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► **To cite this version:**

Giovanbattista Galdi, Jasper Vangaever. On the use of the ablative of the gerund and the nominative of the present participle in Latin technical literature. Mouton De Gruyter. *Lemmata Linguistica Latina*. Volume 2: Clause and discourse, pp.96-115, 2019. hal-02455274

**HAL Id: hal-02455274**

**<https://hal.science/hal-02455274>**

Submitted on 25 Jan 2020

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On the use of the ablative of the gerund and the nominative of the present participle in Latin  
technical literature

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## Abstract

In Latin, the gerund and the present participle often function as the predicate of an adjunct clause. In Late Latin, the frequency of such clauses is hypothesized to increase with the ablative of the gerund and to decrease with the nominative of the present participle. This evolution leads to the “gradual replacement of the present participle by the gerund” (Pinkster 2015: 549), whereby the former is ousted from its verbal function and confined to a purely adjectival role. This process is triggered by the “semantic bleaching” of the gerund, whose original manner/instrumental value gradually “weakens” into the default value of the present participle, viz. a temporal one. This paper aims to investigate the functional competition between the two clause types in a corpus of technical texts between the 2<sup>nd</sup> c. BC and the 6<sup>th</sup> c. AD. We show that the semantic bleaching of the gerund is not significant in our corpus and hence does not confirm its functional competition with the present participle. We argue that the two clause types have different semantic and pragmatic properties and that these differences remain stable over time.

**Keywords:** gerund, present participle, coalescence, semantics, pragmatics

## 1 Introduction

The gerund and the present participle are two non-finite verb forms, and hence function as the predicate of a non-finite clause (Lehmann 1988). Non-finite clauses are subordinate clauses in that they are syntactically dependent on another clause, viz. the matrix clause (hence MC), within which they perform a syntactic function (Lehmann 1988; Koptjevskaja-Tamm 1993).

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<sup>1</sup> This author’s research is funded by the ANR/DFG PaLaFra project (ANR-14-FRAL-0006).

Latin gerundial clauses function as a noun phrase (1) or an adverb phrase (2), while present participial clauses function as an adjective phrase (3) or an adverb phrase (4) (Vangaever 2018).

- (1) [...] *is, cui potestas **accipiendi** fuit.* (CIC. prov. 41)  
‘the man who had an opportunity of receiving a favour’
- (2) *Unus homo nobis **cunctando** restituit rem.* (CIC. off. 1, 84)  
‘One man – and he alone – restored our state by delaying’ (transl. Loeb)
- (3) *Non illum [...] morbus **ingrauescens** retardavit [...].* (CIC. Phil. 9, 2)  
‘His worsening illness did not hold him back’
- (4) *Stolo, **subridens**, dicam, inquit [...].* (VARRO rust. 1, 2, 27)  
“‘I will tell you,’ said Stolo, with a smile’ (transl. Loeb)

This paper focuses on the evolution of adjunct clauses headed by a bare ablative gerund (2) (hereafter GACs) and by a nominative present participle (4) (hence PPACs).

In Republican and Classical Latin, GACs typically express the manner of the matrix event or the means by which it is realized (2), but occasionally they are used with the default value of the PPAC, viz. a temporal one (Lyer 1932; Kühner and Stegmann 1955; Adams 2013; Vangaever 2018). Compare (4) and (5), where both the PPAC and the GAC express the circumstances accompanying the matrix event: in (4) Stolo smiles while speaking and in (5) the consul calls after his companions while pursuing them. In the literature, GACs with a temporal value are labelled as “semantically bleached or weakened” (Kühner and Stegmann 1955).

- (5) [...] *cum **reuocando** nequiquam suos persecutus esset [...].* (LIV. 2, 59, 9)  
‘After he had vainly followed his men while calling them back’

In Imperial and Late Latin, the frequency of semantically bleached GACs is claimed to increase at the expense of the PPAC (Hofmann and Szantyr 1965), which leads to the “gradual replacement of the present participle by the gerund” (Pinkster 2015: 549), whereby the former is ousted from its verbal function and confined to a purely adjectival role (Elcock 1960).<sup>2</sup> This process is referred to as the “coalescence of the gerund and the present participle” (Bauer 1993).

Our aim is to investigate if and to what extent the coalescence of the GAC and the PPAC is represented in a corpus of technical texts between the 2<sup>nd</sup> c. BC and the 6<sup>th</sup> c. AD. Our analysis

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<sup>2</sup> For a more critical approach, see Adams (2013: 725-740).

consists of two steps. First, we determine the semantic profiles of the two clause types, viz. the inventory and relative frequency of their semantic values. Second, we establish their pragmatic profiles, viz. the inventory and relative frequency of their pragmatic functions. We show that although the semantic bleaching of the GAC is extant in our corpus, its low frequency rise in Late Latin does not provide evidence for its coalescence with the PPAC. Instead, the two clause types have different semantic and pragmatic properties (Kooreman 1989), which remain stable over time.

## 2 Corpus and data

Our corpus includes 10 technical treatises spread over two periods: Early Latin (2<sup>nd</sup> c. BC – 1<sup>st</sup> c. AD) and Late Latin (4<sup>th</sup> – 6<sup>th</sup> c. AD) (Table 1).

Table 1. Corpus.

		Century	Author	Text	N° of words	
Early Latin	BC	2	Cato	<i>De agri cultura</i>	16.026	264.912
		2-1	Varro	<i>Res rusticae</i>	35.692	
	AD	1	Celsus	<i>De medicina</i>	104.017	
		1	Columella	<i>Res rustica</i>	109.177	
Late Latin	AD	4	Chiron	<i>Mulomedicina</i>	65.580	201.893
		4	Pseudo-Apuleius	<i>Herbarium</i>	18.725	
		4-5	Pelagonius	<i>Ars ueterinaria</i>	22.541	
		5	Palladius	<i>Opus agriculturae</i>	42.159	
		5	Vegetius	<i>Digesta artis mulomedicinae</i>	48.409	
		6	Anthimus	<i>De obseruatione ciborum epistula</i>	4479	

Despite the high frequency of non-finite verb forms in technical texts, the coalescence of the GAC and the PPAC has not yet been investigated within this type of sources. Moreover, the rather informal register of such texts is particularly interesting for the study of language change. Chiron has a special place in the corpus, because he was probably a non-native speaker with a

rather deviant language pattern. Whenever the results are biased by Chiron’s language, this will be explicitly mentioned.

Our dataset contains 194 GACs and 399 PPACs, which are distributed quite evenly between Early and Late Latin (Table 2).

Table 2. Data.

	N° of GACs	N° of PPACs	Total
Early Latin	99 (51,03%)	172 (43,11%)	271 (45,70%)
Late Latin	95 (48,97%)	227 (56,89%)	322 (54,30%)
<b>Total</b>	<b>194 (100%)</b>	<b>399 (100%)</b>	<b>593 (100%)</b>

### 3 Semantics

Our semantic analysis consists of two phases: we have first inventorized the *semantic relations* between the GACs/PPACs and their MC, which we have then grouped in five *semantic networks* based on their relatedness. This classification is based on typological work on adverbial clause linkage (Kortmann 1997; Hetterle 2015).

Table 3. Semantic framework.

<b>Semantic relation</b>	<b>Semantic network</b>
Manner/instrument Similarity/comparison	Modal network
Anteriority Posteriority Accompanying circumstance Temporal frame	Temporal network
Location	Spatial network
Cause Condition Concession Result Purpose Contrast	Logico-causal network
Specification	Specifying network

Two methodological remarks should be made here:

- (a) The semantic relation between the GAC/PPAC and its MC must be pragmatically inferred from the discourse context or based on encyclopedic knowledge, and hence it is not always easy to determine. Whenever two or more interpretations were allowed, we systematically pleaded for the semantically richest one (e.g. cause instead of time).
- (b) The semantic relation between the GAC/PPAC and its MC is generally implicit, viz. lexically unmarked. The use of so-called “augmentators” (Kortmann 1991) is rare and confined to relations which are conceptually complex and/or rare. Consider (6), where the adverb *uelut* cues the interpretation of similarity/comparison.

(6) *Ita uelut uanescendo sanantur.* (VEGET. mulom. 2, 24, 1)

‘They are so healed, as it were, by gradually vanishing away’

In what follows, we will determine and compare the semantic profiles of the GAC and the PPAC. Since their differences appear more clearly on the level of the semantic networks, frequency patterns will be provided for the networks rather than for the individual relations.

### 3.1 The GAC

The semantic profile of the GAC is multifarious: it allows 9 semantic relations pertaining to all five semantic networks distinguished in Table 3 (Figure 1).

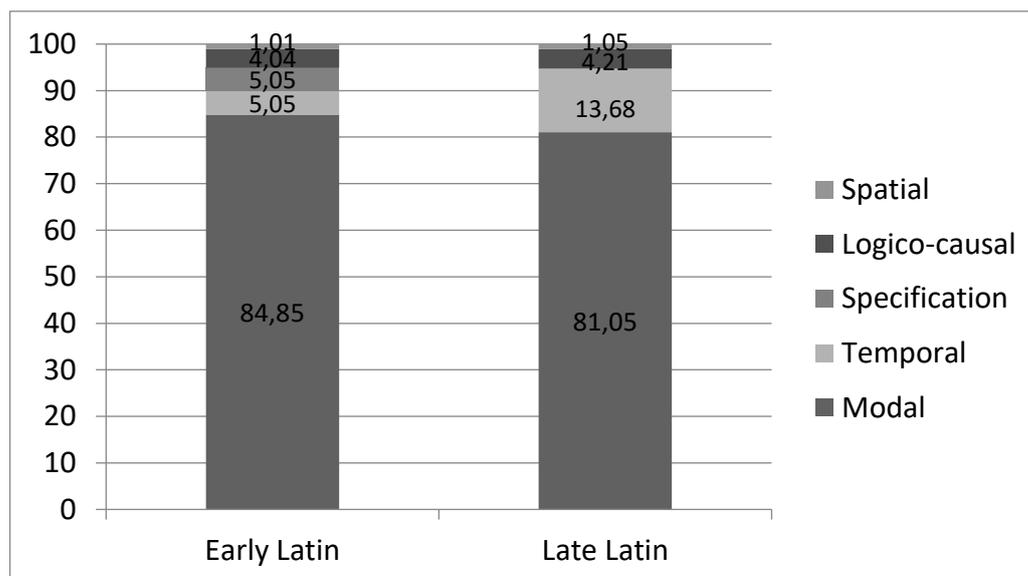


Figure 1. Semantic profile of the GAC.

The modal network prevails in both Early and Late Latin. It hosts two semantic relations: manner/instrument and similarity/comparison (Table 3). The choice of grouping together manner and instrument has two reasons: from a methodological perspective, manner and instrument are often very hard to distinguish (Vester 1983); from a typological perspective they tend to be marked by the same augmentators and subordinators, which indicates that there is a strong conceptual link between them (Hetterle 2015). The same holds for similarity and comparison (Hetterle 2015).

In Early Latin, all modal GACs have a manner/instrumental interpretation. Consider (7), where *bene colendo* expresses the way in which one makes its estate profitable.

(7) *Emisti fundum, quem bene **colendo** fructuosum cum facere uelis.* (VARRO rust. 1, 1, 2)

‘You have bought an estate and wish to make it profitable by good cultivation’ (transl. Loeb)

Barring (6), where *uelut uanesendo* expresses, by way of similarity/comparison, the form in which wounds have been healed, the Late Latin modal GACs always have a manner/instrumental interpretation. This is due to the fact that this is the default interpretation of bare ablative nominal or noun-like constructions (Lyer 1932; Pinkster 2015).

The temporal network is rare in both Early and Late Latin. It hosts four semantic relations (Table 3), but only three of them are represented in our corpus. In (8), the GAC refers to the circumstances accompanying the cooking process, while in (9) it expresses the temporal frame of the drinking event.

(8) *Coquat lento foco **agetando** ipsa olla frequenter manibus.* (ANTHIM. 1076)

‘You have to cook it over a low heat while shaking the pot frequently with your hands’

(9) *Si quis **cabalicando** et in labore **festinando** amplius potum praesumpserit [...].* (ANTHIM. praef. p. 3, 1)

‘If someone drinks too much when riding his horse or hurrying about his business’

The third temporal relation is anteriority, represented only once, in Chiron (10). This example occurs within an obscure passage where three instructions are given in order to perform some magical ritual: one has to take a medicine and, before using it, he must shake it (*mouendo*).<sup>3</sup>

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<sup>3</sup> We have analyzed *uti* as the infinitive of *utor*, depending on *uoles*, which, in turn, is coordinated to *admittito* (“you will take it and will be willing to use it for me”). However, it can also be interpreted as the subordinating conjunction *ut* (Krüger 1981: 46).

(10) *Quod in ea manu admittito et **mouendo** uti mihi uoles [...].* (CHIRON 9, 855)

‘Which you have to take in your hand and to shake before you use it for me’

The GAC only takes two logico-causal values: purpose and cause. In (11), it expresses to which purpose one must suspend his hand over his middle finger, while in (12) it explains why older bees are struck with punishment and death.

(11) *Mediano digito manum tuam **moderando** suspende.* (VEGET. mulom. 2, 40, 3)

‘Suspend your hand upon your middle finger in order to govern it’

(12) *Imperia ualidiorum contumaciter **spernendo** poenis ac mortibus afficitur* (COLVM. 9, 11, 668)

‘(Older bees) through obstinately despising the orders of those who are stronger than themselves, are visited with punishment and death’ (transl. Loeb)

The rarity of cause is due to the fact that we restricted it to contexts where there is a purely logico-causal relationship between two *a priori* unrelated events. By contrast, manner/instrumental GACs specify the manner of the matrix event or the means by which it is realized<sup>4</sup>.

The spatial network is attested only twice. In (13), *procedendo* specifies the place in the ear where the passage becomes tortuous.

(13) *In aure quoque primo rectum et simplex iter, **procedendo** flexuosum.* (CELS. 8, 1, 6)

‘In the ear the passage is also at first straight and single, but as it goes further becomes tortuous’ (transl. Loeb)

Finally, the specification network is restricted to Early Latin (Columella). Specifying GACs provide a more fine-grained image of the matrix event by highlighting a particular aspect of it (Halliday 2004). In (14), the GAC corresponds to the verb of saying *dicendo* and its direct object (omitted here), the combination of which specifies the words of the matrix verb *inculco*, which is a semantically richer verb of saying.

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<sup>4</sup> Our use of manner/instrument differs from that of Vester (1983), Kooreman (1989), and Dik (1997), who impose [+control] and [+volitionality] on instruments.

- (14) *Idque nobis poeta uelut surdis ueritatis inculcet **dicendo** “...”*. (COLVM. 3, 10, 18)  
 ‘And this the poet would impress upon us, as if we were deaf to the truth, in saying’  
 (transl. Loeb)

### 3.2 The PPAC

The semantic profile of the PPAC is much more varied: it allows 14 semantic relations pertaining to all semantic networks of Table 3 (Figure 2). Moreover, some PPACs do not bear any semantic relation to their MC (NA). Such cases will be discussed later.

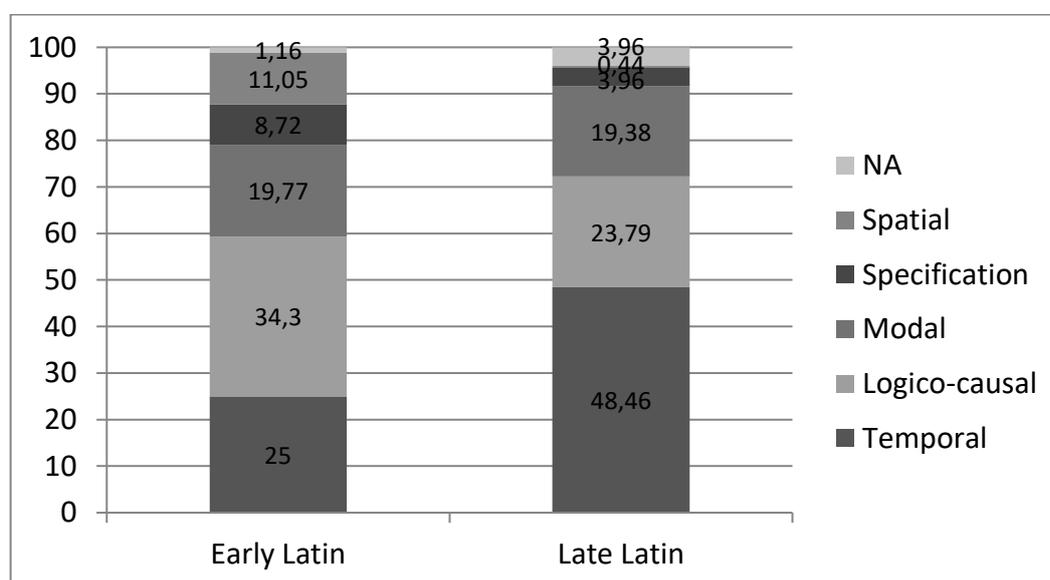


Figure 2. Semantic profile of the PPAC.

The temporal network is the default one (Kühner and Stegmann 1955; Adams 2013; Vangaeuer 2018). It hosts four semantic relations (Table 3), which are all represented in our corpus: in (15), the animal has to walk before it rests (anteriority); in (4), Stolo is speaking and smiling at the same time (accompanying circumstance); in (16), the sick animal has to be put in water before being poured with acrid vinegar (posteriority); in (17) the patient is suddenly choked while he has fever (temporal frame).

- (15) *Post clysterem **ambulans** satis quiescat*. (PELAGON. 132)  
 ‘After the injection, it (the animal) should walk and (afterwards) rest sufficiently’  
 (16) *Morbida in aqua reponitur [...] acetum acre **infundentes***. (CHIRON 508)  
 ‘The sick animal shall be put in water and acrid vinegar shall be poured on it’

(17) *Neque is seruari potest, qui sine ullo tumore febricitans subito strangulatur.* (CELS. 2, 6, 7)

‘It is impossible for a patient to be saved, who, having fever without any swelling, is suddenly choked’ (transl. Loeb)

The logico-causal network is represented by all semantic relations in Table 3: in (18), the conflation of the animals’ breath explains why the air becomes contaminated (cause); in (19), the opening of a cup on one end contrasts with its having a small hole on the other end (contrast); in (20), the animal goes slowly lest he suffers from its wound (purpose); in (21), the thin corium is the result of the animal’s labour (result); in (22) the animal remains hungry although it eats (concession); and in (23), symptoms lasting longer than normal are signs of imminent death (condition).

(18) *Spiritus eorum pluribus cohaerens maiorem aeris coinquinationem facit.* (CHIRON 192)

‘Their breath, coming from several animals, causes a larger contamination of the air’

(19) *Cornea, altera parte aequa patens altera foramen habet exiguum.* (CELS. 2, 11, 55)

‘The horn cup is open at one end, but has a small hole at the other end’

(20) *Tarde incedens, non sentiens plagam, ambulaturae gratiam perdit.* (VEGET. mulom. 2, 5, 2)

‘By going very slowly, in order not to feel the whip, he loses the gracefulness of his gait’

(21) *Cum quando enim iumentum ex uia aut ex sarcina ductionis laborauerit, naturale habens tenue corium.* (CHIRON 40)

‘For, when the animal has worked either on the road or as a draught horse, he naturally develops a thin corium’

(22) *Manducans multum esurit.* (CHIRON 407)

‘Although it eats a lot, it starves’

(23) *[...] diutius durans mortis index est.* (CELS. 2, 6, 36)

‘When it lasts longer, it indicates death’

The modal network is represented by manner/instrument and similarity/comparison: in (24), the Cappadocians nourish and increase the size of the bodies of their horses by performing specific acts (manner/instrument); and in (25) the animal has to lay as if it were asleep (similarity/comparison).

(24) *Quod etiam Cappadoces **facientes** corpora equorum et nutriunt et augent.* (PELAGON. 24)

‘By doing this, the Cappadocians also nourish and increase the size of the bodies of their horses’

(25) *Requirendum est [...] num sine sensu quasi **dormiens** iacuerit.* (CELS. 8, 4, 333)

‘We must inquire whether it has lain senseless as if it were asleep’

In (26), the PPAC indicates the place where the artery makes a junction with the lung (spatial network).

(26) *Eaque (arteria) **descendens** ad praecordia cum pulmone committitur.* (CELS. 4, 1, 3)

‘Descending to the praecordia, it (the artery) makes a junction with the lung’ (transl. Loeb)

In (27), the complex sentence specifies the subject of Varro’s work (MC) and the way it is organized (PPAC, specification).

(27) *Tum de his rebus dicam **sequens** naturales diuisiones.* (VARRO rust. 1, 1, 11)

‘I shall treat of the subject, following the natural divisions’ (trans. Loeb)

Finally, in (28) there is no semantic relation between the PPAC (sweeping out the animals’ quarters) and its MC (providing dry wheat).

(28) *Cibatui quod sit, obiciunt triticum siccum, in centenos uicenos turtures fere semodium, cottidie **euerrentes** eorum stabula.* (VARRO rust. 3, 8, 2)

‘As to food, dry wheat is given them, about a half-modius for 120 turtle-doves, and their quarters are swept out every day’ (transl. Loeb)

PPACs of the latter type are syntactically dependent on their MC, but semantically independent from it. Such PPACs are generally found in Chiron (9 times out of 11), but are not restricted to him: it would hence be erroneous to disregard them from the statistics.

### 3.3 Discussion

The traditional hypothesis on the coalescence of the gerund and the present participle states that over time there is an increasing frequency of GACs whose original manner/instrumental value is weakened into a temporal one (semantic bleaching). One would thus expect a statistically significant increase of temporal GACs between Early and Late Latin, but this is not the case in our corpus: the temporal network does extend in frequency (Figure 1), but not significantly ( $\chi^2=3,02$ ;  $p=0,0822$ ).<sup>5</sup>

However, the semantic bleaching of the GAC is not restricted to the temporal network: if its default value is a manner/instrumental one (Kühner and Stegmann 1955; Pinkster 2015), then all non-manner/instrumental GACs are semantically bleached. But even in this case, the frequency increase of all semantically bleached GACs (15% in Early Latin against 19% in Late Latin, Figure 1) is not significant ( $\chi^2=0,41$ ;  $p=0,522$ ). Moreover, neither of the frequency patterns of the specification, spatial and logico-causal networks appears significant on their own.<sup>6</sup>

Our results shed new light on the coalescence of the GAC and the PPAC. First, the semantic bleaching of the GAC is not restricted to the temporal network, but also operates on the spatial, specification and logico-causal networks. In fact, the temporal network covers only half of all semantically bleached GACs (52%). Second, the semantic bleaching of the GAC already exists in Early Latin, and hence does not emerge in the later period.<sup>7</sup>

As for the PPAC, there is an extremely significant evolution in two semantic networks: the increase of the temporal network ( $\chi^2=13,43$ ;  $p=0,0002$ ) and the decrease of the spatial one ( $\chi^2=1,86$ ;  $p=<0,0001$ ). The frequency pattern of the other networks is not significant.<sup>8</sup> The rise of the temporal network is surprising against the traditional hypothesis on the coalescence of the GAC and the PPAC: given the semantic bleaching of the GAC and its competition with the PPAC, it is expected that the increase of temporal GACs triggers a reduction of temporal PPACs. Instead, our corpus shows a non-significant rise of temporal GACs and an extremely significant increase of temporal PPACs.

The rise of temporal PPACs is strongly influenced by anteriority PPACs, which are almost entirely confined to Late Latin (42 times out of 46). The increase of anteriority PPACs from Early to Late Latin is very significant ( $\chi^2=20,83$ ;  $p=<0,0001$ ), and hence confirms the hypothesis that the original temporal value of the PPAC (simultaneity) is often overridden by

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<sup>5</sup> All statistical results are based on chi-square goodness of fit tests.

<sup>6</sup> Specification network:  $\chi^2=3,04$  and  $p=0,0812$ . Logico-causal and spatial networks:  $\chi^2=0$  and  $p=1$ .

<sup>7</sup> It is likely that semantically bleached GACs have always existed.

<sup>8</sup> Modal network:  $\chi^2=0$  and  $p=1$ . Specification network:  $\chi^2=2,93$  and  $p=0,0869$ . Logico-causal network:  $\chi^2=3,46$  and  $p=0,0629$ . Semantically independent PPACs:  $\chi^2=1,86$  and  $p=0,1726$ .

anteriority (Pinkster 2015; Galdi 2016). Half of the Late Latin anteriority PPACs appear in Chiron, a tendency which is extremely significant ( $\chi^2=116,96$ ;  $p=<0,0001$ ). Nevertheless, Chiron' use of anteriority PPACs does not distort the statistics of the Late Latin corpus, because the rise of anteriority PPACs appears equally significant in the absence of Chiron ( $\chi^2=14,98$ ;  $p=<0,0001$ ). This shows that Chiron, despite its "special" Latin, does not necessarily influence the overall results.

Finally, there are three important differences between the semantic profiles of the GAC and the PPAC. First, the PPAC is more versatile than the GAC in that the former allows 14 semantic relations and the latter only 9. In addition, some PPACs do not bear any semantic relation to their MC, which is never the case with the GAC. Next, from Early to Late Latin the GAC tends to maintain its default value (manner/instrument), while the default value of the PPAC (accompanying circumstance and temporal frame) tends to be overridden by another temporal or non-temporal relation based on the principle of pragmatic inferencing (see Section 3). Finally, three semantic networks have a relative frequency of more than 20% with the PPAC (the temporal, logico-causal, and modal networks), while there is only one such network with the GAC (the modal one). The versatility of the PPAC appears thus even more clearly on the level of the semantic networks than on that of the semantic relations. As for the GAC, its semantic stability is equally evident on both levels.

#### **4 Pragmatics**

The coalescence of the GAC and the PPAC is traditionally considered as triggered by the semantic bleaching of the former. We have seen above that from Early to Late Latin the increase of "weakened" GACs is not significant. Therefore, the coalescence of the clauses is not represented in our corpus. In this section, we will investigate their pragmatic profiles and compare them with their semantic ones. We shall show how the pragmatic profiles are related to the coalescence of the GAC and the PPAC.

According to Haug (2012), semantic relations and pragmatic functions are related in that each semantic relation serves a specific pragmatic function. Hence, the pragmatic profiles of the GAC and the PPAC can be determined by relating the inventory and relative frequency of their semantic relations to a pre-given set of pragmatic functions.

The pragmatic functions are determined on the basis of how GACs and PPACs function in terms of information structure. According to Fabricius-Hansen and Haug (2012) and Haug (2012), the information structural function of verb-headed adjuncts such as GACs and PPACs

is to expand the focus of their MC. Focus is understood here as “the semantic component of a pragmatically structured proposition whereby the assertion differs from the presupposition” (Lambrecht 1994: 213), viz. the part of the sentence which contains the new information. Adjunct clauses can expand the focal part of their MC in three ways (Fabricius-Hansen & Haug 2012; Haug 2012).

First, they can elaborate on the MC so as to give a more detailed description of the matrix event. In (7), *bene colendo* explains how someone can make his estate more profitable (manner/instrument), while in (4), *subridens* indicates what Stolo does while speaking (accompanying circumstance). Since the matrix events have in both instances a general meaning by themselves, the use of the GAC or the PPAC can be considered as a syntactic strategy to accommodate the lexical semantics of the MC to the speaker/writer’s mental image of the complete state of affairs, which he intends to express in a way as detailed as possible. This use of adjunct clauses compensates the lack of a single predicate whose meaning covers relatively complex states of affairs. Adjunct clauses like *bene colendo* and *subridens* are called “elaborating adjuncts” (Fabricius-Hansen & Haug 2012; Haug 2012), because they expand and elaborate on the focal part of their MC.

Second, they can function as “frame-setters” or “scene-setters” (Chafe 1984; Dik 1997; Diessel 2005), which provide the orientation for the subsequent discourse or convey additional information about the preceding discourse. In (12), the GAC provides the causal background against which the older bees are struck with punishment and death, while in (18) *febricitans* sets the temporal frame within which the patient is suddenly choked. Such clauses expand the focal part of their MC by framing it in a temporal, logico-causal, modal, spatial, or specificational setting (Table 4).

And third, they can provide information that is equally new and central as the one conveyed by the MC, but is completely independent from it. In (29), the instruction expressed by the PPAC is equally important as the one expressed by the MC: the PPAC is syntactically dependent on the MC, but semantically and pragmatically independent from it. Such clauses are called “independent rhemes” by Fabricius-Hansen and Haug (2012) and Haug (2012), but this term does not specify what the adjunct is independent from: the topical or focal part of the MC. Since the adjunct clause is dependent on the topical part of the MC, but independent from its focal part, we propose the term “secondary focus adjuncts” (“secondary” refers here to the pragmatically independent status from the focal part of the MC). The pragmatic function of secondary focus adjuncts is particularly clear in passages like (29), where a series of equally important instructions must be executed in view of the intended result. Secondary focus

adjuncts expand the focal part of the MC by providing an additional, but hierarchically equivalent information unit.

Based on Fabricius-Hansen and Haug (2012) and Haug (2012), we have related the semantic relations from Table 3 to the three pragmatic functions presented above (Table 4).

Table 4. Pragmatic framework.

Semantic network	Semantic relation	Pragmatic function
Modal network	Similarity/comparison	Framing
	Manner/instrument	Elaboration
Temporal network	Anteriority	Framing
	Posteriority	
	Temporal frame	
	Accompanying circumstance	Elaboration
Spatial network	Spatial frame	Framing
CCC network	Cause	Framing
	Condition	
	Concession	
	Purpose	
	Contrast	
	Consequence	
Specifying network	Specification	Framing
NA	NA	Secondary focus

Most semantic networks are homogeneous in that their semantic relations always have the same pragmatic function. For instance, the specifying, logico-causal and spatial relations all fulfil a framing function, while NA PPACs always function as secondary focus adjuncts. By contrast, the modal network hosts one elaborating semantic relation (manner/instrument) and one framing semantic relation (similarity/comparison), while the temporal network hosts three framing semantic relations (anteriority, posteriority, temporal frame), and one elaborating semantic relation (accompanying circumstance). The fact that not all semantic networks are homogeneous with respect to the pragmatic function of their semantic relations shows why it is so important to distinguish – on the pragmatic level – between semantic relations and semantic networks.

#### 4.1 The GAC

Given that the GAC tends to maintain its default manner/instrumental value and that this semantic relation serves an elaborating function, we expect that the pragmatic profile of the

GAC is dominated by the pragmatic function of elaboration, which is exactly the case in our corpus. GACs can also serve a framing function, but this is rare. In the absence of GACs which are semantically unrelated to their MC, we have found no secondary focus GACs in our corpus (Figure 3).

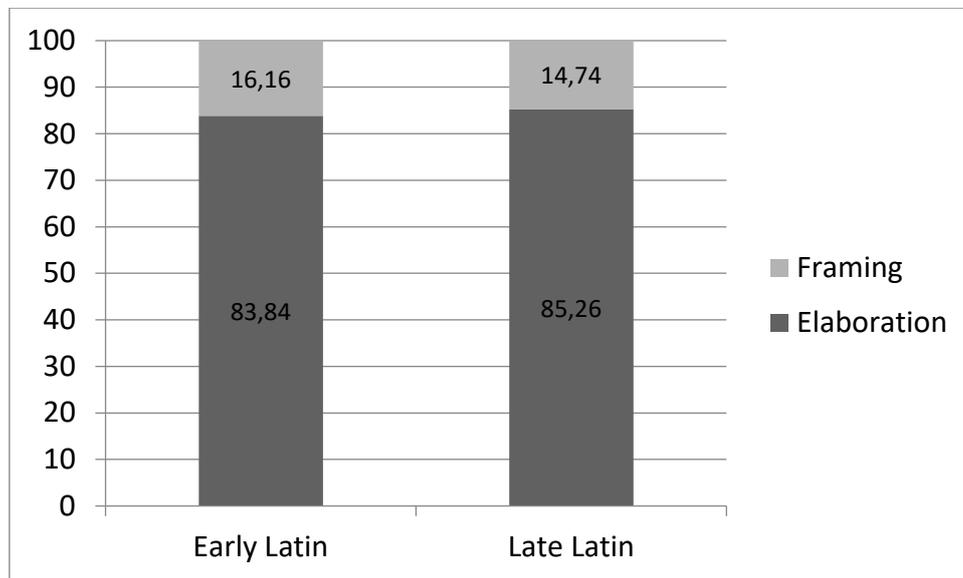


Figure 3. Pragmatic profile of the GAC.

#### 4.2 The PPAC

Since the PPAC predominantly has a temporal or logico-causal value, and most temporal and all logico-causal values serve a framing function, we expect that the dominant pragmatic function of the PPAC is that of framing. This hypothesis is confirmed in our corpus for both Early and Late Latin. PPACs can also function as elaborating or, more rarely, secondary focus clauses.

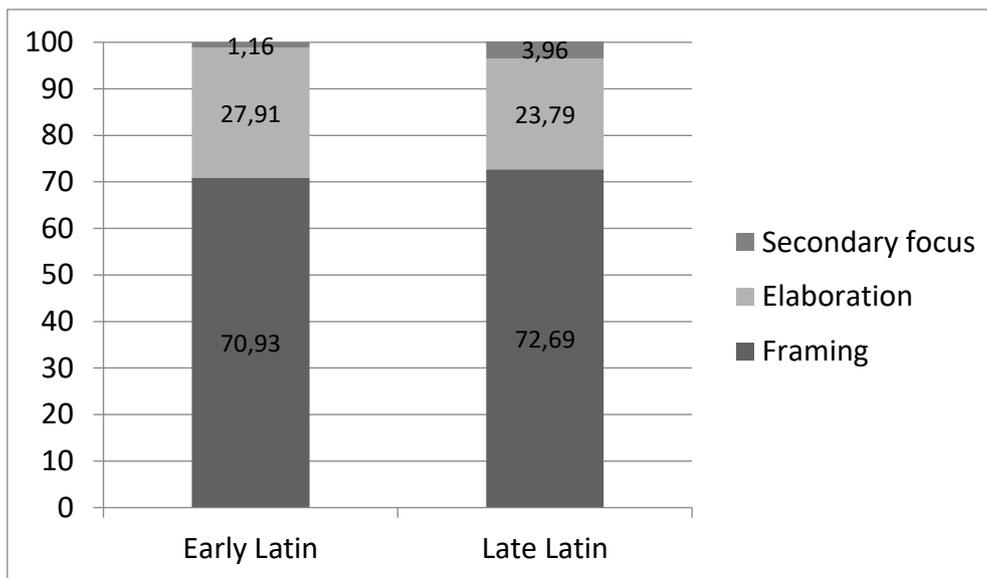


Figure 4. Pragmatic profile of the PPAC.

### 4.3 Discussion

Given the semantic differences between the GAC and the PPAC and the correlation between semantic relations and pragmatic functions, it is expected that the two clauses also differ with respect to their pragmatic profiles. This is clearly the case in our corpus: the GAC predominantly serves an elaborating function, while the PPAC typically has a framing function. Now, elaborating clauses convey focal information, while framing clauses locate the MC in a specific setting (see above). As such, the GAC and the PPAC belong to different content-levels of the MC. According to Dik (1997: 51-53), adjuncts can be classified in four groups based on the layer of the clause they act upon.<sup>9</sup> Only two groups are of interest here. First, predicate (or  $\sigma_1$ ) adjuncts appear at the level of the nuclear predication, viz. the predicate and its arguments. Predicate adjuncts further specify the nuclear predication, like the adverb *carefully* in (29).

(29) *John was writing a letter **carefully**.*

The combination of a nuclear predication and a predicate adjunct is a core predication. Adjuncts which appear at the level of the core predication are predication (or  $\sigma_2$ ) adjuncts, which typically locate the state of affairs in space and time, as the prepositional adjunct *in the library* in (30).

<sup>9</sup> Dik (1997) uses the term “satellites” instead of “adjuncts”.

(30) *John is carefully writing a letter in the library.*

In Dik's classification, the GAC typically functions as a predicate adjunct and the PPAC as a predication adjunct. Put differently, the GAC tends to occur at the level of the nuclear predication, while the PPAC typically appears at the level of the core predication. Consequently, the GAC is more tightly connected to its MC than the PPAC and belongs to a higher content-level of the MC (Kooreman 1989).

On the diachronic axis, the pragmatic profiles of GACs and PPACs remain remarkably stable, for there are no significant evolutions in the frequency of any of their pragmatic functions.<sup>10</sup> The pragmatic profiles of both clauses are thus more resistant to diachronic developments than their semantic profiles, though the latter also remain relatively stable.

The analysis reveals that while GACs and PPACs *differ* from each other from a semantic point of view, they *are each other's opposite* from a pragmatic point of view: the main difference between them is thus not their semantic, but their pragmatic profile. This result is crucial for our understanding of the coalescence of the two clauses, because it indicates that their functional competition also has a pragmatic component. However, since the pragmatic profiles remain stable over time, and their pragmatic behaviour depends on their semantic profile, the coalescence of GACs and PPACs cannot be triggered by a pragmatic shift. If the evolution is such that the PPAC is gradually replaced by the GAC, then this change has been most likely triggered by a semantic shift. However, such a shift does not emerge in our corpus.

Two hypotheses can be formulated: (a) the absence of a significant semantic shift is due to the technical character of our corpus; (b) the evolution of the GAC and the PPAC does not correspond to the traditional description in terms of a gradual replacement of the latter by the former. Both hypotheses could be tested in a large-scaled corpus study including non-technical sources and based on the semantic and pragmatic analyses proposed in the present paper.

## Conclusion

In this paper, we have determined the semantic and pragmatic profiles of adjunct clauses headed by a bare ablative gerund (GAC) or a nominative present participle (PPAC) in a wide corpus of technical treatises. We have investigated whether and to what extent the semantic bleaching of

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<sup>10</sup> Elaborating GACs and framing GACs:  $\chi^2=0$  and  $p=1$ . Framing PPACs:  $\chi^2=0,02$  and  $p=8875$ . Secondary focus PPACs:  $\chi^2=1,86$  and  $p=0,1726$ . Elaborating PPACs:  $\chi^2=0,49$  and  $p=0,4839$ .

the GAC and the coalescence of the two clauses are represented in this corpus and what this reveals about their evolution from Early to Late Latin.

From a semantic perspective, the GAC tends to maintain its default manner/instrumental value throughout the centuries. It can take other semantic values, but their frequency remains remarkably low in both Early and Late Latin. Its semantic bleaching is not restricted to the temporal network, but covers all non-manner/instrumental relations. Semantically bleached GACs already occur in Early Latin, and hence their emergence cannot be considered as a late phenomenon. In Late Latin, there is a higher frequency of bleached GACs as compared to earlier centuries, but since the increase is not significant it does not support evidence for the coalescence of GACs and PPACs. As for the PPAC, it is semantically more versatile than the GAC: it allows more semantic relations and frequently occurs with a temporal, logico-causal, and modal value.

From a pragmatic perspective, GACs and PPACs are opposite to each other in terms of their information structural behaviour. The former predominantly express focal information, while the latter typically frame the matrix event in a temporal, spatial, logico-causal, modal, or specificational setting. Our pragmatic analysis confirms the hypothesis of Kooreman (1989): GACs and the PPACs appear at different content-levels of the clause in that the former are specialized as a predicate adjunct, and hence appears at the level of the nuclear predication, while the latter tend to behave like a predication adjunct, and hence belong to the level of the core predication. On the diachronic axis, both pragmatic profiles are remarkably stable.

The coalescence of the GAC and the PPAC is not represented in our corpus. Our analysis shows that their semantic and pragmatic profiles are related, and suggests that their coalescence – if it exists – is triggered by a semantic and then by a pragmatic shift.

## References

- Adams, J. N. (2013). *Social variation and the Latin Language*. Cambridge: CUP.
- Bauer, B. (1993). The coalescence of the participle and the gerund/gerundive: an integrated change. In H. Aertsen & R. Jeffers (Eds.), *Historical linguistics 1989* (pp. 59–73). Amsterdam: Benjamins.
- Chafe, W. (1984). How people use adverbial clauses. *Berkeley Linguistics Society*, 10, 437–449.
- Diessel, H. (2005). Competing motivations for the ordering of main and adverbial clauses. *Linguistics*, 43(3), 449–470.

- Dik, S. C. (1997). *The Theory of Functional Grammar. Vol. 1: The Structure of the Clause*. Berlin: De Gruyter.
- Elcock, W. D. (1960). *The Romance Languages*. London: Faber and Faber.
- Fabricius-Hansen, C. & Haug, D. (2012). Introduction. In C. Fabricius-Hansen & D. Haug (Eds.), *Big events, small clauses: the grammar of elaboration* (pp. 1–17). Berlin: De Gruyter.
- Galdi, G. (2016). Remarks on temporal clauses and participial phrases in late historical texts. In P. Poccetti (Ed.), *Latinitatis Rationes. Descriptive and Historical Accounts for the Latin Language* (p. 651-667). Berlin: De Gruyter.
- Halliday, M. A. K. (2004). *An Introduction to Functional Grammar*, 3<sup>rd</sup> revised ed. by C. Matthiessen. London: Arnold.
- Haug, D. (2012). Open verb-based adjuncts in New Testament Greek – with a view to the Latin Vulgate translation. In C. Fabricius-Hansen & D. Haug (Eds.), *Big events, small clauses: the grammar of elaboration* (pp. 287–321). Berlin: De Gruyter.
- Hetterle, K. (2015). *Adverbial Clauses in Cross-linguistic Perspective*. Berlin: De Gruyter
- Hofmann, J. B. & Szantyr, A. (1965). *Lateinische Syntax und Stilistik*. München: Beck.
- Kooreman, M. (1989). The historical development of the ablative of the gerund. In M. Lavency & D. Longrée (Eds.), *Proceedings of the 5<sup>th</sup> Colloquium of Latin Linguistics* (p. 219-230). Louvain: Cahiers de l'Institut Linguistique de Louvain.
- Koptjevskaja-Tamm, M. (1993). *Nominalizations*. London: Routledge.
- Kortmann, B. (1991). *Free adjuncts and Absolutes in English. Problems of Control and Interpretation*. London: Routledge.
- Kortmann, B. (1997). *Adverbial Subordination: a Typology and History of Adverbial Subordinators Based on European Languages*. Berlin: De Gruyter.
- Krüger, J. (1981). *Buch IX der Mulomedicina Chironis. Übersetzung und Besprechung*. München: Universität München.
- Kühner, R. & Stegmann, C. (1955). *Ausführliche Grammatik der lateinischen Sprache: Satzlehre. Erster Teil*, 3<sup>rd</sup> revised edition by A. Thierfelder. Leverkusen: Hahn.
- Lehmann, C. (1988). Towards a typology of clause linkage. In J. Haiman & S. A. Thompson (Eds.), *Clause combining in grammar and discourse* (pp. 185–225). Amsterdam: Benjamins.
- Lyer, S. (1932). Le gérondif en *-ndo* et le participe présent latin. *Revue des études latines*, 10, 222-232 & 382-399.

- Pinkster, H. (2015). *Oxford Latin Syntax. Volume 1: the simple clause*. Oxford: Oxford University Press.
- Vangaever, J. (2018). Le gerundium et le participe présent en latin classique: perspectives typologiques. *De Lingua Latina. Revue de linguistique latine du Centre Alfred Ernout (online)*, 15, 1-42.
- Vester, E. (1983). *Instrument and manner expressions in Latin*. Assen: Van Gorcum.