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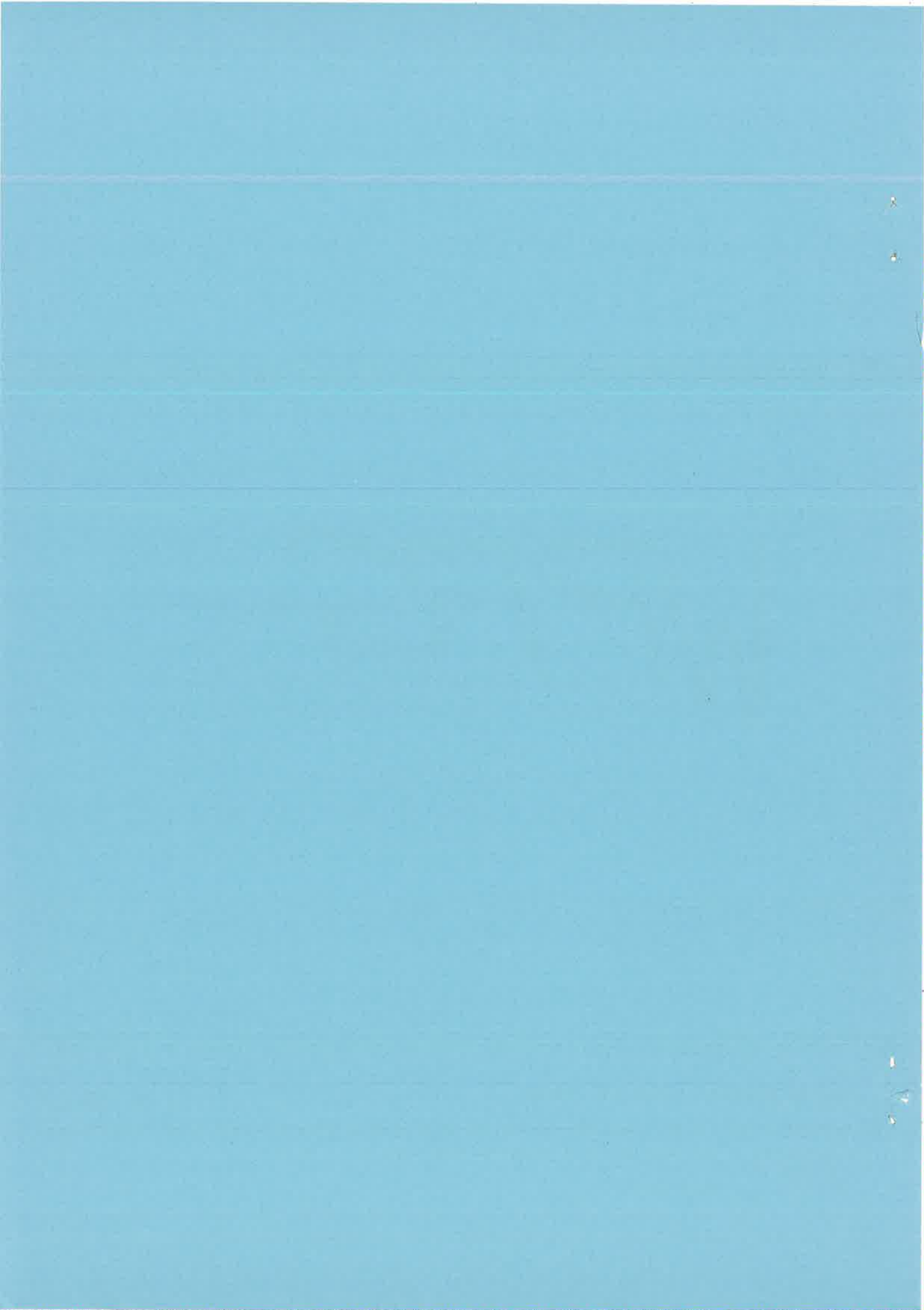
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Parameters in the expression of embedded predications in Latin  
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## Parameters in the expression of embedded predications in Latin

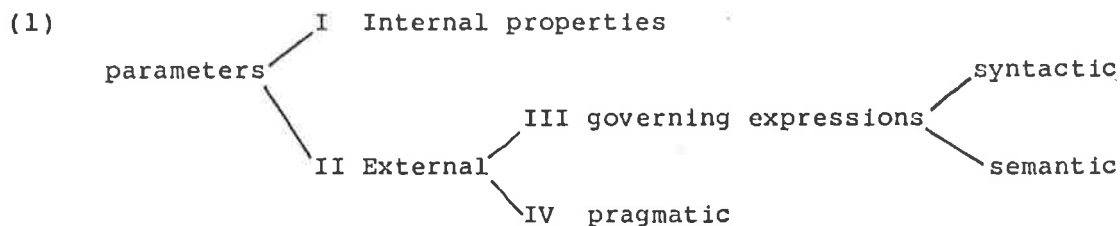
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### 0. Introduction

In this paper I address the question which parameters are relevant to the way in which embedded predications are expressed in Latin. The embedded predications involved are those which fill an argument position (or: 'slot') created by a verbal predicate or by a noun, that is, in Lehmann's terms (this volume) subordinate clauses which are 'highly downgraded' syntactically.

Such embedded predications may be expressed in various forms which differ in a number of properties, as for example in the degree of sententiality (cf. again Lehmann this vol.). One finds a finite subordinate clause introduced by a subordinating conjunction such as quod or ut; infinitival clauses with (AcI) or without (Inf) an accusative subject; a gerundium (Ger), often called a verbal noun; NPs containing a 'dominant' verbal adjective i.e. a gerundivum (DomGerv) or a participle (DomPart); and finally one finds nouns designating a State of Affairs (SoA-N) often related to a verbal lexeme. All of these forms may be found both as arguments of verbal predicates and within NPs governed by a noun.

With some governing expressions the various constructions may in principle all occur (cf. Pinkster (1984: 129ff); Rosén (1981: 21f); Helander (1977: passim; 1982),<sup>1</sup> although there need not always be complete semantic equivalence between them (cf. K.-St. (II: 277); Carvalho (this vol.); Helander (1977: 68f)). In other contexts, however, there is no or only limited interchangeability between them. This may be due to factors connected with (i) properties of the constructions themselves (section 1); or with (ii) requirements imposed by the kind of slot to be filled (section 2), which may be either of a syntactic, or of a semantic nature; and moreover (iii), where the various constructions are in fact interchangeable, certain pragmatic factors may be relevant to the choice of construction (section 3).<sup>2</sup> The situation is represented in (1):



In this paper I will pay attention to each type of parameter. First I will discuss differences in internal properties between the constructions involved. One of the problems that will come up is the extent to which SOA-nouns (plus their arguments) differ from other ways of expressing embedded predications.

1. Mutual differences between the constructions

As suggested in a Functional Grammar (FG) framework by Dik (1985 b) on Dutch, by Mackenzie (1984; 1985) on Dutch and English, and along the same lines by Kroon (1984) on Latin, the constructions under consideration can be compared to each other on the basis of a list of characteristically 'nominal' vs. 'verbal' properties; by such a procedure the constructions will score differently on the scale of sententiality distinguished by Lehmann (this vol.) for describing subordinate clauses (I will not discuss the other scales which he proposes). A provisional survey of differences is represented in (2), adapted with some modifications from Kroon (1984):

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(2)

	finite	AcI	Inf-1	Inf-2	Ger	SoA-N	Dom Part	Dom Gerv
<u>nominal properties</u>								
+ dem. pron.	-	-	-	+	-	+	-	-
+ adj. attr. of SoA	-	-	-	+	-	+	-	-
+ poss. pron.	-	-	-	+	-	+	-	-
+ gen. term	-	-	-	+	?	+	-	-
+ caseforms	-	-	-	-	+	+	+	+
+ plural	-	-	-	-	-	+	+	+
+ prep.	-	-	-	+	+	+	+	+
<u>verbal properties</u>								
+ person	+	-	-	-	-	-	-	-
+ tense	+	+	(+)	+	-	-	(+)	-
+ voice (free variation)	+	+	+	+	-	-	(+)	-
+ presence of Patient arguments in form independent V	+	+	+	+	+	(+)	+	-
+ adverbial modifier	+	+	+	+	+	(+)	-	-
<u>other</u>								
+ obligatory valency reduction	-	-		+	+	-	-	+

It will be clear from (2) that each of the constructions differs in at least one crucial point from the other ones. I will not go into all points of the matrix, but will touch upon some details which may raise questions.

### 1.1. The distinction between two Infinitival constructions

On the basis of the (rather rare) attestation of instances such as (3 a-b), Kroon (1984) distinguishes two types of infinitival constructions, following Szantyr (Sz) (: 343) and Kühner-Stegmann (K.-St.) (I: 666):

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- (3) a. me hoc ipsum nihil agere delectat  
 me<sub>acc</sub> this<sub>nomneu</sub> itself<sub>nomneu</sub> nihil<sub>acc</sub> to-do<sub>inf</sub> delight<sub>3sg</sub>  
 "me delights exactly this doing nothing" Cic. De Or. 2,24
- b. cuius non dimicare vincere fuit  
 who<sub>gen</sub> not to-fight<sub>inf</sub> to-win<sub>inf</sub> have-been<sub>3sg</sub>  
 "whose not to fight was to win" Val. Max. 7,3,7
- (4) a.?? illud iucundum me ... nihil agere  
 that<sub>nomneu</sub> pleasurable<sub>nomneu</sub> me<sub>acc</sub> nothing<sub>acc</sub> to-do<sub>inf</sub>  
 "that pleasurable me doing nothing" (cf. Plin. Ep. 8,9,1)
- b.?? me iucundum nihil agere delectat  
 me<sub>acc</sub> pleasurable<sub>nomneu</sub> nothing<sub>acc</sub> to-do<sub>inf</sub> delight<sub>3sg</sub>  
 "me delights pleasurable doing nothing" (cf. 3 a)

According to Szantyr, substantival perfect tense infinitives are acceptable as well and the same holds for passive infinitives. However, I have not encountered instances where such a 'nominal' infinitive has its own (accusative) Subject, i.e. of noun-like AcI's, cf. (4 a), nor have I found instances in which a nominal infinitive modified by an adjective was not at the same time preceded by a demonstrative or possessive pronoun (cf. 4 b). The nominal Inf. has therefore a limited distribution, and not all infinitival constructions could be made 'nominal' by the addition of a demonstrative or possessive pronoun.

1.2. The Gerund and genitival Patients

The doubt as to whether the Gerund may govern genitival Patient arguments is due to the structural ambiguity of the marginal (?) construction exemplified in (5), cf. K.-St. (I: 737ff); Aalto (1949: 155); Risch (1984: 192ff):

- (5) (((filiae)                    videndi)            facultas)  
 daughter<sub>gen fem</sub> seeing<sub>Ger gen</sub> opportunity  
 "the opportunity to see his daughter"

Construction (5) cannot be considered to be a Dom Gerv. because there is no gender agreement between filiae (fem.) and videndi (masc.).

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Only in the genitive does this construction occur with any frequency, cf. (6).

- (6) \*filiae        videndo        fatigatus est  
daughter gen see Ger abl tired be<sub>3sg</sub>  
"he is tired from seeing his daughter"

Apart from an analysis as indicated by the brackets in (5), with the whole phrase filiae videndi governed by facultas and filiae itself governed by videndi as a genitival Patient, three other analyses have been proposed in the literature. These are illustrated in (7 a-c):

- (7) a. ((filiae facultas) videndi)  
      b. ((videndi facultas) filiae)  
      c. (filiae (facultas) videndi)

In (7 a) filiae facultas is considered to form a unit expanded by an 'explanatory' Ger. In (7 b) the noun filiae is viewed as governed by the whole phrase videndi facultas. Finally in (7 c) there is no hierarchical difference between the two genitives, and both are viewed as dependent on the Head noun facultas (Risch (1984) in fact makes use of all three explanations in turn).

In itself it would not be extraordinary if the Patient of the verbal noun could appear in the genitive - obeying the 'principle of formal adjustment' formulated in Dik (1985a: 3) - in view of this possibility with the nominal infinitive (cf. 3 b) and the constructions of verbal nouns in other languages. However, in that case we would expect (6) to occur as well, but it does not. Although I do not pretend to be able to solve this vexed problem, a consideration of the various word orders actually found in the 52 (some of them disputed) attested instances mentioned in the literature might prove enlightening. The following data represent the frequency with which two of the three constituents involved are either neighbours or separated by the third constituent, both for the construction exemplified in (5) and for a 'control' group of 41 instances in which the Patient of a genitive Gerund has the 'regular' accusative case form,

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cf. (8):

	<u>Pat gen. 52</u>	<u>Pat acc. 41</u>
(8) a. Pat Ger <u>or</u> Ger Pat	47	39
Pat Head Ger <u>or</u> Ger Head Pat	<u>5</u>	<u>2</u>
b. Head Ger <u>or</u> Ger Head	37	27
Head Pat Ger <u>or</u> Ger Pat Head	<u>15</u>	<u>14</u>
c. Pat Head <u>or</u> Head Pat	20	16
Pat Ger Head <u>or</u> Head Ger Pat	<u>32</u>	<u>25</u>

From (8) it may be observed that there is a preference, in both constructions (a) for Ger and Pat to be neighbours rather than separated by the Head noun; (b) for Ger and Head to be neighbours rather than separated by Pat; and (c) for Pat and Head to prefer being separated by Ger rather than being adjacent.

In spite of the relative flexibility of Latin word order within NPs and its sensitivity to pragmatic factors (cf. De Jong (1983)), it seems plausible to assume that on NP level narrowness of semantic relation between constituents is reflected in the word order. Such a claim has been shown to be valid for NPs with more than one attributive modifier by Risselada (1984). Thus, the data of (8) suggest (a) that there is a narrow relation between Ger and Pat, which in turn points to (5) being the right analysis rather than (7 a-c); (b) that there is a narrow relation between Ger and Head, which again would point to either (5) or (7 b) rather than to (7 a and c); and (c), that Pat and Head do not form a unity, this also being an indication for (5) rather than for (7 a and c). The fact that these tendencies also hold for the construction Ger plus accusative Patient supports this argumentation. Thus, we may conclude that in the word order data there is at least no evidence against analysing the genitive noun filiae as Patient argument of the Ger.

1.3. Obligatory valency reduction of Ger and DomGerv

Happ (1976: 242; 453) rightly observes that the valency of verbs in non-



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finite constructions is often reduced in comparison with their finite equivalents (valency is used in a syntactic sense by Happ). Where such non-specification of arguments of the verb occurs, this may well be a consequence of the downgraded status of the constructions involved: the identity of the participants in the embedded state of affairs is frequently already specified in the governing expression (we may be dealing with obligatory or optional 'EQUI- NP-deletion'). In the case of Ger and DomGerv, however, valency reduction is obligatory: the first argument of the verb underlying these constructions cannot be explicitly specified at all (cf. Risch (1984: 38)), as exemplified in (9) and (10).

- (9) a. \*de milites laudando a duce loquuntur  
 about soldiers<sub>acc</sub> praising<sub>Ger abl</sub> by chief speak<sub>3pl</sub>  
 "they speak about the praising the soldiers by the chief"
- b. \*de ducis milites laudando  
 about chief<sub>gen</sub> soldiers<sub>acc</sub> praising<sub>Ger abl</sub>  
 "they speak about the chief's praising the soldiers"
- (10) a. ??ante urbem condendam a Romanis  
 before city<sub>acc</sub> to-be-founded<sub>Gerv acc</sub> by Romans  
 "before the founding of the city by the R."
- b. \*ante Romanorum urbem condendam  
 before Romans<sub>gen</sub> city<sub>acc</sub> founded<sub>Gerv acc</sub>  
 "before the Romans founding the city"

Such a valency reduction rule does not hold for the Dom Part construction: with the perfect passive participle the Agent may perfectly well be specified (although only in the form of an ab PP as in (11 a), not as a genitive as in (11 b)):

- (11) a. ab urbe a Romanis condita  
 from city<sub>abl</sub> by Romans founded<sub>Part abl</sub>  
 "since the foundation of the city by the R."
- b. \*ab Romanorum urbe condita  
 from Romans<sub>gen</sub> city<sub>abl</sub> founded<sub>abl</sub>  
 "since the Roman's foundation of the city"

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In other words, Ger and DomGerv share the property of obligatory valency reduction of the first argument, as opposed to Inf-2, which allows first arguments in the genitival form (but not as acc Subj, cf. (4 a)). With attributive use of Gerv and with the periphrastic constructions of Gerv and Ger plus esse 'to be', first arguments in the ab PP form occur as an alternative to dative Agents; for some discussion see Bolkestein (1980 a: 136; 146).

As far as recoverability of the identity of the missing argument is concerned, this is often coreferential with that of the first argument of the governing verb, although not necessarily so: there need not even be any explicit coreferent in the context at all (for a discussion of possibilities cf. Vester (1983: 101ff)).<sup>3</sup>

#### 1.4. Free variation in voice and tense

With respect to variation in voice and to tense reference the gerundium and Dominant gerundivum also differ from the Dominant participle construction. In FG, variation in voice is viewed as a choice of the perspective from which the state of affairs is presented. In the case of DomPart free choice of perspective is of course limited by the defectiveness of the Latin participle system: there is only a choice between active present or future tense, and passive perfect tense participles.

In the case of DomGerv and Ger, however, we are dealing with another kind of limitation. In DomGerv agreement between the Patient in the state of affairs and Gerv is obligatory, with Pat functioning as Head. Thus the possibility of variation in perspective does not apply. In Ger agreement between the Patient and Ger is not possible, since Pat must have the form which it would have with the active voice verb. Again, the notion of variation does not apply. Thus, although one might, on the basis of the agreement between Pat and Gerv in the DomGerv construction and on the basis of the form of the Pat in the Ger, consider Gerv and Ger as 'passive' vs. 'active' voice respectively, the perspectival notions associated with alternative Subj assignment are absent.

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Verbforms which carry tense reference situate the state of affairs with respect to a particular orientation point (being either the moment of speaking, or some other orientation point given in the context or situation). As far as variation in tense is concerned, Part is again limited as in the case of variation in voice, but it does answer the definition. In the case of finite clauses, AcI and Inf-1, tense restrictions may be imposed by the semantics of governing expressions (cf. section 2): the verbs in that case will not situate the SoA at any point in time at all. However, this non-situating use is not an inherent property of the constructions as such. In the case of Ger and Gerv, on the other hand, it does not make sense to speak of situating the SoA at a point in time: the state of affairs designated is 'virtual', 'potential' (or: in terms of Kurzová (1968) 'dynamic') rather than situated anywhere (e.g., as one finds in some manuals, in the future). The opposition between Part on the one hand and Ger and Gerv on the other is therefore not an opposition between for example present and perfect vs. future but between +tense and -tense.

Both voice and tense figure on Lehmann's desententialization scale: in this respect Ger and Gerv are thus less sentential than the other constructions, with the exception of SoA-N's, which do not have voice at all (cf. Rosén 1983: 182).

### 1.5. Some remarks on state of affairs nouns

In this section I will motivate treating SoA-N on a par with the other constructions in (2), but this does not necessarily imply that the former are straightforwardly derivable from the latter.

It has often been observed that the semantic relation between a mono- or bi-valent noun and the fillers of its argument positions differs from that between a noun and its adjectival or genitival attributes: the latter predicate a state or property of their Head noun, whereas the relation in the former type of NP rather resembles that between a verbal predicate and its arguments, cf. Rosén (1981: 21). I assume, therefore, that there is a basic difference between the semantic structures underlying the two types

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of NPs (cf. Lehmann (1983: 359ff.); Mackenzie (1983: 32f.)).<sup>4</sup> Below I will present two types of evidence for this. I will then go on to offer some remarks on the expression of the adnominal arguments and the optional valency reduction of SoA-N's.

1.5.1. The status of adnominal arguments

A first argument in favour of a difference in status between two types of adnominal constituents is the fact that genitives of the slot-filling type do not normally occur in characteristically 'predicating' constructions such as the copular pattern with esse 'to be' or as a predicative Object complement with verbs such as ducere 'to deem':

- (12) a. ??caedes est Caesaris  
murder be<sub>3sg</sub> Caesar gen  
"the murder is upon Caesar"  
b. ??caedem Caesaris duco  
murder<sub>acc</sub> Caesar gen deem<sub>1sg</sub>  
"I deem the murder (to be) upon Caesar"

Thus, Caesar in (12 a-b) cannot be interpreted as representing the Patient involved in the state of affairs designated by caedes. In some instances one might hesitate whether a genitive complement in a copular pattern carries the semantic function Agent in the SoA, as e.g. in (13 a-c); comparable instances to which with genitive Pat do not occur, cf. Rosén (1981: 77f):

- (13) a. non irasci sapientis est  
not to-become-angry<sub>inf</sub> wise-man gen be<sub>3sg</sub>  
"it is characteristic for a wise man not to become angry"  
b. mea est haec (puella): meus fructus est prior Pl.Cas.839  
mine be<sub>3sg</sub> this (girl) :: mine enjoyment be<sub>3sg</sub> earlier  
"this girl is mine::mine is the first enjoyment of her"  
c. praetoris iurisdictio est  
praetor gen jurisdiction be<sub>3sg</sub>  
"the jurisdiction is the competence of the praetor"

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In each of the above instances there are reasons for not analysing the genitives as filling Agent roles. (13 a), with an Inf as Subj, is generic: sapientis does not refer to a specific referent involved as Agent in a specific SoA. (Genitives as in (13 a) do occur as predicative Obj-complement (cf. 12 b), see K.-St. (I: 453)). (13 b) is quoted by Rosén as an instance of 'Agent as predicate' (1981: 77; 1983: 200). However, meus in the second clause is parallel to mea in the first clause, which has a possessive relation to the concrete entity puella. Examples like (13 c), finally, are characteristic for juridical and legislative contexts (for more examples cf. Boegel (1903: 86f.)): the genitive designates the official person within whose authority or competence a certain procedure belongs. The genitive designates the type of entity within whose authority or power some type of behaviour falls: the SoA noun and the genitive are generic and do not refer to a specific event actually taking place. In other words, none of the above genitives participate as real Agents in a specific SoA designated by the SoA-N, and instances of Pat with such a 'predicating' function are lacking completely.

A second type of support for the distinction between entities filling an argument position of a SoA-N and attributively modifying elements is the relative frequency of word order patterns in NPs containing both types of adnominal constituents (section 1.2.). As pointed out above, there is a correlation between narrowness of semantic relation to the Head noun and closeness of attributes to the Head in the linear order, cf. Risselada (1985). Her conclusions are based on attributes which are not hierarchically ordered. I assume that they apply to adnominal constituents which differ in hierarchical status as well. Intuitively there seems to be a hierarchical difference between the adjective and the genitive in NPs such as (14 a), as indicated by the brackets:

- (14) a. (subita (caedes dictatoris))  
sudden murder dictator<sub>gen</sub>  
"the sudden murder of the dictator"  
b. subita dictatoris caedes or: caedes dictatoris subita  
(preferred)  
c. dictatoris subita caedes or: caedes subita dictatoris  
(non-preferred)

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The intuition is borne out by word order tendencies<sup>5</sup>: the orders exemplified in (14 b), where Head and Patient are adjacent, were about 4 times as frequent as the orders exemplified in (14 c), where Head and Patient are separated (instances in which the Head was between the two other constituents as in (14 a) have been left out of consideration). Thus the behaviour of constituents filling valency positions such as dictatoris in (14 a) supports the claim that there is a difference in narrowness of relation. In short, the data in (13) and (14) confirm a difference in status between adnominal genitives filling argument positions and adnominal constituents which do not.

### 1.5.2. Expression of arguments of SoA-N's

In the Latin handbooks it is pointed out that especially if two arguments are present with an SoA-N one of them may be expressed in an alternative way (cf. K.-St. I: 416; also Rosén (1981: 41; 1983: 192). In Latin, as opposed to many other languages, e.g. English and Dutch, the Patient rather than the Agent will be expressed in an alternative way, as in (15 a). However, not all Patients allow such alternatives, cf. (15 b):

- (15) a. amor patriae / civis      amor in/adversus/erga patriam  
love country<sub>gen</sub> / citizen<sub>gen</sub>      love towards      country  
"love for one's country"/"a citizen's love towards his country"
- b. \*Bruti caedes in      dictatorem  
B.<sub>gen</sub>      murder towards dictator

The difference between (15 a) and (15 b) might be used as a diagnostic test for distinguishing the second argument of a predicate such as amare and other predicates designating emotion from that of predicates such as caedere: the latter undergoes a change of state whereas the former does not. (In certain frameworks these semantic roles are therefore labelled differently, e.g. Theme vs. Patient in Foley & Van Valin (1984: 30)). Latin instances in which the Agent appears as an ab PP are extremely rare and should be interpreted as Source (i.e. in a local sense) rather than Agent,

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cf. Wiberg (1956-7: 160ff.). In other words, the construction may not always be well-formed, cf. (16):

- (16) a. ?dictatoris caedes a Bruto  
           dictator<sub>gen</sub> murder by B.  
           "the murder of the dictator by Brutus"  
       b. ??adventus a dictatore (with dictator as Agent)  
           arrival by dictator  
           "the arrival by the dictator"

In actual use SoA-nouns are quite frequently found without their potential arguments: in 200 SoA-nouns from Sen. NQ 5 and 6,1-2 and Plin. NH 7 and 8,1-38, more than 50% of the 94 instances of one-place nouns found were not accompanied by their one argument. For the 103 two-place nouns found, the outcome was as in (17):

(17)	none expressed	one expressed	two expressed	total
		Agent Patient		
	53	19 29	2	103

The above data differ from the data in Rosén (1981: 70; 1983: 192), which come from older Latin: in Rosén's corpus, if a two-place SoA-noun has only one argument this is always the Patient and not the Agent. In (17) Patients are more frequent but Agents are not at all exceptional.<sup>6</sup>

As we see, SoA-nouns are often used with reduced valency, but not obligatorily so. If they are compared with Ger and DomGerv, it is clear that certain occurrences of SoA-nouns in positions in which Ger and Domgerv could in principle occur as well (e.g. on NP level and in certain PP's), cannot be replaced by them. This holds specifically for occurrences of one-place SoA-nouns plus argument, and for two-place SoA-nouns plus explicit Agent. There are limits to their interchangeability.

I will now turn to another type of parameter, namely restrictions imposed by the type of argument position.

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2. Parameters connected with type of argument position

Some of the parameters that determine which of the constructions in (2) is selected or allowed for expressing an embedded predication are connected with the type of governing expression and therefore with the type of argument position to be filled. For example, there may be constraints of a syntactic nature, such as the fact that Ger is never used for embedded predications in Subj or Obj position: this leads to the well-known complementary distribution of Inf-1 and Ger.<sup>7</sup> Semantic factors, on the other hand, may be relevant to the selection of a construction as well. I will discuss two such factors in this section.

(1) The first has to do with the possibility of being realized as an NP or not. Realization of an embedded predication as a SoA-N or a DomPart is not equally well possible with all classes of matrix verbs and nouns which occur with finite and/or AcI-clauses. Thus, most verbs of speech and thought and their related SoA-N's do not allow DomPart and SoA-N's as an alternative to their AcI's, (with the same meaning), whereas verbs of emotion generally do, cf. (18 - 19):<sup>8</sup>

- (18) a. dixit/            intellexit            hostem    advenisse  
 have-said<sub>3sg</sub>/have-understood<sub>3sg</sub>    enemy<sub>acc</sub>    to-have-arrived<sub>inf</sub>  
 "he said/understood that the enemy had arrived"
- b. \*dixit/            intellexit            hostem    advenientem  
 have-said<sub>3sg</sub>/have-understood<sub>3sg</sub>    enemy<sub>acc</sub>    arriving<sub>partacc</sub>
- c. \*dixit/            intellexit            hostis    adventum  
 have-said<sub>3sg</sub>/have-understood<sub>3sg</sub>    enemy<sub>gen</sub>    arrival<sub>acc</sub>
- (19) a. aegre fert        hostem    advenisse  
 badly bear<sub>3sg</sub>        enemy<sub>acc</sub>    to-have-arrived<sub>inf</sub>  
 "he did not like it that the enemy had arrived"
- b. aegre fert        hostem    advenientem  
 badly bear<sub>3sg</sub>        enemy<sub>acc</sub>    arriving<sub>partacc</sub>  
 "he did not like the enemy arriving"
- c. aegre fert        hostis    adventum  
 badly bear<sub>3sg</sub>        enemy<sub>gen</sub>    arrival<sub>acc</sub>  
 "he did not like the enemy's arrival"



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There are some *verba dicendi* and *sentiendi* which do allow NPs, e.g. *nuntiare* 'to report' and *audire* 'to hear' (cf. Helander (1977: 64f; 68f.)), who assumes a semantic difference ('representative' vs. 'allusive') between the two constructions). However, with the latter verb the occurrence of NPs seems to be restricted to the passive voice. Some related nouns (*fama* 'rumor', *nuntius* 'report', *rumor* 'rumor') also allow both AcI's and NPs.

In Bolkestein (1981 b) it is pointed out that the occurrence of DomPart is conditioned by the presence of the factor 'factivity' in the predication: the embedded predication with e.g. *verba affectuum* contains information presented by the speaker as presupposed to be true. The fact that the property of being able to have factive complements has such consequences for which constructions are possible, means that its presence should be indicated for specific (classes of) verbs and nouns in the lexicon. Embedded predications with *verba dicendi*, on the other hand, are of a different nature than those with *verba affectuum*: the latter may be said to represent states of affairs, or 'second order entities' in Lyons' sense (1977: 466), whereas the former represent the content of an act of speech or thought, i.e. predications (they are third order entities).

If we assume that the prototypical function of nouns is to designate 'things' (cf. Hopper & Thompson (1984)), and that nominalization of an embedded predication is connected with conceptualizing a state of affairs as 'thing', it is not at all strange that embedded predications representing states of affairs take the form of NPs, whereas embedded predications which represent 'content' (i.e. predications) may not: the distance between 'predications' and 'things' seems greater. This - to my knowledge quite wide-spread - phenomenon is one of the ways in which language systems maintain some sort of iconicity. Another phenomenon reflecting such a tendency is the fact that in Latin for content clauses but not for factive clauses various pragmatic factors - such as, roughly, the distribution of old and new information in the sentence (or the distribution of Topic and Focus) - are relevant to the selection of syntactic construction, cf. note 2. Thus, the semantic difference between

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'factive' vs. 'content' clauses has far-reaching consequences. This leads me to the relevance of a second semantic factor.

(ii) A further semantic factor is connected with the relevance of sentence type distinctions for embedded 'content' clauses. Because content clauses represent predications, the sentence type distinctions relevant to the description of independent sentences are relevant for semantic and formal properties of embedded content clauses as well (as shown in Bolkestein (1976 a, b; 1977). In a FG framework, sentencetype has the status of a predicationoperator in the underlying structure of a predication; at least three such operators are distinguished, to account for Declarative (Decl), Imperative (Imp) and Interrogative (Int) sentences, cf. Dik (n.d.).

In the case of verbs of speech and thought, the potential to combine with embedded predications specified by each of these predication operators may form the basis for a semantic subclassification into at least seven subclasses of verbs of speech and thought; a provisional illustration is given in (20):

(20)	sentence type of embedded predication:		
<u>verb classes</u>	<u>+ Declar</u>	<u>+ Imper</u>	<u>+Int</u>
1) <u>negare</u> 'to deny', <u>mentiri</u> 'to ly', <u>affirmare</u> 'to maintain'	+	-	-
2) <u>narrare</u> 'to tell', <u>certiorem facere</u> 'to inform', <u>confiteri</u> 'to confess'	+	-	+
3) <u>dicere</u> 'to say', <u>nuntiare</u> 'to report'	+	+	+
4) <u>interrogare</u> 'to question'	-	-	+
5) <u>rogare</u> 'to ask', <u>quaerere</u> 'to ask'	-	+	+
6) <u>imperare</u> 'to order', <u>iubere</u> 'to order', <u>adhortari</u> 'to admonish'	-	+	-
7) <u>admonere</u> 'to remind', <u>suadere</u> 'to advise'	+	+	-

(I pass over many complications here, such as the fact that certain verbclasses may govern dependent questionword questions but not sentence-questions (or the other way round), and the fact that in this

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respect negating or questioning the governing expression makes a difference as well.) The relevance of such a semantic subclassification becomes apparent from the fact that the way in which the embedded predication is expressed is sensitive to the semantic subclass to which a governing expression belongs according to (20). For example, subclass 1 does not govern finite clauses introduced by ut, whereas subclass 3, 5 and 6 do. Moreover, semantic subclass also determines whether or not variation in construction represents a semantic difference (in sentence type) or not; for example, it does in the case of subclass 3 and 7, but not in the case of 6.

In this brief section I have shown that apart from syntactic requirements and properties of the constructions themselves, semantic factors as well may play a role in the selection of construction for embedded predications. Thus, in Latin the difference between being a content clause and being a factive clause determines whether or not it may be expressed as an NP; and within content clauses the distinction between the predication operators Decl, Imp and Int is another relevant factor. (Similar claims can be made for embedded predications governed by nouns: on the NP level, the complementary distribution of DomPart vs. that of DomGer.v and Ger is determined by semantic factors, as argued in Bolkestein (1980 b: 90ff.) and Pinkster (1984: 98), cf. also section 1.4.) This indicates that in order to guarantee application of the right expression rules, such properties must, in some way or other, be specified in the semantic structure of sentences containing such clauses. I will not go into the details of how this can be done within a FG framework<sup>9</sup>, but will turn now to a consideration of the possible relevance of pragmatic factors with respect to the way in which embedded predications are expressed in Latin.

### 3. Pragmatic parameters

In spite of the factors discussed in 1. and 2., there are still a number of circumstances in Latin in which embedded predications may be expressed in alternative ways, that is, contexts in which more than one of the

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constructions of (2) may be chosen. Apart from possible semantic nuances which were left out of consideration in 2., one of the pragmatic factors which may influence the choice of construction in actual discourse may be the distribution of given vs. new or salient information in the main or embedded predication ('pragmatic function distribution' in FG terms), cf. note 2. I will not go into this possibility here (although the observation in Rosén (1981: 22) that realization as a finite clause or as an SoA-N is influenced by the number of adjuncts in the embedded predication may be connected with this factor)<sup>10</sup>. Rather, I will mention two types of parameter whose relevance for Latin has to my knowledge not been explicitly pointed out elsewhere, namely (i) word order, and (ii) the degree of embeddedness of the governing expression.

### 3.1. Word order and syntactic construction

Without making a claim about whether or not Latin should be considered to be a verb final (SOV) language or not (SVO) (cf. Panhuis (1982; 1984 a) for a correction on the first view), it is clear that in Latin nominal Objects statistically, at least in certain kinds of prose, usually occur preceding their governing verbs; this tendency has been claimed to be more pronounced in subordinate than in main clauses, cf. Linde (1923); Marouzeau (1938: 49; 104ff.); Pinkster (1984: 224ff.); Sz. (: 402); K.-St. (II: 611). Furthermore, word order is also influenced by the pragmatic status (e.g. givenness or saliency) of constituents, cf. K.-St. (II: 591); Panhuis (1982); Pinkster (1984: 223ff.); De Jong (1984; this vol.).

Now in FG it is claimed that there is a language independent preferred order or constituents (LIPOC) which, quite independent from other pragmatic factors such as givenness vs. saliency of information, prominence etc., interferes with the normal word order rules which hold for a language (cf. Dik 1980: 23; 218) whether they are of a syntactic or of a pragmatic nature: LIPOC causes 'heavy', that is, syntactically complex, constituents to be placed towards the end of the sentence even in languages which are basically 'prefield' languages, that is, languages in which Object constituents would normally precede their governing verb.

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With respect to the position of Latin embedded predications, it may therefore be hypothesized that there is a correlation between the form of an embedded predication and its position in the linear order of the sentence. Assuming that finite clauses are relatively more 'heavy' than non finite ones and than NPs (cf. Pinkster (1984: 211)), the following hypothesis was tested:

- (21) finite embedded predications will considerably more frequently occur in post-verbal position than will non finite ones and NPs.

A simple illustration of (21) is given in (22 a-b):

- (22) a. Romanorum victoriam / Romanos vicisse laete fero  
 Romans<sub>gen</sub> victory<sub>acc</sub> / Romans<sub>acc</sub> to-have-won<sub>inf</sub> gladly bear<sub>1sg</sub>  
 "I am happy at the victory of the R./that the R. have won"
- b. laete fero quod Romani vicerunt  
 gladly bear<sub>1sg</sub> that Romans<sub>nom</sub> have-won<sub>3pl</sub>  
 "I am happy that the R. have won"

(22 a-b) would display the least marked, or preferred, order of the category of constituents involved. An investigation of embedded predications with different main verbs in various corpora of data led to the results given in (23) (numbers between brackets indicate total number of instances of the category registered):<sup>11</sup>

- (23) a. verbs occurring with NPs and with quod 'that' and with AcI in Cic.'s philosophical writings:

category	NP (43)	AcI (171)	<u>quod</u> (134)
position			
pre-verbal	79%	32%	15,7%
post-verbal	21%	68%	84,3%

- b. dicere 'to say' and imperare 'to order' in Livius:

category	AcI (107)	<u>ut</u> 'that'-clause (46)
position		
pre-verbal	84%	6,5%
post-verbal	16%	93,5%

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c. causative verbs (facere, efficere 'to cause') in Cic., Caes. and Livius:

category	double acc. (87)	<u>ut</u> -clause (117)
position		
pre-verbal	89,7%	23%
post-verbal	10,3%	77%

From (23) it may be concluded that finite embedded predications in Latin obey LIPOC in that they occur significantly more frequently postverbally than NPs (cf. 23 a and also 23 c) and also, though less dramatically so, than AcI (cf. 23 a-b). In other words, there is a correlation between category and word order<sup>12</sup>. (In the case of finite clauses governed by nouns as well, a post Head position is more frequent than in the case of e.g. Ger and Gerv, frequently leading to discontinuity of the NP, cf. Pinkster (1984: 236)).

Perhaps, finite constructions tend to contain more peripheral constituents than non-finite ones - this remains to be investigated - and than NPs (something which in view of the observations in 1. is quite plausible). The possible influence of distribution of information on word order will in that case in fact cooperate with LIPOC rather than that they are conflicting tendencies, because the probability that finite embedded predications contain Focus will be higher than that non-finite ones do so, and because Focus tends to occur at the end of the sentence.

Note that the formulation of LIPOC suggests that in the processing of sentences word order is determined later than the selection of syntactic construction for the embedded predication. However, in principle, the cause-effect relation might be the other way round as well, word order in that case presumably being determined by independent (pragmatic?) factors, cf. also 3.2. On the other hand, the pragmatic data to which I will turn now show that the selection of construction correlates with other factors as well: this would seem in favour of word order being an effect rather than causally involved in the expression of embedded predications.

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### 3.2. Degree of embeddedness and syntactic construction

From the processing point of view, it might be expected that there is a more or less natural limit to the number of embeddings which a sentence allows although this is not a grammatical constraint. Consequently, the selection of construction for embedded predications may be sensitive to whether or not the governing predicate is itself a main verb or figures within a subordinate clause. The following hypothesis was therefore tested:

- (24) an embedded predication will be more often expressed as a finite clause or an ACI than as an NP when the matrix verb figures in the hierarchically highest clause of the sentence; conversely, it will be more often an NP than a finite clause or an ACI when the matrix verb figures in a subordinate clause itself.

A simple illustration of this hypothesis is given in (25 a-b):

- (25) a. moleste fert      quod hostes      venerunt (vs. hostium adventum)  
badly bear<sub>3sg</sub> that enemy<sub>nom</sub> have-come<sub>3pl</sub> (enemy<sub>gen</sub> arrival<sub>acc</sub>)  
"he dislikes (the fact) that the enemy has come (vs. the arrival of the enemy)"
- b. Caesar dixit              se      hostium adventum      moleste ferre  
C.<sub>nom</sub> have-said<sub>3sg</sub> he<sub>acc</sub> enemy<sub>gen</sub> arrival<sub>acc</sub> badly to-bear<sub>inf</sub>  
(vs. quod hostes advenissent)  
(vs. that enemy<sub>nom</sub> had-arrived<sub>3pl</sub>)  
"C. said that he disliked the arrival of the enemy (vs. (the fact) that the enemy had arrived)"

According to (24), the unbracketed constructions in (25 a-b) are expected to be more a natural way of expression than the bracketed constructions. An investigation of 110 instances of the verba affectuum laetari and gaudere (data from TLL, Cic. Merguet, Liv. Tac. and Pl.) confirms this hypothesis. The data are given in (26):

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(26)	construction of embedded predication			
	status of governing expression	AcI/ <u>quod</u>	NP	total
	g.e. in main clause	39	16	55
	g.e. in subordinate clause	19	36	55
	total	58	52	110

Although the data will have to be expanded (cf. note 11), (26) shows that with the verba affectuum involved the proportion of NPs is twice as high in embedded than in main clauses, whereas for the proportion of AcI plus quod-clauses the opposite holds. In other words, there is a correlation between degree of embeddedness of the governing expression and which construction is selected for expressing an embedded predication.

The two pragmatic parameters investigated both suggest that processing factors play a role in the selection of a syntactic category for embedded predications. (Another indication is perhaps the fact that if a two-place verb may have an embedded predication in both argument positions, as e.g. verbs of causation such as efficere 'to cause, make' may, only one will normally be realized as a finite clause: the only instances in which the first argument is a finite quod-clause are those in which the caused state of affairs is expressed as a double accusative construction).

Moreover, interestingly, both parameters taken together may offer a partial explanation for the word order tendency alluded to in 3.1., namely the higher percentage of SOV order in subordinate clauses in Latin: if embedded predications are indeed more frequently realized as NPs in subordinate clauses (3.2.), they will also relatively more frequently precede the verb in those clauses.

A third factor, pragmatic function distribution in terms of e.g. Topic and Focus, which has been left out of consideration in this paper, may quite well interact with the two discussed here, especially if, as is sometimes claimed, there is a connection between embedding and presenting backgrounded rather than foregrounded information<sup>13</sup>. (This claim does not,



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however, I want to stress, hold for content clauses with verbs of speech.) To what extent the distribution of information interacts, strengthens or conflicts with the above tendencies remains to be investigated.

### 4. Concluding remarks

In this paper I have discussed a number of interacting parameters, belonging to different levels of linguistic structure, which are relevant to the expression of embedded predications in Latin. An investigation of the internal properties of various syntactic categories in which these may be expressed shows that the constructions crucially differ in one or more points on a scale of sentential vs. nominal and other properties (section 1). Points of difference involve the possibility of governing genitival Patients, obligatory or optional valency reduction and the presence of tense and voice. A discussion of the status and internal structure of SoA-N's (1.5.) shows that there are limits to the interchangeability of the various categories.

In 2, attention was paid to restrictions imposed by the governing expressions. Semantic distinctions, such as being a factive or a content predication, and, within the latter class, sentence type distinctions, were shown to be relevant factors.

Section 3 dealt with pragmatic factors: two of these, position of the embedded predication (3.1.) and degree of embeddedness of the governing expression (3.2.) show a correlation with the selection of construction. Taken together they may moreover offer a partial explanation of the greater percentage of SOV order in Latin subordinate clauses. Both phenomena are an indication that processing factors play a significant role in the syntax of sentences. The role of information structure and its interaction with the phenomena mentioned may therefore be a promising subject for future research.

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NOTES:

- 1 From the Latin handbooks it is quite complicated to gather an idea of alternatives, since they are ordered on the basis of construction types. One has to work one's way through the lexica. In Pinkster (1984: 129ff) where surveys of some verbs are given, no attention is paid to possible semantic differences.
- 2 As e.g. in the case of the proleptic accusative and the Nom. cum Inf. construction in Latin, cf. Bolkestein (1981 a; 1983); see also Panhuis (1984 b) for similar results with regard to Greek.
- 3 Vester's material (1983: 101) concerns Ger in the ablative as a filler of satellite slots. The first argument of such Ger may be coreferential with the first or with the second argument of the main verb (whether active or passive), and even to unexpressed but implied dative Experiencers. It may also lack a coreferent altogether.
- 4 As opposed to Ger, Gerv and Part, the relation between SoA-N and a related verb is not 'transformational' or due to a productive rule, but lies in the semantic similarity between the frames, cf. Mackenzie (1984) and Dik (1985 b), who offer proposals for a formal description within the framework of FG; I will leave this aspect aside.

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- 5 Data: 48 instances of the orders (14 b and c), 41 found in the prose computer corpus at the University of Amsterdam (Caes. BG 1;4;5;6; Cic. Cael; Cat; Leg; ND; Tusc; Curt. Ruf. 4;6;7; Liv. 2; 21; 22; Sall. C; J; Tac. Agr.; Dial) plus 9 instances from Helander (1982) of the noun victoria. Cf. also note 11.
- 6 The data have been collected by Kroon. In this case no distinction was made between SoA-N's which fill an argument position and those which do not (cf. also Kroon (1984)).
- I will not touch upon the possible connection between reduced valency and presenting presupposed information (Rosén (1983: 198)). Cf. note 10, and section 3.2.
- 7 Moreover, prepositions may only govern Ger and not Inf-1.
- 8 For suggestions as to a possible semantic difference between AcI and quod-clauses cf. K.-St. (II: 277), Perrochat (1932: 85ff) and Carvalho (this vol.).
- 9 Beckestein (1981 b) offers a proposal about how to represent factivity in the underlying predication.
- 10 Rosén (1981: 18; 1983: 187f) stresses the 'resumptive' function of SoA-N in archaic Latin and claims that anticipatory use is less frequent. I do not have the impression that SoA-N can be classified as Topic in the majority of cases.
- 11 I have not applied the  $X^2$  or any other test for significance since I am not convinced of its value with respect to linguistic data. I indicate the total number of instances of a construction collected within which the percentages hold. My weak statistics are meant as an invitation to colleagues to provide counterevidence.

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- 12 Herman (this vol.) now shows that the word order differences between AcI and quod-clauses also hold diachronically, without, however, adopting LIPOC as an explanatory principle.
- 13 Cf. e.g. Mackenzie (1984; 1985: 46). Note Marouzeau's explanation for the higher SOV order in subordinate clauses: "elle se prête moins a l'expression des nuances et reliefs" (Marouzeau 1938: 49).

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