be:I

III. that almost in sight:AbS army:GS our:GS field:NP waste:IPass child:NP he:GP in slavery:AS carry-off:IPass not should:3P

“I. The Aedui [...] send ambassadors to Caesar to ask assistance, [pleading]

II. that they had at all times so well deserved of the Roman people,

III. that their fields ought not to have been laid waste-their children carried off into slavery [...] almost within sight of our army.”

The structure of embedding is

(65)a. [**Haedui**_i *legatos ad Caesarem mittunt [rogatum auxilium [ita se*_i *omni tempore de populo Romano meritos esse, [ut paene in conspectu exercitus nostri [agri vastari] & [liberi eorum*_i *in servitutem abduci] non debuerint]]]]*

(indirect speech is in italics)

Similarly in (66):

(66) **Allobrogibus**_i *sese*_i *vel persuasuros, [...] pro_i *existimabant vel vi coacturos ut per suos*_i *fines eos*_i *ire pro*_i *paterentur. (Caes. B Gall. 1, 6, 3)**

Allobroges:DP self:AP either persuade:APPartF pro thought:3P or force:AbS compel:APPartF that through self's:AP territory:AP they:AP go:I pro allow:3P

“They thought that they should either persuade the Allobroges, [...] or compel them by force to allow them to pass through their territories.”

The embedding structure is the following:

(66)a. *pro_j existimabant [sese_j Allobrogibus [vel persuasuros] [vel vi coacturos] ut pro_i paterentur [eos_j per suos_i fines ire]]*

We can see in both (65) and (66) that at the first level of embedding, reflexive *se* is used with participant-speaker as antecedent whereas at the lower level of embedding the pronoun *eorum, eos* occurs.

We can conclude that the use of reflexives to denote the participant-speaker inside the indirect speech is only regular at the first level of embedding. At the deeper levels, it depends on the author of text whether he chooses a reflexive or a non-reflexive pronoun, without any consequence for the character of the clause as logophoric context.

2.3.2.1.1.3 *Iipse* in indirect speech

In logophoric contexts, logophoric reflexive can under certain circumstances alternate with a non-reflexive pronoun *ipse* („self“), which has the participant-speaker as antecedent in the same way as the logophoric reflexive. The conditions on the use of *ipse* are different from the use of other pronouns, as described in 2.3.2.1.1.2.

Iipse substitutes the reflexive in logophoric contexts if the reflexive would have to be in Nominative Case which it lacks, as in (67):

(67) I. *Ad haec Ariovistus_i respondit: ius esse belli ut qui vicissent iis quos vicissent quem ad modum pro vellent imperarent.*

II. *Item populum Romanum_j victis non ad alterius praescriptum, sed ad suum_j arbitrium imperare consuesse.*

III. *Si ipse_i populo Romano_j non praescriberet quem ad modum suo_j iure pro_j uteretur, non oportere se_i a populo Romano in suo_i iure impediri. (Caes. B Gall. 1, 36, 1 - 2)*

I. to this Ariovistus:NS replied:3S right:AS be:I war:GS that who:NP conquer:3P they:DP who:AP conquer:3P which:AS to mode:AS pro want:3P govern:3P

II. also people:AS Roman:AS conquered:DPPart not to other:GS dictation:AS but to self's:AS discretion:AS govern:I wont:I

III. if self:NS people:DS Roman:DS not dictate:3S which:AS to mode:AS self's:AbS right:AbS pro use:3S not fit:I self:AS by people:AbS Roman:AbS in self's:AbS right:AbS obstruct:IPass

“I. To this Ariovistus replied, that "the right of war was, that they who had conquered should govern those whom they had conquered, in what manner they pleased;
 II. that in that way the Roman people were wont to govern the nations which they had conquered, not according to the dictation of any other, but according to their own discretion.
 III. If he for his part did not dictate to the Roman people as to the manner in which they were to exercise their right, he ought not to be obstructed by the Roman people in his right;”

Ipse can also be used to differentiate between two antecedents of anaphoric items inside one clause. We have seen in 2.3.2.1.1.1 that there can be reflexives with different antecedents inside one clause in logophoric contexts (which is the case also in [(67)-III]). If the author of texts wishes to avoid ambiguity, he can use *ipse* instead of logophoric reflexive (i. e. with participant-speaker as antecedent). In the following example, *ipse* is used because there are two possessives with different antecedents inside one clause. One of them is local, therefore it must be expressed by a reflexive (*ipse*, being a non-reflexive, cannot be used with a local antecedent in the same way as a local reflexive. The possibility of having a local antecedent is open only to reflexives.). The logophoric reflexive is substituted by the Genitive form of *ipse*⁵²:

(68) *Haec cum pro_i animadvertisset, [...] vehementer eos_j pro_i incusavit: [...] Aut cur de sua_i virtute aut de ipsius_j diligentia pro_j desperarent?* (Caes. B Gall. 1, 40, 4)

that:AP when pro observed:3S severely they:AP pro reprimanded:3S or why of self's:AbS valor:AbS or of self:GS zeal:AbS pro despair:3P

“When he observed these things, [...] he severely reprimanded them, [...] or why should they despair either of their own valor or of his zeal?”

Ipse is therefore used in logophoric contexts in the same way as logophoric reflexives; its antecedent is only participant-speaker. It can help to differentiate between local and logophoric reflexives, replacing the logophoric reflexive, or it can occur in subject position where Nominative is assigned because reflexives lack Nominative forms.

⁵² The choice of *ipse* can have also other reasons, e. g. to express Contrast (see 2.7.2.1).

I have not found any example where *ipse* would be a subject of an AcI-construction in indirect speech (which is a usual position of reflexives with non-local antecedents). It seems that it is not possible.

2.3.2.1.1.4 *Coniugatio periphrastica passiva*

In some cases, there seems to be a structural rule strictly determining the local or logophoric interpretation of reflexives in indirect speech.

In Latin, there exists a construction called *coniugatio periphrastica passiva* (“periphrastic passive conjugation”). It consists of a special verb form of Gerundive, combined with forms of the verb *esse* (“to be”). Periphrastic passive conjugation expresses necessity or advisability of the action denoted by the verb in the form of participle. The Agent of the action expressed by the verb in Gerundive is denoted by an NP in Dative⁵³. An example of a simple use of periphrastic passive conjugation is

- (69) *Iam nobis eundum est*⁵⁴. (example from Novotný (1992): 211)
 already we:DP go:NSNeuGer be:3S
 “We must already go.”

If periphrastic passive conjugation is embedded, the structure is

- (70) [NP VP [NP:D VP:Ger]].

The coindexation of the Dative Agent with the subject of the matrix verb yields

- (70)a. [NP_i VP [NP_i:D VP:Ger]].

⁵³ Cf. the hypothesis of Bertocchi on non-subject antecedents of reflexives, presented here in 2.3.1.2.1.

⁵⁴ Forms of Gerundive can be used either as agreeing with clause subject, cf.

- (i) *Memoria nobis exercenda est*. (example from Novotný (1992): 211)
 memory:NSFem we:DP train:NSFemGer be:3S
 “We should train our memories.”

Or Gerundive can be used without a relation to a certain NP, and then the form of neutrum of Gerundive is used (the same holds for Gerundives of intransitive verbs):

- (ii) *Proditori credendum non est*. (Novotný (1992): 211)
 traitor:DS believe:NSNeuGer not be:3S
 “One should not believe a traitor.”

Latin examples in this paragraph have the form of construction in (ii).

It is this particular way of use of Gerundive construction described in (70)a. which is of importance here. When we observe the use of such constructions inside logophoric contexts, if a reflexive is used to denote the Agent, it is always bound by the subject of matrix verb, although other instances of reflexives in the same indirect speech are logophoric, having participant-speaker as antecedent. Cf. following examples:

- (71) I. *His responsis ad **Caesarem**_i relatis, iterum ad **eum**_i **Caesar**_i legatos cum his mandatis mittit:*
 II. *quoniam tanto **suo**_j populique Romani beneficio adfectus, cum in consulatu **suo**_j rex atque amicus a senatu appellatus pro_i esset,*
 III. *hanc **sibi**_j populoque Romano gratiam pro_i referret*
 IV. *[ut [in conloquium PRO_i venire invitatus] pro_i gravaretur]*
 V. *[[**neque de communi re dicendum sibi**_i **et cognoscendum**] pro_i putaret],*
 VI. *haec esse quae ab **eo**_i pro_j postularet: [...](Caes. B Gall. 1, 35, 1 - 2)*

V. and-not about common:AbS thing:AbS saying:NSNeuGer self:DS and inquiring:NSNeuGer pro think:3SSub

- “I. When these answers were reported to Caesar, he sends ambassadors to him a second time with this message.
 II. ‘Since, after having been treated with so much kindness by himself and the Roman people (as he had in his consulship been styled ‘king and friend’ by the senate),
 III. he makes this recompense to [Caesar] himself and the Roman people,
 IV. that when invited to a conference he demurs,
 V. and does not think that it concerns him to advise and inform himself about an object of mutual interest,
 VI. these are the things which he requires of him; [...]”

Whereas in the whole of the indirect speech, the participant-speaker Caesar is denoted by logophoric reflexives (in [II] two times, in [III]) and the other participant (i. e. Ariovistus) by a pronoun (in [VI]), in the Gerundive construction in [V] the reflexive denoting Agent of the Gerundive action is coindexed with the subject of matrix verb in [IV], which has the form of *pro* and is coindexed with Ariovistus from the previous text.

A similar contrast can be observed in the following example:

(72) I. *Haec cum pro_i animadvertisset, [...] vehementer eos_j pro_i incusavit:*

II. *primum, quod aut quam in partem aut quo consilio pro_j ducerentur [[sibi_i quaerendum aut cogitandum] pro_j putarent.]*

III. *Ariovistum se_i consule cupidissime populi Romani amicitiam adpetisse;*
(*Caes. B Gall. 1, 40, 1 - 2*)

II. first:AS as-for or which:AS into part:AS or which:AS intention:AS pro lead:3PPass
[[self:DP inquiring:Ger or conjecturing:Ger] pro think:3P]

“I. When Caesar observed these things, [...] he severely reprimanded them,

II: particularly, for supposing that it belonged to them to inquire or conjecture, either in what direction they were marching, or with what object.

III. That Ariovistus, during his [Caesar's] consulship, had most anxiously sought after the friendship of the Roman people;”

Whereas in the periphrastic passive conjugation contained in an indirect speech (in square brackets in [II]), the reflexive is related to another participant than the participant-speaker, in the following sentence it is the participant-speaker who is denoted by a reflexive, as is the usual way with logophoric reflexives in indirect speech (cf. 2.3.2.1.1).

We may conclude that in constructions of periphrastic passive conjugation inside indirect-speech contexts, the Dative agent of the action in Gerundive is always expressed by a reflexive and coindexed with its matrix subject even if this subject is not the participant-speaker; even though the same participant is otherwise denoted by a non-reflexive pronoun in the same context, and even though else the reflexive is used exclusively for the participant-speaker in the indirect speech. If this conclusion is right, it would mean that there exists regularity in the use of reflexives in indirect speech which is based solely on structural grounds and whose antecedent has an unambiguously determinable syntactic function, opposite to the usual use of logophoric reflexives whose antecedent cannot be determined structurally at all (see 2.3.2.1.1).

2.3.2.1.1.5 Reflexives in AcI-constructions

Till now, cases of non-local reflexives were discussed where it was not possible to use GB-Theory explanation of binding facts because there was no possibility of providing a re-

definition of governing category which would cover all the examples (above all those with non-sentential antecedents). In other words, no uniform structural solution could be found. In this paragraph, a situation of seemingly non-local anaphors is described; nevertheless the solution of it is a structural one.

AcI-constructions⁵⁵ usually occur in indirect speech in the form of embedded clause⁵⁶. Here, if the subject of AcI-construction is identical with the subject of the matrix clause, the Accusative subject is always reflexive:

(73) [*pro multitudine autem hominum et pro gloria belli atque fortitudinis angustos se_i fines habere*] **pro_i** arbitrabantur, [...] (Caes. B Gall. 1, 2, 5)⁵⁷

for number:AbS however people:GP and for renown:AbS war:GS and bravery:GS narrow:AP self:AP limit:AP have:I pro thought:3P

“They thought, that considering the extent of their population, and their renown for warfare and bravery, they had but narrow limits, [...]”

(74) *ubi iam [se_i ad eam rem paratos esse] pro_i arbitrati sunt, [...]* (Caes. B Gall. 1, 5, 2)

when already self:AP to that:AS thing:AS prepared:APPart be:I pro thought:NPPart be:3P

“When they thought that they were at length prepared for this undertaking, [...]”

At the first sight it seems that in such cases reflexives are non-local, similarly to logophoric reflexives. However in this construction reflexives are captured by Binding Theory, and are therefore local.

According to Binding Theory, the governing category of infinitive constructions cannot be the infinitive itself, as it contains no governor of the reflexive (note that governor of subjects can be only a tensed I, cf. (6)) and no accessible subject/SUBJECT (cf. (10)). The governing category is necessarily broadened to contain also the matrix clause of the AcI-construction. The reflexive subject of AcI-construction is therefore correctly predicted to be bound inside the governing category by matrix subject, and is consequently local. This explanation accounts for already discussed examples, cf. (56), (61) (here, the embedded indirect speech [II] – [III] is involved), (64), (65) and (66). Nevertheless, as matrix subject of such

⁵⁵ A profound discussion of AcI-constructions see in 2.6.2.1.1.

⁵⁶ About non-embedded infinitive constructions see 2.6.2.1.2 and 2.6.2.2.2.

⁵⁷ About Case assignment to embedded subjects see discussion in 2.6 (passim).

constructions frequently coincides with participant-speaker of indirect speech, both hypotheses often provide identical results.

However, this solution cannot be applied to reflexive non-subjects inside AcI-constructions. These reflexives can be local (cf. e. g. (64)) or logophoric (e. g. in (57)), depending on the context.

In case of a larger indirect speech, AcI-constructions with a reflexive subject can be also non-embedded. Here, principles governing indirect speech are applied (i. e. the antecedent of reflexive is participant-speaker, cf. e. g. (59)).

We can see that in case of these seemingly non-local reflexives Principle A of Binding Theory applies.

2.3.3 Comparison with other languages: Czech and German

Czech and German belong to languages where reflexives are almost exclusively subject-oriented⁵⁸ and local. Antecedent is determined strictly in syntactic terms, therefore there is no possibility of the above described construction of local reflexives with non-subject antecedents or logophoric use of reflexives in logophoric contexts. However, there are other phenomena concerning reflexives which do not exist in Latin and which should be shortly mentioned here.

Reflexiva tantum

A special kind of reflexives which do not exist in Latin can be found in Czech or German. In these languages, some verbs obligatorily contain a reflexive as a part of the predicate, e. g. the German *sich schämen* or Czech *stydět se* (both meaning “to be ashamed”).

Reflexive Verbvarianten (“reflexive verb-variants”; term by Helbig, Buscha 1993)

It has been already said that in German only local reflexives exist. Therefore it is natural that reflexivity is described rather as a property of predicates (cf. 1.1.1.3). Some of the predicates which obligatorily contain a reflexive are such whose subject argument is inanimate or expletive, e. g. *sich ergeben* (“to result”), *sich zusammensetzen* (“to consist (of)”).

⁵⁸ Exceptions are e. g. the German

Die Bitte brachte den Mann_i außer sich. (Drosdowski (ed.) (1984): 319)

the:NS request brought:3S the:ASM man out-of self

„The request upset the man.“

In Czech, there can also be found special constructions like

kousek sebe_i; pro tebe_i (cord blood advertising).

However, it must be taken into account that this expression is highly elliptical.

“Reflexive Verbvarianten” are differentiated from reflexiva tantum in that reflexive in reflexiva tantum is an obligatory part of the predicate whereas “reflexive Verbvarianten” have both variants with and without a reflexive (although with a slightly different meaning and subcategorization). E. g.

(75) *Sein Einfluss hat sich verstärkt.* (Helbig, Buscha 1993: 215)

his:NSM influence:NSM has:3S self:AS strengthened:Part

“His influence has been strengthened.”

Also in Czech: “Jeho vliv se posílil.”

(76) *Er hat seinen Einfluss verstärkt.* (Helbig, Buscha 1993: 215)

he:NS has:3S his:ASM influence:ASM strengthened:Part

“He has strengthened his influence.”

In Czech: “Posílil svůj vliv.”

Reflexive forms with passive meaning (Helbig, Buscha 1993: 219)

In some cases reflexives occur in constructions with passive meaning, yet active form. Sometimes a modal meaning is also present. E. g.

(77) *Der Apfel schält sich gut.* (Helbig, Buscha 1993: 219)

the:NSM apple:NSM peel:3S self:AS well.

“The apple is easy to peel.”

In Czech: “Jablko se dobře loupe.”

The subject can be also expletive (in Czech even expletive *pro*, cf. 2.5.8) as in

(78) *In der neuen Bibliothek arbeitet es sich gut.* (Helbig, Buscha 1993: 220)

in the:DSF new:DSF library work:3S it self:AS well.

“It is easy to work in the new library.”

In Czech: “V té nové knihovně se dobře pracuje.”

In both Czech and German, reflexives in (78) are non-referential. This possibility is excluded in Latin.

Propositions containing predicates from both of the groups of *reflexive Verbvarianten* and *reflexive forms with passive meaning* would be expressed in Latin by forms without reflexives, most probably passive. However, it should be noted that forms of Latin passive have also meaning of the original genus of “medium” which expresses an action of the subject directed towards itself, i. e. it is reflexive. (See Kühner, Stegmann 1912b: 104; cf. fn. 18).

2.3.4 Summary

In this section, several issues concerning both kinds of reflexives in Latin, namely local and logophoric reflexives have been discussed.

First, the situation of local reflexives has been described (see 2.3.1). As for local reflexives, the problem consists in determining the right antecedent. It can be subject (cf. 2.3.1.1) but also other clause member. If it is other clause member that subject, the choice proceeds according to other than syntactic criteria. The antecedent can be determined according to its theta-role (see 2.3.1.2.1), namely Agent or Experiencer, or according to its role in the informational structure of the sentence (cf. 2.3.1.2.2) – it can be Topic or Contrast (according to Bertocchi (1989)). This last issue concerns possessive reflexives which can occur in positions of [Spec, NP]. Often, they are interpreted as “pseudo-reflexives” or „emphatic possessives“ with reflexive form but not value. The so-called transformational hypothesis which supposes the reflexive to be bound by the antecedent in the course of transformational history had to be abandoned (see 2.3.1.2.3).

Unfortunately, my research does not enable me to provide a solution which would explain all antecedency possibilities of local reflexives as they were described in 2.3.1 on a uniform basis.

As for logophoric contexts, i.e. such which are presented from the viewpoint of participant-speaker, not author of text (clauses containing the speaker’s commitment, according to Bertocchi (1994)), the special case of indirect speech was analyzed more particularly in 2.3.2.1.1. In Latin indirect speech, logophoric reflexives occur instead of non-reflexives (usually pronouns) which would occur at the same place if the proposition were expressed non-logophorically. The antecedent of logophoric reflexives in indirect speech can be identified unambiguously, differently from local reflexives. It determined semantically as the participant-speaker of the indirect speech, irrespective of its syntactic role (cf. 2.3.2.1.1.1).

We have seen that in logophoric contexts, both local and logophoric reflexives may occur (2.3.2.1.1.1). The differentiation between local and logophoric reflexives mostly depends on the receiver’s background knowledge and/or his knowledge gained from the previous text.

At deeper levels of embedding in indirect speech, pronouns (usually *is* and *ille*) are used for denoting participant-speaker instead of logophoric reflexives. At deeper levels of embedding the tendency to use logophoric reflexives is accordingly not so strong. This fact can be seen as a kind of structural constraint of the occurrence of logophoric reflexives which would then be prevalingly limited to the first level of embedding (see 2.3.2.1.1.2)

The intensifying pronoun *ipse* („self“) can replace logophoric reflexives in indirect speech, except in the subject position of AcI-constructions. It can help to differentiate between local and logophoric reflexives, replacing the logophoric reflexive, or it can occur in subject position in indirect speech where Nominative is assigned because reflexives lack Nominative forms (see 2.3.2.1.1.3)

The only structural clue for the interpretation of reflexives in indirect speech is in my opinion given in periphrastic passive construction whose Agent is always expressed by reflexive, bound by the subject of matrix verb (cf. 2.3.2.1.1.4). Except in AcI-constructions (cf. below), no other explanation of antecedency facts in logophoric contexts than a semantic one can be given.

It was shown that Binding Theory accounts for seemingly non-local reflexives in subject position of AcI-constructions. These subjects are shown to be local because infinitive construction itself cannot be governing category. It must be broadened to contain also matrix clause, and consequently reflexives in subject position of AcI-constructions are local and fulfill the requirements of Principle A of Binding Theory (see 2.3.2.1.1.5).

Reflexives occur in other types of constructions than they do in Latin, as was presented on the example of Czech and German (cf. 2.3.3)

2.4 Principle A – reciprocals

Reciprocals are traditionally described as expressing a “Wechselbeziehung der Tätigkeit zweier oder mehrerer Subjekte aufeinander” (Kühner, Stegmann (1912b): 614); “the pronouns used with Reciprocal Force denote two or more persons as affecting *each other* or *one another*” (Hale-Buck 1903: 147). The traditional definition of reciprocity describes situations with at least two participants, each of them being simultaneously agent and patient of the same action, e. g.

(79) *They kissed each other.*

However, traditional description of reciprocity is not precise. Reciprocals are used also in cases where no such mutual influence of coarguments occurs, as in

(80) *They followed each other.*

Cf. also examples (98) or (101).

In recent approaches, reciprocal relation is described in terms of logical relations between participants and is tightly interconnected with logic of plurality. According to Langendoen (1978), reciprocity is a logical property of sentences.

In my opinion it is not sentences but predicates which are the basis of reciprocal relation. Participants of reciprocal relation are then necessarily coarguments of the predicate⁵⁹. This fundamental fact that reciprocity is based on predicates implies that reciprocal relation (not taking into account its particular logical characteristics, as will be described in 2.4.3 on the basis of Langendoen (1978)) is always “local”⁶⁰.

This fact is reflected also in Binding Theory. Reciprocals, together with reflexives, are subsumed under the label of anaphors and supposed to underlie Principle A (cf. 1.1.1.2). It means that they require local c-commanding antecedents. However, Latin data do not support this supposition which is determined by properties of (compared with Latin simple system of) English reciprocals. Latin reciprocals often contain pronominals which must be free in their governing category, i.e. have non-local antecedents. Other types of them are even non-nomi-

⁵⁹ About the way of expressing participants of reciprocal relations in Latin see above all 2.4.2.2.1 and 2.4.2.5.

⁶⁰ The fact that reciprocal relation is predicate-based could imply that an analysis similar to Reinhart’s and Reuland’s (1993) analysis of reflexives could be employed. However, Reinhart and Reuland work only with arguments, and participants of reciprocal relations are often non-arguments (cf. e. g. (106) or (107) and also examples with nominal predicates).

nal, therefore not subject to Binding Theory at all. (Classification of Latin devices of expressing reciprocity see in (81)). In my opinion, it is necessary to differentiate between (1) logical relation between coarguments of one predicate on the one side and (2) possible anaphoric relations of these arguments to their antecedents (antecedents can, but do not have to be arguments of the same predicate)⁶¹. However, anaphoric constituent does not have to be present at all because devices expressing reciprocity need not contain anaphoric items (see 2.4.2.4.1, 2.4.2.4.2 and also 2.4.2.2.1). The strict structural locality requirement of Principle A of Binding Theory is therefore only result of logically based “locality” of participant of reciprocal relation.

In my opinion it is therefore necessary to treat logical and anaphoric characteristics of reciprocals separately because they represent different phenomena, not necessarily interconnected.

2.4.1 Devices for expressing reciprocal relation in Latin

In Latin, reciprocal relation can be expressed by several grammatically different devices.

(81)

A. PP with the preposition *inter* („between“, „among“) plus pronoun of the 1st or 2nd person, reflexive⁶² or the pronoun *ipse* („self“): *inter nos, inter vos, inter se, inter ipsos, inter se ipsos*.

(82) *Cicerones pueri amant inter se* (Cic. Att. 6, 1, 12)

Cicero:NP boy:NP love:3P between self:AP

“The Cicero boys are fond of each other.” (my translation, D. L.)

B. Pronouns *alter* („other“), *uterque* („both“, distributively), *uter* („which of both“) or *alius* („another“) in singular or plural can be used, occurring two times in the clause, with different cases, one of them being always Nominative (i. e. in subject position). Both arguments can be expressed by the same pronoun or a combination of two of them can be used in one clause.

⁶¹ Therefore it is not precise to speak of “antecedents” of reciprocals in the sense as Binding Theory uses the term.

⁶² Reflexive is used if the antecedent is in the 3rd person. Recall that only in the 3rd person, a special reflexive form exists in Latin.

(83) *Uter utri isidias fecerit* (Cic. Mil. 23)

which-of-both:NS which-of-both:DS machination:AP make:3S

“[...] which plotted against the other [...]”

(84) *Quorum uterque suo studio delectatus contempsit alterum* (Cic. Off. 1, 4)

which:GP each-of-both:NS self's:AbS subject:AbS pleased:NS disregard:3S other:AS

“of which each of them, taking pleasure in his own subject, disregarded the other” (my translation, D. L.)

C. A third possibility of expressing a reciprocal relation is the use of two R-expressions inside one clause. Syntactically, their use is the same as the use of pronouns in B., i. e. one of them must be subject. The R-expressions which can be used are only certain general nouns like *homo*, *vir* or *manus* and they must be identical:

(85) *Manus manum lavat* (Sen. Apocol. 9, 6)

hand:NS hand:AS wash:3S

“One hand washes the other”, meaning “One good turn deserves another” (my translation, D. L.)

(86) *Implicuere inter se acies legitque virum vir* (Verg. Aen. 11, 632)

intertwine:3P between self:AP army:NP choose:3S man:AS man:NS

“both armies merge confusedly together in grim fight of man to man;” (transl. by T. C. Williams)

D. From Livy on, *invicem inter se*, later on only *invicem* is used instead of *inter se*; from Tacitus on also *invicem se* (Kühner, Stegmann (1912b): 617)

(87) *haec Cicero pugnare invicem ostendit* (Quint. 5, 13, 33)

that:AP Cicero:NS fight:I each-other show:3S

“Cicero shows that they fight each against the other.” (my translation, D. L.)

(88) *plurimum invicem pro differunt* (Quintil. 12,10,1)

mostly each-other pro differ:3P

“They differ one from the other very much.” (my translation, D. L.)

E. Reciprocal relation can be without a special marker if predicate is inherently reciprocal (Kühner-Stegmann (1912b): 617):

(89) *nonnumquam etiam armis de principatu pro contendunt* (Caes. B Gall. 6, 13, 9)

sometimes even arm:AbP for presidency:AbS pro contend:3P

“sometimes they even contend for the presidency with arms”

F. Reciprocal relation is expressed by means of reflexive pronoun in an argument position:

(90) *parsque ibi, cum angusto exitu portarum se ipsi premerent, a militibus [...] est interfecta* (Caes. B Gall. 7, 28, 3)

part:NS-and then when narrow:AbS exit:AbS gate:GP self:AP self:NP crowd:3P by soldier:AbP be:3S kill:Part

“A part was then slain by the infantry when they were crowding upon one another in the narrow passage of the gates;”

I will subsume these devices used to express reciprocity under the term *reciprocity markers*. The term *reciprocals* does not seem adequate because it implies the presence of a local antecedent in the sense of Binding Theory which is not always the case, as will be shown in 2.4.2.

In the following text, I will analyze the two “facets” of reciprocity: first, the functioning of reciprocity markers as anaphoric devices from the point of view of Binding Theory; second, logical properties of reciprocity, as are presented in Langendoen (1978).

2.4.2 Anaphoric part of reciprocal relation: analysis of Latin reciprocals from the viewpoint of Binding Theory

It is clear from the overview of reciprocity markers listed in (81) that reciprocity markers are different from each other with respect to binding and conditions on antecedency put on them must be different as well. They certainly cannot be subsumed under one Binding Principle, as is possible in English.

2.4.2.1 Items underlying Principle A of Binding Theory

Reflexives contained in reciprocal forms under (A) and (F) must inevitably have an antecedent, according to Principle A of Binding Theory. However, conditions on “reciprocal” reflexives are different from those put on “pure” reflexives, as were described under 2.3.

2.4.2.1.1 *Inter se*

The antecedent of reflexive inside the reciprocal *inter se* can be subject:

- (91) [...] *controversias inter se milites habuerunt* [...] (*Caes. B Civ. 1, 87, 2*)
dispute:AP between self:AP soldier:NP have:3P
“the soldiers had disputes among themselves”

See also (82).

The antecedent can be object in Accusative:

- (92) [...] *oratio, quae [...] conciliat inter se homines* (*Cic. Off. 1, 50*)
speech:NS which:NS conciliate:3S among self:AS people:AS
“a speech which conciliates people among themselves” (my translation, D. L.)

or NP in Dative:

- (93) *multa enim sunt civibus inter se communia*, [...] (*Cic. Off. 1, 53*)
many:NP namely be:3P citizen:DP between self:AP common
“for many things are common for the citizens” (my translation, D. L.)

or Genitive:

- (94) *Ita effici complexiones et copulationes et adhaesiones atomorum inter se*
(*Cic. Fin. 1, 19*)
so cause:IPass embrace:NP and connection:NP and adhesion:NP atom:GP between
self:AP
“So are caused mutual conjunctions and connections and adhesions of atoms” (my
translation, D. L.)

There is no constraint as to the syntactic function of the antecedent of reflexives in this reciprocity marker. However, they underlie another constraint. They can be only local⁶³, and they must be relatively near to their antecedent. The examples show that they are immediate neighbours. In other cases they are not far away from each other as well, cf. (82).

We can see that one of the principles of Principle A (namely antecedent inside the governing category) is fulfilled. As for the other, namely that antecedent must c-command the reflexive, it is obeyed if antecedent is subject. As for the other types of antecedents, it would be necessary to solve the problem of Latin word order which I shall not solve here.

A way of expressing reciprocity similar to *inter se* exists also in Czech, cf.

(95) *Děti se mezi sebou hádaly.*

2.4.2.1.2 Reflexives used reciprocally

Sometimes, reflexives can be used to express reciprocity⁶⁴. As Kühner, Stegmann (1912b): 617 state, reflexivity and reciprocity were strictly distinguished in Latin, except in cases where there was no possibility of ambiguous interpretation:

(90) *parsque ibi, cum angusto exitu portarum se ipsi premerent, a militibus [...] est interfecta (Caes. B Gall. 7, 28, 3)*

part:NS-and then when narrow:AbS exit:AbS gate:GP self:AP self:NP crowd:3P by soldier:AbP be:3S killed:Part

“A part was then slain by the infantry when they were crowding upon one another in the narrow passage of the gates;”

The interpretation of this example is certainly reciprocal. However, it seems that not in all similar cases it must be the rule:

(96) *PRO perrumpere pro nitantur seque ipsi adhortantur, ne tantam fortunam ex manibus pro dimittant (Caes. B Gall. 6, 37, 10)*

⁶³ It results from the general property of reciprocity, namely that it is based on predicates. Logophoric use of reflexives for expressing reciprocity is therefore excluded.

⁶⁴ It is usual in other languages, e. g. Czech, where reflexives with plural antecedents are in fact ambiguous and the decision depends on the meaning of the predicate (similarly to 2.3.5.3.), situation or context: *Koulovali se.* (certainly reciprocal)
Myli se. (rather reflexive)

PRO get-by:I pro endeavor:3P self:AP-and self:NP encourage:3P that-not such:AS
prize:AS from hand:AbP pro cast:3P

“They endeavor to force an entrance and encourage one another not to cast from their hands so valuable a prize.”

Here, the interpretation is not unambiguous and can be either reflexive, where the antecedent can be understood as set or individuals from the set, or reciprocal; although the reciprocal one is admittedly preferred. (Kühner, Stegmann (1912b): 617 give this sentence as an example of reciprocal interpretation.)

(97) [...] *milites sibi ipsos ad pugnam esse impedimento pro vidit*, [...]

(*Caes. B Gall. 2, 25, 1*)

soldier:AP self:DP self:AP to battle:AS be:I hinderance:AbS pro see:3S

“he perceived that [...] soldiers were a hindrance to themselves in the fight”

This example is quoted in Hale, Buck (1903): 147 as an example of reciprocal use of reflexives. However, in my opinion the reflexive interpretation is probably the right one. It shows, however, that ambiguities can easily arise when reflexives are used in possibly reciprocal sense, contrary to the assertion of Kühner, Stegmann (1912b) mentioned above, namely that reflexive and reciprocal uses of reflexives were strictly kept apart.

A reciprocal interpretation of (97) would be confirmed by the presence of the intensifying *ipse* in the Specifier position of the subject NP. Note that in (90) and (96), *ipse* is present as well, here as subject, therefore antecedent of the reflexive and participant of reciprocal relation. It is possible that reciprocal use of reflexives is possible only if they are used in combination with *ipse* standing for participants of reciprocal relation.

As for Binding Principle A, reflexives used reciprocally are local, like reflexives contained in the PP *inter se* (cf. 2.4.2.1.1). Their antecedents are subjects (as in (90) and (96)) and also Accusative subject of an AcI-construction (in (97)). Examples presented here are captured by Principle A.

In other languages like Czech or German, expressing reciprocity by means of reflexives is the most common way. In German, only the two forms – reflexive and the form *einander* (to be discussed in 2.4.2.4.1) can be used to express reciprocity.

Palek (1985): 108 denotes this kind of Czech reciprocals as *r-reciprocals* (their forms coincide with that of reflexives). The difference between reciprocals and reflexives is not

conditioned by syntactic structure; the plural of the antecedent is necessary (although it is not sufficient and the character of the predicate must be taken into account as well).

2.4.2.2 Items underlying Principle B of Binding Theory

We have seen in (81) that reciprocity can be also expressed by devices which certainly do not underlie Principle A, as Binding Theory requires. These are devices containing pronouns, which are captured by Principle B of Binding Theory. First of them are two pronouns, one of them in subject position, the other in complement or adjunct position (cf. (81)B.). The other is the PP *inter ipsos* (in (81)A.).

2.4.2.2.1 Two pronouns

Reciprocity marker consisting of two pronouns was listed in (81) under B. It contains two identical or different pronouns (the list of pronouns which can express reciprocity see in (81)B.), one necessarily in Nominative (i. e. subject), the other in another Case, being complement or adjunct, according to the subcategorization of the verb. Pronouns involved must agree in number. According to Palek (1985), in similar constructions in Czech pronouns must agree also in gender. I suppose this assertion to be valid for Latin as well because I have found no counterexamples.

There can be two singular participants involved in reciprocal relation, like in (83) and (84) or here:

(98) *alius ex alio causam tumultus quaerit* (Caes. B Gall. 6, 37, 6)

other:NS from other:AbS cause:AS confusion:GS inquiry:3S

“one inquires of another the cause of the confusion”

(99) I. *sic fortuna in contentione et certamine utrumque versavit,*

II. *ut alter alteri inimicus auxilio salutique esset neque diiudicari posset,*

III. *uter utri virtute antefendus videretur.* (Caes. B Gall. 5, 44, 14)

I. so fortune:NS in rivalry:AbS and conflict:AbS each-of-two:AS turn-over:3S

II. that other:NSM other:DSM hostile:NS help:AbS rescue:AbS-and be:3S not-and decide:IPass can:3S

III. which-of-two:NSM which-of-two:DSM bravery:AbS prefer:Gr appear:3SPass

“I. Fortune so dealt with both in this rivalry and conflict,

II. that the one competitor was a succor and a safeguard to the other, nor could it be determined

III. which of the two appeared worthy of being preferred to the other.”

As is predicted by Principle B, pronouns expressing reciprocity are free in their governing category, which is the clause. Their antecedent is in the main clause [(99)-I] and in the text in (98). In all cases, members of reciprocity markers are clause-mates, as is supposed for participants of reciprocal relations (cf. introduction of 2.4).

However, there can be found also examples where Principle B is not obeyed and pronouns have the antecedent inside their governing category, as in (84) and (100):

(100) [...] *qui noxii ambo alter in alterum causam conferant*, [...] (Liv. 5, 11, 6)
who:NP guilty:NP both:NP other:NSM into other:ASM cause:AS throw:3P
“for whilst both were guilty, each threw the blame on the other,”

There are more differences between (99) and (100) or (84) except the difference with respect to binding.

First, if we compare (99)-[II] and (99)-[III] with (100) we can see that in the former the verb is in singular whereas in the latter it is plural although pronouns expressing reciprocity are singular in all cases.

Second, in (99)-[II] and (99)-[III] both of the pronouns are “full” clause members, one of them subject, the other complement. In (100) however, the subject is the plural relative *qui*, as is shown by agreement between the relative and the verb. From the pronouns expressing reciprocal relation in (100) one (*alter*) is in Nominative as well, the other (*in alterum*) has the form of PP; that means that they have the form which is required by the subcategorization of the verb. However, their syntactic validity as arguments of the verb is questionable. At least one of them, namely that in Nominative, can be said to lose to some degree its syntactic validity as subject because it does not agree with the verb. As for the other, the *in*-PP could be said to be subcategorized by the verb. It would then form a reciprocity marker together with the subject *qui*. But, as was stated above, pronouns expressing reciprocity agree in number. This condition would not be fulfilled if we suppose the subject *qui* and the argument *in alterum* to form reciprocity marker in (100), even if we omit the fact that relatives usually do not count as a device for expressing reciprocity, cf. (81). Moreover, under this supposition the presence of the Nominative pronoun *alter* would then have to be explained. Therefore the

pronoun in the PP cannot probably be taken as an argument of the predicate although it has the form of it.

A possible solution of such cases is to describe both pronouns expressing reciprocity as a “unitary” reciprocity marker. This supposition would be supported by the fact that the antecedent of the pronouns is in their governing category, therefore losing their pronominal character. The “unitary” reciprocity marker as a whole would then be non-pronominal, although it contains pronouns, and it would have the same properties which are ascribed to reciprocals in Binding Theory, namely it would be bound according to Principle A, with the subject *qui* as antecedent in (100). Or, alternatively, it would be taken as a non-nominal reciprocity marker, like *invicem* (cf. 2.4.2.4.1), and not be subject to binding Principles at all. The second proposal seems to me to be more plausible, because reciprocal relation is in the first place a logical relation and its locality is guaranteed by its connection with the predicate. This issue requires further analysis.

The form of pronouns in “unitary” reciprocity markers would however be influenced by the subcategorization of the verb, one of them being always Nominative, the other having other Case, in (100) the Accusative assigned by P.

Example (84) shows a more complex picture and “unitary” reciprocity marker hypothesis can hardly be maintained. Here, the two parts of the reciprocity marker are definitely arguments of the predicate (which is supported by number agreement of the verb and by the genitive form of the antecedent relative). Nevertheless, they have a local antecedent⁶⁵. At present I am not able to provide a satisfactory uniform solution of cases of A'-bound pronouns presented in (84) and (100). About A-bound pronouns see below.

Till now, only cases with singular pronouns in reciprocity markers were discussed. Participants of reciprocal relation can be two sets, expressed by pronouns in plural:

(101) *pro Accedebat [...] ut [...] alios alii deinceps exciperent, [...]. (Caes. B Gall. 5, 16, 4)*
pro accede:3S that other:APM other:NPM in-sequence take-over:3P

“To this was added, [that] the one relieved the other, [...]”

This example is analogous to (99), in that pronouns are arguments of the verb and are free in their governing category, therefore obeying Principle B.

Reciprocity markers can be also combined in one clause, cf.:

⁶⁵ Note that in (84) and (100) the antecedents of the pronouns are in A'-positions.

(102) (*in logophoric context*)⁶⁶

[...] *homines autem hominum causa esse generatos, ut ipsi inter se aliis alii prodesse possent* (C. Off. 1, 22)

human:NP but human:GP cause:AbS be:I created:APPart that self:NP between self:AP other:DP other:NP be-of-use:I can:3P

“[that] humans have been created because of [other] humans, in order to be of use to each other” (my translation, D. L.)

Two reciprocity markers in this example are of different types with respect to Binding principles. *Inter se* is correctly bound by the subject *ipsi*. The pronominal reciprocity marker *aliis alii*, however, is bound (in this case, A-bound, differently from the above discussed examples (84) and (100) where A'-binding occurs). In this case, the hypothesis of “unitary” reciprocity marker provides an explanation.

We have seen that if reciprocity is expressed by two pronouns, it is necessary to differentiate between cases where the pronouns are arguments of the verb (and underlie Principle B, having non-c-commanding antecedents) and cases in which they must be taken as a unit which underlies Principle A of Binding Theory, or, alternatively, as a non-anaphoric reciprocity marker not subject to Binding Theory, similarly to *invicem* (see 2.4.2.4.1).

The same situation can be observed in Czech. The other form of reciprocals in Czech besides reflexives used reciprocally (cf. 2.4.2.1.2) is called by Palek (1985) *N-reciprocals*. It is made up of two constituents, *jeden* and *druhý*, *jeden* being always in Nominative. They obligatorily share gender and number, exactly as Latin reciprocity markers consisting of two pronouns. However, the choice of pronouns in Czech is limited to the two mentioned.

Czech and Latin pronominal (N-)reciprocals are similar in that the pronouns are either syntactic arguments or a “unitary” reciprocity marker functioning as a whole. Cf. Czech examples

(103) *jeden vykládal druhému anekdoty* (Palek (1985): 112)

This example is structurally comparable with the Latin (98), (99) and (101) in which the pronouns – parts of the reciprocity markers – have their independent syntactic roles. The following example has the same structure with respect to reciprocity marker as (100):

⁶⁶ Description of logophoric contexts see in 2.3.2.1.

(104) *pro vykládali jeden druhému anekdoty* (Palek (1985): 112)

Palek (1985) considers only examples of this type as reciprocal because they satisfy Chomsky's requirement (Principle A). The split expression *jeden...druhému* in examples like (103) has pronominal character and its coindexing depends on context (Palek (1985): 112).

The difference between Czech and Latin reciprocity markers of this type consists in the fact that the order of Czech expressions *jeden...druhý* is fixed (Palek (1988): 235) which is not the case in Latin, as examples show (cf. (98), (99) and (100) versus (101) and (102)). Otherwise these reciprocity markers are comparable.

2.4.2.2.2 *Inter ipsos*

As was stated in (81)A. above, the pronoun *ipse* can also occur inside the PP with the proposition *inter* to express reciprocity. Cf.

(105) *De tribus autem reliquis latissime patet ea ratio, qua societas hominum inter ipsos [...] continentur;* (Cic. Off. 1, 20)

from three:DP however other:DP most-widely extend:3S that:NS principle:NS
which:AbS society:NS human:GP between self:AP cohere:3SPass

“From the other three, however, that principle has the broadest validity, which holds the human society together” (my translation, D. L.)

In (105), the PP with the pronoun *ipse* shows identical behavior as similar PPs with reflexives in 2.4.2.1.1, i. e. the antecedent of *ipse* is local (though not c-commanding). However, this seems to be rather an exception. Cf. following example where the antecedent of *ipse* is not in the same sentence:

(106) I. *Iam primum iuventus, [...] in castris per laborem usum militiae discebat [...].*

II. *Igitur talibus viris non labor insolitus, non locus ullus asper aut arduus erat, non armatus hostis formidulosus: virtus omnia domuerat.*

III. *Sed gloriae maxumum certamen inter ipsos erat:* (Sall. Cat. 7)

I. already first youth:NS in camp:AbP through exercise:AS skill:AS military-service:GS learn:3S

II. so such:DP man:DP not exertion:NS unusual:NS not place:NS any:NS difficult:NS or inaccessible:NS was:3S not armed:NS enemy:NS formidable:NS valor:NS everything:AP overcome:3S

III. but glory:GS biggest:NS rivalry:NS between self:AP was:3S

“I. Now, for the first time, the youth, acquired military skill by actual service in the camp.

II. To such men no toil was unusual, no place was difficult or inaccessible, no armed enemy was formidable; their valor had overcome every thing.

III. But among themselves the grand rivalry was for glory;”

The antecedent of *ipse* is, as predicted by Principle B of Binding Theory, outside the governing category.

In (107), a contrast between an *ipse*-PP and a *se*-PP can be observed. Whereas *ipse* (in [II]) has its antecedent in the text, namely in sentence [I], the antecedent of reflexive (in [III]) is local:

(107) I. *Persuaderi igitur cuiquam potest ea, quae significari dicuntur extis, cognita esse ab haruspibus observatione diuturna?*

II. *Aut quo modo est conlata inter ipsos, quae pars inimica, quae pars familiaris esset, [...]?*

III. *An haec inter se haruspices Etrusci, Elii, Aegyptii, Poeni contulerunt?*
(*Cic. Div. 2, 28*)

I. persuade:IPass also anybody:DS can:3S that:NP which:NP announce:IPass say:3PPass entrail:AbP learnt:NPPart be:I by haruspex:AbP observation:AbS long:AbS

II. or what:AbS mode:AbS be:3S confer:NSPart between self:AP which:NS part:NS ominous:NS which:NS part:NS auspicious:NS be:3S

III. whether that:AP between self:AP haruspex:NP Etruscan:NP Elian:NP Egyptian:NP Poenian:NP confer:3P

“I. Can anybody be persuaded that these things which are said to be announced by the entrail had been learnt by the haruspices by means of a long-time observation?

II. Or how had been agreed among them which part is ominous and which is auspicious?

III. Had the Etruscan, Elian, Egyptian, Poenian haruspices agreed it among themselves?” (my translation, D. L.)

Sometimes we also find the form *inter se ipsos*. As we have said, reflexives with reciprocal meaning are used only locally. Therefore we must conclude that also here, the antecedent of the reflexive will be in the same clause, as (108) confirms. The pronoun *ipse* is used in its intensifying function which might be the reason for its acceptability even with a local antecedent.

(108) *Ingens certamen tribunis et inter se ipsos et cum consule fuit* (Liv. 39, 39, 13)

Great:NS fight:NS and between self:AP self:AP and with consul:AbS be:3S

“The tribuni had a great contest against each other and against the consul.” (my translation, D. L.)

We have seen that *ipse* in the PP *inter ipsos* can have both local and non-local antecedents, examples of local antecedents violating Principle B of Binding Theory (cf. (105)). There are no subject and no direct object antecedents of *ipse*. Only antecedents in Dative in (106), in Ablative in (107) and Genitive in (105) are presented here.

We can find examples (here, (107)) where in the same part of text, both *inter ipsos* and *inter se* occur, their antecedent has the same denotate, but once it is outside the sentence (with *inter ipsos*) and once it is inside the clause (*inter se*).

As for *inter se ipsos*, the antecedent is inside the clause (influenced by the reflexive), but it is neither subject nor direct object (influenced by *ipsos*; however, this is only a tentative hypothesis which requires more examples).

2.4.2.3 Items underlying Principle C of Binding Theory

2.4.2.3.1 Two identical R-expressions

Under (81)C. reciprocity markers consisting of two general nouns were listed. However, the use of this reciprocity marker is very special. The R-expressions expressing reciprocity must be always identical, one of them is in the subject position, the other is an argument of the verb, similarly to expressing reciprocity by two pronouns (see 2.4.2.2.1); however without possibility of “unitary” reciprocity marker. Cf.

(85) *Manus manum lavat* (*Sen. Apocol. 9, 6*)

hand:NS hand:AS wash:3S

“One hand washes the other”, meaning “One good turn deserves another”

(86) *Implicuere inter se acies legitque virum vir* (*Verg. Aen. 11, 632*)

intertwine:3P between self:AP army:NP choose:3S man:AS man:NS

“both armies merge confusedly together in grim fight of man to man;”

Principle C of Binding Theory is obeyed in both cases because the R-expressions involved have no antecedent at all, being general nouns. (Note that they are supposed to have different indexation.) The repertoire of R-expressions involved is rather restricted. The anaphoric part of the reciprocal relation is missing; only “pure” reciprocal relation is expressed. Often, such kind of reciprocity markers occurs in proverbs as in (85).

2.4.2.4 Non-nominal reciprocity markers which are not captured by Binding Theory

2.4.2.4.1 *Invicem*

The expression *invicem* („by turns“, „mutually“) is an adverb, therefore it cannot be subject to Binding Theory.

(87) *haec; Cicero pugnare invicem; ostendit*⁶⁷ (*Quintil. 5, 13, 33*)

that:AP Cicero:NS fight:I each-other show:3S

“Cicero shows/claims that they fight against each other” (my translation, D. L.)

Invicem can occur together with *inter se* (cf. 2.4.2.1.1):

(109) [...] *pro colligebantque in unum copias invicem inter se gratantes*, (*Liv. 9, 43, 17*)

pro collect:3P-and into one:A troop:AP mutually between self:AP congratulating:APPart

“They were [...] collecting the troops together amidst mutual congratulations”

Invicem is a “pure” reciprocity marker without anaphoric component. Its function is to signalize reciprocity therefore the “antecedent” (i. e. participant involved in reciprocal rela-

⁶⁷ Analysis of infinitival constructions see below. This is an example of [+F] verb, because it functions as a verb *dicendi*, cf. 2.6.2.1.1.

tion) must be in plural (as is generally the condition on reciprocity). It naturally must occur inside the clause or NP⁶⁸; otherwise recipient would not be able to interpret the predicate reciprocally.

A similar use to *invicem* can be observed in the German *einander* („each other“, „one another“). It is used either independently, as in

- (110) *Sie begrüßen einander.*
they:NP greet:3P each-other
“They are greeting/greet each other.”

or together with the preposition as a PP-argument or PP-adjunct, as in

- (111) *Die Kinder standen nebeneinander.*
(both German examples by Drosdowski (ed.) (1984))
the:NS child:NS stand:3P beside-one-another
“The children were standing beside each other.”

As we have seen in examples (87) and (109), objects of predicates are not expressed if *invicem* occurs. As for the verb *pugnare* („to fight“) in (87), it can be either intransitive or it can be subcategorized for a PP (*cum* „with“, *contra* „against“, *in* „against“, *adversus* „against“; Pražák 1940 s. v. *pugnare*); it is not possible to decide which variant is used here. In some cases, however, *invicem* is used with undoubtedly transitive verbs, without direct object being expressed:

- (112) *Quae omnia huc spectant, ut **invicem** ardentius **pro** diligamus [...] (Plin. ep. 7, 20, 7)*
which:NP all:NP to-that strive:3P that each-other more-ardently love:1P
“All that things strive for one, namely that we should love each other more ardently [...]” (my translation, D. L.)

⁶⁸ The term *governing category* is not appropriate because an adverb cannot be governed, and consequently cannot have any governing category; however, it occurs inside clauses or NPs (which are considered as governing categories in Latin), as our examples show.

This example is similar to (82) and also to the German (110) where transitive verbs without overt direct objects are used as well. It raises the question of the existence of empty objects in Latin which will be addressed in 2.4.2.5.

Czech also has an adverb expressing reciprocity. *Navzájem* could be at the first sight considered as similar to *invicem*. However, *navzájem* cannot be used independently. It occurs only together with other reciprocals (either r-reciprocals or N-reciprocals, cf. 2.4.2.1.2 and 2.4.2.2.1). Its use is only facultative and it is therefore not comparable with the fully independent reciprocity marker *invicem*.

2.4.2.4.2 Zero marker

As for zero marker, we can only conclude that there exists a reciprocal relation on the basis of the meaning of the predicate. Reciprocal relation can be expressed only by certain predicates. As Kühner, Stegmann (1912b): 615 state, reciprocal expressions occur together with transitive and intransitive verbs denoting common activity like *amare* (“to love”), *amplexari* (“to embrace”), *aspicere* (“to look”), *colloqui* (“to talk”), with adjectives like *par* (“equal”), *similis* (“similar”) and also with substantives (*societas* (“community”), *bellum* (“war”), *controversia* (“dispute”)).

(89) *nonnumquam etiam armis de principatu pro contendunt* (*Caes. B Gall. 6, 13, 9*)

sometimes even arm:AbP for presidency:AbS pro contend:3P

“sometimes they even contend for the presidency with arms”

Predicate *contendere* (“to fight”) already contains the reciprocal meaning in itself. Therefore it is not necessary to add an extra reciprocity marker. Nevertheless, it is possible, as (87) shows, whose predicate has similar meaning.

Langendoen (1978): 189ff. calls such kind of reciprocity where no overt reciprocal occurs *covert reciprocity*. According to him, there is no reason for grammatically relating cases which contain a reciprocal and those which do not. He claims them to be distinct both syntactically and semantically.⁶⁹

⁶⁹ However, he uses examples containing the adjective *similar*, arguing that covert reciprocity examples are characterized as strong reciprocity for subsets (Langendoen (1978): 190), whereas examples with overt reciprocals are captured by weak reciprocity for subsets (Langendoen (1978): 188); here see 2.4.3. However, Latin examples with zero reciprocity marker are in my opinion not differently interpreted from corresponding examples with an overt reciprocity marker.

2.4.2.5 Empty objects in Latin?

A problem arising in connection with nearly all reciprocity markers except such whose members have roles of arguments of the predicate (i. e. reflexives used reciprocally, two pronouns (except “unitary” reciprocity marker”) and two R-expressions) concerns the absence of overtly expressed object required by the subcategorization of the predicate. Cf. (82), repeated here:

(82) *Cicerones pueri amant inter se* (Cic. Att. 6, 1, 12)

Cicero:NP boy:NP love:3P between self:AP

“The Cicero boys are fond of each other.” (my translation, D. L.)

The verb *amare* is transitive, but no direct object is present at the surface representation of the clause. Similarly the object is undoubtedly missing in (87), (88), (89), (109) and (112). However, I have claimed in the introduction to 2.4 that reciprocal relation exists between (at least two) arguments of one predicate. As the examples listed above show, these arguments do not need to be expressed explicitly. To establish a reciprocal relation, the presence of a plural subject⁷⁰ (which, however, must be in plural), even in the form of *pro*, together with a reciprocity marker, suffices to interpret the predicate as reciprocal. However, the subcategorization frame of the verb is not complete.

The problem of the missing object can be solved in two ways. First, we can suppose the existence of an empty object in Latin *pro^{obj}* in the structure of the clause. Then we obtain for (82):

(82)a. [*Cicerones pueri*]_i *pro^{obj,71}* *amant inter se*_i

However, a problem would arise in connection with the determination of antecedent of the empty object *pro^{obj}*. In (82), there are two participants of reciprocal relation which are subsumed in the subject plural NP. If both of the participants are subsumed under one NP, there is no of them available as antecedent of *pro^{obj}*. The antecedent is supposed to be one of them. Still more complicated would be the situation where the subject plural NP does not consist of two but of more individuals or subsets. It seems that it is impossible to establish an empty object because its antecedent could not be determined.

⁷⁰ The plural participant of reciprocal relation does not have to be subject, as examples (92), (93) or (94) document.

⁷¹ I suppose SOV order for Latin, see 2.1.

Another solution of the problem would be based on logical properties of reciprocal relation. The plural NP, denoting the participant of reciprocal relation, would be “divided” into appropriate parts (subsets which can contain one or more items, according to the type of reciprocity) and to establish relation(s) between them. One of them would then be subject and the other object of the predicate. Subcategorization requirement of the predicate would then be satisfied at LF⁷². However, the situation with respect to antecedency cannot be made clearer by this solution because the roles of subject and object in reciprocal relation are interchangeable⁷³. And moreover, reciprocal relation can exist between more than two items (individuals or sets) subsumed under one plural NP (cf. (113)). In such a case, it would be necessary to determine which is subject and object for each pair of them. It would in fact mean a “multiplication” of the predicate. To sum up, this solution does not seem to be satisfactory either.

It seems that at present, the only possibility to solve the problem is to suppose verbs which are capable of expressing reciprocity to have a special lexical entry which subcategorizes for a reciprocity marker. The question arises as to whether there are constraints on the type of reciprocity marker and type of reciprocity (as presented in (113)) or whether they are interchangeable. The discussion of this problem see in 2.4.3.

2.4.3 Logical part of reciprocal relation

Reciprocity is usually described in grammars as a symmetric relation whose participants have the roles of Agents and simultaneously Patients of the same action (cf. quotations in the introduction in 2.4). However, not all cases where reciprocals occur can be described in this way. From the examples presented so far, e.g. (101), (105), (106), (107) or (111) do not correspond with this definition. Relations expressed by means of reciprocals can be of very different nature, based on different relationships between their participants. There exist descriptions of types of reciprocal relations from the viewpoint of logic. Langendoen (1978) classifies reciprocity in the following way (Langendoen (1978): 179):

(113)

1. *Strong reciprocity*: each item of a set is in relation with each other item of the set.

$(\forall x,y \in A)(x \neq y \rightarrow xRy)$

⁷² This would probably induce a violation of projection principle.

⁷³ Not in all types of reciprocity is it the case, sometimes the order of elements is of importance, cf. 2.4.3.

2. *Partitioned strong reciprocity*: reciprocal relation exists between items of different subsets.

$A = A_1 \cup \dots \cup A_n$ and $(\forall i, j, 1 \leq i, j \leq n) (i \neq j \rightarrow A_i \cap A_j = \emptyset)$ and $(\forall k, 1 \leq k \leq n)$

$(\text{card } A_k \geq 2)$

$(\forall i, 1 \leq i \leq n)(\forall x, y \in A_i)(x \neq y \rightarrow xRy)$

3. *Symmetric reciprocity*:

$(\forall x \in A)(\exists y \in A)(x \neq y \wedge xRy \wedge yRx)$

4. *Intermediate reciprocity*:

$(\forall x, y \in A)\{x \neq y \rightarrow [xRy \vee (\exists n > 0)(\exists z_1, \dots, z_n \in A)(xRz_1 \wedge \dots \wedge z_nRy)]\}$

5. *Partitioned intermediate reciprocity*: intermediate reciprocity defined on sets.

A is partitioned into subsets as in 2.

$(\forall i, 1 \leq i \leq n)(\forall x, y \in A_i)\{x \neq y \rightarrow [xRy \vee (\exists n > 0)(\exists z_1, \dots, z_n \in A)(xRz_1 \wedge \dots \wedge z_nRy)]\}$

6. *Weak reciprocity*: each item is in relation with another item.

$(\forall x \in A)(\exists y, z \in A)(x \neq y \wedge x \neq z \wedge xRy \wedge zRx)$

Two additional types of reciprocity are described:

7. *Strong reciprocity for subsets*

$(\forall x \in A)(\forall X, Y \neq \emptyset \subseteq A)[x \in X \wedge X \cap Y = \emptyset \rightarrow XRY]$ (Langendoen 1978: 190)

8. *Weak reciprocity for subsets*

$(\forall x \in A)(\exists X_1, X_2, Y \neq \emptyset, Z \neq \emptyset \subseteq A)(x \in X_1 \wedge x \in X_2 \wedge x \notin Y \wedge x \notin Z \wedge X_1RY \wedge ZRX_2)$

(Langendoen 1978: 188)

In what follows I am tentatively proposing an interpretation of the examples in 2.4.2 according to this classification. However, it is not always possible to decide which type of reciprocity is used in which case. Sometimes several interpretations of Latin examples presented here so far are imaginable. And of course other types of reciprocity can be described as well.

Examples containing *inter se* ((87), (82), (91), (92), (93) and (94), described in 2.4.2.1.1) can be classified as representing strong reciprocity, partitioned strong reciprocity or symmetric reciprocity. The decision between these three types of reciprocity is hardly possible without taking into account the properties of the predicate and also without knowing more details about the described situation, i. e. the organization of the antecedent. E. g. in examples (92) and especially (93) strong reciprocity is probably the intended interpretation because humans and citizens represent homogeneous sets where all items have the same status and, above all, the character of the predicate implies involving of each item in the relation with each of the remaining items. This interpretation is supported by recipient's background knowledge about the status of a citizen in Ancient Rome. In (91), strong reciprocity for subsets can be the intended interpretation. However, in this example all other types of reciprocity mentioned above (strong reciprocity, partitioned strong reciprocity and symmetric reciprocity) are possible interpretations as well.

We have seen that, contrary to the assertion of Kühner, Stegmann (1912b) in 2.4.2.1.2, it is difficult to differentiate between reciprocal and reflexive interpretation of examples in which reciprocity is expressed by means of reflexives ((90), (96) and (97), described in 2.4.2.1.2). If we suppose all of the examples presented here to be reciprocal, we would have to decide between strong reciprocity, partitioned strong reciprocity and symmetric reciprocity, similarly to *inter se*-examples. Strong reciprocity for subsets is rather excluded.

In examples where reciprocity is expressed by two pronouns ((83), (84), (98), (99), (100), (101) and (102), described in 2.4.2.2.1), the interpretation is strongly dependent on the predicate. Whereas examples (83), (84), (99) and (100) would be interpreted as strong reciprocity, (98) and (101) are (most probably) cases of partitioned intermediate reciprocity. (102) is probably an example of strong partitioned intermediate reciprocity. In my opinion, predicate is decisive for the different interpretation; nevertheless, the difference of interpretation corresponds with the difference of singular – plural pronouns. However, I will not draw any conclusions from this fact because more examples would be necessary to see whether this correspondence really has any consequences.

Examples with *inter ipsos* and *inter se ipsos* ((105), (106), (107) and (108), described in 2.4.2.2.2) have the same properties as examples with *inter se*. They can be interpreted as cases of strong reciprocity, partitioned strong reciprocity or symmetric reciprocity and it is

rather difficult to decide which of them is intended. In (105) and (106), strong reciprocity would be probably the preferred reading, in (108) the only possible one.

Examples in which reciprocity is expressed by two R-expressions ((85) and (86), described in 2.4.2.3.1) will be probably interpreted as cases of strong reciprocity⁷⁴.

Examples containing *invicem* ((87), (88), (109) and (112), described in 2.4.2.4.1) have the same interpretation possibilities as examples with *inter se* and *inter ipsos*, namely strong reciprocity, partitioned strong reciprocity or symmetric reciprocity. In (109), strong-reciprocity-for-subsets-interpretation might be the intended one.

Covert reciprocity is possible only if the relation between participants is interpreted as symmetric (Langendoen (1978): 189). According to Kühner, Stegmann (1912b), predicates which allow the use of zero reciprocals are e. g. *coniungere* (“to conjunct”), *colloqui* (“to talk to”), *contendere* (“to fight”) (Kühner, Stegmann (1912b): 617); the relation of their arguments is certainly symmetric which supports the claim of Langendoen. Consequently, such cases are captured by strong reciprocity for subsets. However, Langendoen works with examples of the type *to be similar (to each other)* which are different from the Latin ones; therefore the interpretation possibilities will be rather broader.

The attempt to interpret Latin examples according to the logical classification of reciprocal relations has shown that there exists a great deal of vagueness in the way of expressing reciprocity in Latin (and probably in other languages, at least such which express reciprocity lexically as Czech or German). It is almost impossible to assign one type of logical reciprocity to examples from real texts without knowing more about the situation from context or shared background knowledge. In other words, it is not possible to say exactly how relations between participants are established and how exactly the participants look like (e. g. are plural participants divided into subsets or individuals, do relations exist between subsets or individuals or both).

With that proviso, some tentatively conclusions can be drawn.

The choice of reciprocity marker seems to correspond with the type of reciprocity intended. Strong reciprocity can be expressed by all kinds of reciprocity markers presented here. Partitioned strong reciprocity and symmetric reciprocity are expressed by all kinds of recip-

⁷⁴ Note that according to Langendoen (1978): 181, two-member sets satisfy any of the types of reciprocity under 1. – 6.

reciprocity markers except two pronouns and two R-expressions. Strong reciprocity for subsets occurred in clauses containing reciprocity markers *inter se*, *invicem* and zero marker. Finally partitioned intermediate reciprocity is expressed by two pronouns⁷⁵.

There can be hardly made more general conclusions because it would require a more detailed analysis of the use of reciprocity markers, and also a more precise method of determining types of reciprocity expressed in examples than only introspection.

2.4.4 Summary

Reciprocity is a relation which is based on predicate and involves its arguments; consequently it is always clause-bound. For this reason, reciprocals are considered to be anaphorics in Binding Theory and supposed to underlie Principle A. However, Latin reciprocity markers are of diverse nature and they can contain or consist of pronouns which are free in their governing category, according to Principle B, and R-expressions, which are free everywhere according to Principle C. It is therefore important to differentiate between two “facets” of reciprocity: (1) “locality” with respect to the predicate and (2) conditions put on anaphoric items contained in reciprocity markers, whereas anaphoric constituent is a non-obligatory part of the relation and depends on the characters of reciprocity markers (cf. (81)).

We have seen that situation in Latin is more complex than in English with respect to binding Principles and that each reciprocity marker has its own characteristics with respect to Binding Theory. There are locally bound reciprocity markers (*inter se* (2.4.2.1.1), reflexives used reciprocally (2.4.2.1.2)), further reciprocity markers which contain pronouns that are free in their governing category (two pronouns, 2.4.2.2.1, *inter ipsos*, 2.4.2.2.2), and also reciprocity markers which are free according to Principle C (two R-expressions, 2.4.2.3.1), although they are used only under special conditions. There exists also a non-nominal reciprocity marker *invicem* (described in 2.4.2.4.1). It is local in that it must be present in the clause the predicate of which expresses reciprocal relation. Finally, the crucial role played by predicate is shown by the existence of cases where no explicit reciprocity marker is present, and yet the example is interpreted reciprocally (see 2.4.2.4.2). A special case of reciprocity marker is two pronouns which, however, have a local antecedent – a “unitary” reciprocity marker consisting of two pronouns used as a unit, as described in 2.4.2.2.1 which was said to be either non-nominal and subject to Principle A, or, rather, non-nominal and not to be subject to Binding Theory at all, despite his form.

⁷⁵ There does not seem to be a difference between the use of two-pronouns-marker as unitary and non-unitary reciprocity marker.

A problem arose with respect to subcategorization requirement of verbs which are not always satisfied in reciprocal constructions. I have shown in 2.4.2.5 that it is not possible to assume the existence of empty objects in Latin in reciprocal constructions. It seems to be necessary to suppose the verbs capable of expressing reciprocal relation to have different subcategorization frames for their reciprocal and non-reciprocal uses.

From the logical point of view, eight types of reciprocity were distinguished according to Langendoen (1978). It turned out that there exists great vagueness in language if we attempt to classify natural language examples according to the logical classification of reciprocal relations. Nevertheless, we can tentatively say that the choice of reciprocity marker is influenced by the type of reciprocity which is intended. However, more general conclusions can hardly be drawn as the decision as for the type of reciprocity is imprecise, and more examples would be necessary.

Note that in other languages as English, Czech or German the repertoire of reciprocity markers is incomparably smaller. There exist significant similarities in the behavior of reciprocity markers between Czech and Latin (see 2.4.2.1.2 and 2.4.2.2.1).

It seems that natural language usually does not exhaust all logical possibilities of reciprocity (some of them probably occur solely in made-up examples of linguists). Moreover, some degree of vagueness seems to be present almost without exception. I am not sure to what measure logically possible reciprocity types can be realized in natural language. It seems to depend strongly on cognitive abilities of its speakers.

2.5 Principle B - pro

The empty subject *pro* occurs in simple as well as complex clauses. Its antecedent can therefore be both inside the sentence and outside it in the text. The antecedent cannot occur in the same clause as *pro* itself (as Principle B of Binding Theory predicts); it is already excluded by the fact that *pro* is subject and antecedents are supposed to c-command their postcedents.

pro itself lacks any formal or semantic clues by means of which the identification of its antecedent would be made possible. Therefore the antecedent must be in some way “present” in recipient’s mind⁷⁶: either it is not far away in the text or it is important for the content of the whole text or a part of it (cf. the term *prominent participant* in 2.5.2). From this formulation (and from the fact that *pro* can have extrasentential antecedents) it is clear that a solely structural approach would not be capable of capturing the whole range of antecedency variants of *pro*. Semantic and contextual factors must be included into the analysis as well.

According to Givón (1995), zero anaphora is (together with unstressed pronouns) a device which signals “maximal continuity” (Givón (1995): 353). Cognitively, the maximal-continuity anaphoric devices signal the continued activation of the current topical referent⁷⁷. Discontinuous anaphoric devices (i. e. stressed pronouns and full lexical nouns) signal the terminated activation of the current topical referent (Givón (1995): 354).

2.5.1 ϕ -features

The ϕ -features of *pro* are determined by the ϕ -features of person and number (in Latin in some forms also gender), as they occur in the inflection of the verb. *pro* can have all person features – 1st, 2nd and 3rd person, singular as well as plural. However, there is a difference with respect to anaphoric properties of *pro* in different persons.

The 1st and 2nd person *pros* usually occur in conversation and take their referent from the extralinguistic situation, where the 1st person *pro* is identical with the speaker and the 2nd person with the addressee, exactly as with 1st and 2nd person pronouns. Shift of the roles of speaker and addressee between the two conversation participants takes place with every turn-taking during the conversation, and so does the reference of the two possibly used *pros*.

In narrative texts, the situation is slightly different. In direct speech, 1st and 2nd person *pros* also refer to speaker and addressee respectively, but the reference is not derived from extralinguistic situation as in a “normal” face-to-face conversation. The information about who is speaker and who is addressee is gained from the description of the conversational

⁷⁶ Cf. cognitivist approach of Givón (1995), see 1.1.2.6.

⁷⁷ I use the term *prominent participant* with a similar meaning, see 2.5.2

situation in the text itself. Therefore, the identification of referent is dependent on the previous text and in this sense, we can speak of anaphoric function of *pro* with 1st and 2nd person ϕ -features. However, this kind of anaphoricity is of a peculiar nature. The only place it can occur at is on the border of each direct speech where the roles of speaker and addressee are assigned. Moreover, the anaphoric chain ends with every turn-taking and a new role assignment is required, swapping the roles of both referents.

3rd person *pro*, on the other hand, is a fully anaphoric item which creates cohesive ties in text. It must be coindexed with an antecedent in the previous text. To say it the other way round, the choice of *pro* signals that the participant already occurred in the text. From this it follows that when a participant occurs for the first time in the text, an overt NP must be used⁷⁸. At following occurrences in the text, the participant which was already introduced is denoted by *pro*. The use of an overt NP for an already known participant is marked.

For the recipient to identify the intended antecedent, and therefore to understand the message correctly, there must be some clue helping him to determine which of the introduced participants is the right one to be chosen as antecedent. A *conditio sine qua non* is, of course, the agreement in person, number and, if possible to state for *pro*, also gender between the antecedent and *pro*, as was already stated for all anaphoric items. In this chapter, I shall describe the ways of finding out the antecedent of *pro*. I will analyze only the occurrences of the fully anaphoric 3rd person *pro*.

2.5.2 Prominent participant

In this connection, the term *prominence* should be introduced. Informally, we could say that a *prominent participant* is already known to recipient, it is such that it has in some way been made important and worthy of notice for recipient. It could be done by the participant's occurring in the subject position, by its frequent mentioning, and by its occurring in the part of the text the recipient is reading just now⁷⁹.

A participant in a text will be called *prominent* if it has the following properties:

(114)⁸⁰

(a) it was already introduced in the text⁸¹ (possibly occurred more times);

⁷⁸ Cf. however the usage of modern literature where *pro* is sometimes used at the very beginning of the work to introduce for the reader the feeling of familiarity with the participant, and its interpretation is established later in the text.

⁷⁹ Recall that we are discussing only written texts.

⁸⁰ From the description in (114) it is obvious that prominent participant has many features common with the term Topic. Topic specifies the item(s) about which new information is predicted (cf. (a)); typically, it is predicate argument, often subject (see (b)) (De Jong (1989)). However, *prominent participant* includes more than these features. Cf. also (173).

- (b) very often, it is subject;
- (c) there is no participant with different denotation nearby (the occurrence of such a participant would cancel the prominence of the participant in question);
- (d) individual occurrences are not far away from each other (it would cancel the prominence as well).

The term of prominent participant is important for the determining of antecedent of *pro*. To say it the other way round, if a participant is prominent, it is (after being introduced or re-introduced in the text by an overt NP) unmarkedly expressed by *pro* in subject position. Non-prominent participants are consequently expressed by NPs or pronouns; it is the more necessary that they often occur in non-subject positions which do not allow zero items except ellipsis⁸². To express a prominent participant by an overt NP or pronoun in subject position is a marked choice.

However, not only subject must be prominent, cf. the following example:

- (115) I. **Caesari**_i⁸³ *cum id nuntiatum esset [eos per provinciam nostram iter facere conari],*
 II. **pro**_i *maturat ab urbe proficisci et quam maximis pro_i *potest itineribus in Galliam ulteriorem pro_i *contendit et ad Genavam pro_i *pervenit.*
 III. *provinciae toti quam maximum pro_i *potest militum numerum pro_i *imperat – erat omnino in Gallia ulteriore legio una - ;*
 IV. *pontem qui erat ad Genavam pro_i *iubet rescindi. (Caes. B Gall. 1, 7, 1 - 2)*******

I. Caesar:DS when it:NS announced:Part was them:AP through province:AS way make:I try:I

“I. When it was reported to Caesar that they were attempting to make their route through our Province

II. he hastens to set out from the city, and, by as great marches as he can, proceeds to Further Gaul, and arrives at Geneva.

⁸¹ The first introduction of the participant in the text must be done by means of an overt NP.

⁸² Cf. the discussion of possible empty objects in 2.4.2.5.

⁸³ In terms of traditional grammar, *Caesar* would be denoted as „logical subject“.

III. He orders the whole Province [to furnish] as great a number of soldiers as possible, as there was in all only one legion in Further Gaul: he orders the bridge at Geneva to be broken down.”

Caesar is in [I] not in subject position, but it is prominent for other reasons – most important, because there is no “concurring” participant nearby which could become prominent itself (cf. (114)c.), and second, because the resumptive pronoun *id* in the subject position of the passive construction in [I] is impersonal and therefore disadvantaged as antecedent (see 2.5.5). More about functioning of prominence see 2.5.6.

In the following text, different factors influencing the interpretation of *pro* will be described. These factors can be of diverse nature – lexical (referential structure of predicate), syntactic, semantic, textual or pragmatic.

2.5.3 Referential structure of predicate

According to Palek (1988), the referential structure of predicate is the scheme of a predicate the arguments of which are occupied by maximal denotational phrases. (See 1.1.2.3 for the definition of maximal denotational phrases; formal definition of the term *predicate referential structure* see Palek (1988): 205). Some predicates influence not only coindexation of their arguments but also that of embedded subjects, if these are empty. Predicates whose referential structure is decisive for the coindexation of the embedded empty subjects can be semantically described as expressing a kind of influence of one argument over the other (or himself) and they mostly involve some kind of obligation. Matrix subject obliges either himself or another matrix argument to do something. The action which should be carried on is expressed by the embedded predicate. Depending on which of the arguments is obliged to carry on the action, the indexation of the embedded empty subject is made. The choice of the appropriate antecedent therefore depends on the referential structure of matrix predicate.

One type of such predicates is control verbs (underlying the module Control theory of GB-Theory) which influence the coindexation of the empty subject of infinitive construction PRO (discussion of PRO see 2.6.3.2.1). In the same way verbs which subcategorize finite clauses⁸⁴ determine the indexation of the embedded subject (if the subject is empty⁸⁵) can be

⁸⁴ The same verbs can also subcategorize non-clausal complements but these cases are not taken into account.

⁸⁵ The subject can of course be overt; the use of an overt NP signalizes reference disjoint from matrix arguments.

said to be “*pro*-subject-control verbs” or “*pro*-object-control verbs”⁸⁶. In following examples, matrix verbs are “*pro*-object-control” verbs:

(116) *in eo itinere pro persuadet Castico Catamantaloedis filio Sequano_i, [...], ut regnum in civitate sua pro_i occuparet, [...]* (Caes. B Gall. 1, 3, 4)⁸⁷

on this journey *pro* persuades:3S Casticus:DS Catamantaloedes:GS son:DS Sequanus:DS [that sovereignty:AS in state:AbS self's:AbS *pro* get-hold:3S]

“On this journey he persuades Casticus, the son of Catamantaledes (one of the Sequani, [...]), to seize upon the sovereignty in his own state, [...]”

(117) *itaque rem pro_i suscipit et a Sequanis_j pro_i impetrat, ut per fines suos Helvetios ire pro_j patiantur, [...]* (Caes. B Gall. 1, 9, 4)

therefore thing:AS *pro* undertake:3S and from Sequani:AbP procure:3S that through territory:AP self's:AP Helvetii:AP go:I *pro* allow:3P

“He, therefore, undertakes the affair, and prevails upon the Sequani to allow the Helvetii to march through their territories, [...]”

(118) *forsitan quaeratis qui iste terror sit et quae tanta formido quae tot ac talis viros_i impediatur quo minus pro capite et fortunis alterius [...] causam pro_i velint dicere.*

(Cic. Rosc. Am. 2, 5)

perhaps ask:3P what:NS that:NS dread:NS be:3S and what:NS that:NS alarm:NS which:NS so-many and such:AP man:AP hinder:3S that-not for head:AbS and fortune:AbP another:GS cause:AS *pro* want:3P say:I

“Perhaps you may ask, What is that dread, and what is that alarm which hinders so many, and such eminent men, from being willing, as they usually are, to plead on behalf of the life and fortunes of another?”

From the description of “*pro*-control verbs” and from the above examples it follows that “*pro*-control verbs” are either verbs like *persuadere* (“to persuade”, see example above),

⁸⁶ Palek (1988) comes to the same conclusion. According to Chomsky, *pro* is characterized as [-anaphor] because it has, differently from the categories characterized as [+anaphor], independent reference (see 1.1.1.2). However, *pro* has in some cases an unambiguous antecedent and it is controlled by matrix verb, exactly like PRO (which can under certain circumstances refer independently as well). For such cases, *pro* must be subcategorized [+ anaphor]. (Palek (1988): 242f.)

⁸⁷ A note should be made on the position of *pro* in the examples. As I do not attempt to analyze Latin word order, I decided to place it directly in front of the verb, without making any claim as to its relative position to the other arguments and adjuncts of the verb

impetrare (“to procure”) or *impedire* (“to hinder”), where the non-subject argument of the matrix verb is obliged/prohibited to carry on the required action, and the embedded *pro* is coindexed with it (“*pro*-object-control”); or they are verbs of the type *promise*⁸⁸ where the matrix subject obliges himself to carry on the action, and the embedded subject is consequently coindexed with the subject (“*pro*-subject-control”).⁸⁹

It should be noted that the only kind of construction in which “*pro*-control” is possible is complement embedded clauses. In adjunct clauses, the antecedent of *pro* cannot be determined in this way.

Lexical information provided by matrix predicate is therefore the clue to the identification of the antecedent of the embedded empty subject.

In most cases, it is also possible that the embedded empty subject is different from both matrix arguments. In such a case, it can be also expressed by an overt NP (which would be the unmarked possibility).

The hypothesis of there being a kind of “control” in certain finite constructions is supported by the translation of (116) - (118) into English: the translator has chosen infinitive constructions with PRO. It seems that there can be constituted a universal group of verbs – most probably verbs like *persuade*, *order*, *promise* and the like – which subcategorize an embedded clause (finite or infinitive). If the subject of the embedded clause is empty, matrix verb determines the coindexation of the empty subject with one of its own arguments. The overt – finite or infinite, subject *pro* or PRO – realization of the embedded clause is then determined language-specifically.

However, it is not only the matrix verb itself which determines the choice of antecedent. The situation can be dramatically changed by the addition of a modal verb. Cf. Czech examples⁹⁰:

(119)

a. * **pro_i** *Prosil (ho_j), aby pro_i přišel.*

⁸⁸ It seems that “*pro*-subject-control verbs” are rare in Latin because verbs with subject control often subcategorize infinitival constructions. One of them can be the verb *velle*, cf. (123)c. where under certain circumstances the subjects can be coindexed, see Maraldi (1996).

⁸⁹ Opposite claim see in Pieroni (2001): “a certain number of zero-anaphoras occur in dependent clauses. There is no rule according to which their antecedent should occur in the main clause” (Pieroni (2001): 544).

⁹⁰ Czech examples are chosen to illustrate this modification because it would be extremely difficult to find Latin examples to illustrate such a wide range of influences and coindexation possibilities, if we wish to have examples from real texts only.

b. **pro_i** *Prosil (ho_j), aby pro_i mohl PRO_i přijít.*

c. **pro_i** *Prosil (ho_j), aby pro_j přišel.*

d. * **pro_i** *Prosil ho_j, aby pro_j mohl PRO_j přijít.*

e. **pro_i** *Prosil (ho_j), aby pro_k přišel.*

f. **pro_i** *Prosil (ho_j), aby pro_k mohl PRO_k přijít.*

Some verbs also allow different complementizers which cause different indexation possibilities, cf.

(120)

a. **pro_i** *Řekl, že pro_i přijde.*

b. * **pro_i** *Řekl, aby pro_i přišel.*

c. **pro_i** *Řekl, že pro_j přijde.*

d. **pro_i** *Řekl, aby pro_j přišel.⁹¹*

In Latin, the choice of complementizer is rather restricted. In some types of clauses, there is a possibility of choice between a “positive” and a “negative” complementizer (*ut* – “that” vs. *ne* “that not”). However, “*pro*-control” properties remain the same:

(121) [...] **suisque_i** *pro imperavit, ne quod omnino telum in hostes pro_i reicerent.*

(*Caes. B Gall. 1, 46, 2*)

self's:DP-and pro command:3S that-not what anyway weapon:AS into enemy:AP pro
return:3P

“[...] and commanded them that they should by no means return a weapon upon the enemy.”

⁹¹ Note that there is a difference between the sets of examples: in the *že*-examples, the verb *řici* functions as a classical verb *dicendi*, whereas in the *aby*-examples it is a verb *imperandi*.

(122) [...] *Allobrogibus_i pro imperavit ut iis frumenti copiam pro_i facerent; [...]*
(*Caes. B Gall. 1, 28, 3*)

Allobroges:DP pro command:3S that they:DP corn:GS supply:AS pro make:3P

“[...] he commanded the Allobroges to let them have a plentiful supply of corn;”

Some matrix verbs allow as their embedded clause both infinitive clause and finite clause (the variants being dependent on author and time of writing). With the verb *velle* (“to want”) the change between finite and infinitive clause causes a change in coindexation possibilities⁹²:

(123)

a. pro_i *Volo* PRO_i *venire*

pro want:1S PRO come:I

“I want to come.”

b. pro_i *Volo* [*eum_j venire*]

pro want:1S he:AS come:I

“I want him to come.”

c. pro_i *Volo, ut* pro_j *veniat.*

pro want:1S that pro come:3S

“I want him to come.”

Similarly in Czech:

(124)

a. pro_i *Chtěl* PRO_i *zůstat.*

b. pro_i *Chtěl, aby* pro_j *zůstal.*

Other influences except predicate referential structure which were illustrated by means of Czech examples will not be discussed for Latin.

⁹² More see in 2.6.3.2.1.1.

2.5.4 Syntax

It was already stated that the antecedent of *pro* cannot be in the same clause as *pro* itself. It can be, however, in the same sentence, both in coordinated or subordinated constructions, although conditions on its use in coordinated and subordinated constructions differ, as will be discussed below.

It can be generally said that there exists a certain tendency to keep the subject the same through the sentence, if possible⁹³. Therefore we can suppose that if there is a *pro* inside a sentence, it will be coindexed with the nearest preceding agreeing subject. Coordinate and asyndetical constructions support this hypothesis.

2.5.4.1 Coordination and asyndetical connection

In (125) and (126), there are three coordinated clauses. In (125), the antecedent is singular, in (126) it is plural.

- (125) I. *Proximo die instituto suo Caesar_i ex castris utrisque copias suas eduxit*
II. *paulumque a maioribus castris progressus aciem pro_i instruxit*
III. *hostibusque pugnandi potestatem pro_i fecit. (Caes. B Gall. 1, 50, 1)*

- I. [Next:AbS day:AbS custom:AbS self's:AbS Caesar:NS from camps:AbP both:AbP forces:AP self's:AP led-out:3S]
II. [a-little-and from larger:AbP camps:AbP advanced:3S line-of-battle:AS pro drew:3S]
III. [enemy:DP-and fighting:Ger opportunity:AS pro made:3S]

“I. The next day, according to his custom, Caesar led out his forces from both camps,
II. and having advanced a little from the larger one, drew up his line of battle,
III. and gave the enemy an opportunity of fighting.”

- (126) [...] *reliqui_i sese fugae mandarunt atque in proximas silvas pro_i abdiderunt.*
(Caes. B Gall. 1, 12, 3)
[remainder:NP themselves:AP flight:DS betook:3P] and [in nearest:AP woods:AP pro hid:3.P]

“the rest betook themselves to flight, and concealed themselves in the nearest woods.”

⁹³ However, other influences can cause changes in the subject - we have already seen in 2.5.3 that certain verbs require coindexation of the embedded empty subject with the object of the matrix clause.

Both of the preceding examples support the supposition that in a coordinated construction, the antecedent of a *pro* is the nearest preceding agreeing subject, and moreover, there is only one subject in the whole sentence. As a result, all of the subjects are coindexed.

The same can be observed in asyndetically connected clauses:

- (127) [...], *Caesar_i eius dextram prendit; consolatus **pro_i** rogat, finem orandi **pro_i** faciat;*
(*Caes. B Gall. 1, 20, 5*)

[Caesar:NS his:GS right-hand:AS takes:3S] [consolation:AS pro ask:3S] [end:AS pleading:Ger pro make:3S]

“Caesar takes his right hand, and, comforting him, begs him to make an end of entreating,”

- (128) *Dumnorigem ad se **pro_i** vocat, fratrem **pro_i** adhibet* (*Caes. B Gall. 1, 20, 5*)

Dumnorix:AS to self:AS pro summon:3S brother:AS pro bring-in:3S

“He summons Dumnorix to him; he brings in his brother;”

We can formulate the following hypothesis:

- (129) In coordinated or asyndetically connected clauses, if the second and following subjects are *pros*, then the subjects are coindexed with each other and with the first subject in the sequence.

This hypothesis also holds in cases where the coordinated or asyndetically connected clauses have embedded clauses between them. We can make the situation clearer by the following scheme:

- (130)

a. Coordination

[_{S1} NP1_i VP [_{S'} COMP NP2 VP]] & [_{S2} pro_i VP]

b. Asyndetical connection

[_{S1} NP1_i VP [_{S'} COMP NP2 VP]] , [_{S2} pro_i VP],

where NP1 and NP2 can be *pros* as well⁹⁴.

Clauses S1 and S2 are coordinated and hypothesis (129) should apply even though there is an intervening embedded clause S'. There can be even more complex and more varied constructions, as we can see in (131). There are embedded clauses between the coordinated matrix clauses. Nevertheless, hypothesis (129) holds:

- (131) I. [...] *ipse_i in Italiam magnis itineribus contendit*
II. *duasque ibi legiones pro_i conscribit*
III. *et tres, quae circum Aquileiam hiemabant, ex hibernis pro_i educit*
IV. *et, qua proximum iter in ulteriorem Galliam per Alpes erat, cum his quinque legionibus ire pro_i contendit. (Caes. B Gall. 1, 10, 3)*

I. self:NS in Italy:AS big:AbP proceeds:3.S

II. two:AP-and there legions:AP pro levies:3S

III. and three:AP which:NP round Aquileia wintered:3P from winter-quarters:AbP pro leads-out:3S

IV. and, through-which nearest:NS route:NS in Further:AS Gaul:AS through Alps:AS with these:AbP five legions:AbP go:I pro proceeds:3S

“I. He himself proceeds to Italy by forced marches,

II. and there levies two legions,

III. and leads out from winter-quarters three which were wintering around Aquileia ,

IV. and with these five legions marches rapidly by the nearest route across the Alps into Further Gaul.”

We can see that in this syntactic environment, the empty subjects *pro*[(131)-I] – *pro*[(131)-IV] are coindexed with the subject of the nearest preceding coordinate clause at the same level of embedding respectively. It is not important whether this subject is overt or not. It supports the supposition that hypothesis (129) holds even in quite complex sentences.

Though (131) is an example of an complex sentence, still the subjects of the embedded clauses are overt, so that it can rather not come to misunderstandings as for the reference of

⁹⁴ This is not to say that the subject of the embedded clause NP2 cannot be coindexed with the subject of the first matrix clause NP1 as well. However, it does not influence the coreference possibility of the subject of the coordinated/asyndetically connected clauses.

pros in matrix clauses. However, examples can be found where all the subjects agree in their ϕ -features, and still hypothesis (129) holds:

- (132) I. **pro_i** *persuadent* [**Rauracis et Tulingis et Latobrigis finitimis**]_j
 II. *uti eodem usi consilio oppidis suis vicisque exustis una cum iis*; **pro_j** *proficiscantur*,
 III. **Boiosque_k**, **qui_k** *trans Rhenum incoluerant et in agrum Noricum* **pro_k** *transierant*
Noreiamque **pro_k** *oppugnabant, receptos ad se socios sibi* **pro_i** *adsciunt*.
 (*Caes. B Gall. 1, 5, 4*)

I. pro persuade:3P Rauraci:DP and Tulingi:DP and Latobrigi:DP neighbours:DP
 II. that the-same:AbS using:NPPart plan:AbS town:AbP self's:AbP village-and:AbP
 burning:AbPPart together with them:AbP pro set-out:3P
 III. Boii:AP who:NP over Rhine:AS dwelt:3P and in territory:AS Norican:AS pro
 crossed:3P Noreia:AS-and pro assaulted:3P admitted:AP to themselves:AP
 confederate:AP themselves:DP pro unite:3P

“I. They persuade the Rauraci, and the Tulingi, and the Latobrigi, their neighbours,
 II. to adopt the same plan, and after burning down their towns and villages, to set out
 with them:
 III. and they admit to their party and unite to themselves as confederates the Boii, who
 had dwelt on the other side of the Rhine, and had crossed over into the Norican terri-
 tory, and assaulted Noreia.”

For the sake of clarity I provide here a simplified square-bracket representation of the sen-
 tence with the relevant NPs:

- (132) [_{IP1} pro_{1i} persuadent NP_j [_{CP1} COMP pro_{2j} proficiscantur]] & [_{IP2} NP_k [_{CP2} wh_k incoluer-
 ant & pro_{3k} transierant & pro_{4k} oppugnabant] pro_{5i} t_k adsciunt]

We have here two coordinated matrix clauses, namely IP1 and IP2, with an embedded clause
 in each of them. Both of the embedded clauses intervene between the two matrix predicates,
 and therefore the matrix subjects, (given our supposition that *pros* immediately precede the
 predicates - recall that we do not account for word order variations in Latin). There are two
 NPs with the same ϕ -features as the both coindexed *pros* (*pro1* and *pro5*), namely NP_j and

NP_k. And still both of the *pros* are coindexed. Example (132) strongly supports our hypothesis (129). Moreover, there is a chain of coindexed *pros* in coordinated clauses without intervening embedded clauses, namely *pro*₃ and *pro*₄, which are coindexed with the subject of the first coordinated clause NP_k.

At least at the highest level of embedding, we can say that the subject tends to stay the same during the whole sentence. The change of subject will more probably take place between a matrix and an embedded clause. As a result, subjects will be prevailingly expressed by *pros* during the sentence.

These two facts – namely that the subject is the same and that it is usually expressed by *pro* – are mutually connected. In an unmarked case, if the following subject is the same, it is expressed by *pro*. If the participant is expressed by an overt NP, it can have three reasons:

(133)

- (a) either it is being introduced in the text for the first time (or it is being re-introduced after another participant has gained the prominence) or
- (b) the speaker wishes to make the already introduced and still prominent participant marked, or finally
- (c) there are two participants with the same ϕ -features of which one or both were already introduced in the text (one of them or both may be prominent) and the speaker uses the more explicit form of expression to keep them apart. (Cf. below Czech examples.)

From this follows that the use of overt NPs to denote participants of the text is the marked choice except when the participant occurs for the first time in the text. An exception from this is the use of the intensifying pronoun *ipse* in the subject position of second of coordinated clauses. Examples (96) and (212) show the use of *ipse* in this position. It is coindexed with the first subject, exactly as *pro* in the same position, as was presented here. The status of *ipse* is special in comparison with that of other pronouns (see 2.7.2.1). Note that the use of *ipse* in this position does not violate the supposition of keeping the subject the same inside sentences; neither it violates Binding Principle B because *ipse* in subject position is not bound. However, only *ipse* can occur in this position and be coindexed with the coordinated subject. Other pronouns mark disjoint reference, cf. Czech

(134)

a. *Jana_i přišla a ona_{*i/j} umyla nádobí.*

b. *Jana_i přišla a pro_{i/*j} umyla nádobí.*

c. *Jana_i přišla a sama_{i/*j} umyla nádobí.*

It is possible that the tendency of keeping the subject the same during the sentence has to do with the frequent occurrence of very long sentences with a complex structure in Latin⁹⁵. In order to keep such highly complex syntactic structures clear and to make them easier to understand, they cannot contain too many participants. However, the tendency to speak about one or two main participant at time will be probably more universal.

2.5.4.1.1 Coordination – comparison with Czech

The use of *pro* is very similar in Latin and Czech. Therefore it might be useful to look at some Czech coordination examples and make a cross-linguistic comparison. The advantage of using examples from a “living” language consists in the fact that we can think of border or ungrammatical examples, and so possibly find out other constraints for the use of *pro*, which is unfortunately not possible in a language without native speakers.

Following examples show coordinate clauses where one or both of the subjects is a *pro*. It seems that in coordinate clauses in Czech, like in Latin, the situation with respect of coindexation or disjoint reference interpretation is rather straightforward and indexation possibilities are quite restricted.

(135) a. *Karel_i dostal důležitý dopis a hned ho pro_i otevřel.*

b. **Karel_i dostal důležitý dopis a hned ho pro_j otevřel.*

c. **pro_i Dostal důležitý dopis a Karel_i ho hned otevřel.*

d. *pro_i Dostal důležitý dopis a Karel_j ho hned otevřel.*

e. *pro_i Dostal důležitý dopis a hned ho pro_i otevřel.*

⁹⁵ In traditional grammar, such sentences are called periods. They are part of high literary style.

f. * pro_i *Dostal důležitý dopis a hned ho pro_j otevřel.*

These examples show that in Czech in coordinate constructions, *pro* in the second clause must be coindexed with the preceding subject NP, exactly as it was proposed for Latin. If it is the other way round and an overt NP stands in the second coordinated clause, it must not be coindexed with the preceding covert subject. We can therefore conclude:

(136)

(a) that a *pro* is a signal of coreference with the preceding subject, as was stated in hypothesis

(129)

and that

(b) an overt NP is a signal of disjoint reference with the preceding subject – cf. above⁹⁶.

In other words, cataphora is impossible in coordinate constructions.

Following examples show another constraint put on the use of *pro* in coordinate constructions which cannot be seen in grammatical Latin examples:

(137) a. ??? *Karel_i scházel ze schodů a pro_i sprchoval se.*

b. ???/* *Karel_i scházel ze schodů a pro_j sprchoval se*⁹⁷.

c. * pro_i *Scházel ze schodů a Karel_i se sprchoval.*

d. pro_i *Scházel ze schodů a Karel_j se sprchoval.*

e. ??? pro_i *Scházel ze schodů a pro_i sprchoval se.*

f. ???/* pro_i *Scházel ze schodů a pro_j sprchoval se.*

The tenses and aspects of verbs indicate that the actions denoted by them take place simultaneously. However, we know that it is usually not the case that there are showers in-

⁹⁶ See 2.8 about R-expressions. The uses of both *pro* and overt NPs are very tightly interconnected and could hardly be discussed separately.

⁹⁷ In examples marked ???/* it is rather impossible to decide whether they are odd because ungrammatical because of the same reason as above, or for a pragmatic reason as the ??? examples.

stalled in staircases. In other words, the description of the events does not agree with our world knowledge, and is therefore pragmatically “odd”. That there is no grammatical constraint which would exclude the first example with coindexed subject following examples show with the same verbs but different aspects marking actions as successive:

- (138) a. *Karel_i sešel ze schodů a pro_i osprchoval se.*
- b. * *Karel_i sešel ze schodů a pro_j osprchoval se.*
- c. * *pro_i Sešel ze schodů a Karel_i se osprchoval.*
- d. *pro_i Sešel ze schodů a Karel_j se osprchoval.*
- e. *pro_i Sešel ze schodů a pro_i osprchoval se.*
- f. * *pro_i Sešel ze schodů a pro_j osprchoval se.*

Cf. also the above in (137) the corresponding examples with different verbs. The grammaticality/ungrammaticality is the same in both set of examples under (135) and (138).

We can state another important conclusion which would influence all coindexation possibilities:

(139) The indexation must agree with our world knowledge.

With this conclusion, we come to the realm of pragmatics. We can see that some coindexation possibilities are excluded because meaning of clauses does not agree with the world knowledge of the speaker/hearer. German examples support this conclusion:

- (140) a. *Peter_i ging in den Garten und pro_i pflückte einen Strauß rote Rosen.*
 Peter:NS went:3S into the:ASM garden:ASM und pro picked:3S a:ASM bunch:ASM
 red roses:AP
 “Peter went to the garden and picked a bunch of red roses.” (my translation, D. L.)

b. *Peter_i ging in den Garten und er_i pflückte einen Strauss rote Rosen.*

Peter:NS went:3S into the:ASM garden:ASM und he:NS picked:3S a:ASM bunch:ASM red roses:AP

“Peter went to the garden and picked a bunch of red roses.” (my translation, D. L.)

c. ??? *Peter_i ging in den Garten und pro_i wartete im Wohnzimmer auf seinen Gast.*

Peter went:3S into the:ASM garden:ASM and pro waited:3S in-the living-room for his:ASM guest:ASM

“Peter went to the garden and waited in the living room for his quest.” (my translation, D. L.)

d. ??? *Peter_i ging in den Garten und er_i wartete im Wohnzimmer auf seinen Gast.*

Peter went:3S into the:ASM garden:ASM and he:NS waited:3S in-the living-room for his:ASM guest:ASM

“Peter went to the garden and waited in the living room for his quest.” (my translation, D. L.)

Note that in German examples, the subjects of the second of the coordinated clauses can be empty. However, German does not usually count to the *pro*-drop languages. An empty subject is only possible in the second (and following) clause of coordinate or asyndetically connected constructions and it must of course be coindexed with the subject of the first clause (otherwise it must be overt). The fact that, despite the non-*pro*-drop character of the language, it is indeed possible to have *pro* in the second (and following) of the coordinated and asyndetically connected clauses shows the more universal validity of the “same-subject” conclusion which was drawn in (129). This conclusion has probably to do with the general property of human communication: to maintain the same topic during the text.

Nevertheless, when looking at the above German examples we can see that in spite of the possibility of an empty subject in the second coordinated clause in German, still the second example is not acceptable, though grammatical. The only reason why it is excluded is that it is pragmatically impossible or at least highly improbable, and in order to be accepted as correct, it would require an explanation by the speaker.

Unfortunately, it is next to impossible to prove the above conclusion on the basis of Latin examples. We can hardly suppose Roman writers to compose sentences which would

violate their world knowledge. However, the conclusion can be safely held for a universal constraint which works in all world languages.

2.5.4.2 Subordinate constructions

Subordinate constructions are a very broad area with many different possibilities of combining matrix and embedded clauses at different levels of embedding. Especially in Latin, subordinate constructions can be very large and complicated⁹⁸. In this paragraph, only a simple combination of one matrix and one embedded clause will be analyzed, with respect to the conditions under which two subjects can be coindexed, one in the matrix clause and the other in the embedded clause, one or both of them being empty⁹⁹. Possible variants are the following ones:

(141)

(a) embedded clause preceding matrix clause, with *pro* in embedded clause

[[_{CP} *pro* VP [_{IP} NP VP]]

(b) embedded clause preceding matrix clause, with *pro* in matrix clause

[[_{CP} NP VP [_{IP} *pro* VP]]

(c) embedded clause preceding matrix clause, with *pros* in both clauses

[[_{CP} *pro* VP [_{IP} *pro* VP]]

(d) matrix clause preceding embedded clause, with *pro* in matrix clause

[_{IP} *pro* VP [_{CP} NP VP]]

(e) matrix clause preceding embedded clause, with *pro* in embedded clause

[_{IP} NP VP [_{CP} *pro* VP]]

(f) matrix clause preceding embedded clause, with *pros* in both clauses

[_{IP} *pro* VP [_{CP} *pro* VP]]

These variants represent the simplest embedding constructions. However, relations between clauses can be much more complex, especially in Latin (see e. g. Coleman (1983), Coleman (1995), Kudláčková (2001)). These must then be inferred from the basic variants in (141).

I am not taking into account the possibility of split matrix or embedded clause either, although this structure is common in Latin. It will be only shortly mentioned here (see 2.5.4.3.3). In such cases, coindexation of subjects can be also inferred from the more simple

⁹⁸ Such constructions are called *periods*. See Kudláčková (2001).

⁹⁹ About the coindexation with a matrix object see 2.5.3.

combinations with matrix and embedded clauses preceding/following each other, as they are listed in (141).

2.5.4.2.1 Subordination – situation in Czech

As we have seen in paragraph about coordination in 2.5.4.1, examples from Czech are helpful when stating constraints put on the use of *pro*. Therefore in this chapter I will first try to find constraints for subordinate constructions on the basis of Czech examples.

Note that all Czech examples contain adjunct embedded clauses only. For complement embedded clauses, see 2.5.3 on predicate referential structure.

2.5.4.2.1.1 Subordinate constructions: embedded clause preceding matrix clause

First, let's show that conclusion (139) holds for subordinate constructions as well. Look at examples corresponding with the above coordinate sentences where actions are simultaneous (see (137)):

(142) a. ??? *Když Karel_i scházel ze schodů, pro_i sprchoval se.*

b. *Když Karel_i scházel ze schodů, pro_j sprchoval se.*

Example b. is different from the corresponding ungrammatical coordinate construction example (137)b. It seems that the boundary between embedded and matrix clause “cancels” the necessity of coindexation between subject NP in the first and *pro* in the second clause. However, contextual clues must be strong to support this coindexation. In this case, the inacceptability of the corresponding example a. with coindexed subjects would support the disjoint reference interpretation.

c. ??? *Když pro_i scházel ze schodů, Karel_i se sprchoval.*

Example c. is excluded for pragmatic reasons, similarly to the coordination example (137)c. Note that example (143) with corresponding structure and coindexation is grammatical (which supports the supposition that (142) is excluded for other than grammatical reasons). Generally, cataphora is allowed in examples with this structure (see 2.5.4.2.1.2).

d. *Když pro_i scházel ze schodů, Karel_j se sprchoval.*

e. ??? *Když pro_i scházel ze schodů, pro_i sprchoval se.*

f. ? *Když pro_i scházel ze schodů, pro_j sprchoval se.*

Example e. is marked odd for pragmatic reasons, similarly to (142)a. Example f. differs from the others in that the reason of its marking as “odd” is not pragmatic inacceptability but the fact that the context clues would have to be very strong for both of the *pros* to be interpreted as having disjoint reference. If two (or more) empty subjects follow each other, they have to be coindexed for the sake of understandability (except *pro*-control structures, see 2.5.3), although their marking having disjoint reference would not violate any grammatical or pragmatic principle. In my opinion, in such a case disjoint reference is in the most cases marked by an overt NP (cf. the acceptable (142)d.)

This set of examples has shown that coindexation possibilities are strongly dependent on pragmatic constraints. Because, according to our world knowledge, the actions expressed by the predicates cannot under normal circumstances take place simultaneously, examples with coindexed subjects are marked as odd. Also the possibility of two empty subjects with disjoint reference seems to require very strong contextual support.

In the following set of examples, actions expressed by predicates take place successively:

(143) a. *Když si Karel_i zabalil věci do Himalájí, pro_i dostal důležitý dopis.*

b. ? *Když si Karel_i zabalil věci do Himalájí, pro_j dostal důležitý dopis.*

In (143)b., the disjoint reference is grammatically and pragmatically correct, nevertheless highly context-bound.

c. *Když si pro_i zabalil věci do Himalájí, dostal Karel_i důležitý dopis.*

This is an example of cataphoric reference. We can see that after a clause boundary, nothing prevents an overt subject to be coindexed with a preceding *pro*. Again we must state that a boundary between embedded and matrix clause is an important factor for the possibilities of the coindexation of *pro*.

d. *Když si pro_i zabalil věci do Himalájí, dostal Karel_j důležitý dopis.*

e. *Když si pro_i zabalil věci do Himalájí, pro_i dostal důležitý dopis.*

f. ? *Když si pro_i zabalil věci do Himalájí, pro_j dostal důležitý dopis.*

In examples with two empty subjects both coreference and disjoint reference are possible. Nevertheless, disjoint reference interpretation would be highly context-bound, though pragmatically correct.

Examples in (142) and (143) show the strong influence of pragmatics on the coindexation possibilities. The other very influential factor is the boundary between embedded and matrix clause. Behind it, the necessity of coindexation of *pro* with the preceding subject which we stated for coordinate clauses (see (129)) seems to be cancelled. On the other hand, an overt NP does not seem to necessarily signalize a change of referent, as we have claimed till now but cataphoric reference in certain constructions is possible as well. It seems that a clause boundary “cancels” the coindexation conditions as we saw them in the coordination examples with respect to both overt NPs and *pro*. The tendency of “keeping the subject the same” is not as strong in subordinate constructions as it was in coordinate/asyndetical ones.

2.5.4.2.1.2 Cataphora

Cataphora is allowed only in one type of syntactic construction, namely in subordinate constructions where embedded clause is followed by matrix clause. The supposition is supported by Latin, Czech (see (143)c.) and also German data (in the non-*pro*-drop German, we have an overt pronoun instead of *pro* in the first clause. Recall that *pro* can occur only in coordinate or asyndetical constructions in German, cf. (140)):

(144) *Da er_i verreisen will, macht Oskar_i rasch sein Examen. (Lehrgang 1974: 513)¹⁰⁰*

because he:NS leave:I want:3S make:3S Oskar:NS quickly his:AS exam:AS

“Because he wants to set out, Oskar quickly undergoes his exam.” (my translation, D.L.)

¹⁰⁰ According to Lehrgang (1974), cataphora is possible if the pronoun is subject of the embedded clause or if it is an object in the matrix clause:

Emil bewundert ihn_i, wenn Oskar_i alle Argumente der Gegner widerlegt. (Lehrgang 1974: 514)

Emil:NS admire:3S him:AS when Oskar:NS all:AP arguments:AP the:GP opponents:GP disprove:3S
„Emil admires him, when Oskar disproves all arguments of the opponents.“

About Latin data see 2.5.4.3.

2.5.4.2.2 Subordinate constructions: matrix clause preceding embedded clause

In this paragraph I will analyze the situation in Czech subordinate constructions where the matrix clause precedes the embedded clause.

(145) a. *Karel_i odjel do Himalájí, protože pro_i dostal důležitý dopis.*

b. ? *Karel_i odjel do Himalájí, protože pro_j dostal důležitý dopis.*

Coindexation in b. is highly context-bound.

c. * *pro_i Odjel do Himalájí, protože Karel_i dostal důležitý dopis.*

d. *pro_i Odjel do Himalájí, protože Karel_j dostal důležitý dopis.*

e. *pro_i Odjel do Himalájí, protože pro_i dostal důležitý dopis.*

f. ? *pro_i Odjel do Himalájí, protože pro_j dostal důležitý dopis.*

In the examples marked with „?“ (b. and f.), the problem is understandability. They would have to be highly context-bound to be understood with the proposed coindexation. On the other hand, example c. is not possible. Unlike the perfectly correct cataphoric example with the embedded clause preceding the matrix clause (143)c., this case of cataphora is excluded.

(146) contains examples where actions expressed by predicates take place simultaneously:

(146) a. *Karel_i si balil věci, protože pro_i chtěl jet do Himalájí.*

b. ? *Karel_i si balil věci, protože pro_j chtěl jet do Himalájí.*

c. * *pro_i Balil si věci, protože Karel_i chtěl jet do Himalájí.*

d. *pro_i Balil si věci, protože Karel_j chtěl jet do Himalájí.*

e. pro_i *Balil si věci, protože* pro_i *chtěl jet do Himaláji.*

f. ? pro_i *Balil si věci, protože* pro_j *chtěl jet do Himaláji.*

We can see that cataphora in c. is ungrammatical, other examples are possible, but some of them are rather difficult to understand with the supposed coindexation unless strong contextual clues are available (b. and f.).

If matrix clause precedes embedded clause, cataphora is excluded, as (145)c. and (146)c. show. In examples with overt NPs in matrix clause, coindexation is preferred ((145)a. and (146)b.), although disjoint reference is not excluded (but highly context-bound, see (145)b. and (146)b.). If there are empty subjects in both clauses, coindexation is preferred as well (see the grammatical (145)e. and (146)e. and the “odd” (145)f. and (146)f.)

2.5.4.3 Subordinate constructions in Latin

Let’s look at which of the variants listed in (141) can be documented in Latin. As was already said in paragraph about coordination, our disadvantage is that we cannot have ungrammatical examples which would show us the real boundaries of grammaticality. Moreover, the absence of a construction need not mean that it does not exist; it might be only a rare variant, missing from corpus by chance.

I will show examples of constructions which can be found in Latin. Czech examples from 2.5.4.2.1 will be used to support the conclusions.

One type of subordinate constructions, namely subordinate constructions with complement embedded clauses subcategorized by matrix verbs, was already described in 2.5.3 and the coindexation of embedded empty subjects was explained in terms of referential structure of matrix predicate. Such matrix verbs were denoted as “*pro*-control” verbs because they determine the coindexation of the embedded empty subject in a similar way as „genuine“ control verbs do with the subject of infinitives PRO. According to the classification in this paragraph, they belong to the groups described in 2.5.4.3.2.1.1 and 2.5.4.3.2.2.4.

2.5.4.3.1 Coindexed subjects

2.5.4.3.1.1 Two empty subjects

2.5.4.3.1.1.1 Matrix clause preceding embedded clause

(147) *legatos ad Dumnorigem Haeduum pro_i mittunt, ut eo deprecatore a Sequanis pro_i impetrarent. (Caes. B Gall. 1, 9, 2)¹⁰¹*

ambassador:AP to Dumnorix:AS Aeduan:AS pro send:3P that he:AbS petitioner:AbS
from Sequani:AbP pro procure:3P

“they send ambassadors to Dumnorix the Aeduan, that through his intercession, they might obtain their request from the Sequani.”

Czech examples with the corresponding structure and indexation are the grammatical (145)e. and (146)e.

2.5.4.3.1.1.2 Embedded clause preceding matrix clause

(148) *Haec cum pro_i animadvertisset, [...], vehementer eos pro_i incusavit: [...]*
(Caes. B Gall. 1, 40, 1)

that:AP when pro observe:3S severely they:AP pro reprimand:3S

“When Caesar observed these things, [...] he severely reprimanded them, [...]”

Czech examples with the corresponding structure and indexation is (145)e.

If two clauses following each other contain empty subjects, these subjects would be preferably coindexed. Cf. 2.5.4.3.2.1. The order of clauses does not have any influence on the grammaticality. (147) and (148) are both grammatical.

2.5.4.3.1.2 **Overt NP/pronoun and *pro* as subjects**

2.5.4.3.1.2.1 Embedded clause preceding matrix clause, with *pro* in embedded clause (*[_{IP} [_{CP} pro_i VP] NP_i VP]*)

This is an example of cataphora. Cf. 2.5.4.2.1.2.

(149) *Postquam id pro_i animadvertit, copias suas Caesar_i in proximum collem subducit [...]*
(Caes. B Gall. 1, 24, 1)

after it:AS pro observes:3S forces:AP self's:AP Caesar:NS in next:AS hill:AS draw-off:3S

“Caesar, when he observes this, draws off his forces to the next hill, [...]”

¹⁰¹ Subjects in question will be marked bold in the examples.

Corresponding Czech example is (143)c.

2.5.4.3.1.2.2 Embedded clause preceding matrix clause, with *pro* in matrix clause

($[_{IP} [_{CP} NP_i VP] pro_i VP]$)

(150) I. *ubi per exploratores **Caesar**_i certior factus est tres iam partes copiarum Helvetios id flumen traduxisse, [...]*

II. *e castris profectus ad eam partem **pro**_i pervenit quae nondum flumen transierat.*
(*Caes. B Gall. 1, 12, 2*)

I. [s [s_c when through spy:AP Caesar:NS more-certain made:NSPart be:3S [s_c
three:AP already part:AP force:GP Helvetii:AP that:AS river:AS convey:]]]

II. from camp:AbP set-out:Part to that:AS pars:AS pro come-up:3S which:NS not-yet
river:AS cross:3S]

“I. When Caesar was informed by spies that the Helvetii had already conveyed three parts of their forces across that river, [...]

II. he set out from the camp [...] and came up with that division which had not yet crossed the river.”

This is the unmarked example where the overt NP precedes the coindexed *pro*. There exist plenty of examples of this kind.

(151) *qua de causa **Helvetii**_i quoque reliquos Gallos virtute praecedunt, quod fere cotidianis proeliis cum Germanis **pro**_i contendunt, [...]* (*Caes. B Gall. 1, 1, 4*)

which:AbS from reason:AbS Helvetii:NP also remaining:AP Gaul:AP valor:AbS
surpass:3P as almost diurnal:AbP battle:AbP with Germani:AbP contend:3P

“for which reason the Helvetii also surpass the rest of the Gauls in valor, as they contend with the Germans in almost daily battles, [...].”

Corresponding Czech example is (143)a.

2.5.4.3.1.2.3 Matrix clause preceding embedded clause, with *pro* in matrix clause

($[_{IP} \text{pro}_i \text{ VP } [_{CP} \text{NP}_i \text{ VP}]]$)

This kind of cataphora is not possible. I haven't found any Latin example, and Czech examples are ungrammatical, cf. (145)c. and (146)c.. This seems to be a typical example where the overt NP signalizes disjoint reference.

2.5.4.3.1.2.4 Matrix clause preceding embedded clause, with *pro* in embedded clause

($[_{IP} \text{NP}_i \text{ VP } [_{CP} \text{pro}_i \text{ VP}]]$)

- (152) **Dumnorix**; *gratia et largitione apud Sequanos plurimum poterat et Helvetiis pro_i erat amicus, quod ex ea civitate Orgetorigis filiam in matrimonium pro_i duxerat, [...]*
(*Caes. B Gall. 1, 9, 3*)

Dumnorix:NS popularity:AbS and liberality:AbS by Sequani:AP most have-influence:3S and Helvetii:DP pro was:3S friend:NS because from that:AbS state:AbS Orgetorix:GS daughter:AS into matrimony:AS pro led:3S

“Dumnorix, by his popularity and liberality, had great influence among the Sequani, and was friendly to the Helvetii, because out of that state he had married the daughter of Orgetorix; [...]”

This is the unmarked situation where the participant is first introduced by means of an overt NP and then denoted by an empty item. Corresponding Czech examples are the grammatical (145)a. and (146)a.

If subjects of two clauses following each other in an embedding construction are coindexed, one of the logically possible structures is excluded, namely cataphora with matrix clause preceding embedded clause ($[_{IP} \text{pro}_i \text{ VP } [_{CP} \text{NP}_i \text{ VP}]]$, in 2.5.4.3.1.2.3). Examples of the other constructions have been presented.

2.5.4.3.2 *Disjoint reference*

2.5.4.3.2.1 **Two empty subjects**

2.5.4.3.2.1.1 Matrix clause preceding embedded clause

In this paragraph, examples of “*pro*-control” verbs with subcategorized embedded clauses can be subsumed¹⁰², cf. examples (116), (117), (121) and (122) in 2.5.3. An example of an adjunct embedded clause is (153):

(153) I. *id si fieret,*

II. **pro**_i *intellegebat magno cum periculo provinciae_i futurum,*

III. *ut homines bellicosos, populi Romani inimicos, locis patentibus maximeque frumentariis finitimos pro_i haberet. (Caes. B Gall. 1, 10, 2)*

I. it:NS if take-place:3S

II. pro understand:3S great:AbS with danger:AbS province:GS be:PartF

III. that people:AP warlike:AP nation:GS Roman:GS hostile:AP place:AbP open:AbP mostly-and fertile:AbP bordering:AP pro have:3S

“I. If this took place,

II. he saw that it would be attended with great danger to the Province

III. to have warlike men, enemies of the Roman people, bordering upon an open and very fertile tract of country.”

The antecedent of *pro* in [III] is present in the immediately preceding clause [II]. The disjoint reference interpretation is obtained on basis of other factors than syntactic (in this case the semantic ones, see 2.5.5).

Corresponding Czech examples are (145)f. and (146)f., both marked “?”. If we wish to obtain disjoint reference coindexation, strong contextual or situational clues are necessary, e. g. the presence of the antecedent of the second *pro* in the clause, similarly to (153) (cf. also fn. 100):

(146)fa. *pro_i Balil Petrovi_j věci, protože pro_j chtěl jet do Himalájí.*

However, even in this case the example would need some contextual or situational support to obtain the disjoint coindexation. In Czech, the use of a pronoun (most probably *ten* or *on*) would render the example fully acceptable (see also (134)):

¹⁰² Subcategorized embedded clauses of the kind discussed in 2.5.3 usually follow their matrix clauses, see Leumann et al. (1965), Kudláčková (2001).

(146)fb. pro_i *Balil Petrovi; věci, protože ten_j chtěl jet do Himalájí.*

Here, only disjoint coindexation is possible (which supports the supposition that the change of participant must be expressed). About the use of pronouns see 2.7 and 2.8.2)

Another possibility is the use of *pros* with different ϕ -features, cf.

(154) pro_i *Byla rozzlobená, protože pro_j neumyl nádobí.*

This example is, differently from (145)f. and (146)f., perfectly acceptable and understandable, without the need of any further factors which would mark the disjoint reference of both *pros*.

2.5.4.3.2.1.2 Embedded clause preceding matrix clause

Corresponding Czech examples are (142)f. and (143)f., both of them marked “?”. However, examples with this structure and coindexation are perfectly acceptable if *pros* have different ϕ -features, similarly to (154) – in other words, if antecedents can be identified unambiguously:

(155) a. *Když pro_i scházel ze schodů, pro_j sprchovala se.*

b. *Když si pro_i zabalil věci do Himalájí, pro_j dostala důležitý dopis.*

In my corpus I have not found any Latin examples of this kind - but, as was already said, absence of an example of a certain construction does not mean impossibility or inexistence of such a construction¹⁰³. I am convinced that in Latin such constructions can be found as well, like in Czech. Both languages seem to be very similar in this respect.

2.5.4.3.2.2 **Overt NP/pronoun and *pro* as subjects**

2.5.4.3.2.2.1 Embedded clause preceding matrix clause, with *pro* in embedded clause

($[IP [CP pro_i VP] NP_j VP]$)

(156) *Eo cum de improviso celeriusque omni opinione **pro_i** venisset, **Remi_j** [...] ad eum_i legatos [...] miserunt [...] (Caes. B Gall. 2, 3, 1)*

¹⁰³ In the type of texts which I have chosen, usually only masculine participants occur; the possibility of finding examples similar to (155) is therefore limited.

there when from improvident:AbS more-quickly-and all:AbS opinion:AbS pro
 came:3S Remi:NP to him:AS ambassadors:AP sent:3P

“As he arrived there unexpectedly and sooner than any one anticipated, the Remi, [...] sent to him [...] ambassadors: [...]”

Corresponding Czech examples are the grammatical (142)d. and (145)d. This is an example of an overt NP functioning as marker of disjoint reference of the subject and simultaneously to denote a non-prominent participant; in other words, this is a non-marked situation with respect to the occurrence of overt NPs in texts.

2.5.4.3.2.2.2 Embedded clause preceding matrix clause, with *pro* in matrix clause

($[IP [CP NP_i VP] pro_j VP]$)

Examples with “*pro*-control” verbs in matrix clauses fall into this group, see (118).

2.5.4.3.2.2.3 Matrix clause preceding embedded clause, with *pro* in matrix clause

($[IP pro_i VP [CP NP_j VP]]$)

(157) *tum suo more pro_i conclamaverunt, uti [aliqui ex nostris]_j ad conloquium prodiret:*
 [...] (Caes. B Gall. 5, 26, 4)

then self's:AbS custom:AbS pro shout:3P that some:NP from our:AbP to
 conference:AS go-forward:3P

“Then they shouted, according to their custom, that some of our men should go forward to a conference, [...]”

Corresponding Czech examples are the grammatical (145) and (146). Overt NP serves, similarly to 2.5.4.3.2.2.1, to mark disjoint reference.

2.5.4.3.2.2.4 Matrix clause preceding embedded clause, with *pro* in embedded clause

($[IP NP_i VP [CP pro_j VP]]$)

Examples with complement embedded clauses can be found very easily, cf. Latin (118) or the following examples:

(158) *Caesar ad Lingonas_j litteras nuntiosque misit, ne eos frumento neve alia re pro_j iuvarent:* [...] (Caes. B Gall. 1, 26, 6)

Caesar:NS to Lingones:AP letter:AP messenger:AP-and sent:3S that-not they:AP
 corn:AbS not-or other:AbS thing:AbS pro help:3P

“Caesar sent letters and messengers to the Lingones [with orders] that they should not assist them with corn or with any thing else; [...]”

In this example, matrix verb have functions as a “*pro*-control” verb, although it does not subcategorize the embedded clause. In this case, a kind of ellipsis can be supposed, in the way as it is present in the English translation: the verb *mittere* (“to send”) together with *litteras* (“letter”) means *letter with orders*. It means that the matrix predicate has in fact the property of *pro*-control. In a similar way, Czech example with a non-subcategorized embedded clause functions:

(159) *Karel_i mu_j napsal, aby pro_{j/k} přijel.*

Latin example with an adjunct clause where the matrix verb does not function as a “*pro*-control verb” with the proposed coindexation is the following one:

(160) *Hi_j [...] magnam multitudinem eorum_i fugientium conciderunt, cum [...] pro_i consisterent fortiterque impetum nostrorum militum pro_i sustinerent, [...]*
(*Caes. B Gall. 2, 11, 4*)

these:NP great:AS multitude:AS they:GP fleeing:GPPart slew:3P when pro halted:3P
bravely-and attack:AS our:GP soldier:GP pro sustained:3P

“These, [...] slew a great number of them as they were fleeing; while those [...] halted, and bravely sustained the attack of our soldiers; [...]”

In this paragraph it was shown that if subjects of matrix and embedded clause in a subordinate construction have disjoint reference, all clause sequences (combined with different subjects) are possible. However, it is not only the order of clauses which affects the coindexation possibilities. We have seen that many other factors play their roles: the simultaneity/posteriority/anteriority of the actions expressed by predicates; semantic type of embedded clause; presence of modal verbs. Unfortunately, not all of the factors could be illustrated by Latin examples.

2.5.4.3.3 *Embedded clause inside matrix clause*

In the previous part of this paragraph on subordinate constructions, only simple examples containing one matrix and one embedded clause which followed each other were discussed. However, Latin is a language in which large complex sentences (“periods” in the tra-

ditional terminology; cf. also fn. 40) frequently occur, especially in high literary style from which examples in this work are taken. In such kind of constructions, embedded clauses can stand inside matrix clauses, “splitting” them into two parts. Generally, embedded clauses in Latin can stand immediately before, immediately after or inside matrix clause¹⁰⁴. In this paragraph I will present some examples of more complex sentences with embedded clauses inside matrix clauses and to show how coindexation of their subjects works.

Example (161) shows a “split” matrix clause into which two other clauses are embedded: relative clause and finite clause with *ut*. Note that the *ut*-clause is of the kind described in 2.5.3, namely subcategorized by “*pro*-control” matrix verb.

- (161) Ia. [...] itaque **Dumnorigi Haeduo**_i, fratri Diviciaci,
 II. [**qui**_i eo tempore principatum in civitate obtinebat ac maxime plebi **pro**_j acceptus erat],
 III. [*ut idem pro*_j conaretur]
 Ib. **pro**_i persuadet eique filiam suam in matrimonium **pro**_i dat. (Caes. B Gall. 1, 3, 5)

Ia. and-also Dumnorix:DS Aeduan:DS brother:DS Divitiacus:GS

II. who:NS that:AbS time:AbS chief-place:AS in state:AbS possessed:3S and mostly people:DS pro accepted:NS was:3S

III. that the-same pro attempt:3S

Ib. pro persuade:3S he:DS-and daughter:AS self's:AS in marriage:AS pro give:3S

“Ia. [...] and he likewise persuades Dumnorix, an Aeduan, the brother of Divitiacus,

II. who at that time possessed the chief authority in the state, and was exceedingly beloved by the people,

III. to attempt the same,

Ib. and gives him his daughter in marriage.”

Clause [I] is split into two parts, [Ia] and [Ib], between which relative clause [II] and finite clause introduced by a complementizer [III] stand. Coindexation of *pro*[III] is determined by referential structure of matrix “*pro*-control” predicate (*persuadere*).

¹⁰⁴ The separation of an embedded clause from its matrix clause by another “intervening” clause can only occur in some types of embedded clauses under strict conditions. Latin “clause-order” is relatively restricted, cf. Kudláčková (2001).

- (162) Ia. *Celtiberi*,
 II. *qui* _i *profecti erant [a domo] deditiois ignari*,
 IIIa. *cum tandem superatis*,
 IV. *ubi primum remiserunt imbres*,
 IIIb. *amnibus Contrebiam pro* _i *venissent*,
 V. *postquam nulla castra extra moenia pro* _i *viderunt*,
 VI. *aut in alteram partem translata rati* _i *aut recessisse hostes*,
 Ib. *per negligentiam effusi* _i *ad oppidum accesserunt. (Liv. 40, 3, 33)*

Ia. Celtiberian:NP

II. who:NP set-out:NPPart were:3P [from home:AbS] capitulation:GS unaware:NP

IIIa. when at-last crossed:AbPPart

IV. when first cease:3P rain:NP

IIIb. river:AbP Contrebia:AS pro came:3P

V. after no:AP camp:AP outside wall:AP pro see:3P

VI. or into other:AS part:AS removed:APPart supposing:NPPart or retreat:IPerf
 enemy:AP

Ib. through carelessness:AS spread-out:NPPart to town:AS approach:3P

“Ia. Celtiberians,

II. who had set out without knowing about the capitulation,

IIIa. when they at last,

IV. – IIIb. after having crossed the rivers (as soon as the rain had ceased to fall), came to Contrebia,

V. and when they saw that there is no camp outside the city walls,

VI. supposing that either the camp had been removed or the enemy had retreated,

Ib. carelessly spread out, approached the town.” (my translation, D. L.)

In this sentence, we have two split clauses [I] and [III]¹⁰⁵. Except [IV], all embedded clauses ([II], [III], [V] and [VI]) have a common matrix clause [I]. Matrix clause of [IV] is [III], inside of which [IV] stands. Subjects of [II], [III] and [V] (relative *qui* in [II], *pros* in [III] and [V]) are coindexed with the subject of matrix clause [I]. [VI] is a participle construction, the participle being coindexed with subject of [I] as well. [IV] has an overt subject which signals disjoint reference from its matrix clause [III]. (Note that [IV] is more deeply embedded than all other embedded clauses.)

Examples of this kind support the hypothesis of “keeping the subject the same” throughout sentence, despite its possibly complex structure.

2.5.4.3.3.1 A special kind of constructions - subordinate constructions with an extracted subject

In connection with the empty subject *pro* another question arises with respect to embedded constructions with an extracted subject. It concerns a particular kind of constructions where an embedded clause stands inside the matrix clause. Sometimes subject is removed from the matrix clause and put at the very beginning of the sentence (matrix clause becoming split with an embedded clause inside it, cf. 2.5.4.3.3), as the following scheme shows:

(163) NP_i [COMP pro_i VP] t_i VP

Examples of such a construction are the following ones:

(164) Ia. *his pagus unus_i*,

II. *cum domo pro_i exisset*,

Ib. *patrum nostrorum memoria L. Cassium consulem interfecerat*

III. *et eius exercitum sub iugum pro_i miserat. (Caes. B Gall. 1, 12, 5)*

Ia. this:NS canton:NS one:NS

II. when home:AbS pro went-out:3S

¹⁰⁵ This complex sentence corresponds with one of the traditional definition of “period” as “ein aus einem Hauptsatze und einem Nebensatze zusammengesetztes Satzgefüge, in dem sich die Einheit eines Gedankens darstellt. Dem Hauptsatze können zwei oder mehrere Nebensätze untergeordnet sein, ja es kann sich jedes Glied des Hauptsatzes mit Ausnahme des Prädikats zu einem Nebensatze ausbilden. Endlich können diesen Nebensätzen, indem sich ihre Glieder zu neuen Nebensätzen entwickeln, wieder Nebensätze und diesen wieder andere untergeordnet werden; auch können den Nebensätzen andere Nebensätze beigeordnet werden. Auf diese Weise kann das Satzgefüge einen immer größeren Umfang erhalten. Alle Nebensätze aber sind dem Hauptsatze untergeordnet; der Hauptsatz erscheint als der gemeinschaftliche Träger aller Nebensätze. – Die Nebensätze erscheinen im Lateinischen [...] häufig in verkürzter Form als Partizipien.” (Kühner, Stegmann (1914): 630)

Ib. father:GP our:GP memory:AbS L.Cassius:AS consul:AS killed:3S
III. and his army:AS under yoke:AS pro sent:3S

“Ia. This single canton

II. having left their country,

Ib. within the recollection of our fathers, had slain Lucius Cassius the consul,

III. and had made his army pass under the yoke.”

(165) Ia. *Caesar*,

II. [*quod memoria pro* tenebat

III. [*L. Cassium consulem occisum exercitumque eius ab Helvetiis pulsum et sub iugum missum,*]]

Ib. *concendendum non putabat; [...]* (*Caes. B Gall. 1, 7, 4*)

Ia. Caesar:NS

II. because memory:AbS pro kept:3S

III. L.Cassius:AS killed:PartAS army:AS-and he:GS by Helvetii:AbS routed:PartAS
and under yoke:AS sent:PartAS

Ib. retreat:I not thought:3S

“Ia. Caesar,

II. inasmuch as he kept in remembrance

III. that Lucius Cassius, the consul, had been slain, and his army routed and made to
pass under the yoke by the Helvetii,

Ia. did not think that [their request] ought to be granted: [...]”

Both of the sentences are supposed to have structure (163). It is supported by putting a comma behind the first NP in the both sentences *his pagus unus* and *Caesar*. It suggests that the editor had structure in (163) in mind, i. e. that the subject was extracted from matrix clause and put at the very beginning of the whole sentence, whereas in the embedded clause (which precedes the matrix clause) there is a *pro* coindexed with the matrix subject. However, an alternative analysis is obvious.

The subject at the beginning of the sentence can originate in the first (embedded) clause, and a *pro* would therefore stand in the second (matrix) clause, resulting in the structure (166):

(166) [[NP_i COMP t_i VP] pro_i VP]

In such a case, no comma would be put by the editor behind the first NP, and actually, such examples can be found in texts as well:

(167) I. **Haedui**_i cum se suaque ab iis PRO_i defendere non possent,

II. legatos ad Caesarem **pro**_i mittunt rogatum auxilium: [...] (Caes. B Gall. 1, 11, 2)

I. **Aedui**:NP when themselves:AP their-own:AP-and from they:AbS PRO defend:I not could:3P

II. ambassadors:AP to Caesar:AS **pro** send:3P ask help:Sup

“I. The Aedui, as they could not defend themselves and their possessions against them,
II. send ambassadors to Caesar to ask assistance, [...]”

It seems that both constructions (163) and (166) exist side by side. It is difficult to decide in which case which of them is used. Some examples are nevertheless unambiguous. Their subject cannot originate in the matrix clause and they therefore allow only the interpretation (166). In the following ones, subject is the impersonal pronoun *id* („it“) or the relative *quod* („what“):

(168) **id** si fieret, pro intellegebat magno cum periculo provinciae futurum, [...]

(Caes. B Gall. 1, 10, 2)

it:NS if took-place:3S pro understood:3S great:AbS with danger:AbS province:GS be:PartF

“If this took place, he saw that it would be attended with great danger to the Province
[...]”

(169) **quod** cum fieret, non inridicule quidam ex militibus decimae legionis dixit plus quam pro pollicitus esset Caesarem ei facere: [...] (Caes. B Gall. 1, 42, 6)

what:NS when happened:3S not without-wit somebody from soldier:AbP
 tenth:GSFem legion:GSFem said:3S more than pro promised:NSPart be:3S Caesar:AS
 he:DS make:I

“And when this was done, one of the soldiers of the tenth legion said, not without a touch of humor, ‘that Caesar did more for them than he had promised; [...]’”

In the following example, the extracted item is not the subject but the object which is subcategorized by the verb and it is therefore impossible to assume that the NP is a part of matrix clause.

(170) *Caesari cum id nuntiatum esset eos per provinciam nostram iter PRO facere conari, [...]* (Caes. B Gall. 1, 7, 1)

Caesar:DS when it:NS announced:Part was them:AP through province:AS way PRO
 make:I try:I

“When it was reported to Caesar that they were attempting to make their route through our Province, [...]”

In examples (168), (169) and (170) interpretation (166) is undoubtedly the only possible¹⁰⁶. It would support the assumption that (166) and not (163) is the right structure of such constructions. However, I am convinced that both structures exist side by side, according to the type of construction (e. g. in (165) probably only structure (163) is acceptable. Unfortunately I was not able to find any structural or semantic reasons which would support this conviction except my introspection and the use of diacritic marks by the editors. This problem should be subject to further research.

2.5.5 Semantic information

Antecedent of *pro* cannot be determined in solely structural terms¹⁰⁷. There are also other factors influencing the coindexation – lexical meaning of predicates and other parts of clauses/sentences is one of them. However, meaning of predicates and other parts of clauses can seldom be the only factor which determines the coindexation of *pro*. Mostly meaning acts in support of one of the syntactically acceptable coindexations. We can say that there are no semantic rules (in the manner as they were formulated in syntax e. g. for coordinate and asyndetical constructions in (129)) but rather tendencies.

¹⁰⁶ With the proviso that in (170) the item put at the beginning is not the subject of the embedded clause.

¹⁰⁷ Cf. Givón (1995).

One of the tendencies which can be observed in nearly all examples is the tendency to prefer human antecedents to non-human ones. It is, however, conditioned by the fact that language is generally anthropocentric and humans rather than non-human objects are focused on. Moreover, as actors of the actions described are usually humans, they can more likely become important, therefore prominent. Consequently, antecedents of *pro* are preferably human¹⁰⁸. Of course exceptions from this tendency can be found, one of them being example (153), repeated here (see below).

In example (153), other semantic tendency governing the choice of antecedent of *pro* and in this case overruling the tendency to prefer human antecedents takes effect, namely semantic compatibility between expressions with which *pro* is connected in the clause and the supposed denotate of *pro*. In some cases, the meaning of clause mates of *pro* is decisive for antecedent resolution:

(153) I. *id si fieret,*

II. *pro intellegebat magno cum periculo provinciae; futurum,*

III. *ut homines bellicosos, populi Romani inimicos, locis patentibus maximeque frumentariis finitimos pro; haberet. (Caes. B Gall. 1, 10, 2)*

I. it:NS if take-place:3S

II. pro understand:3S great:AbS with danger:AbS province:GS be:PartF

III. that people:AP warlike:AP nation:GS Roman:GS hostile:AP place:AbP open:AbP mostly-and fertile:AbP bordering:AP pro have:3S

“I. If this took place,

II. he saw that it would be attended with great danger to the Province

III. to have warlike men, enemies of the Roman people, bordering upon an open and very fertile tract of country.”

There are two possible antecedents of *pro*[III]: *pro*[II] in the second clause (i. e. Caesar) which we would probably suppose to be the antecedent of the second *pro* as it is animate and, as we said above, animate antecedents are generally preferred. However, the meaning of some

¹⁰⁸ There are certainly kinds of texts where animals or inanimate objects are regularly prominent, therefore denoted by *pro*, like fairy tales or fables with animals as major figures. However, even here they are ascribed human qualities.

parts of clause [III] of which *pro*[III] is subject (*locus* (“place”), *patens* (“open”), *frumentarius* (“fertile”)) and their relation to this subject (as properties belonging to the subject) indicate that its antecedent is not animate. Another possible agreeing (3rd person singular) antecedent except *pro* in [II] is *provincia* in [II] which is the right one because it is semantically compatible with other parts of clause [III]. The decision about the antecedent of *pro* is in this case motivated by semantic considerations. Note that in the part of text following (170) the nearest preceding human antecedent is preferred as antecedent of *pros* so that the first tendency described here, namely preference of animate antecedents over inanimate ones, holds:

- (171) I. *id si fieret, pro_i intellegebat magno cum periculo provinciae_j futurum, ut homines bellicosos [...] finitimos pro_j haberet.*
 II. *ob eas causas ei munitioni, quam pro_i fecerat, T. Labienum legatum pro_i praefecit: [...] (Caes. B Gall. 1, 10, 2 - 3)*

“I. If this took place, he saw that it would be attended with great danger to the Province to have warlike men, [...] bordering [...].

II. For these reasons he appointed Titus Labienus, his lieutenant, to the command of the fortification which he had made.”

Similarity of meaning of items (mostly predicates) contained in both clauses in which antecedent and *pro* occur can support the coindexation even if antecedent is further away or there are intervening agreeing participants which could act as possible antecedents as well. In the following example, predicates are not only similar, but identical:

- (172) I. *in eo itinere pro_i persuadet Castico_j Catamantaloedis filio, [...]*
 II. *ut regnum in civitate sua pro_j occuparet, [...]*
 IIIa. *itemque Dumnorigi_k Haeduo, [...]*
 IV. *ut idem pro_k conaretur*
 IIIb. *pro_i[1] persuadet ei_{que}_k filiam suam in matrimonium pro_i[2] dat.*
(Caes. B Gall. 1, 3, 2 - 5)

I. in the:AbS journey:AbS pro persuades:3S Casticus:DS Catamantaledes:GS son:DS

II. that sovereignty:AS in state:AbS self's:AbS pro seized:3S

IIIa. also Dumnorix:DS Aeduan:DS

IV. that the-same pro attempts:3S

IIIb. pro persuades:3.sg. him:3S-and daughter:AS self's:AS in matrimony:AS pro gives:3S

“I. On this journey he persuades Casticus, the son of Catamantaledes [...],

II. to seize upon the sovereignty in his own state, [...]

IIIa. and he likewise persuades Dumnorix, an Aeduan, [...]

IV. to attempt the same,

IIIb. and gives him his daughter in marriage.”

pro[I] and *pro*[IIIb-1] are quite far away from each other and there are two other possible agreeing antecedents intervening between these two items (*Casticus* und *Dumnorix*). However, despite the complex structure of the sentence, the clauses [I] and [III] – note that [III] is split into two parts, with the intervening clause [IV] – are coordinated, therefore we assume their subjects to be coindexed. However, as they are very far away from each other, there is also another most useful clue, namely that their predicates are precisely the same (*persuadere* – “to persuade”). Other clue is information gained from the context.

S. Pieroni in Pieroni (2001) claims that the semantic principle governing the determination of zero-anaphoras (her research includes elliptical expressions of all types) is the constancy of semantic “makro-roles”, as ACTOR or AFFECTED. Example (172) supports this supposition. However, examples presented in 2.5.3 where the referential structure of predicate is decisive for coindexation of embedded subjects contradict this assertion.

2.5.6 Context

The most important information which can be gained from context is information about prominent participant. In 2.5.2, the terms *prominence* and *prominent participant* have been introduced. Recall that a participant in a text is called *prominent* if it has the following properties ((114), modified here):

(173)

(a) it was already introduced in the text (possibly occurred more times)¹⁰⁹;

(b) very often, it is subject;

¹⁰⁹ This property results from the definition of *pro* as item having an antecedent. Recall that it is specified as [+pronominal].

- (c) there is no participant with different denotation nearby (the occurrence of such a participant would cancel the prominence of the participant in question)¹¹⁰;
- (d) individual occurrences are not far away from each other (it would cancel the prominence as well).

Based on semantic considerations, especially example (153), we can add another property of prominent participant:

- (e) it is usually human.

Simply speaking, prominent participant is an important one, the one which the text is “about” just at the given place. Of course there can occur several (prominent) participants in one text at one time or subsequently but they are usually differentiated by means of overt NPs (R-expressions or pronouns) to keep them apart.

Prominence can be cancelled in one of the following ways: a new participant is introduced which becomes prominent itself or the “old” prominent participant is not mentioned in the text for a longer time. If we introduce a new participant or re-introduce an old one, we have to do it by means of an overt NP or a pronoun, not *pro* (cf. Givón (1995): 354, quoted above in the introduction to 2.5). It shows that the use of the empty *pro* and overt NPs or pronouns is tightly interconnected and they cannot be analyzed separately. See also 2.7 and 2.8.

(173)a. can be illustrated by each of examples containing *pro*. The use of an empty subject for an introduction of a participant is used in recent literature, usually at the very beginning of a text, in order to evoke familiarity with the introduced person in the reader. (173)b. is also very frequent in texts; an exception is e. g. (115).

Following example illustrates reintroduction of a participant whose prominence has been cancelled by appearance of a new participant which became prominent itself (i. e. (173)c. is involved):

- (174) I. [...] *pontem qui erat ad Genavam pro_i iubet rescindi.*
 II. *ubi de eius_i adventu Helvetii_j certiores facti sunt,*
 III. *legatos_m ad eum_i pro_j mittunt nobilissimos civitatis,*
 IV. *cuius legationis [Nammeius et Verucloetius]_k pricipem locum obtinebant,*

¹¹⁰ Note that in (153) there is an agreeing participant which intervenes between individual occurrences of coindexed *pros*, namely *provincia* (which is itself an antecedent of *pro* in the following clause). However, its inanimateness prevents it from becoming prominent participant in the sense defined here.

V. *qui*_{k/m}¹¹¹ *dicerent sibi*_j *esse in animo sine ullo maleficio iter per provinciam PRO*_j *facere,*

VI. *propterea quod aliud iter pro*_j *haberent nullum;*

VII. *PRO*_j *rogare ut eius*_i *voluntate id sibi*_j *PRO*_j *facere liceat.*

VIII. *Caesar*_i *[...] concedendum non putabat;*

(Caes. B Gall. 1, 7, 2 - 4)

“I. *he*_i orders the bridge at Geneva to be broken down.

II. When the *Helvetii*_j are apprized of *his*_i arrival

III. *they*_j send to *him*_i, as ambassadors, the most illustrious men of their state

IV. (in which embassy *Numeius and Verudoctius*_k held the chief place),

V. to say ‘that it was *their*_j intention *PRO*_j to march through the Province without doing any harm,

VI. because *they*_j had’ [according to their own representations,] ‘no other route:

VII. that *they*_j requested, *they*_j might be allowed to do so with *his*_i consent.’

VIII. *Caesar*_i, [...] did not think that [their request] ought to be granted:”

We can see that the participant Caesar is present through the whole stretch of text from [I] where he is still the subject to [VIII] but it is not prominent participant because it is not subject¹¹² (cf. (173)b.) and it is not expressed by *pro*. From [II] on, the participant *Helvetii* becomes prominent and occurs in subject positions throughout. An exception is [IV] and relative clause [V]. However, already in [V] the subject of infinitive is coindexed with *Helvetii* again (which recipients recognizes according to his background knowledge and information from previous text) and further *Helvetii* stays prominent till [VIII]. Therefore in [VIII], the prominence of *Caesar* must be renewed by the use of an overt NP.

We can find also cases where the participant for some time disappears from the text, loses in this way his prominence and must be reintroduced by means of an overt NP (cf. (175)). In such cases, property (173)d. of prominent participants is not present. Ross (1996) says that this kind of text is “off the event line” (Ross (1996): 521).

(175) I. *id hoc facilius iis pro*_i *persuasit, quod undique loci natura Helvetii*_j *continentur:*

¹¹¹ About the right interpretation cannot be decided without knowing the exact situation - who was speaking before Caesar; however, this peace information is impossible to gain.

¹¹² Note that Givón (1995) classifies unstressed pronouns (which are, in my opinion, pronouns in non-subject positions; pronouns in subject positions are only used to express focus or contrast in the *pro*-drop language Latin) as maximal-continuity devices (Givón (1995): 353).

- II. *una ex parte flumine Rheno latissimo atque latissimo, qui agrum Helvetium a Germanis dividit,*
- III. *altera ex parte monte Jura altissimo, qui est inter Sequanos et Helvetios,*
- IV. *tertila lacu Lemanno et flumine Rhodano, qui provinciam nostram ab Helvetiis dividit.*
- V. *his rebus fiebat ut et minus late **pro**_j vagarentur et minus facile finitimis bellum **PRO**_j inferre **pro**_j possent; qua ex parte [**homines bellandi cupidi**]_j magno dolore adficebantur.*
- VI. *pro multitudine autem hominum et pro gloria belli atque fortitudinis angustos **se**_j fines habere **pro**_j arbitrabantur, qui in longitudinem milia passuum CCXL, in latitudinem CLXXX patebant.*
- VII. *His rebus adducti et auctoritate **Orgetorigis**_i permoti **pro**_j constituerunt*
- VIII. *ea quae ad proficiscendum pertinerent **PRO**_j comparare, iumentorum et carrorum quam maximum numerum **PRO**_j coemere, sementes quam maximas **PRO**_j facere, ut in itinere copia frumenti suppeteret, cum proximis civitatibus pacem et amicitiam **PRO**_j confirmare.*
- IX. *Ad eas res conficiendas biennium sibi satis esse **pro**_j duxerunt;*
- X. *in tertium annum profectionem lege **pro**_j confirmant.*
- XI. *Ad eas res conficiendas **Orgetorix**_i deligitur.*
- XII. ***Is**_i sibi legationem ad civitates suscipit.*
- XIII. *In eo itinere **pro**_j persuadet Castico, [...]¹¹³ (Caes. B Gall. 1, 2, (3) – 3 (4))*

- “I. To this **he**_i the more easily persuaded them, because the **Helvetii**_j, are confined on every side by the nature of their situation;
- II. on one side by the Rhine, a very broad and deep river, which separates the Helvetian territory from the Germans;
- III. on a second side by the Jura, a very high mountain, which is [situated] between the Sequani and the Helvetii;
- IV. on a third by the Lake of Geneva, and by the river Rhone, which separates our Province from the Helvetii.
- V. From these circumstances it resulted, that **they**_j could range less widely, and could less easily make war upon their neighbors; for which reason **men fond of war [as they were]** were affected with great regret.

¹¹³ The following part of the text is in (172) where *Orgetorix* is prominent participant, denoted by *pros*.

VI. **They_j** thought, that considering the extent of their population, and their renown for warfare and bravery, **they_j** had but narrow limits, although they extended in length 240, and in breadth 180 miles.

VII. Induced by these considerations, and influenced by the authority of **Orgetorix_i**, **they_j** determined [...]"

VIII. to **PRO_j** provide such things as were necessary for their expedition - to **PRO_j** buy up as great a number as possible of beasts of burden and wagons - to **PRO_j** make their sowings as large as possible, so that on their march plenty of corn might be in store - and to **PRO_j** establish peace and friendship with the neighboring states.

IX. **They_j** reckoned that a term of two years would be sufficient for them to execute their designs;

X. **they_j** fix by decree their departure for the third year.

XI. **Orgetorix_i** is chosen to complete these arrangements.

XI. **He_i** took upon himself the office of ambassador to the states:

XII. on this journey **he_i** persuades Casticus, [...]"

Differently from (174) where the participant *Caesar* is present through the whole stretch of text (denoted by pronouns), even if not prominent, participant *Orgetorix* in (175) occurs only in [I] in the form of *pro* because it is still prominent; then in [VII] as an overt NP, afterwards in [XI] in the form of an overt NP as well and finally in [XII] as *pro*, becoming prominent again (cf. (172)). As for the use of overt NP in [VII], it is determined by two factors. First, as the NP is in Genitive, it must be overt, either an NP or a pronoun. The other factor influencing the use of a proper noun (instead of a pronoun), even though there is no other agreeing animate participant between the two instances of *Orgetorix*, namely as *pro* in [I] and overt NP in [VII], is that the antecedent is too far way.

Note also that the participant *Helvetii*, first introduced by an overt NP in [I], occurs afterwards in [V] only, where it is denoted by *pro*. That it is possible is caused by the absence of another intervening participant in [II] – [IV].

Property of prominence listed under (173)e. is illustrated in 2.5.5.

We can see that the term of prominence is connected with the use of *pro* and the use of *pro* is in its turn connected with the use of overt NPs (pronouns and R-expressions). Their mutual relation and distribution will be analyzed once more below, after the general conditions on use of overt NPs have been stated (see 2.8.2).

(176) shows how a participant keeps its prominency though a complete change of topic. This example also illustrates the way in which several agreeing participants are kept apart and how the prominent one is dealt with:

- (176) I. *haec cum pluribus verbis flens a Caesare **pro**_i peteret, **Caesar**_j eius_i dextram prendit;*
 II. *consolatus **pro**_j rogat, finem orandi **pro**_j faciat;*
 III. *tanti eius_i apud se_j gratiam esse **pro**_j ostendit ut et rei publicae iniuriam et suum_j dolorem eius_i voluntati ac precibus **pro**_j condonet.*
 IV. *Dumnorigem_k ad se_j **pro**_j vocat, fratrem_i **pro**_j adhibet;*
 V. *quae in eo_k **pro**_j reprehendat **pro**_j ostendit;*
 VI. *quae ipse_j intellegat, quae civitas queratur **pro**_j proponit;*
 VII. ***pro**_j monet ut in reliquum tempus omnes suspiciones **pro**_k vitet.*
 VIII. *praeterita se_j [Diviciaco fratri]_i condonare **pro**_j dicit.*
 IX. *Dumnorigi_k custodes **pro**_j ponit, ut quae **pro**_k agat, quibuscum **pro**_k loquatur, **PRO**_j scire **pro**_j possit.*
 X. *Eodem die ab exploratoribus **pro**_j certior factus hostes sub monte consedissee milia passuum ab ipsius castris octo,*
 XI. *qualis esset natura montis et qualis in circuitu ascensus qui congnoscerent **pro**_j misit. renuntiatum est facilem esse.*
 XII. *de tertia vigilia T. Labienum legatum pro praetore cum duabus legionibus et iis ducibus, qui iter cognoverant, summum iugum montis ascendere **pro**_j iubet; [...]*
 (Caes. B Gall. 1, 20 (5) - 21 (2))

- “I. As he was with tears begging these things of Caesar in many words, Caesar takes his right hand,
 II. and, comforting him, begs him to make an end of entreating,
 III. and assures him that his regard for him is so great, that he forgives both the injuries of the republic and his private wrongs, at his desire and prayers.
 IV. He summons Dumnorix to him; he brings in his brother;
 V. he points out what he censures in him;
 VI. he lays before him what he of himself perceives, and what the state complains of;
 VII. he warns him for the future to avoid all grounds of suspicion;
 VIII. he says that he pardons the past, for the sake of his brother, Divitiacus.

IX. He sets spies over Dumnorix that he may be able to know what he does, and with whom he communicates.

X. Being on the same day informed by his scouts, that the enemy had encamped at the foot of a mountain eight miles from his own camp;

XI. he sent persons to ascertain what the nature of the mountain was, and of what kind the ascent on every side. Word was brought back, that it was easy.

XII. During the third watch he orders Titus Labienus, his lieutenant with praetorian powers, to ascend to the highest ridge of the mountain with two legions, and with those as guides who had examined the road;”

As for keeping prominency of a participant, the sudden change of topic between paragraphs (between [IX] and [X]) is of importance here. Despite this change, there is an empty subject at the beginning of the second paragraph, *pro*[XI] and *pro*[XII]. It is coindexed with *Caesar*, prominent participant of the preceding paragraph. The participant Caesar has been introduced (in fact, re-introduced, because it of course occurred many times before in the book) in the second clause of this part of text by an overt NP and from this place on, it occurs in the form of *pro*¹¹⁴. The only explanation for the continuance of the indexation after the change of topic (and consequently paragraph) is that the most important person in this part of the text is Caesar. He is the one we are speaking about – in my terminology, Caesar is the prominent participant in this part of the text.

Other participants (Diviciacus and Dumnorix) are non-prominent in this part of the text. A non-prominent participant is denoted by *pro* in two clauses: first, by *pro*_k in [VII] where it is “controlled” by (elliptical) matrix object; second, two times in embedded clauses in [IX]. These clauses are an instance of a logophoric context, depending on the matrix verb *scire* (“to know”). Disjoint reference coindexation is supported by context information: as spies are set over Dumnorix, it is Dumnorix of whose actions Caesar wishes to be informed; other coindexation of *pros* in [IX] would be *pro*_j, i. e. Caesar, which is excluded, first, by the improbability that one wishes to be informed about his own actions (of course it is not excluded, but it would have to be mentioned in the context, which is not the case here); second, because of the information gained from context, namely that spies were set over Dumnorix by Caesar. This piece of information makes it clear what the constellation of participants with respect to the propositions of embedded clauses in [IX] is.

¹¹⁴ Of course it has also the form of reflexives, if it is non-subject; once it is expressed by the intensifying *ipse* (in [VI]).

It has been already shown that the information about prominent participant is not the only one which can be gained from text to help the recipient to identify the antecedent of *pro*. It can be also other – contentual – piece of information which can support the decision about denotate of *pro*:

- (177) I. *Interea ea legione, quam secum pro_i habebat, militibusque, qui ex provincia convenerant,*
II. *a lacu Lemano, qui in flumen Rhodanum influit, ad montem Iuram, qui fines Sequanorum ab Helvetiis dividit,*
III. *milia passuum decem novem murum in altitudinem pedum sedecim fossamque pro_i perducit. (Caes. B Gall. 1, 8, 1)*
[...]
IV. *ob eas causas ei munitioni quam pro_i[1] fecerat, T. Labienum legatum pro_i[2] praefecit; [...] (Caes. B Gall. 1, 10, 1 - 5)*

“I. Meanwhile, with the legion which he had with him and the soldiers which had assembled from the Province,
III. he carries along for nineteen miles a wall, to the height of sixteen feet, and a trench,
II. from the Lake of Geneva, which flows into the river Rhone, to Mount Jura, which separates the territories of the Sequani from those of the Helvetii.
[...]
IV. For these reasons he appointed Titus Labienus, his lieutenant, to the command of the fortification which he had made.”

As for *pro*[IV-1] and *pro*[IV-2], they are coindexed with their antecedent on the basis of the information gained from the text: namely that Caesar (*pro*[I] and *pro*[III]) has built the fortifications. Moreover, Caesar is the prominent participant in the part of text where *pro*[IV-1] and *pro*[IV-2]) occur.

Information from context can help recipient to make the intended coindexation in two ways: first, prominent participant is established in the text; second, the text provides recipient with pieces of information which then support (or contradict) proposed coindexation. In examples (174) - (176), properties of prominent participant (listed in (173)) have been illus-

trated. In (177), contextual information is the supportive factor which helps to obtain the intended coindexation.

2.5.7 Background information

The other thing which is of importance in deciding about antecedent of *pro* is shared background knowledge of speaker and recipient. The term *background knowledge* as it is used here means shared knowledge of speaker and recipient of facts of extralinguistic reality¹¹⁵. It should be noted that it is not always possible to differentiate between background knowledge information and information from context.

Background knowledge can be in some cases decisive (cf. below discussion of example (174)), but mostly it would support the interpretation based on other (syntactic, semantic and textual) factors. It would be probably hard to find examples where coindexation would be governed exclusively by background knowledge. Such situation would rather occur in everyday conversation which is more situation-bound. Background knowledge in written texts therefore mean constant “checking” of coindexation gained on the basis of other principles.

The role of background knowledge can be illustrated e. g. in example (177), where the recipient knows that it is Caesar who is authorized to give orders. This piece of knowledge reassures the recipient that his interpretation of *pro*[IV-1] and *pro*[IV-2] meaning Caesar is right.

An example where background knowledge can be of importance even if deciding about coindexation of is (174). Here, disjoint reference of the reflexive and PRO¹¹⁶ in [V] from the matrix subject *qui* is based on the fact that not only the members of the legation but all Helvetii want to march through the Roman province¹¹⁷. Coindexation with the coordinated NPs (with the index *k*) in [IV] is excluded. *pro* in (174)-[VI] obtains the coindexation for the same reason.

2.5.8 Expletive pro

Expletives are elements which have no semantic content and occur in positions which are not assigned a theta-role. They fill the subject positions for structural reasons, namely Extended Projection Principle (EPP) which requires that the subject position of a clause be

¹¹⁵ When we read ancient texts, shared background knowledge is not automatically present as when author and reader are contemporaries. It must be supplied in some way. As for Latin, philological commentaries of original texts which contain (except grammatical and lexical information) also information about aspects of ancient life and civilization play this role.

¹¹⁶ Note that background knowledge influences also coindexation of other items than *pro*.

¹¹⁷ (174)-[V] is indirect speech. Therefore we would expect the reflexive inside it to be coindexed with the participant-speaker, cf. 2.3.2.1.1. However, it is not so; it shows how strong the influence of background knowledge on coindexation can be.

filled, i. e. clauses must have subjects (Haegeman (1994): 60ff.). Expletives can be also non-overt, as in the Italian

(178) [*IP e furono* [*VP* [*V arrestedi* [*NP molti studenti*]]]]

e were arrested many students

“Many students were arrested.” (example from Haegeman (1994): 326 and 329)

This kind of non-overt expletives can be found also in Latin. In fn. 54 the following example was quoted:

(179) *Proditori credendum non est.* (Novotný (1992): 211)

traitor:DS believe:NSNeuGer not be:3S

„One should not believe a traitor.“/ “A traitor should not be believed.”

There is no overt subject but according to EPP it must be assumed that the clause position be filled, resulting in

(179)a. *Proditori credendum e non est*¹¹⁸.

This empty category has ϕ -features, namely 3rd person singular neutrum (based on the agreement features of the Gerundive construction).

An empty category occurs also in subject position of impersonal verbs, like in

(180) *e Apparet [patrem venire].*

e is-obvious:3S father:AS come:I

“It is obvious that father is coming.”

or in the so-called meteorological verbs like

(181) *e Pluit.*

e rain:3S

“It rains.”¹¹⁹

¹¹⁸ I am not discussing the position of the supposed empty category in the clause. It is positioned immediately in front of the verb, as I do it with non-expletive *pro*.

¹¹⁹ An analysis of subjects of meteorological verbs see Maraldi (1985).

In these cases, the only feature of the empty category we can identify is 3rd person. Nevertheless, as subject of a finite clause it can be identified as *pro_{expl}*.

2.5.9 Summary

In this section I have shown principles and tendencies which govern the coindexation of *pro* in sentences and texts. They are of different nature – lexical, syntactic, semantic, pragmatic or dependent on the text itself.¹²⁰ It should be noted that the use of *pro*, pronouns and overt NPs is mutually interconnected.

Generally, following principles can be formulated:

1. *pro* must agree with its antecedent in the ϕ -features of person, number and, if it can be identified, also gender. ϕ -features are manifested at the verb inflection.
2. For the first introducing of a participant or its re-introducing when it ceased to be prominent, an overt R-expression or pronoun must be used (see 2.7 and especially 2.8). *pro* is used for participants that were already introduced in the text.
3. *pro* is used for prominent participants (the extended definition of prominent participant see in (173)).
4. Coindexation must agree with the background knowledge of speaker/recipient (cf. 2.5.7).

Particular constraints can be summarized in the following way:

Constraints of predicate referential structure

In embedded clauses after certain verbs, called “*pro*-control verbs” here, *pro* must be used. Matrix verb determines whether *pro* is coindexed with matrix subject or object. See 2.5.3 and examples presented there.

¹²⁰ I do not agree with Pieroni, who claims that no syntactic or pragmatic rules or tendencies are working in Classical Latin as strategies for recovering the antecedents of zero-anaphoras (Pieroni (2001): 547).

Syntactic constraints

It is necessary to differentiate between coordinate and asyndetical constructions on the one side and subordinate constructions on the other. In coordinate and asyndetical constructions (there does not seem to be a difference between the two types with respect to the use of *pro*), the interpretation of *pro* is governed by a strict rule which requires *pros* in second (and following) clauses of the construction to be coindexed with the subject of the first clause. Change of participant must be signaled by the use of an overt NP or a pronoun. See 2.5.4.1. A comparison with Czech coordinate constructions has shown that there is a pragmatic constraint put on the use of *pro* in these constructions which solely grammatical Latin examples could not have revealed, namely that it must agree with the background knowledge of the recipient (see 2.5.4.1.1). Except *pro*, also the pronoun *ipse* can be used as subject of second and following clause(s) if the subjects are coindexed. See examples (96) and (212).

In subordinate constructions, different factors affect coindexation possibilities of subjects, some of them being presented in 2.5.4.2. Unfortunately, only one factor could be demonstrated on the basis of Latin examples; namely the mutual position of matrix and embedded clause. Here, one combination is excluded, namely cataphora with matrix clause preceding embedded clause, as expected on the basis of data from other languages (see 2.5.4.2.1.2). Other structures and different combinations of *pro* and overt NP or pronouns in both matrix and embedded clauses could be demonstrated or at least convincingly proved that the absence of a construction does not mean its inexistence. See 2.5.4.3.1. Latin examples seem to imply that there exists a certain difference between subcategorized and adjunct embedded clauses with respect to the possibility of disjoint reference of subjects but I shall not analyze this topic further here.

Other factors could be demonstrated by means of Czech examples, as presence or absence of modal verbs, the same or different ϕ -features of *pros*, tense and aspect of verbs, the use of different complementizers (see 2.5.3 and 2.5.4.2.1). There exist also other factors which establish or specify the coindexation possibilities, e. g. the use of adverbs. More about this topic see in Palek (1988) on Czech. In order to obtain a similarly profound information on the situation in Latin with respect to these factors, an analysis of a much larger corpus with sentences containing different combination of the factors would be necessary.

Semantic influences

Meaning of predicates and other clause members of the clauses in which *pro* and its antecedent occur must be in some way semantically related. Otherwise the recipient will not be able to interpret them as anaphorically related. Such a situation is shown in (153).

Based on the anthropocentric nature of human language, antecedents of *pro* are usually human (this is only a tendency, a counterexample is again (153), a supporting example (171)).

Context

Information from context is above all information about prominence of participants. Its definition was extended in (173), its functioning has been shown in examples (174) - (176).

Factual information gained from previous text is of importance as well, see (177).

Background knowledge in the most cases supports the interpretation gained on the basis of other factors. Sometimes it can block one of possible interpretations and become the decisive factor for the interpretation, but it happens rather seldom. (See example (174), as discussed in 2.5.7).

Finally, it could be shown in 2.5.8 that expletive *pro* exists in Latin.

This analysis represents only a first overview of factors which influence the use of *pro* in Latin. Further research into the topic is necessary, including a complete analysis of all types of embedded clauses (according to traditional classification), combined with the presence/absence of modal verbs, simultaneity/posteriority/anteriority of actions, possibly *pros* with different ϕ -features and an examination of the mutual influence of these factors. Still other factors are examined in Palek (1988). Czech examples presented here indicate that this approach is the right one.

2.6 Principles A and B - PRO

The empty subject of infinitive constructions PRO was described in 1.1.1.2. It is ascribed features [+ Anaphoric] and [+ Pronominal], see (13). As a result, it should underlie both Principle A (being [+ Anaphoric]) and Principle B (as [+ Pronominal]) of Binding Theory, consequently being simultaneously bound and free in its governing category. This discrepancy is solved by Binding Theory assigning PRO a special status formulated in the form of PRO theorem in (12) which says that PRO is ungoverned.

2.6.1 Infinitive constructions in Latin

If we wish to analyze the empty subject of infinitive constructions in Latin, we necessarily have to describe these constructions first. They show a great variability and occur both with empty and overt subjects. Moreover, they can be embedded or non-embedded.

In Latin, several types of infinitive constructions can be classified according to their embedding and subject:

(182)

(A) *Embedding of the infinitive construction*

(a) embedded

(b) non-embedded

(B) *Subject of the infinitive construction*

(a) overt (aa) Nominative

(ab) Accusative

(b) empty

An overview of the possible combinations of the above parameters shows the following table:

(183)

		embedded construction	non-embedded construction
overt subject	Nominative	Nominative with Infinitive	Historical infinitive
	Accusative	Accusative with Infinitive	Exclamatory infinitive
empty subject		Constructions with controlled or uncontrolled PRO	Exclamatory infinitive

Particular constructions will be described in 2.6.2 and 2.6.3.

2.6.2 Overt subject

First, constructions with an overt subject will be discussed. The most important and widespread of them are embedded constructions – Accusative with Infinitive (*Accusativus cum Infinitivo*) and Nominative with Infinitive (*Nominativus cum Infinitivo*, henceforth NcI). Historical infinitive and Exclamatory infinitive are less widespread.

2.6.2.1 Subject in Accusative

2.6.2.1.1 AcI-construction

According to the description of traditional grammars, the subject in AcI-constructions is overt, it is in Accusative Case, and the whole construction is embedded into a matrix clause. Matrix verbs of AcI-constructions can be transitive, intransitive, or impersonal (see examples in this paragraph).

However, AcI-constructions pose a problem to GB-Theory because of the way how Accusative subject is assigned Case. Subjects of finite clauses are claimed to receive their Nominative Case from the Inflection of the finite predicate. Inflection (Infl) is defined as the head of clauses and it consists of the features [\pm Tense] and [\pm Agreement]. Finite Infl is said to contain features [+Tense] and [+Agreement], whereas infinitive Infl lacks tense marking and agreement – it is [$-$ Tense] and [$-$ Agreement]. Inflection with [+Tense] and [+Agreement] features is able to assign the Nominative Case to subject.

Infl of infinitive clauses with features [$-$ Tense] and [$-$ Agreement] is not able to assign Case to the subject of infinitive construction. Accusative Case of subject in AcI-constructions must therefore have another source.

In Latin, both transitive and intransitive matrix verbs can subcategorize AcI-constructions. If matrix verb is transitive, Accusative can be assigned by matrix verb. Then we must ask whether the NP with Accusative Case is a D-structure object of the matrix clause or subject of the embedded clause. However, this solution is excluded with intransitive matrix verbs where the Accusative NP must be embedded subject at D-structure because there is no possibility of its being part of matrix clause and its Case must have another source. It should be furthermore noted that structures with both transitive and intransitive verbs are identical at

surface structure and are not distinguished by traditional grammar¹²¹. However, from the viewpoint of GB-Theory their differentiation is necessary.

Following underlying structures of AcI-constructions with transitive matrix verbs are possible:

(184)

(a) if we suppose that the Accusative NP is matrix object at D-structure, the whole construction is an object-control structure:

$$[IP NP V [NP_i] [IP PRO_i VP]]^{122}$$

Accusative is assigned by the matrix verb and in the embedded clause there is empty subject PRO, which is obligatorily coindexed with the matrix object, therefore giving raise to an object-control structure.

(b) If the Accusative NP is supposed to be embedded subject, Case can be assigned by means of ECM:

$$[IP NP V e [IP NP VP]]$$

The problem of this solution consists in the fact that there is no matrix object which is required by the subcategorization of the matrix verb (recall that there are no empty objects in Latin); therefore Theta Criterion¹²³ is violated because there is no argument to which matrix verb could assign theta role.

(c) In transformational terms, if the Accusative NP is embedded subject, it can be moved via subject-to-object raising, resulting in

$$[IP NP V NP_i [IP t_i VP]].$$

This solution, too, supposes an empty object position to be generated in order to obtain a landing site for movement, which is excluded by both Projection Principle and Theta Criterion (see Kerstens et al., s.v. *Raising to object*).

¹²¹ Diachronic analyses in terms of traditional grammar suppose Accusative Case of these constructions to be originally a direct object Case, and the infinitive is still a verbal noun. The other type of AcI-constructions where Accusative object is not subcategorized by the matrix verb is secondary.

¹²² In Latin, the complementizer in infinitive constructions is always empty, therefore I suppose CP-reduction to operate.

¹²³ Theta criterion is a condition which states that at D-structure each argument is in theta-position, and that each theta-position contains an argument. (Kerstens et al., s.v. *Theta criterion*)

Solution (a) seems to be the most plausible one and the structure proposed here will be adopted here for AcI-constructions with transitive matrix verbs, in a slightly modified version provided by Maraldi (1980) (see (186)A.)

The situation in AcI-constructions with intransitive matrix verbs is simpler. Accusative subject cannot originate in matrix clause, therefore only one structure is possible:

(185)

[_{IP} NP V [_{IP} NP VP]]

However, in such constructions a question arises about assignment of Accusative Case to the embedded subject which cannot originate in the matrix verb as it has no Accusative to assign. Infinitive Infl cannot be Case assigner as well. No more Case assigner seems to be present.

A similar division of AcI-constructions provides M. Maraldi (1980). However, Maraldi does not use the classification of matrix verbs into transitive and intransitive. She differentiates them instead into control verbs, with the feature [+Control], whose infinitival complement has PRO in subject position (Maraldi (1980): 57). Their structure is the same as the structure proposed in (184)(a).

The other group is non-control verbs whose infinitival complements have overt subjects. Such verbs have the feature [+F]¹²⁴ (and consequently [-Control]; verbs with [+Control] are [-F]). Verbs with the feature [+F] are then capable of assigning Accusative Case to the embedded subject¹²⁵ (Maraldi (1980): 58f.). Their structure is identical with the structure in (185).

Maraldi (1980) consequently classifies Latin verbs into following groups, according to their feature equipment:

(186)

(a) [+Control] [-F]

(b) [-Control] [+F]

(c) verbs with two lexical entries, one of them with [+F], the other with [-F]

A. [+Control] [-F] verbs

¹²⁴ Maraldi does not provide a nearer specification of the feature F.

¹²⁵ Accusative is assigned by means of ECM.

[+ Control] verbs (i. e. object-control verbs) are verbs *imperandi* (such as *iubere* (“to order”), *vetare* (“to forbid”), *sinere* (“to allow”), *pati* (“to bear with”), *cogere* (“to compel”), *prohibere* (“to hinder”), *hortari* (“to encourage”) or *admonere* (“to admonish”)). These verbs are transitive, having the structure proposed in (184)a. E. g.

- (187) *Iubeo te_i [PRO_i venire]* (example by Maraldi (1980): 60)
 order:1S you:AS PRO come:I
 “I order you to come.” (my translation, D. L.)

Accusative NP receives Case from the matrix verb, whose object it is, and in the embedded clause empty subject PRO occurs.

B. [–Control] [+F] verbs

Verbs marked [+F] are verbs *sentiendi* (*sentire* (“to feel”)), *dicendi* (*dicere* (“to say”)) and *voluntatis* (*velle* (“to want”))¹²⁶. These verbs are intransitive and they subcategorize AcI-constructions as a whole, having the structure proposed in (185). E. g.

- (188) *Dico [Marcum esse bonum]*. (example by Maraldi (1980): 65)
 say:1S Marcus:AS be:I good:AS
 “I say that Marcus is good.” (my translation, D. L.)

Embedded AcI-constructions in examples of indirect speech which have been discussed so far belong to this group.

Maraldi (1980) claims that verbs with the feature [+F] have ability to assign Accusative Case to embedded subjects. Nevertheless, she offers still another explanation of the facts later on.

In Maraldi (1983) she proposes a modification of Latin Infl (enrichment, if compared with English). Her notion of non-finite Latin Infl includes agreement in Case, gender and number between the subject and the infinitive (when the infinitive consists of perfect or future participle and the infinitive *esse* (“to be”)) and also tense. Latin AcI-constructions are therefore “less non-finite than their English counterparts” (Maraldi 1983: 171). Non-finite Infl could consequently assign Case to the Accusative subject.

¹²⁶ About *verba voluntatis* see (123) and 2.6.3.2.1.1.

Here, I assume her first solution to apply in AcI-constructions, namely to suppose a special class of verbs to have the feature [+F]. Problems arising in connection with “enriched Infl” hypothesis will be discussed in 2.6.2.1.2 and 2.6.2.2.2.

A similar problem arises in constructions with impersonal matrix verbs and embedded AcI-constructions, cf.

(180) *pro Apparet [patrem venire].*

pro is-obvious:3S father:AS come:I

“It is obvious that father is coming.” (my translation, D. L.)

Matrix verbs are in such cases impersonal constructions like *dictum est* (“it was said”), *dicitur* (“it is said”), *constat* (“it is well known”), *oportet* (“it is necessary”). Again, the Accusative Case can be assigned either by matrix verb with the feature [+F], or by the “enriched” Infl.

C. [+F]/[-F] verbs

Maraldi distinguishes one more class of Latin verbs, namely verbs of perception like *audire* (“to hear”) and *videre* (“to see”). These verbs have according to her two lexical entries, one of them with [+F], the other with [-F]. The difference between them is semantic: whereas [-F] verbs are actual perception verbs, [+F] verbs are used as “cognitive” verbs, in her terminology. Consequently, following sentence has two interpretations, according to the feature of the matrix verb:

(189) *audio puerum venire*

hear:1S boy:AS come:I

(i) *audio*_[+F] [*puerum venire*]

“I hear (I understood, I heard it said) that the boy is coming”

(ii) *audio*_[-F] *puerum*_i [*PRO*_i *venire*]

“I hear the boy coming.” (both translations are mine, D. L.)

[-F] variants of the verbs with the meaning of direct perception assign Accusative to their direct objects and the embedded infinitive construction has an empty subject PRO. [+F] vari-

ants of these verbs, i. e. “cognitive” verbs in Maraldi’s terminology, create indirect context, in fact indirect speech, and behave in the same way as verbs *dicendi* in (186)B.

2.6.2.1.2 Exclamatory infinitive

Another type of infinitive with an overt subject in Accusative Case is the so-called *exclamatory infinitive*. It differs from AcI in that it is not embedded. It is used in exclamations, often in the form of questions like in

(190) *'Mene incepto desistere victam, [...]?* (*Verg. Aen. 1, 37*)

me:AS-Pt intention:AbIS refrain-from:I defeated:ASFem

“Must I, defeated, fail of what I will, [...]?” (transl. John Dryden)

or

(191) *Tene [...] potissimum tibi partis istas depoposcisse [...]?* (*Cic. Rosc. Am. 95*)

you:AS-Pt most-likely you:DS part:AP this:AP have-selected:I

„you [...], should select this part above all others for yourself, [...]“

Here, the possibility of Case marking of the subject by another element except infinitive Infl is excluded as the clause is not embedded into another clause and the subject is the structurally highest element of it. According to the proposal of Maraldi (1983), we are forced to suppose that infinitive Infl is able to assign Accusative Case in Latin.

2.6.2.2 Subject in Nominative

2.6.2.2.1 NcI-construction

Another type of infinitive construction with overt subject is the one with subject in Nominative. The matrix verb of NcI-construction is mostly limited to the 3rd person and is used only with certain matrix verbs, especially verbs *dicendi* and *sentiendi*.

An example of an NcI-construction is e.g.

(192) *Marcus_i dicitur [t_i bonus esse]* (example from Maraldi (1980): 66)

Marcus:NSM say:3SPass good:NSM be:I

„Marcus is said to be good.“ (my translation, D. L.)

At the first sight, this construction does not pose any problem. According to GB-Theory, passive morphology of the verb “absorbs” structural Case, and therefore the object has to be moved to the subject position in order to receive the Case. Hence, the D-structure of (192) would be

(192)a. e dicere [Marcus bonus esse]

Surface structure is derived by movement of *Marcus* to subject position of matrix clause where it is assigned Nominative Case by the passive matrix verb *dicere*.

However, in 2.6.2.1.1 were verbs *dicendi* with the feature [+F] supposed to assign Accusative Case to embedded subjects. Were it so, structure (192) should not be possible because the NP *Marcus* would receive Accusative in the position of lower subject and no movement would be necessary. And actually, such constructions exist as well, having the D-structure in (192)a.:

(193) pro_{expl} *Dicitur* [*Marcum bonum esse*] (example from Maraldi (1980): 66)

e say:3SPass Marcus:ASM good:ASM be:I

„It is said that Marcus is good.“ (my translation, D. L.)

In this construction, Accusative is assigned by the matrix verb with the feature [+F], as supposed for this group of verbs in 2.6.2.1.1. We arrive therefore to a contradiction: whereas in (193) and (188) the verb *dicere* is supposed to have the feature [+F] which enables it to assign Accusative to embedded subject, in (192) the contrary is true: the verb *dicere* cannot be Case assigner because then there would be no necessity for the embedded subject to be moved to matrix subject position. In the same way, the supposition that non-finite Infl is Case assigner does not help us any further: whereas it can explain cases like (188) and (193), example (192) still remains unsolved.

At present I am not able to offer any explanation of this paradox and leave the question open.

2.6.2.2.2 Historical infinitive

The so-called historical infinitive is another infinitival construction with overt subject in Nominative. Historical infinitive is used in narration in place of indicative, either perfect or imperfect. The difference between NcI-constructions and historical infinitive consists in the fact that NcI-constructions are embedded, whereas historical infinitive occurs in matrix

clauses (similarly to the difference between AcI-construction and exclamatory infinitive, cf. 2.6.2.1.1 and 2.6.2.1.2). E. g.:

- (194) *interim cotidie Caesar Haeduos frumentum [...] flagitare* (*Caes. B Gall. 1, 16, 1*)
meanwhile daily Caesar:NS Aedui:AP corn:AS demand:I
“meanwhile Caesar was dunning the Haedui daily for the corn” (transl. Hale, Buck 1903)

Here again, we are forced to suppose that the Nominative subject receives its Case from the infinitive Infl, as we already did above with exclamatory infinitive in 2.6.2.1.2 because there is no other Case assigner available. However, the problem is that here, the assigned Case should be Nominative, whereas in examples in 2.6.2.1.2 it is Accusative. Here again, I am not able to offer any satisfactory solution of these paradoxical facts and leave the question open.

2.6.3 Non-overt subject

After examining the general situation in Latin infinitive clauses with respect to their subjects, I turn to the very topic of this paragraph, namely the empty subject of infinitive - PRO.

2.6.3.1 PRO in GB-Theory

Big PRO, the empty subject of infinitive clauses, was already shortly characterized in 1.1.1.2. Its existence is postulated under EPP which requires that all clauses have a subject.

PRO is supposed by Binding Theory to be both [+Anaphoric] and [+Pronominal] which results in a contradiction with respect to binding conditions: being [+Anaphoric], it should be bound in its governing category, whereas it should be free in it as [+Pronominal]. This contradiction is solved by Binding Theory by proposing the PRO-Theorem, repeated here:

- (12) PRO must be ungoverned (Haegeman (1994): 285)

PRO-Theorem saves PRO from the necessity of obeying binding Principles because it does not have a governor, and therefore no governing category in which it could be bound or free. Instead, its coindexation is governed by a special module of GB-Theory, the Control Theory. According to it, PRO is controlled, i. e. referentially dependent on a specific argument in the

matrix clause. If this argument is subject, we are dealing with *subject control*, if it is object, we speak of *object control*¹²⁷. PRO can also have arbitrary reference.

PRO is in fact supposed to occur in embedded clauses. In Latin, infinitival constructions (both with overt and empty subject) are more variable than in English, as we have seen above. This fact influences infinitive constructions with the empty subject PRO as well. In Latin, PRO can occur both in embedded and non-embedded clauses, as will be shown below.

In this work, PRO will be examined from the viewpoint of its anaphoric capacity. PRO can create anaphoric relations in text, similarly to other types of NPs, empty as well as overt. Nevertheless, its anaphoric capacity is rather restricted due to the syntactic and antecedency constraints put on its distribution (i. e. control). Its reference can be also arbitrary, therefore it would be not able to create an anaphoric relation at all. PRO is then called *arbitrary PRO*. An example of arbitrary PRO is the English

(195) [*PRO to behave oneself*] is important. (Haegeman (1994): 284)

Arbitrary PRO should not be discussed here. Other instances of PRO are of importance for anaphoric relations in texts, namely those which must have an antecedent in the sentence or text and which I will call *anaphoric PRO*. Anaphoric PRO is not a term of GB-Theory. I use it in the framework of this work to denote non-arbitrary use of PRO.

2.6.3.2 Anaphoric PRO

Anaphoric PRO is mostly controlled by a c-commanding item from the matrix clause, the so-called *controller*, as Control Theory predicts. The controller is the item on which PRO is anaphorically dependent, i. e. its antecedent. In this work, I prefer the use of the term *antecedent* instead of *controller*. As we will see, there also exist uncontrolled, yet anaphorically dependent instances of PRO (see 2.6.3.2.2).

The antecedent can be either subject or object of the matrix predicate. According to Control Theory, the possibility of anaphoric reference is limited to these two antecedents. The created anaphoric tie therefore cannot cross the boundary of the sentence.

In some cases anaphoric PRO can be also uncontrolled. It means that for some reason it does not have a c-commanding antecedent in its matrix clause (e. g. because the infinitive

¹²⁷ This formulation seems to imply that the controller of PRO is always local, i. e. in matrix clause. However, it can be also further in the text, as examples below demonstrate.

construction is not embedded at all – see below 2.6.3.2.2 uncontrolled PRO and also above in 2.6.2.1.2 and 2.6.2.2.2 about non-embedded infinitive constructions). Nevertheless it has an antecedent. The antecedent can be either in the same sentence but not c-commanding PRO (recall that controller is supposed to c-command PRO¹²⁸) or outside the sentence in the wider context.

First, control possibilities in Latin will be discussed.

2.6.3.2.1 *Controlled PRO*

To obtain a full picture of control possibilities in Latin, a complete analysis of Latin verbs with respect to their control properties would be necessary. To my knowledge, no such classification is available. I will not attempt it as it would surpass the frame of this dissertation. I shall show control possibilities in Latin, nevertheless without claiming completeness.

2.6.3.2.1.1 *Subject control*

First, some examples of subject control constructions will be presented¹²⁹:

(196) *cum civitas_i ob eam rem incitata armis ius suum PRO_i exsequi conaretur [...]*

(*Caes. B Gall. 1, 4, 3*)

when state:NSFem because-of that:ASFem thing:ASFem incensed:NSFem arm:AbP
right:ASNeu her-own:ASNeu PRO assert:I endeavour:3S

“While the state, incensed at this act, was endeavouring to assert its right by arms,
[...]”

(197) *[...] et, qua proximum iter in ulteriorem Galliam per Alpes erat, cum his quinque legionibus PRO_i ire pro_i contendit. (Caes. B Gall. 1, 10, 3)*

and which-way nearest:NS route:NS in further:AS Gaul:AS through Alps:AP was:3S
with these:AbP five legion:AbP PRO go:I pro hasten:3S

“and with these five legions marches rapidly by the nearest route across the Alps into
Further Gaul.”

(198) *[...] pro_i maturat ab urbe PRO_i proficisci [...]* (*Caes. B Gall. 1, 7, 1*)

pro hasten:3S from city:AbS PRO set-out:I

“[...] he hastens to set out from the city[...].”

¹²⁸ About the necessity of PRO being controlled see e. g. discussion in Haegeman (1994): 276ff.

¹²⁹ It should be noted that some of these verbs can also occur with finite embedded clauses, they are also not exclusively control verbs. According to Maraldi (1980): 63 infinitival embedded clause is chosen under the condition of subject identity, whereas if subjects are different, finite embedded clause obligatorily occurs.

According to Maraldi (1980): 63 also other verbs are subject control verbs, as *optare* (“to hope”), *curare* (“to attend”), *statuere* (“to establish”), *constituere* (“to decide”), *decernere* (“to decree”).

Modal verbs belong to the group of subject control verbs as well, e. g.

(199) *his rebus fiebat ut et minus late pro_i vagarentur et minus facile finitimis bellum PRO_i inferre pro_i possent; [...]* (Caes. B Gall. 1, 2, 4)

this:AbP thing:AbP happen:3S that and less widely pro range:3P and less easily neighbour:DP war:AS bring-in:I pro can:3P

“From these circumstances it resulted, that they could range less widely, and could less easily make war upon their neighbors; [...]”

Based on the examples, subject-control verbs could be semantically defined as verbs which in some way specify or modify the way of carrying out the action expressed by the embedded verb or such that express the attitude of the subject towards the action. The following classification of verbs in Kühner, Stegmann (1912b): 667ff. can be adopted¹³⁰:

(200)

(a) *Verben des Wünschens und Strebens*, e. g. *verba voluntatis*, further *praeferre* (“to prefer”), *cupire*¹³¹ (“to desire”), *optare* (“to hope”) (Kühner, Stegmann (1912b): 667f.)

(b) *Verben des Denkens und Beabsichtigens, Wagens und Beschließens*, e. g. *cogitare* (“to have in mind”), *conari* (“to endeavor”, cf. (196)), *audere* (“to dare”), *statuere* (“to establish”) (Kühner, Stegmann (1912b): 668)

(c) *Verben des Anfangens und Aufhörens, Fortfahrens und Beharrens, sich Gewöhnens und Pflegens*, e. g. *incipere* (“to begin”), *desinere* (“to cease”), *pergere* (“to continue”), *consuescere* (“to accustom”) (Kühner, Stegmann (1912b): 668f.). Verbs *contendere* (“to hasten”, cf. (197)) and *maturare* (“to hasten”, cf. (198)) can be included into this group.

¹³⁰ Kühner, Stegmann (1912b) do not classify infinitive constructions explicitly according to coindexation of their subjects and embedded subjects. However, it seems that the groups of verbs proposed by them are in fact a classification of subject-control verbs.

¹³¹ According to Maraldi (1985): 48, the verb *cupire* can take both infinitive construction with PRO and AcI-construction, being either [+Control] or [+F], in terms of Maraldi (1980), here presented in 2.6.2.1.1).

(d) *Verben des Könnens, Müssens, Sollens und des Gegenteils*, i. e. modal verbs, e. g. *posse* (“to be able”, cf. (199)), *quiere* (“to be able”), *debere* (“to be obliged”) (Kühner, Stegmann (1912b): 669).

Although this classification is not explicitly said to involve identity of matrix and embedded subjects, it can safely be accepted as such. All examples of subject control which I have found in my corpus or in literature (esp. in Maraldi (1980)) are covered by it.

The situation in the group of the so-called *verba voluntatis* is a little bit more complex. These verbs can also be followed by an infinitive with empty subject but they can subcategorize an AcI-construction as well. This group includes the verbs *velle* (“to want”), *malle* (“to prefer”) and *nolle* (“not to want”)¹³².

If the subjects of the matrix and embedded verbs are coindexed, the embedded subject can be empty, i. e. PRO:

(123)

- a. pro_i *Volo* PRO_i *venire*
 pro want:1S PRO come:I
 “I want to come.”

AcI-construction is used if the subjects are both coreferent or disjoint:

- b. pro_i *Volo* [eum_j *venire*]
 pro want:1S he:AS come:I
 “I want him to come.”

Another possibility which is used finite embedded clause with the complementizer *ut*. Subjects can be coreferent or disjoint.¹³³

¹³² These verbs were already shortly discussed in 2.5.3.

¹³³ Coreferential subjects in (123)b. and c. are used rather in special constructions, cf. Maraldi (1996). I am not going to discuss them here, as they do not contain PRO. Maraldi further claims that there is no complementary distribution between simple infinitive and AcI-construction depending on identity/non-identity of subjects.

- c. pro_i *Volo, ut* pro_j *veniat.*
 pro want:1S that pro come:3S
 “I want that he comes.”

E. g.

- (201) [...] *quam plurimas civitates suo beneficio* **PRO_i** *habere obstrictos* **pro_i** *volebat.*
 (*Caes. B Gall. 1, 9, 3*)
 as-much numerous:AP state:AP self's:AbS kindness:AbP PRO have:I indebted:AP
 pro wanted:3S
 “[...] he wished to have as many states as possible attached to him by his kindness toward them.”

Subject-control verbs can be classified into several groups based on the classification provided by Kühner, Stegmann (1912b), see (200). Their meaning can be semantically defined as specifying or modifying the way of carrying out the action expressed by the embedded verb or such that express the attitude of the subject towards the action. A special subgroup of subject-control verbs, *verba voluntatis*, can occur with infinitival constructions with PRO, AcI-constructions or finite embedded clauses. It should be noted that also other subject-control verbs can have finite embedded clauses as their complements.

2.6.3.2.1.2 Object control

The question of object control was already discussed, namely in 2.6.2.1.1 in connection with AcI-constructions. We have shown that these apparently identical constructions can have two different structures: if the matrix verb is intransitive, we have to do with an AcI-construction (problems of Case assignment which arise in such cases have been discussed in 2.6.2.1.1). The other type of constructions has transitive matrix verbs, and in such case we have to do with an object-control structure. Object control verbs can be semantically defined, in contrast with semantic definition of subject control verbs above, as expressing the endeavour of the subject of matrix predicate to make the object of matrix predicate to carry out action denoted by the embedded predicate.

E. g.

- (202) [...] *pro iubet* **eum_i** *de litteris publicis in absentem Sthenium* **PRO_i** *dicere*
 (*Cic. Verr. 2, 38, 92*)

pro order:3S he:AS about document:AbP public:AbP against absent:AS Sthenius:AS
PRO say:I

“he bids him make his statement about the public documents against Sthenius in his absence.”

Object-control verbs are verbs *imperandi*, as they were listed in (186)A., e. g. *iubere* (“to order”), *vetare* (“to forbid”), *sinere* (“to allow”), *pati* (“to bear with”), *cogere* (“to compel”), *prohibere* (“to hinder”), *hortari* (“to encourage”), *admonere* (“to admonish”). e. g. *iubere* („to order“), *imperare* („to order“) or *vetare* („to forbid“).

2.6.3.2.2 *Uncontrolled PRO*

Even if PRO is not controlled – in other words, it is not c-commanded by its antecedent and its antecedent is not determined by the control properties of the matrix verb – , its denotation can be non-arbitrary. It can be related to a specific antecedent established in the context (i. e. PRO is anaphoric). This kind of PRO is said to be subject to *optional control* (Haegeman (1994): 278). E. g.

(203) *[[PRO_i To behave myself] would be my_i pleasure]* (Haegeman 1994:278)

Here, PRO is controlled by the specifier *my* of the NP *my pleasure*, which of course cannot c-command it, although it is present in matrix clause.

We can find examples of “optional control”¹³⁴ in Latin as well. All PROs in subject clauses are uncontrolled because they do not have a control domain (Huang (1989): 200). Further, there exists a special kind of constructions with impersonal verbs in Latin which express state of mind and whose object (bearing the theta role of EXPERIENCER) is in Dative Case, therefore formally an indirect object (traditionally expressed, a “logical subject”). The formal subject of the construction is the infinitive construction. Examples of these verbs are

(204)

(a) *alicui in animo esse*

somebody:DS in mind:AblS be:I

„somebody has in mind“

¹³⁴ The term seems to be misleading to me – there is no control in the sense of Control Theory present in such cases and the choice of antecedent is by no means optional.

(b) *alicui licere*

somebody:DS be-allowed:I

„somebody is allowed“

(c) *alicui placere*

somebody:DS like/aim:I

„somebody likes/aims“

and the like. E.g.

- (205) *Caesari nuntiatur Helvetiis; esse in animo per agrum Sequanorum et Haeduorum iter in Santonum fines PRO_i facere, [...] (Caes. B Gall. 1, 10, 1)*

Caesar:DS announce:3SPass Helvetii:DP be:I in mind:AbS through district:AS Sequani:GP and Aedui:GP route:AS in Santones:GP territory:AP PRO make:I

“It is told Caesar, that the Helvetii intended to march through the country of the Sequani and the Aedui into the territories of the Santones, [...]”

- (206) *[...] rogare ut eius voluntate id sibi; PRO_i facere liceat. (Caes. B Gall. 1, 7, 3)*

ask:I that his:GS will:AbS it:AS themselves:DP PRO do:I is-allowed:3SPass¹³⁵

“[...] that they requested, they might be allowed to do so with his consent.”

These examples show that even if PRO is not controlled, its antecedent can be in certain constructions unambiguously determined in terms of syntactic structure. However, in some cases the not-controlling antecedent is not determined by syntactic structure:

- (207) I. *ad eas res conficiendas Orgetorix_i deligitur. [...]*

II. *in eo itinere pro_i persuadet Castico_j Catamantaloedis filio Sequano,*

III. *[...], ut regnum in civitate sua pro_j occuparet, [...];*

IV. *itemque Dumnorigi_k Haeduo, [...],*

V. *ut idem pro_k conaretur pro_i persuadet [...].*

VI. *perfacile factu esse illis_{j+k} pro_i probat conata PRO_{i+j+k} perficere [...]*

(Caes. B Gall. 1, 3, 2 - 6)

¹³⁵ This example is part of indirect speech; therefore the infinitive *rogare* in the matrix clause.

- “I. Orgetorix is chosen to complete these arrangements. [...]
- II. on this journey he persuades Casticus, the son of Catamantaledes (one of the Sequani, [...]
- III. to seize upon the sovereignty in his own state, [...]
- IV. and he likewise persuades Dumnorix, an Aeduan, [...]
- V. to attempt the same, [...]
- VI. He proves to them that to accomplish their attempts was a thing very easy to be done, [...]”

As PRO[VI] is in the subject embedded clause, it cannot be controlled by any item in the matrix clause. The antecedent is in the context. It is identified as the group of the three men – Casticus_j, Dumnorix_k and the speaker of the indirect speech Orgetorix_i. The antecedent of PRO[VI] is therefore split¹³⁶.

It could be argued that PRO [VI] is an example of arbitrary PRO, being embedded into an impersonal construction (*perfacile factu esse*). However, in my opinion are the intended actors of the infinitive *perficere* the three persons introduced in the text. Czech translation supports this interpretation:

(207)a. [...] Orgetorix oběma tvrdil, že své záměry *pro* uskuteční velmi lehce, [...] (překl. J. Kalivoda)

Although the translation does not use an infinitive construction, as for the actor of the action of *perficere*, it is certainly not arbitrary. (However, in Czech it is not possible to decide whether antecedent of *pro*, in place of Latin PRO, is *Orgetorix* or the group consisting of three participants mentioned above.)

Other examples of uncontrolled/optional PRO can be found in exclamatory infinitives without an overt subject:

- (208) I. **mihi** vero et locum quem opto ad id quod volumus dederis [...].
- II. nam illa Sili et Drusi non satis οἰκοδεσποτικὰ mihi videntur.
- III. quid enim? **PRO** sedere totos dies in villa?
- IV. ista igitur malim, primum Othonis, deinde Clodiae. (Cic. Att. 12, 44)

¹³⁶ I shall not examine the possibilities of plural antecedents here.

(About buying a country house)

“I. For myself, you will have secured for me not only a site for the purpose I have at heart, but also a solace for my old age.

II. For the properties of Silius and Drusus do not seem to me to be sufficiently suited to a paterfamilias.

III. What! spend whole days in the country house!

IV. My preference therefore is-first Otho's, second Clodia's.”

This example shows that the antecedent of PRO can be found only on the base of information gained from previous text. The antecedent of PRO[III] is the writer, denoted by the 1st person pronoun in clause [I]. It might be argued that the reference is arbitrary but it does not seem to me to be the right interpretation.

The antecedent of an uncontrolled anaphoric PRO can be determined either on basis of structural considerations, see (205) and (206), although the antecedent does not correspond to the definition of controller. In other cases the antecedent can be understood from context, cf. (207) and (208).

2.6.3.3 Expletive PRO

Latin indirect speech often has the form of infinitive construction (cf. 2.3.2.1.1.5). As it is so, there can arise situations where a construction which, directly expressed, has as its subject expletive *pro* (cf. 2.5.8), has the form of infinitive, consequently with an expletive PRO as subject. In (209), the infinitive clause would in direct context have the form *non pro_{exp} est dubium*:

(209) [...] **PRO_{expl}** *esse dubium, quin totius Galliae plurimum Helvetii possent; [...]*
(*Caes. B Gall. 1, 3, 7*)

not PRO be:I doubt that-not whole:GS Gaul:GS most:AS Helvetii:NP can:3P

“that there was no doubt that the Helvetii were the most powerful of the whole of Gaul;”

(Note that in English translation an expletive is used as well.)

2.6.4 Summary

In the first part of this paragraph infinitive constructions with overt subjects in Latin were described. Overt subjects can be either in Accusative or Nominative Case, both embedded and non-embedded.

Embedded constructions with overt Accusative subject, *Accusative cum infinitivo* in traditional grammar, were discussed in 2.6.2.1.1. If examined from the viewpoint of GB-Theory, two types of structures must be differentiated, depending on properties of matrix verbs. If matrix verb is transitive, the construction is an object-control structure, cf. (184)a.:

[_{IP} NP V [_{NP_i}] [_{IP} PRO_i VP]].

If matrix verb is intransitive, the construction is an AcI-construction, where the Accusative NP is subject of the embedded clause, cf. (185):

[_{IP} NP V [_{IP} NP VP]].

In this type of constructions, a problem arises with respect to Case assignment to the embedded subject. As matrix verb is intransitive, Accusative cannot be assigned via ECM or by means of raising to object.

M. Maraldi in Maraldi (1980) offers a solution to this problem. She assigns features [\pm Control] and [\pm F] to matrix verbs. Feature [Control] marks the ability/inability of the verb to be object-control verb, the feature [\pm F] means possibility/impossibility of the verb to assign Accusative Case to the embedded subject. Maraldi differentiates matrix verbs according to features into (a) [+Control] [-F], which are “classical” object-control verbs (see (186)A.); (b) [-Control] [+F] verbs, which subcategorize the whole AcI-constructions. Above all verbs *dicendi* and *sentendi* belong to this group, cf. (186)B.); (c) verbs with two lexical entries, one of them being [+F], the other [-F] (see (186)C.). Verbs like *audire* (“to hear”) and *videre* (“to see”) belong here. [-F] variants of the verbs with the meaning of direct perception assign Accusative to their direct objects and the embedded infinitive construction has an empty subject PRO. [+F] variants of these verbs, i. e. “cognitive” verbs in Maraldi’s terminology, create indirect context and behave in the same way as verbs *dicendi* from (186)B.

In Maraldi (1983) the conception of feature [\pm F] was abandoned in favor of another hypothesis. It modifies and enriches Latin Infl and supposes it to have the facility to assign Accusative Case to embedded subjects. Nevertheless, I find the “[+F]”-hypothesis more plausible with respect to AcI-constructions.

The verb *dicere* (“to say”) poses a problem to both of the hypotheses. Following constructions are possible:

- (188) *Dico [Marcus esse bonum].*
 say:1S Marcus:AS be:I good:AS
 “I say that Marcus is good.” (my translation, D. L.)
- (192) *Marcus_i dicitur [t_i bonus esse].*
 Marcus:NSM say:3SPass good:NSM be:I
 „Marcus is said to be good.“ (my translation, D. L.)
- (193) *e Dicitur [Marcus bonum esse]*
 e say:3SPass Marcus:ASM good:ASM be:I
 „It is said that Marcus is good.“ (my translation, D. L.)

In (188) and (193) both the hypotheses function. (192), however, is a counterexample to both of them. If there were a possibility for the NP *Marcus* to obtain Case in its lower position, as both hypotheses predict, there would be no need to move to matrix subject position in order to be assigned Nominative. (As *dicere* is intransitive, it cannot be supposed that the NP *Marcus* is generated in matrix object position and moved from there; neither it can be base-generated in the matrix subject position, the verb being passive.)

Another type of construction with an overt subject in Accusative is *exclamatory infinitive* (see 2.6.2.1.2). As it is a non-embedded infinitive construction, it provides support to the “enriched Infl”-hypothesis by Maraldi (1983).

The construction of *Nominativus cum infinitivo*, which is an embedded infinitive construction with overt subject in Nominative, was described in 2.6.2.2.1. It is usually used with verbs *dicendi* and *sentiendi* in the 3rd person. If we adopt either of the hypotheses by Maraldi discussed in 2.6.2.1.1, we would have to encounter the problem already mentioned – namely that of assigning Case to the moved NP.

There exist a non-embedded infinitive construction with overt subject in Nominative (see 2.6.2.2.2), the so-called *historical infinitive*, used in narratives. Similarly to exclamatory infinitive, subject of these constructions must be assigned Case by non-finite Infl. The problem is that in historical infinitive, it should be Nominative instead of Accusative, which was the Case assigned to subject of non-embedded infinitive construction in case of exclamatory infinitive.

The situation in infinitive constructions is rather complex with respect to Case assignment. Apparently identical constructions have either Nominative or Accusative, without any

structural differences which could decide which Case is appropriate in which example (cf. historical vs. exclamatory infinitive). Hypotheses provided by Maraldi (1980) and Maraldi (1983) do not cover all facts. At present, I am not able to provide a more plausible explanation.

PRO in Latin infinitive constructions has been shown to be anaphoric¹³⁷ or non-anaphoric (i. e. expletive). Anaphoric PRO (discussed in 2.6.3.2) can be either controlled, as Control Theory requires, i. e. its antecedent¹³⁸ is determined by the control properties of the matrix verb, or not controlled. In 2.6.3.2.1.1, a tentative overview of subject-control verbs in Latin is provided, without however claiming completeness. Subject-control verbs were semantically defined as verbs which in some way specify or modify the way of carrying out the action expressed by the embedded verb or such that express the attitude of the subject towards the action. A classification of these verbs by Kühner, Stegmann (1912b) was introduced in (200), including (a) „*Verben des Wünschens und Strebens*“, (b) „*Verben des Denkens und Beabsichtigens, Wagens und Beschließens*“, (c) „*Verben des Anfangens und Aufhörens, Fortfahrens und Beharrens, sich Gewöhnens und Pflegens*“, and (d) „*Verben des Könnens, Müssens, Sollens und des Gegenteils*“ (including also modal verbs).

Object-control constructions are described in 2.6.3.2.1.2. As was already stated in (186)A., they are usually introduced by verbs *imperandi*.

Examples of uncontrolled, yet anaphoric PRO in 2.6.3.2.2 show that antecedent of PRO can be determined in other terms than those of Control Theory: it can be determined structurally, without however c-commanding PRO (see verbs with EXPERIENCER arguments in Dative in (204) and examples (205) and (206)). Antecedent can be determined also non-structurally, on the basis of information from context (as in (207) and (208)).

In 2.5.8 examples of expletive *pro* were described. With respect to the fact that in indirect speech declarative clauses are expressed by means of infinitive constructions (see 2.3.2.1.1), if they contain expletive *pro*, this must be “transformed” into expletive PRO (cf. (209) in 2.6.3.3).

¹³⁷ *Anaphoric PRO* is my term.

¹³⁸ I use the term *antecedent* instead of the usual *controller*, in order to account also for the anaphoric properties of non-controlled PRO.

2.7 Principle B – pronouns: some remarks

In this chapter I will describe conditions put on the use of Latin pronouns inside sentences and across sentence boundary. Principle B does not allow c-commanding antecedents of pronouns inside their governing category (cf. (14) in 1.1.1.2). On the other side, anaphorically used pronouns need to have antecedents. From Principle B it follows that these antecedents are either outside the governing category (i. e. roughly speaking clause) or they are inside it but do not c-command the pronoun.

It can be said that Latin pronouns except *ipse* obey Principle B (as will be clear from examples) and I will not discuss this issue further. (*Ipse* will be presented in 2.7.2.1.) Instead, I shall analyze pronouns from the point of view of their use in texts.

For pronouns it is also possible to pick up their referent from the non-linguistic context, i. e. they do not have to have any antecedent in the text at all. These uses are traditionally called “demonstrative” and in Halliday, Hasan (1976) “exophoric”, cf. 1.1.2.1¹³⁹. This situation of course cannot be captured by Binding Theory at all. In their exophoric or demonstrative use pronouns of course do not create anaphoric relations within the text, therefore analysis of exophoric use of pronouns is not pursued here¹⁴⁰.

2.7.1 System of Latin anaphoric/demonstrative pronouns¹⁴¹

Pronouns are traditionally divided into demonstrative and anaphoric pronouns. This division goes back already to the Greek grammarian Apollonios Dyskolos (cf. 1.1.1.1). Demonstrative pronouns are those which identify objects which are focused on by deixis, “pointing” at present objects. As for anaphora, there are different definitions by different authors: it can be either used in the sense defined here, i. e. as a means of creating texture by coreferentiality, or, taking the deictic part as the starting point, as “pointing” to an object which is not present but already known or an image of such an object in the speaker’s mind (cf. Jedličková (1962)).

There are usually several demonstrative pronouns (which can be used anaphorically as well) and only one anaphoric pronoun in the system of language. Demonstrative pronouns in Indo-European languages are usually organized according to spatial/distance principle¹⁴².

¹³⁹ However, there exists also pronoun with solely anaphoric function, cf. (210).

¹⁴⁰ With respect to the text used for analysis it would be extremely difficult; theatre plays would have to be used which simulate actual language use.

¹⁴¹ Other types of pronouns, i. e. relative, indefinite and interrogative pronouns (in traditional terms) are omitted.

¹⁴² Sometimes it is supposed that there is a relation between the system of demonstratives and system of grammatical persons but Jedličková (1962): 13 and works quoted there show that this relation is secondary.

Objects are identified relatively according to their distance to the speaker. Systems of demonstrative pronouns have in Indo-European languages two (usual in modern Indo-European languages) or three members (Jedličková (1962): 12). Latin belongs to languages with a three-member system of demonstratives (see (210)).

Members of the Latin system of pronouns are the following:

(210)

(a) exclusively anaphoric *is, ea, id*¹⁴³ (“this”, “he”) which is mostly used in situations where in other languages 3rd person personal pronouns occur. There are no special forms for the function of 3rd person pronoun in Classical Latin. 3rd person pronoun evolved from demonstrative pronouns during the transition from Latin to Romance languages (see Jedličková (1962)).

(b) demonstratives

- *hic, haec, hoc* (“this”; used for an object close and familiar to the speaker),
- *iste, ista, istud* (“that one”; used for an object close and familiar to the addressee),
- *ille, illa, illud* (“that (one)”; used to denote a distant person/object).

Jedličková (1962): 14 describes the function of demonstrative pronouns in a slightly different way: (1) *hic* is used in connection with objects situated nearby the speaker, belonging to his sphere, (2) *iste* is used for objects situated opposite to the speaker, but not belonging to his sphere directly, and (3) *ille* occurs in connection with distant objects situated probably outside the visual field of the speaker, eventually on the opposite side.

(c) identifying *idem, eadem, idem* (“the same”)¹⁴⁴ and

(d) intensifying *ipse, ipsa, ipsum* (“self”).

In the further evolution of Latin and later on in Romance languages, functions of pronouns changed but the nature of the changes is not topic of this work.

¹⁴³ For all pronouns there are forms of Nominative singular of masculine, feminine, and neutrum genders (in this order). In the further text, only the form of masculine will be used to refer to the pronouns.

¹⁴⁴ It is in fact purely anaphoric as well, cf. 2.7.2.4.

It should be pointed out that all pronouns examined here can be used both as NP and [Spec, NP]. Here, only their occurrence as NPs will be taken into account; their anaphoric functioning in the position [Spec, NP] see e. g. in Fugier (1991), here it is mentioned in 2.8.3.1.

Because anaphoricity is preferably demonstrated in narrative texts, I have chosen first and second books of Caesar's *Commentarii* for the analysis. I have classified the occurrences of each pronoun according to antecedent possibilities: whether antecedent is inside or outside the clause, and further whether it is subject or non-subject. The second criterion seems to be relevant rather for intrasentential than for intersentential anaphors. A third criterion was the subject/non-subject character of pronominal postcedents. Other possibly influential factors were omitted, e. g. the distance between the occurrences of antecedents and postcedents¹⁴⁵. The antecedency/postcedency possibilities which occurred in the text are presented in the following table (examples should be given below):

(211)

Intrasententially			Intersententially		
antecedent	postcedent	form of expressing postcedent	antecedent	postcedent	form of expressing postcedent
subject	subject	<i>ipse, pro</i>	subject	subject	<i>hic, ille, ipse, is, pro</i>
subject	non-subject	<i>ille*, ipse, is</i>	subject	non-subject	<i>hic, ipse, is</i>
non-subject	non-subject	<i>hic*, ille, ipse*, is</i>	non-subject	non-subject	<i>hic, ipse, is</i>
non-subject	subject	<i>ille*, pro</i>	non-subject	subject	<i>hic, ipse</i>

(Asterisks denote examples where the clause with the appropriate pronoun is either a parenthesis or it is marked off by a semicolon, therefore not being a "proper" part of the sentence as adjunct or complement embedded clauses are.)

A few remarks concerning table (211) are necessary. First of all it should be emphasized that I do not claim completeness at all. (211) must be understood only as a result of analysis of a concrete text, and as such as a starting point for some future research. An absence of a pronoun therefore does not mean that it does not occur in the position at all but

¹⁴⁵ Bolkestein and Van de Grift (1994) analyze regularities in the use of pronouns, NPs and *pro* in subject position from the viewpoint of functional grammar. Parameters chosen by them are: (1) quantitative measurement of distance between antecedent and postcedent according to Givón, (2) presence of other candidates for continuing reference (cf. here the term of intervening participant in the definition of prominent participant in (114), (3) the pragmatic status of the antecedent (see 2.8.2), (4) the position of subject expression in a thematic chain (first, second and following positions in the chain are differentiated), and (5) the change of subject.

rather that it does not occur very frequently and it was not contained in the examined sample. The following text has therefore the form of remarks concerning individual pronouns rather than a full-value analysis of the problem. Questions will be suggested which should be examined in a prospective future research. (Note also that the pronouns *idem* and *iste* were not found in the text in the form of NP at all, therefore they were excluded from the analysis.) A research on a similar topic from the viewpoint of functional grammar is shortly presented in fn. 145 and further in 2.8.2. Finally it must be stressed that the results of this analysis have by no means the form of rules but rather tendencies or preferences.

Inside sentence

Inside sentence, *pro* is the usual option if postcedent is in subject position (cf. also 2.5 about *pro*). We have said above that in unmarked cases, *pro* is used for second and following occurrences of the same participant in the subject position if subjects are coindexed (see 2.5.2). We have even seen that in certain environments – in coordinate and asyndetical constructions, see 2.5.4.1, and if required by the predicate referential structure, cf. 2.5.3 – the use of *pro* is even a rule. However, pronouns are not prevented from occurring in these positions by any structural considerations – recall that both pronouns and *pro* underlie Principle B of Binding Theory, and whatever the appropriate definition of governing category is, it must be the same for both of them. Consequently, pronouns can be prevented from occurring in certain positions only by other than structural reasons. Indeed, it seems that there are such reasons, as no pronouns except *ipse* are found in postcedent subject positions inside sentences¹⁴⁶. This fact supports the prominent-participant-hypothesis introduced in (114), modified in (173) in 2.5.6. Coindexed participants occurring intrasententially in postcedent subject positions are certainly prominent, and accordingly are expressed by *pro*, not by pronouns. The use of pronouns for prominent participants would be marked¹⁴⁷. The status of *ipse* which violates this supposition will be discussed in 2.7.2.1.

Across sentence boundary

If both antecedent and postcedent are subjects, *pro* is the preferred variant, similarly to the situation inside sentences. However, different pronouns can be used as well and *ipse* is not the only possibility, as it was inside sentence. The reason is probably that pronoun instead of

¹⁴⁶ *Ille* that occurs in (211) as postcedent subject is denoted by asterisk, i. e. it is marked off by a semicolon, therefore being on the transition behind sentence and intersentential use.

¹⁴⁷ According to Avoid Pronoun Principle (e. g. in Haegeman (1994): 217), pronouns in languages which allow *pro*-drop are only used in subject position when they receive focal stress or some kind of contrast is expressed.

pro can be used also for other reasons that focal stress or contrast (cf. fn. 147). According to the functionalist analysis by Bolkestein and Van de Grift (1994), pronouns are used rather than *pro* at points where discourse develops in a “non-default” way (e. g. introduction of Future Topic (more see in 2.8.2), or switch in perspective) (Bolkestein, Van de Grift (1994): 298).

If antecedent is non-subject and postcedent is subject, *pro* does not occur. It is probably because prominency is not so strong in non-subjects like in subjects and it must be in a way established (or at least strengthened). Note that inside sentences, *pro* is still the preferred variant.

2.7.2 Individual pronouns

2.7.2.1 Ipse

The status of *ipse* is very special, if compared with other pronouns. It was illustrated several times in connection with other topics.

In 2.3.2.1.1.3, the use of *ipse* as alternative to logophoric reflexives was shown (examples (59), (67) and (68)). Its antecedent is determined in the same way as that of logophoric reflexives, namely on the basis of the antecedent’s role in the text as participant-speaker.

In 2.4.2.2.2, *ipse*, being a part of reciprocity marker *inter ipsos*, had local (not c-commanding) antecedent (see (105) and (108)). Moreover, it seems that *ipse* must necessarily occur together with reflexive for the reflexive to be capable of reciprocal interpretation (see examples (90), (96) and (97) in 2.4.2.1.2)

Ipse is the only pronoun which can be coindexed with a preceding subject in coordinated and asyndetical constructions. Usually, only *pro* occurs in this position under coindexation. Generally, it can be said that generalization (129) concerning coindexation of empty subjects in second and following clauses with preceding subjects holds also the other way round: if subjects shall be coindexed, than the non-first must be empty. Examples (96) and (212) contradict it:

(212) *qua de causa Helvetii; quoque reliquos Gallos virtute praecedunt, quod fere cotidianis proeliis cum Germanis pro; contendunt, cum aut suis finibus eos pro; prohibent aut ipsi; in eorum finibus bellum gerunt. (Caes. B Gall. 1, 1, 4)*

“for which reason the Helvetii also surpass the rest of the Gauls in valor, as they contend with the Germans in almost daily battles, when they either repel them from their own territories, or **themselves** wage war on their frontiers.”

In (176), *ipse* stands for prominent participant, even if otherwise it is denoted by *pro* in that part of text.

According to (211), *ipse* is the only pronoun which alternates with *pro* as postcedent in subject position inside sentences.

The reason for the use of *ipse* can be found in its character as “das Pronomen des Gegensatzes” (Kühner, Stegmann (1912b): 628). According to Bertocchi (2000), the intensifying force of *ipse* consists in providing contrastive stress to the elements in its focus (Bertocchi (2000): 15). If we consider its use in subject position of coordinated or asyndetical constructions with coindexed subjects, where otherwise only *pro* occurs; further that it is used to denote prominent participant otherwise expressed by means of *pro*; or the fact that it is the only pronoun used as intrasentential postcedent in subject position, similarly to *pro*, we necessarily have to conclude that *ipse* must have something in common with *pro* that other pronouns lack and that makes *ipse* similar to *pro*. An obvious explanation is that both *ipse* and *pro* are used for prominent participants; examples of the use of *ipse* quoted above support this hypothesis. The difference between the use of *ipse* and *pro* consists then in the fact that *ipse* is used to express also contrast or stress except prominency, whereas *pro* does not function in such a way. The hypothesis is further assisted by the use of *ipse* in logophoric contexts because participant-speaker can certainly be concerned as prominent participant in such contexts.

Other pronouns can then be said to be used rather for non-prominent participants (although this does not hold generally, cf. 2.8.2).

This hypothesis, however, does not explain the use of *ipse* as a part of reciprocity markers with local antecedents. Moreover, it seems that this supposition holds predominantly intrasententially (cf. (211)).

Following example illustrates the intersentential use of *ipse* denoting prominent participant, and expressing contrast:

(213) *Postquam id animadvertit, copias suas **Caesar**_i in proximum collem subducit equitatemque, qui sustineret hostium impetum, **pro**_i misit. **ipse**_i interim in colle medio triplicem aciem instruxit legionum quattuor veteranarum; [...]* (Caes. B Gall. 1, 24, 1)

“**Caesar**, when he observes this, draws off his forces to the next hill, and sent the cavalry to sustain the attack of the enemy. **He himself**, meanwhile, drew up on the middle of the hill a triple line of his four veteran legions [...]”

2.7.2.2 Hic

This pronoun is traditionally described as that which “deutet auf einen Gegenstand, der sich im Bereiche oder in der Gegenwart des Redenden befindet” (Kühner, Stegmann (1912b): 619), i. e. demonstratively. They further state that “*hic* kann also nur gebraucht werden, wenn der Redende den Gegenstand als einen gegenwärtigen nachdrücklich hervorheben und gleichsam vor Augen stellen will” (Kühner, Stegmann (1912b): 621). It means that they describe *hic* as an exclusively demonstrative pronoun, opposite to *is* which is anaphoric (Kühner, Stegmann (1912b): 621). However, this is not exact, as examples will show (and, indeed, as more recent authors claim, cf. e. g. Bolkestein, Van de Grift (1994)).

In my corpus, the antecedent of *hic* scarcely occurs inside the sentence boundary. All examples I have found are rather on the boundary between intrasentential and intersentential group, being either parenthesis or marked off by a semicolon. Cf.

- (214) I. *Locutus est pro his Diviciacus Haeduus:*
II. *Galliae totius factiones_i esse duas;*
III. *harum_i alterius principatum tenere Haeduos, alterius Arvernos.*
(*Caes. B Gall. 1, 31, 3*)

- “I. For these Divitiacus the Aeduan spoke and told him:
II. ‘That there were two **parties** in the whole of Gaul:
III. that the Aedui stood at the head of one of **these**, the Arverni of the other.’”

With textual antecedents, *hic* is used frequently, e. g.

- (215) I. *non nulli pudore adducti, ut timoris suspicionem pro vitarent, remanebant.*
II. *Hi neque vultum fingere neque interdum lacrimas tenere poterant: [...]*
(*Caes. B Gall. 1, 39, 3 - 4*)

- “I. **some**, influenced by shame, stayed behind in order that they might avoid the suspicion of cowardice.

II. **These** could neither compose their countenance, nor even sometimes check their tears: [...]"

One important kind of anaphoric use of *hic* is its combination with *ille* in order to differentiate two preceding participants. Here, the spatial principle which was shortly described in connection with demonstrative use of pronouns (cf. (210)) works: whereas *ille* usually denotes the participant which is in the text further away, like in its demonstrative use, *hic* is used for the participant which is closer, similarly to the use of *hic* as denoting an object close and familiar to the speaker¹⁴⁸. Cf.

- (216) I. **Caesar_i** *beneficiis ac munificentia magnus habebatur, integritate vitae Cato_j*,
II. **Ille_i** *mansuetudine et misericordia clarus factus,*
III. **huic_j** *severitas dignitatem addiderat. (Sall. Cat. 54, 3)*

“I. Caesar grew eminent by generosity and munificence; Cato by the integrity of his life.

II. Caesar was esteemed for his humanity and benevolence;

III. austereness had given dignity to Cato.”

Hic is also used, mostly together with *omnis* („all“), to create plural from several singular (or plural) antecedents. *Hic* seems to be the mostly used pronoun for this function. A typical example is (217):

- (217) I. *Gallia est omnis divisa in partes tres,*
II. *quarum unam incolunt Belgae_i,*
III. *aliam Aquitani_j,*
IV. *tertiam [qui ipsorum lingua Celtae, nostra Galli appellantur]_k.*
V. **Hi omnes_{i+j+k}** *lingua, institutibus, legibus inter se differunt. (Caes. B Gall. 1, 1,1-2)*

“I. All Gaul is divided into three parts,

II. one of which the Belgae inhabit,

III. the Aquitani another,

IV. those who in their own language are called Celts, in our Gauls, the third.

¹⁴⁸ As De Jong (1996) states, textual deixis has much in common with local deixis. Just as local deixis it can have introductory function, introducing the referent into the universe of discourse, and locality function, placing the referent on some scale of proximity. (De Jong (1996): 508).

V. All these differ from each other in language, customs and laws.”

From the examples it is obvious, and other examples in my corpus support it, that the antecedent of *hic* is never too far away in the text.¹⁴⁹ If it were so, it would further strengthen the hypothesis which claims anaphoric use of pronouns to be subject to spatial differentiation of their demonstrative use.

2.7.2.3 Ille

According to Kühner, Stegmann (1912b): 619f., *ille* is an opposite to *hic*. It is used both inside sentence and across sentence boundary. However, intersententially only examples with subject both as antecedents and postcedents occur in my corpus:

- (218) I. *Sub vesperum Caesar portas claudi militesque ex oppido exire iussit,*
II. *ne quam noctu **oppidani**; a militibus iniuriam acciperent.*
III. ***illi**; ante inito ut intellectum est consilio, [...] omnibus copiis repente ex oppido eruptionem fecerunt. (Caes. B Gall. 2, 33, 1 - 2)*

“I. Toward evening Caesar ordered the gates to be shut, and the soldiers to go out of the town,
II. lest **the towns-people** should receive any injury from them by night.
III. **They** [the Aduatuci], by a design before entered into, as we afterwards understood, [...] suddenly made a sally from the town with all their forces [...].”

Inside sentence, the combination of subject antecedent and postcedent is not possible (cf. discussion of prominence in 2.7.1). Other combinations are documented, e. g.:

- (219) I. *quibus proeliis calamitatibusque fractos,*
II. *qui et sua virtute et populi Romani hospitio atque amicitia plurimum ante in Gallia potuissent,*
III. *coactos esse **Sequanis**; obsides dare nobilissimos civitatis et iure iurando civitatem obstringere,*
IV. *sese neque obsides repetituros neque auxilium a populo Romano imploratuos neque recusatuos,*

¹⁴⁹ Ross (1996) claims that *hic* occurs predominantly in sentence-initial position; note that examples quoted here support this view.

V. *quominus perpetuo sub illorum; ditione atque imperio essent.*
(*Caes. B Gall. 1, 31, 7*)

- I. And that broken by such engagements and calamities,
- II. although they had formerly been very powerful in Gaul, both from their own valor and from the Roman people's hospitality and friendship,
- III. they were now compelled to give the chief nobles of their state, as hostages to the **Sequani**, and to bind their state by an oath,
- IV. that they would neither demand hostages in return, nor supplicate aid from the Roman people, nor refuse
- V. to be forever under **their**; sway and empire.”

However, it should be mentioned that in several examples which I have classified as intra-sentential antecedent and postcedent are marked off by a semicolon (cf. discussion in 2.7.1).

Ille is used in combination with *hic* to differentiate two participants, see (216) in 2.7.2.2.

Ille has in some cases also the connotation “famous”, sometimes also negative “notorious” (Kühner, Stegmann (1912b): 622).

2.7.2.4 **Idem**

From the table (211) it is clear that the pronoun *idem* did not occur in the texts examined; at least not in the form of NP (recall that the use as [Spec, NP] was not included into the analysis). *Idem*, which explicitly expresses identity of antecedent and postcedent, is in fact a purely anaphoric pronoun, exactly as *is* (cf. 2.7.2.6). Preferably, it is used in the [Spec, NP] position.

2.7.2.5 **Iste**

As was noted in (210)b., *iste* is used in connection with the addressee. According to Kühner, Stegmann (1912b) it follows that it is often used in speeches, dialogues and letters (Kühner, Stegmann (1912b): 619).

Unfortunately, with respect to the narrative character of the texts chosen¹⁵⁰, the pronoun *iste* did not occur at all in the form of an NP.

¹⁵⁰ About the choice of texts for the analysis see 2.7.1 and also 2.1.

Iste is claimed to be sometimes used to express disdain, see Kühner, Stegmann (1912b): 621, although *hic* and *ille* can express this meaning as well, if it is clear from the context that this connotation is attempted.

2.7.2.6 *Is*

Kühner, Stegmann (1912b): 621 state that *is* is the only “purely” anaphoric pronoun in Latin. However, it was claimed here that this is not exact and that *idem* (see 2.7.2.4) is exclusively anaphoric as well. *Is* as a pure anaphoric pronoun does not have a spatial connotation therefore it is more universal than the other three pronouns which can be both demonstrative and anaphoric (i. e. *hic*, *iste* and *ille*, cf. 2.7.2.2, 2.7.2.5 and 2.7.2.3 respectively); consequently, *is* is the most frequently used pronoun (as my sample proves). Cf. following examples, first the intrasentential use:

(220) *horum omnium fortissimi sunt Belgae_i, propterea quod a cultu atque humanitate provinciae longissime pro_i absunt minimeque ad eos_i mercatores saepe commeant [...]* (Caes. B Gall. 1, 1, 3)

“Of all these, **the Belgae** are the bravest, because **they** are furthest from the civilization and refinement of [our] Province, and merchants least frequently resort to **them**, [...]”

(221) *Helvetii iam per angustias et fines Sequanorum suas copias traduxerant et in Haeduro_m_i fines pro pervenerant eorumque_i agros pro populabantur.* (Caes. B Gall. 1, 11, 1)

“The Helvetii had by this time led their forces over through the narrow defile and the territories of the Sequani, and had arrived at the territories of the **Aedui**, and were ravaging **their** lands.”

Is is frequently used across sentence boundary as well:

(222) *ad eas res conficiendas Orgetorix_i deligitur. is_i sibi legationem ad civitates suscepit.* (Caes. B Gall. 1, 3, 2)¹⁵¹

¹⁵¹ The use of *is* is in this case explained by informational-structure influences. See 2.8.2.

“**Orgetorix** is chosen to complete these arrangements. **He** took upon himself the office of ambassador to the states:”

Similarly to *hic, is* is used to make up a plural postcedent consisting of several antecedents, usually in combination with *omnis* (“all”; cf. 2.7.2.2.)

(223) *Hi_i post eorum obitum multos annos a finitimis_j exagitati, cum alias bellum inferrent, alias inlatum defenderent, consensu [eorum omnium]_{i+j} pace facta hunc sibi domicilium locum pro_j delegerant. (Caes. B Gall. 2, 29, 4 - 5)*

“**These_i** having, after the destruction of their countrymen, been harassed for many years by their **neighbors_j**, while one time they waged war offensively, and at another resisted it when waged against them, concluded a peace with the consent of **all_{i+j}**, and chose this place as their settlement.”

2.7.3 Summary

This chapter provides a short introduction into the topic of Latin anaphoric pronouns. No full analysis could be provided because of the great extent and complexity of the issue. Only some isolated pieces of knowledge are presented which were gained from the examination of a corpus based prevalingly on the first two books of Caesar’s *Commentarii de bello Gallico*. Therefore they have the character of tendencies rather than regularities and should be considered as a basis of future research.

In table (211), possibilities of pronominal and empty postcedents inside sentences and across sentence boundary were demonstrated. It is clear that the non-marked choice for subject postcedents is *pro*, this fact showing clearly that it is not possible to analyze the use of pronouns as isolated from other anaphoric items. The more surprising is the absence of *pro* in cases with intersentential non-subject antecedents. It can be explained by the antecedent’s not being prominent enough to be denoted by *pro* on its next occurring in subject position. (Note also that there are other principles governing the use of *pro*, which were examined in 2.5.)

Ipsa (“self”, see 2.7.2.1) is said to be an “intensifying” pronoun in traditional grammar. It was shown that it has a special character with respect to anaphoricity, namely that it is used to denote prominent participant. It is a property that *ipse* shares with *pro* and that differentiates *ipse* from all other anaphoric pronouns. The difference between *ipse* and *pro* consists in the fact that *ipse* expresses contrast or stress, which cannot be done by *pro*. It seems, however, that this hypothesis holds predominantly intrasententially. The use of *ipse* as a part of

reciprocity marker with a local (not c-commanding) antecedent remains unexplained (see (105) and (108)).

The three demonstrative/anaphoric pronouns *hic* (“this”), *iste* (“that”) and *ille* (“that”) are in their demonstrative use organized according to spatial principle, which is reflected also in their anaphoric use. *Hic* is connected with the speaker and his sphere, *iste* belongs to the addressee, and *ille* denotes objects which are distant or opposite from the speaker (see (210)b.)

Hic (see 2.7.2.2) has been shown to occur rather intersentionally than inside sentences. It is also frequently used to make up plural postcedents from several (singular or plural) antecedents, often in connection with *omnes* (“all”), see (217). Its antecedent is mostly relatively close in the text.

Surprisingly, *ille* (see 2.7.2.3) did not occur intersentionally except when both antecedent and postcedent are subjects (see (211)). However, my rather limited corpus does not allow making more general conclusions.

Hic and *ille* are used together to differentiate two antecedents similarly to the English *the former* and *the latter*. In fact, the spatial principle of their demonstrative use is applied to their anaphoric use. (See example (216); cf. also Bolkestein, Van de Grift (1994): 284))

The pronouns *iste* and *idem* were only shortly described because they do not occur in the corpus at all (see 2.7.2.4 and 2.7.2.5 respectively). *Iste* is claimed to be connected with the 2nd person (see (210)c.), and therefore occurs rather in speeches or dialogues than in narrative texts. The identifying *idem* is more frequently used in [Spec, NP] position; this kind of use of pronouns is discussed here in connection with R-expressions (see 2.8.3.1). However, as *idem* expresses identity of antecedent and postcedent, it is a “pure” anaphoric pronoun and would be a very suitable subject of a further anaphora research.

Another exclusively anaphoric pronoun is *is*, described in 2.7.2.6, the most unmarked choice of pronominal postcedent (see (211)), because it has no spatial and other connotations (cf. description of other pronouns). It is also used (together with *omnes*) as plural postcedent of split antecedents, similarly to *hic* (see (223)).

This overview is only an attempt to capture the most significant properties of the use of pronouns. A more profound analysis is necessary that would include also other factors than only syntactic roles of antecedents and postcedents, which were described in table (211); e. g. structure of sentences or semantic types of subordinate clauses should be taken into account. Moreover, relations between the empty subject *pro* and overt pronouns in subject positions should be considered (cf. Bolkestein, Van de Grift (1994)).

2.8 Principle C – R-expressions: Some remarks

As for binding Principles, R-expressions can be claimed to obey Principle C, as required by Binding Theory. From this point of view there is not much that Binding Theory could say about the use of R-expressions. In my opinion, tendencies governing the functioning of R-expressions operate on the text level, as will be shown in this chapter.

From the viewpoint of anaphora, definite R-expressions are of importance. These are proper nouns and definite NPs. First, proper nouns will be discussed.

2.8.1 Proper nouns

In chapter on *pro* (see 2.5, especially 2.5.2 and 2.5.6), overt NPs were said to be used if a participant is introduced or re-introduced in the text. To introduce or re-introduce participants, proper nouns are most frequently used in the type of texts examined here. An introduction of a participant is illustrated in (224):

- (224) *Apud Helvetios longe nobilissimus fuit et ditissimus Orgetorix.* (Caes. B Gall. 1, 2, 1)
at Helvetii:AS far most-distinguished:NS was:3S and most-wealthy:NS Orgetorix:NS
“Among the Helvetii, Orgetorix was by far the most distinguished and wealthy.”

This is the first occurrence of the participant Orgetorix in the 1st book of the *Commentarii* at all. Its reintroduction, after it ceased to be prominent, is shown in (225):

- (225) I. *Apud Helvetios longe nobilissimus fuit et ditissimus Orgetorix.*
II. *Is; M. Messala M. Pisone consulibus regni cupiditate inductus coniurationem nobilitatis fecit et civitati pro; persuasit, ut de finibus suis cum omnibus copiis exirent:*
III. *perfacile esse, cum virtute omnibus pro praestarent, totius Galliae imperio potiri.*
IV. *Id hoc facilius iis pro; persuasit, quod undique loci natura Helvetii continentur: una ex parte flumine Rheno latissimo atque altissimo, qui agrum Helvetium a Germanis dividit, altera ex parte monte Iura altissimo, qui est inter Sequanos et Helvetios, tertia lacu Lemano et flumine Rhodano, qui provinciam nostram ab Helvetiis dividit. His rebus fiebat ut et minus late pro vagarentur et minus facile finitimis bellum inferre pro possent; qua ex parte homines bellandi cupidi magno dolore adficiebantur. Pro multitudine autem hominum et pro gloria belli atque fortitudinis angustos se fines habere arbitrabantur, qui in longitudinem milia passuum CCXL, in latitudinem CLXXX patebant.*

V. *His rebus adducti et auctoritate Orgetorigis, permoti constituerunt ea quae ad proficiscendum pertinerent comparare, [...] (Caes. B Gall. 1, 2 (1 – 5) – 3 (1))*

- “I. Among the Helvetii, **Orgetorix** was by far the most distinguished and wealthy.
II. **He**, when Marcus Messala and Marcus Piso were consuls, incited by lust of sovereignty, formed a conspiracy among the nobility, and persuaded the people to go forth from their territories with all their possessions,
III. [saying] that it would be very easy, since they excelled all in valor, to acquire the supremacy of the whole of Gaul.
IV. To this **he** the more easily persuaded them, because the Helvetii, are confined on every side by the nature of their situation; on one side by the Rhine, a very broad and deep river, which separates the Helvetian territory from the Germans; on a second side by the Jura, a very high mountain, which is [situated] between the Sequani and the Helvetii; on a third by the Lake of Geneva, and by the river Rhone, which separates our Province from the Helvetii. From these circumstances it resulted, that they could range less widely, and could less easily make war upon their neighbors; for which reason men fond of war [as they were] were affected with great regret. They thought, that considering the extent of their population, and their renown for warfare and bravery, they had but narrow limits, although they extended in length 240, and in breadth 180 miles.
V. Induced by these considerations, and influenced by the authority of **Orgetorix**, they determined to provide such things as were necessary for their expedition [...]”

However, not every occurrence of a proper noun must necessarily establish or re-establish its prominence. Sometimes, proper nouns are used to differentiate between already introduced participants, as in

(226) *Gallia est omnis divisa in partes tres, quarum unam incolunt Belgae, aliam Aquitani, tertiam [qui ipsorum lingua Celtae, nostra Galli appellantur]. Hi omnes lingua, institutibus, legibus inter se differunt. Gallos ab Aquitanis Garunna flumen, a Belgis Matrona et Sequana dividit. (Caes. B Gall. 1, 1, 1)*

“All Gaul is divided into three parts, one of which the **Belgae** inhabit, the **Aquitani** another, those **who in their own language are called Celts, in our Gauls**, the third.

All these differ from each other in language, customs and laws. The river Garonne separates the **Gauls** from the **Aquitani**; the Marne and the Seine separate them from the **Belgae**.”

2.8.2 The influence of informational structure on the use of NPs and pronouns

There exist examples in which either a proper noun or a pronoun are used to denote a participant which has just been rendered prominent by an immediately preceding occurrence of a proper noun. This situation can arise either across sentence boundary or across clause boundary. It is in a sharp contrast with what was claimed till now; namely that a prominent participant introduced by an overt NP (in the kind of texts examined here usually a proper noun, as was shown in 2.8.1) is unmarkedly denoted by *pro* in subject position further in the text (see 2.5.2). (227) shows such an exceptional situation across clause boundary:

(227) *(after an indirect speech, presented by the participant with the index i:)*

*haec cum pluribus verbis flens a **Caesare**_j **pro**_i peteret, **Caesar**_j eius dextram prendit; consolatus **pro**_j rogat, finem orandi **pro**_j faciat; [...]* (Caes. B Gall. 1, 20, 5)

that:AP when more:AbP word:AbP crying:NSMPart of Caesar:AbS **pro** beg:3S Caesar:NS he:GS right-hand:AS take:3S consolation:AS **pro** ask:3S end:AS pleading:Ger **pro** make:3S

“As he was with tears begging these things of Caesar in many words, Caesar takes his right hand, and, comforting him, begs him to make an end of entreating, [...]”

That from its second occurrence on Caesar is the prominent participant, is demonstrated by its having the form of *pro*.

In (228) and (229), a similar situation can be observed, this time across sentence boundary and with the pronoun *is* as postcedent:

(228) I. *Apud Helvetios longe nobilissimus fuit et ditissimus **Orgetorix**_i.*

II. ***Is**_i M. Messala M. Pisone consulibus regni cupiditate inductus coniurationem nobilitatis fecit [...]* (Caes. B Gall. 1, 2, 1)

I. at Helvetii:AS far most-distinguished:NS was:3S and most-wealthy:NS Orgetorix:NS

II. that:NS M[arcus]:AbS Messala:AbS M[arcus]:AbS Piso:AbS consul:AbP sovereignty:GS lust:AbS incited:NS conspiracy:AS nobility:GS made:3S

“I. Among the Helvetii, **Orgetorix** was by far the most distinguished and wealthy.

II. **He**, when Marcus Messala and Marcus Piso were consuls, incited by lust of sovereignty, formed a conspiracy among the nobility, [...]”

(229) I. *ad eas res conficiendas Orgetorix deligitur.*

II. *is sibi legationem ad civitates suscepit. (Caes. B Gall. 1, 3, 2)*

I. to that:AP thing:AP complete:APGer Orgetorix:NS chose:3SPass

II. that:NS self:DS office-of-embassador:AS to state:AP took-upon:3S

“I. **Orgetorix**_i is chosen to complete these arrangements.

II. **He**_i took upon himself the office of ambassador to the states.”

According to the prominence hypothesis presented in 2.5.2, *pros* should occur instead of overt postcedents. An explanation of this situation is provided by informational structure theory. Proper-noun-antecedents in (227) - (229), which however, against the expectation, do not establish prominence, are in the position of focus¹⁵². We can therefore add the last parameter to the characterization of prominent participant (introduced in (114), further developed in (173)):

(230)

(a) it was already introduced in the text (possibly occurred more times);

(b) very often, it is subject;

(c) there is no participant with different denotation nearby (the occurrence of such a participant would cancel the prominence of the participant in question);

(d) individual occurrences are not far away from each other (it would cancel the prominence as well);

(e) it is usually human;

¹⁵² I shall not discuss the distinction of topic and focus; I rely on the intuitive knowledge of these terms.

(f) prominency is only introduced after the participant has occurred overtly in topic position¹⁵³.

The supposition (230)f. is confirmed by the participant's being denoted by *pro* after it has overtly occurred in topic position in (227). The continuation of (229), which can be seen in (175) and (172), supports the hypothesis as well.

Bolkestein and Van de Grift (1994) in an informative study describe several parameters which determine the selection of these alternative expressions for subject in Latin discourse, differentiating between NPs, pronouns *hic*, *iste* and *ille* and *pro*.

One of the parameters is the pragmatic status of the antecedent. Bolkestein and Van de Grift differentiate *Given Topic* (i.e. entity whose referential identity is recoverable from the preceding context or from general world knowledge), *New Topic* (entity whose referential identity is not yet explicitly established in the discourse but it is in the clause in which it occurs introduced as a “topic-to-be”, cf. below) and *Focus*. According to these parameters, Bolkestein and Van de Grift present the following overview (representing tendencies rather than rules of the selection)¹⁵⁴:

(231)

Given Topic: zero¹⁵⁵ > *ille* > NP > *hic* > *is*

Future Topic: *hic* > *is* > zero > *ille* > NP

Focus: *ille* > *hic* > NP > *is* > zero

(228) and (229) are then examples of Future Topic.

2.8.3 Definite NPs and definite descriptions

If postcedents contain NPs three situations can arise: the postcedent NP can be either (1) repetition of the NP in antecedent plus an identifier; or it can be (2) another NP which is in some semantic relation (hyponymy, hyponymy, metaphora) to the antecedent NP plus an identifier; or it can be (3) a definite description dependent on or independent of the context. (Note that this approach is strongly simplified; more see in Palek (1988): 58ff.)

¹⁵³ In the most cases, however, it is so already by the first introducing of the participant, as examples discussed so far have shown.

¹⁵⁴ Statistical data presented in Bolkestein, Van de Grift (1994) are omitted here.

¹⁵⁵ Bolkestein, Van de Grift (1994) do not use the term *pro* to denote empty subject of finite clauses.

2.8.3.1 Identifier + noun/NP

According to Palek (1988), “opakování týchž jmen nebo jmenných frází je v anaforickém vztahu tehdy, jestliže postcedent obsahuje příslušný identifikátor” (Palek (1988): 106). The identifier can be either explicite or implicate. It is also possible to use different noun phrases, but their semantic relation must be obvious.

Explicite identifiers in Latin are pronouns used in [Spec, NP] position, as was mentioned in 2.7¹⁵⁶. E. g.

- (232) I. *Extremum oppidum Allobrogum est proximumque Helvetiorum finibus Genava.*¹⁵⁷
II. *Ex eo oppido pons ad Helvetios pertinet. (Caes. B Gall. 1, 6, 3)*

“I. The furthest town of the Allobroges, and the nearest to the territories of the Helvetii, is Geneva.

II. From **this town** a bridge extends to the Helvetii.”

A different noun than that one in the antecedent can be used:

- (233) *Interea [...] milia passuum decem novem **murum** in altitudinem pedum sedecim **fossamque** perducit. **eo opere** perfecto praesidia disponit, [...]* (Caes. B Gall. 1, 8,1-2)

“Meanwhile, [...] he carries along for nineteen miles a **wall**, to the height of sixteen feet, and a **trench**, [...]. When **that work** was finished, he distributes garrisons, [...]”

2.8.3.2 Zero identifier

Latin is a language which does not use articles. Definiteness of NPs (inclusive descriptions) is not regularly overtly expressed. There are several means of different nature which can express definiteness. H. Rosén (1994) claims that one of the means of expressing definiteness is word order. According to her, in Classical Latin the sentence initial position¹⁵⁸ signifies in itself the definiteness of the sentence constituent in question; consequently, definite constituents in other positions or indefinite constituents in initial position require additional marking by other means (Rosén (1994): 135), cf. (169), as repeated below.

¹⁵⁶ According to De Jong (1996), „whenever demonstratives are used with items previously present in the universe of discourse, it is because the re-establishment of the referent is required“ (De Jong (1996): 508)

¹⁵⁷ In this clause, it is difficult to decide which of the NPs is subject and which is in predicate position.

¹⁵⁸ At least in a two-place active verb patterns (Rosén (1994): 138).

It should be also noted that certain lexical entities are exempt from the opposition definite : indefinite, namely such which are absolutely unique and objects which are inalienably possessed. These lexemes do not have to occupy clause initial position for their definiteness to be expressed (Rosén (1994): 136).¹⁵⁹

Definiteness can be further expressed by the use of anaphoric pronouns¹⁶⁰, as was shown in 2.8.3.1. Indefiniteness is then marked by the use of indefinite pronouns, as in

(169) *quod cum fieret, non inridicule **quidam ex militibus** decimae legionis dixit plus quam pro pollicitus esset Caesarem ei facere: [...]* (Caes. B Gall. 1, 42, 6)

what:NS when happened:3S not without-wit somebody from soldier:AbP
tenth:GSFem legion:GSFem said:3S more than pro promised:NSPart be:3S Caesar:AS
he:DS make:I

“And when this was done, one of the soldiers of the tenth legion said, not without a touch of humor, ‘that Caesar did more for them than he had promised; [...]’

Following examples without an overt demonstration of definiteness can be explained by the “sentence-initial”¹⁶¹ hypothesis by Rosén (1994):

(234) I. *His rebus fiebat ut et minus late **pro**_i vagarentur et minus facile finitimis bellum **PRO**_i inferre **pro**_i possent;*
II. *qua ex parte **homines bellandi cupidi** magno dolore adficiabantur.*
(Caes. B Gall. 1, 2, 4)

II. which:AbS from part:AbS people:NP making-war:GSGr fond-of:NP great:AbS regret:AbS affect:3PPass

“I. From these circumstances it resulted, that they could range less widely, and could less easily make war upon their neighbors;

II. for which reason men fond of war [as they were] were affected with great regret.”

¹⁵⁹ Neither do they need a pronoun in [Spec, NP] to be definite, cf. 2.8.3.1.

¹⁶⁰ Definiteness can be of course expressed by deictic pronouns as well; these will not be discussed here.

¹⁶¹ In fact, “clause-initial”.

The NP *homines bellandi cupidi* is rendered definitive by its position; consequently it must have an antecedent in the text. It is the prominent participant expressed by *pro* in the preceding clause.

(235) Ia. *Caesar,*

II. *quod memoria tenebat L. Cassium consulem occisum exercitumque eius ab Helvetiis; pulsum et sub iugum missum,*

Ib. *concedendum non putabat;*

III. *neque homines inimico animo, data facultate per provinciam itineris faciundi, temperaturos ab iniuria et maleficio existimabat. (Caes. B Gall. 1, 7, 4 - 5)*

III. and-not people:AP hostile:AbS soul:AbS given:AbSPart possibility:AbS through province:AS way:GS making:GSGr abstain:APPart from injury:AbS and malefaction:AbS mean:3S

“Ia. Caesar,

II. inasmuch as he kept in remembrance that Lucius Cassius, the consul, had been slain, and his army routed and made to pass under the yoke by the Helvetii,

Ib. did not think that [their request] ought to be granted:

III. nor was he of opinion that men of hostile disposition, if an opportunity of marching through the Province were given them, would abstain from outrage and mischief.”

Again, the NP *homines inimico animo* is definite by its position. Its antecedent, however, cannot be the prominent participant, which is Caesar. *Homines inimico animo* is subject of an AcI-construction whose matrix subject is *pro* coindexed with *Caesar* (note that matrix clause is coordinated with clause [I]). Moreover, prominent participant does not agree with the NP *homines inimico animo*. The antecedent of it is therefore the other (agreeing) NP from this part of text, namely *Helvetii*.

Other means to express definiteness is the use of “semantically empty (pronominal) substantives” (Rosén (1994): 138). Such substantives are e. g. *res* (“thing”) or *homo* (“human”). E. g.

(236) I. *At omnium impeditis animis Dumnorixi cum equitibus Aeduorum a castris insciente Caesare domum discedere coepit.*

II. Qua re nuntiata Caesar intermissa profectioe atque omnibus rebus postpositis magnam partem equitatus ad eum insequendum mittit retrahique imperat;

III. si vim proi faciat neque proi pareat, interfici iubet, nihil hunc se absente pro sano facturum arbitratus, qui praesentis imperium neglexisset.

IV. Ille enim revocatus resistere ac se manu defendere suorumque fidem implorare coepit, saepe clamitans liberum sei liberaeque esse civitatis.

V. Illi, ut erat imperatum, circumstant hominem atque interficiunt: at equites Aedui ad Caesarem omnes revertuntur. (Caes. B Gall. 5, 7, 5 - 9)

I. But, while the minds of all were occupied, Dumnorix began to take his departure from the camp homeward with the cavalry of the Aedui, Caesar being ignorant of it.

II. Caesar, on this matter being reported to him, ceasing from his expedition and deferring all other affairs, sends a great part of the cavalry to pursue him, and commands that he be brought back;

III. he orders that if he use violence and do not submit, that he be slain; considering that Dumnorix would do nothing as a rational man while he himself was absent, since he had disregarded his command even when present.

IV. He, however, when recalled, began to resist and defend himself with his hand, and implore the support of his people, often exclaiming that ‘he was free and the subject of a free state.’

V. They surround and kill **the man** as they had been commanded; but the Aeduan horsemen all return to Caesar.”

The NP *homo* in [V] is clearly definite, even if it is not in clause-initial (i. e. preverbal) position. (Note that in the English translation, the definite article is used.)

The use of *homo* in (234) and (235) also supports definite interpretation of the relevant NPs.

2.8.4 Summary

In this section, the use of R-expressions in Latin was briefly sketched. I do not claim completeness at all and take it to be only an introduction and description of some of the problems connected with the use of R-expressions.

First, the use of proper nouns to introduce and re-introduce prominent participant was exemplified (see 2.8.1). The term of prominent participant, established in (114) and further

enriched in (173), was finally extended to contain also topicality. Afterwards, definite NPs were discussed, first such of them which contain an overt identifier (cf. 2.8.3.1). There are also cases where there is no explicit identifier, and still the NP is interpreted as definite (see 2.8.3.2). According to Fugier (1994), it can be conditioned by its clause-initial position (cf. (234) and (235)) which signifies in itself the definiteness of the sentence constituent in question; consequently, definite constituents in other positions or indefinite constituents in initial position require additional marking by other means (indefinite NP in clause-initial position see (169)).

Definiteness of an NP can be further signaled by its character as unique or unalienably possessed object, and finally general nouns which Rosén (1994) describes as “semantically empty (pronominal) substantives” (Rosén (1994): 138) are interpreted as definite, cf. **Chyba! Nenalezen zdroj odkazů.**

3 Conclusion

The goal of this work was to explain the use of anaphoric items in Latin, as they are classified by Chomsky's Binding Theory, further to demonstrate limitations of this theory, when applied to Latin, and finally to show principles and tendencies of different nature governing the use of Latin anaphoric items in texts.

First of all reasons should be given why traces were excluded from the analysis (cf. 1.1.1.2). The notion of trace is based on the concept of movement developed in configurational languages where NPs overtly occur in a position different from that in which they are base-generated. Movement is supposed to be triggered by independent, yet theory-internal reasons (e. g. Case assignment). I am not sure whether it is appropriate to use this conception in non-configurational languages, too; especially Latin shows a great extent of word-order variability, which is, according to references quoted here, influenced by reasons originating in informational-structure considerations which are not included in GB-framework. Movement types and possibilities would have to be dramatically broadened to account for Latin word-order options. Therefore it is questionable whether word-order variants should be ascribed to movement or rather another mechanism which would have to be specified.

In non-configurational languages, the term of *proto-sentence*, in the sense of "abstract" word order capturing relations between clause members without respect to their surface order, as introduced in Palek (1989) and Palek, Nebeský (1989) seems to be more appropriate.

Reflexives are supposed in GB-Theory to have a local governing antecedent. However, Latin reflexives do not pattern according to Binding Theory requirements. They are both local and logophoric, i. e. in certain contexts they have non-local antecedents. Logophoric reflexives are wide-spread in Latin, reaching up to 50 per cent in prosaic texts (cf. Calboli (2001)). The use of reflexives has been widely studied, cf. above all works by A. Bertocchi quoted here.

The hypothesis suggests itself which supposes the existence of two different types of reflexives in Latin, similarly as is observed by Reinhart, Reuland (1993) for Dutch, cf. 1.1.1.3. However, I do not think it to be well-founded. There is no indication of any morphological or other difference between reflexives used as local or logophoric.

A. Bertocchi (1994) proposes to relate the distinction between the two types of contexts, i. e. local and logophoric, to the distinction between predication and proposition in the

sense of functional grammar, i. e. distinction between clauses containing and not containing the speaker's commitment (i. e. logophoric contexts and non-logophoric contexts, respectively), where the speaker's commitment can be expressed by different means such as verb mood, the use of logophoric reflexives, and also lexically, e. g. by the use of expressions like *amabo* ("please"), *fortasse* ("perhaps", "possibly"), see 2.3.2.1. In this work I have concentrated on the description of indirect speech, a special kind of logophoric context (cf. 2.3.2.1.1). I have differentiated between the *author of the text* and the *participant-speaker* (author of indirect speech) in order to account for antecedency situation in indirect speech. In my opinion, antecedent of logophoric reflexives in indirect speech can be determined on the basis of its role in the text as participant-speaker, irrespective of its actual syntactic role.

Nevertheless, I have described one construction in which antecedents of reflexives in logophoric contexts are determined structurally. It concerns the construction of *coniugatio periphrastica passiva* (see 2.3.2.1.1.4). It has the form presented in (70):

[NP VP [NP:D VP:Ger]].

The Dative Agent of the *coniugatio periphrastica passiva* may be coindexed with the subject of the matrix verb, yielding (70)a.:

[NP_i VP [NP_i:D VP:Ger]]

In such a case, the embedded NP is always expressed by a reflexive. To say it the other way round, the reflexive has a structurally determined antecedent, namely the matrix subject, even if it occurs in indirect speech and it denotes a participant different from participant-speaker, therefore otherwise expressed by other means than reflexive in indirect speech (cf. examples (71) and (72)).

Another structurally conditioned antecedency relation concerns AcI-construction (see 2.3.2.1.1.5). This type of construction is frequently used in indirect speech. If AcI-construction is embedded¹⁶² and the embedded subject is expressed by means of reflexive, it is always coindexed with matrix subject (cf. (73) and (74)). It results from the fact that reflexives in these constructions are locally bound, even if they occur in a logophoric context. Infinitive construction itself does not constitute governing category (cf. its definition in (6) - (10)), therefore governing category is extended to contain matrix clause as well, rendering the embedded reflexive subject local. However, local matrix subjects are often participant-speakers, i. e. in fact discourse antecedents, at the same time.

¹⁶² Non-embedded infinitive constructions with overt subjects are discussed in 2.6.2.1.2 and 2.6.2.2.2.

Reciprocity has been argued to be a relation which is based on predicate and involves its arguments; consequently it is always clause-bound. In my opinion it is necessary to strictly differentiate between the logical and anaphoric parts of reciprocal relations, each of them being governed by other principles.

From the logical point of view, reciprocals express a relation between at least two participants¹⁶³, which are coarguments of the predicate. The participants are not always explicitly expressed at the surface structure of the clause in the form of arguments, though. On the contrary, most of the Latin reciprocity markers were shown not to have the form required by the subcategorization of the predicate, therefore not being its arguments (see examples (82) - (90) in 2.4.1). In connection with this fact, the question arose of the existence of empty objects in Latin, cf. 2.4.2.5, which were proposed to satisfy the subcategorization requirements of the predicate. At present, I answered the question negatively, but the issue requires further research.

In 2.4.3 I applied reciprocity classification proposed by Langendoen (1978) to Latin examples. In individual cases it was seldom possible to decide with certainty between several competing types of reciprocity. It seems that logically conceivable reciprocity possibilities are not exhausted by natural language; the reason of it can lie in the limited cognitive capacity of the speakers/recipients. Certain vagueness does not seem to hinder communication.

From the point of view of anaphoricity, not all reciprocity markers are of importance. Some reciprocity markers do not contain anaphoric part at all. If they do contain anaphoric items, are these subject to the appropriate Principle of Binding Theory.

In Latin, anaphoric items contained in reciprocity markers behave as predicted by Binding Theory (see paragraphs 2.4.2.1.1, 2.4.2.1.2, 2.4.2.2.2, 2.4.2.3.1) with the exception of reciprocity marker consisting of two pronouns (see 2.4.2.2.1). These can have a local antecedent (cf. examples (84), (100) and (102)); consequently they are bound in their governing category, violating Principle B. I proposed to handle this type of reciprocity marker as a unit with non-nominal character, on a par with non-nominal reciprocity markers like *invicem*, therefore exempt from binding. At present I am not able to provide a more satisfactory solution of the problem.

Reflexives expressing reciprocity can be, differently from their use as “genuine” reflexives, only local, as was demonstrated in 2.4.2.1.1 and 2.4.2.1.2.

As reciprocity is prevailingly a logical relation, with a facultative anaphoric component, it applies at LF structure.

¹⁶³ The relation between them can have different character, as the overview of Langendoen’s classification in (113) shows.

In connection with the analysis of PRO two main problems arose. First of them concerns antecedents of anaphoric, but uncontrolled PRO, the other Case assignment in infinitive constructions with overt subjects.

Examples of uncontrolled, yet anaphoric PRO in 2.6.3.2.2 show that antecedent of PRO can be determined in other terms than those of Control Theory: it can be determined structurally, although it does not c-command PRO (see verbs with EXPERIENCER arguments in Dative in (204) and examples (205) and (206)). The antecedent can be determined also non-structurally, on the basis of information from context (as in (207) and (208)).

Another problem concerning Case assignment to overt subjects of infinitive constructions was outlined, although no satisfactory solution could be provided. Latin infinitive constructions can be both embedded and non-embedded and their subjects are overt or empty, see (183). As for embedded constructions with Accusative subject, Maraldi (1980) supposes matrix verbs to have the ability to assign Accusative Case to the embedded subject (see 2.6.2.1.1, especially example (188)). However, verbs with this ability can also occur as matrix verbs of NcI-constructions, where they are in passive and the embedded subject is supposed to rise to the position of matrix subject in order to be assigned Case (cf. (192)). The necessity of movement is, however, cancelled by the supposed ability of the verb to assign Case to the embedded subject. Even if we suppose the ability to assign Accusative to the embedded subject to be “cancelled” by passive morphology of the verb, there exist still a third possibility, namely that the same passive matrix verb can also assign Accusative to the embedded subject, as in (193). Accordingly, we face a contradiction: the same verb should be able and unable to assign Accusative Case to the embedded subject.

Case assignment is problematic also in non-embedded infinitive constructions (cf. the overview in (183)). Maraldi (1983) supposes a solution (which should according to her account also for the above described paradox): Latin Infl is claimed to be richer than the English one and accordingly able to assign Case to its subject. However, since Latin non-embedded infinitive constructions can have both Accusative (see 2.6.2.1.2) and Nominative (cf. 2.6.2.2.2) subjects and there is no possibility to decide on independent reasons which of them is supposed to be assigned, this solution cannot apply as well. Moreover, if infinitive Infl were able of assigning Case, we would be forced to hypothesize empty object in object-control constructions (cf. their differentiation from AcI-constructions 2.6.2.1.1). And finally, “enriched” infinitive Infl could be scarcely prevented from assigning Case to PRO, an undesirable consequence of the hypothesis.

At present I am not able to provide a more satisfying account of Case assignment facts in infinitive constructions in Latin.

pro, pronouns and R-expressions (described in sections 2.5, 2.7 and 2.8 respectively) can hardly be analyzed separately from each other. In the subject position, they are mutually interchangeable and the choice between them is governed by other than structural principles. It seems that it is influenced by informational structure of the clause, the structure of the text, prominence/non-prominence of the denoted participant and other factors still to be more precisely defined and examined. It is not surprising that their use is in Binding Theory described only vaguely, in fact only the domain is defined where their antecedent must not appear, without providing any positive information about where it can or must be found. Functional approach can capture the facts more satisfactorily, as works written in these terms cited in sections 2.7 and 2.8 show.

One of the criteria for the decision between the items was said to be prominency of the participant denoted. The term of *prominent participant*, presented in (114) and further developed in (173) and (230), in my opinion plays an important role in texts. To introduce a participant in the text, an R-expression is mostly used. After the participant has become prominent, i. e. after it has been introduced (although the introduction alone is not enough to establish prominence), it is unmarkedly denoted by *pro*. The use of pronouns or R-expressions is marked. If the participant ceases to be prominent – either by not occurring in the text for a longer period, or by other participant's taking over prominency, or if two participants occur at the same spot of the text and must be differentiated from each other – it must be re-introduced either by an R-expression or a pronoun. The use of *pro* would be marked and in many cases the antecedent could not be determined unambiguously (in the case that there is an intervening agreeing participant) or the recipient would not be able to determine it at all (if the last occurrence of the participant were too far in the text).

This is an overall description of the use of *pro*, pronouns and R-expressions in texts. Of course there are particular constraints concerning each type of them.

pro is, maybe surprisingly, subject to three strict constraints put on its antecedents.

First of them is connected with referential structure of matrix verbs (see 2.5.3). Some of them I have called “*pro*-control verbs” because they are capable of determining the coindexation of embedded *pro*. It is coindexed either with the matrix subject or matrix object, exactly in the way of PRO in canonical control structures.

Second constraint on the antecedency of *pro* is of syntactic nature. If the subject of second and following clause(s) in a coordinated or asyndetical structure is empty, i. e. *pro*, it is obligatorily coindexed with the subject of the preceding clause, cf. 2.5.4.1¹⁶⁴.

As for subordinate constructions, the situation is much more complex. The factors influencing coindexation possibilities are manifold and they could not be described fully. I have concentrated on the description of sentence structure and possibilities of expression subjects as overt NPs and *pro* and their mutual combinations (see 2.5.4.3). Following constructions were not present in my material: (a) [_S *pro*_i VP [_{S'} NP_i VP]] (cf. 2.5.4.3.1.2.3) and (b) [_S [_{S'} *pro*_i VP] *pro*_j VP]] (in 2.5.4.3.2.1.2). In my opinion, cataphora of the type (a) is completely excluded, as comparison with Czech examples shows, whereas (b) is possible but strongly contextually bound and therefore does not occur in the material.

Except prominency, other factors influence the use of pronouns, especially the decision between different anaphoric pronouns in the text. These factors have been discussed in 2.7.1. I have examined the role of antecedents and postcedents in the clause more closely and was able to find some interesting correlations, but as we are dealing with tendencies, not rules, a larger corpus would be necessary to confirm them.

Ipse (“self”) was shown to have special character with respect to anaphoricity, namely to be used to denote prominent participant. It is a property that *ipse* shares with *pro* and that differentiates *ipse* from all other anaphoric pronouns. The difference between *ipse* and *pro* consists in the fact that *ipse* expresses contrast or stress, which cannot be done by *pro*. It seems, however, that this hypothesis holds predominantly intrasententially.

The whole area of interactions between pronouns, R-expressions and *pro* is much broader and deserves further examination, maybe in lines of Huang (1994).

It is obvious that being based by the nature of material available, i. e. carefully written literary texts of the highest standard, created by well-educated writers, influenced by editors, the analysis of Latin anaphoric items cannot be complete and exhausting. It describes only the part of language which is made accessible in the texts. Colloquial language, not touched by stylistic refinements, is not captured by it. Nevertheless, in my opinion the analysis makes a good starting point of a further analysis which should include other types of texts as well and possibly also comparison of the use of anaphoric items in different kinds of them.

¹⁶⁴ Note that *ipse* can occur in this position as well, see below.

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