# GERUND, GERUNDIVE AND SUPINES AS USED BY C.J. CAESAR : A STATISTICAL APPROACH I

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## I Introduction

Although the use of nominal forms of verbs by Caesar has been discussed occasionally in more or less specialized publications[1] a profound study based on extensive statistical research is still lacking. As Caesar has been considered to be a standard for the Latin language[2], the treatment of his writings could give rise to more enlarged statistically tackled linguistic research into Latin grammar. The increasing availability of suitable software for text analysis[3] will facilitate this task considerably.

The word "nominal" might suggest only a relationship with "nouns" (or "substantives")[4]. In this case however it should be understood as referring to all more or less declinable verbal forms: participles, gerunds, gerundives and supines. As the use of the participles, both in nominal and verbal functions, is very extensive in Latin in general and in Caesar in particular, it has not been treated in our article. It deserves its own approach in a separate study[5].

The use of the remaining nominal forms can be analyzed in different ways. Their grammatical function and regularity might be a first concern. Only by defining this framework, will we be able to understand its real significance. Demarcating lines are necessary to proceed to research with a stylistic relevance as style could be considered as being the result of a - deliberate or not - choice made by the author among basically equivalent possibilities[6]. Stylistic research into "Caesarian" texts, even if limited to our gerund/gerundive and supine cases, can be useful for the identification of the authorship. In our study all "Caesarian" texts have been included : not only DBG(1-7) and DBC(1-3) but the "Hirtian" books (DBG 8 and DBAl ?) and the apocryphal ones (DBAf and DBHis) as well. Even if the discussions on these have come to a virtual standstill[7], additional material can still be put forward.

In a second contribution[8], the rather lexical and diathetical background as transitivity and the occurrence of deponent verbs will be considered.

## II    Gerund and Gerundive

a.    Global results.

The study of gerund and gerundive is still inspiring grammarians in two divergent ways. On one side there is the opinion that the gerund is the primary form fromwhich the gerundive has been derived[9]. On the other side there is the point of view postulating that the gerund is more or less a substantivated gerundive[10]. So, statistics might contribute to the solution of this problem.

The global figures for their use are as follows:

### Table 1

|  | DBG (1-7) | DBC (1-3) | DBG 8 | DBAL | DBAf | DBHis | TOT |
|---|---|---|---|---|---|---|---|
| GERUNDIVE | 314 | 196 | 57 | 77 | 42 | 20 | 706 |
| GERUND | 118 | 79 | 32 | 36 | 55 | 23 | 343 |
| 1049 |  |  |  |  |  |  |  |

In proportion to the size of the text body, we get the following results in 1 case per x lines of text[11] :

### Table 2

|  | DBG (1-7) | DBC (1-3) | DBG 8 | DBAL | DBAf | DBHis |
|---|---|---|---|---|---|---|
| GERUNDIVE | 19.19 | 22.02 | 14 | 18.26 | 40.33 | 39.45 |
| GERUND | 51.07 | 54.63 | 24.94 | 39.05 | 30.80 | 34.30 |

This proves that the texts generally recognized as representing a more cultural or intellectual expression of the Latin language, i.e. DBG and DBC and less explicitly the "Hirtian" texts, are favouring the gerundive and that the "coarse" Latin of BAfr and BHis prefers the gerund[12].

This is a remarkable datum if one tries to fathom the mystery of the preponderance of both expressions. As this confirms general assessments made by e.g. Ritsch[13], the discussion should focus on

the authenticity of a "normative" or "prescriptive" use of language (DBG and DBC) versus a "spontaneous" one (DBAf, DBHis). Such classifications can use various designations :

i) normative = prescriptive = cultural = intellectual

ii) spontaneous = illiterate = popular = vulgar

We are aware of the fact that the second series does not include inevitably the idea of "evolutionary" as popular language can show a considerable degree of conservatism. However the ideas of Ritsch and principles of language efficiency as defined by TGG[14] might confirm the preponderance of the gerundive.

b.      Gerund versus Gerundive.

        To evaluate the real importance of the aforementioned results further purified statistical data can be submitted. The opposition gerundive - gerund can only be fundamental where there was at least at the theoretical level a recognizable choice to be made by the author between gerundive + (pro)noun (or predicatively) and gerund + direct object. If such a direct object is not clearly involved, this discussion becomes irrelevant as the only possible solution is a gerund. A rigorous avoidance of confusing situations implies that we exclude from our data:


1.      the relevance of having a choice between e.g.
        gerundive and completive clauses;

2.      all the gerunds without a direct object; and

3.      all the possible gerundives which are rather difficult
        to evaluate, this means all neutral nominatives/
        accusatives of the singular.

According to this purified data, the comparative table shows a much more striking result

## Table 3

|  | DBG | DBC | DBG 8 | DBAL | DBAf | DBHis |
|---|---|---|---|---|---|---|
| GERUNDIVE | 227 | 14 | 49 | 56 | 29 | 9 |
| 1/x lines | 26.55 | 28.97 | 16.29 | 25.11 | 58.41 | 87.67 |
| GERUND | 2 | 2 | 4 | 1 | 2 | 1 |
| 1/x lines | 3013 | 2158 | 199.5 | 1406 | 847 | 789 |
| PROPOR(*) | 113.5 | 74.5 | 12.25 | 56 | 14.5 | 9 |

(*) number of gerundives per gerund

The significance of the statistics of table 3 however is limited. The table mainly shows that if we consider the fundamental level of choice, even in the less polished books of the corpus, a clear preference for the gerundive is shown. It seems to us that a choice of one particular grammatical or stylistic procedure does not depend merely on one single element but has to be situated at a much more complex and extensive level. The implication of this is that in the reality of the writing process the choice of or the gerund or the gerundive considers explicitly or implicitly the data excluded from or purified statistics[15].

As far as the expression gerund+direct object is concerned, the distribution is as follows:

* on six occasions the genitive of the gerund is involved three times of which with a direct object belonging to the same class of declensions:

DBG   1, 52, 3 : *coiciendi pila*
DBG   4, 14, 5 : *capiendi arma*
DBAl   1, 10, 5 : *hortandi suos*

It has to be noted that on eight occasions the gerundive has been chosen although its noun was three times a masculine plural (DBG 7, 43, 3; DBC 2, 42, 5; DBG 8, 7, 2) and five times a neutral plural (DBG 3, 6, 2; DBG 8, Intr., 7; DBG 8, 5, 2; DBG 8, 32, 1; DBG 8, 38, 1) (16).

The three others have different declensions:

DBC   2, 33, 3 : *sollicitandi milites*
DBC   3, 15, 2 : *religandi naves*
DBAf  47, 2,    : *se circumspiciendi*

\* The other six occasions offer the ablative of which five times with an ordinary noun:

DBG   8, 19, 8 : *vulnerando complures*
DBG   8, 49, 3 : *appellando civitates*
DBG   8, 49, 3 : *adficiendo principes*
DBG   8, 49, 3 : *iniungendo onera*
DBHis 12, 4,    : *iactando multitudinem*

- four reprsentations in DBG 8~ -

the other attestation gives a pronoun :
DBAf  66, 1  : *idem faciendo*

c.      <u>The grammatical cases</u>.

        Mainstream applications are the common rule as far as cases are concerned. Assertions made by Palmer[17] have been proved to be dependable. In accordance with this we noticed the following facts :

- predicative use of the nominative (gerundive)

- the only preposition with the accusative is "ad";

- the ablative is used with the prepositions "in" or "de" or
    prepositionless to express instrumental circumstances.

A general remark to be made is that there was no noticeable difference between authentic and apocryphal Caesarian texts.

        As generally acknowledged, the dative is the "weak" case in gerund and gerundive[18]. No dative of the gerund is known for the entire corpus. For the gerundive we find the following attestations :

DBG   3, 4, 1 : *ut <u>eis rebus</u> quas constituissent <u>collocandis atque administrandis</u> tempus daretur.*

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DBG  5, 27, 5 : *omnibus hibernis* Caesaris *oppugnandis* hunc *esse dictum diem.*

DBC  3, 2, 1 : *his rebus et feriis Latinis comitiisque omnibus perficiendis* undecim dies attribuit.

## III  Supines.

a.  The Accusative.

No deviations from the principle that this supine is only used with verbs expressing motion have been noted. All thirty-two samples complied with this rule. The most frequently used "provoking" verbs were : *venire* (10 *), *mittere* (8 *) and *ire/iri* (7 *).

b.  The Dative[19].

A striking assessment is the overwhelming representation of the second supine of *facere (factu)*. Where this supine totals eight representations six are made up of this verb. The others are *audire* and *intellegere*. The provoking adjectives were : *facilis/difficilis* (6 *), *optimus* (1 *) and *incredibilis* (1 *).

BAf 5, 1 is worth mentioning in a special way : *difficilis ad oppugnandum erat ascensus*. Although the same author uses the second supine on three occasions and even twice with *facilis/difficilis*, in 5, 1 he evidently chose a gerund. A stylistic divergence might be the explanation.

## IV  Stylistics and Individuality.

a.  External Comparisons.

The use of the gerund or gerundive represents only a relatively minor aspect of the style of one particular author. Statistical data however might help us to define one's style properly and distinguish him from another writer. Consequently a frequency table showing the differences between the components of the corpus is useful.

### Table 4

|    | DBG   | DBC   | DBG 8 | DBAL  | DBAf  | DBHis |
|----|-------|-------|-------|-------|-------|-------|
| 1. | 19.19 | 22.02 | 14    | 18.26 | 40.33 | 39.45 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2. | 51.07 | 54.63 | 24.94 | 39.05 | 30.80 | 34.30 |
| 3. | 376.62 | 863.2 | 199.5 | 468.67 | 564.67 | 789 |
| 4. | 2008.67 | 0 | 798 | 1406 | 564.67 | 789 |

1.     =     1 gerundive per x lines
2.     =     1 gerund per x lines
3.     =     1 first supine per x lines
4.     =     1 second supine per x lines

Definite conclusions should be made in a most prudent way. The extremely low frequency of supines does not allow us to look for any meaning in it. The only remark to be made here might be that DBG 8 is the only exception with a much larger (in fact only four~) number of supines.

Fortunately the results are less depressive for the gerund and the gerundive. This allows us to reach some conclusions. There is no important difference to be noted between DBG and DBC. The apocryphal books however do not present a unanimous picture.

Two facts are quite clear :

i. the divergence from the real Caesarian books is, generally spoken, recognizable;

ii. the difference between the "Hirtian" books (DBG 8 and DBAl ?) and the other apocryphals is clear as well.

The most striking point however is the difference between the frequencies in DBG 8 and DBAl. Although both are diverging from the other apocryphals they show an "internal" discord. The difference - 14 to 18.26 for the gerundive and 24.94 to 39.05 for gerund - is too clear to be neglected. Even statistical imperfections can not explain this. These results certainly do **not** support the idea of common authorship for DBG 8 and DBAl ~

b.     Internal Comparisons.

Even inside the books written by one and the same author significantly different frequencies may occur. Therefore an internal comparison might be able to reveal some interesting results at the level of style and content. This internal comparison is most useful

for larger works, i.c. the respective books of DBG and DBC. As has been mentioned for the external comparisons, the frequency of the supines is too low to be taken into consideration.

The frequencies of gerundive and gerund per book are as follows :

### Table 5

| | 1. | 2. | 3. |
|---|---|---|---|
| DBG 1 | 24.40 | 69.93 | 1:2.87 |
| DBG 2 | 19.36 | 41.69 | 1:2.15 |
| DBG 3. | 14.42 | 43.27 | 1:3 |
| DBG 4 | 15.31 | 31.17 | 1:2.17 |
| DBG 5 | 20.81 | 37.61 | 1:1.81 |
| DBG 6 | 26 66.18 | 1:2.54 | |
| DBG 7 | 17.25 | 69 | 1:4 |
| DBG TOT | 19.19 | 51.07 | 1:2.66 |
| DBC 1 | 21.20 | 66.5 | 1:3.14 |
| DBC 2 | 26.22 | 55.93 | 1:2.13 |
| DBC 3 | 21.20 | 47.95 | 1:2.20 |
| DBC TOT | 22.02 | 54.63 | 1:2.48 |

1.  =  1 gerundive per x lines
2.  =  1 gerund per x lines
3.  =  1 gerund per x gerundives

As the respective books of DBG and DBC present specific developments of specific periods some interaction of frequencies, content and contextually influenced style might be expected. The

most striking aspect is the path of frequencies for the gerundive. When we compare this with the content it might be concluded that if the content concerns outbursts of energy and personal involvement in the acts of Caesar the number of gerundives increases. This is particularily the case in DBC 3 and DBG 3, 4 and 7.

Another interesting phenomenon to be noted has been the presence of chains of (at least) two gerunds or gerundives. Extracts from the general lists might prove this[20]. These chains are evident when reading DBG and DBC. As an objective analysis of this requires a broader approach in which aspects of prose rhythm, word balancing and euphony are considered, it will need a separate study.

## Table 6

### Global Frequencies of Cases for the Gerundive

|       | DBG | DBC | DBG 8 | DBAL | DBAf | DBHis | TOT |
|-------|-----|-----|-------|------|------|-------|-----|
| NMS   | 3   | 3   | 0     | 2    | 0    | 0     | 8   |
| NMP   | 5   | 0   | 0     | 2    | 0    | 0     | 7   |
| NFS   | 5   | 1   | 0     | 4    | 0    | 0     | 10  |
| NFP   | 1   | 3   | 0     | 1    | 0    | 0     | 5   |
| NNS   | 26  | 8   | 2     | 6    | 3    | 2     | 47  |
| NNP   | 4   | 2   | 0     | 0    | 1    | 0     | 7   |
| NTOT  | 44  | 17  | 2     | 15   | 4    | 2     | 84  |
| AcMS  | 18  | 11  | 2     | 7    | 5    | 3     | 46  |
| AcMP  | 33  | 16  | 9     | 4    | 6    | 0     | 68  |
| AcFS  | 27  | 20  | 5     | 4    | 0    | 0     | 56  |
| AcFP  | 17  | 15  | 2     | 5    | 3    | 4     | 46  |
| AcNS  | 61  | 39  | 6     | 15   | 10   | 9     | 140 |
| AcNP  | 15  | 14  | 7     | 6    | 3    | 0     | 45  |
| AcTOT | 171 | 115 | 31    | 41   | 27   | 16    | 401 |
| GMS   | 23  | 8   | 5     | 3    | 3    | 1     | 43  |
| GMP   | 1   | 5   | 1     | 0    | 0    | 0     | 7   |
| GFS   | 14  | 12  | 3     | 9    | 0    | 0     | 38  |
| GFP   | 1   | 0   | 0     | 1    | 1    | 0     | 3   |
| GNS   | 23  | 17  | 4     | 1    | 1    | 0     | 46  |
| GNP   | 1   | 0   | 5     | 0    | 0    | 0     | 6   |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| GTOT | 63 | 42 | 18 | 14 | 5 | 1 | 143 |
| DMS | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DMP | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DFS | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| DFP | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| DNS | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DNP | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| DTOT | 3 | 1 | 0 | 0 | 0 | 0 | 4 |
| AbMS | 1 | 0 | 0 | 0 | 3 | 0 | 4 |
| AbMP | 7 | 5 | 0 | 2 | 1 | 0 | 15 |
| AbFS | 5 | 4 | 1 | 2 | 1 | 0 | 13 |
| AbFP | 3 | 4 | 1 | 0 | 0 | 0 | 8 |
| AbNS | 13 | 5 | 1 | 0 | 1 | 0 | 20 |
| AbNP | 4 | 3 | 3 | 3 | 0 | 1 | 14 |
| AbTOT | 33 | 21 | 6 | 7 | 6 | 1 | 74 |

**Table 7**

<u>Global Frequencies of Cases for the Gerundive</u>

| | DBG | DBC | DBG 8 | DBAL | DBAf | DBHis | TOT |
|---|---|---|---|---|---|---|---|
| Ac | 23 | 27 | 9 | 12 | 10 | 19 | 100 |
| G | 87 | 48 | 14 | 21 | 30 | 1 | 201 |
| D | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ab | 8 | 4 | 9 | 3 | 15 | 3 | 42 |
| TOT | 118 | 79 | 32 | 36 | 55 | 23 | 343 |

## ABBREVIATIONS

| | | |
|---|---|---|
| DBAf | = | De bello Africo |
| DBAl | = | De bello Alexandrino |
| DBC | = | De bello civili (books 1 - 3) |
| DBG | = | De bello Gallico (books 1 - 7) |
| DBG 8 | = | De bello Gallico (book 8 by Hirtius) |
| DBHis | = | De bello Hispaniensi |

# NOTES

1. See mainly E. Ritsch, **Gerundivum und Gerundium, Gebrauch im klassischen und ulteren Latein Entstehung und Vorgeschichte** Berlin, 1984.

2. See R.M. Ogilivie, **Caesar**, p. 283 sq.
in : E.J. Kenney & W.V. Clausen (eds.), **The Cambridge History of Classical Literature, II, Latin literature.** Cambridge University Press, Cambridge 1982.

3. One of the most promising examples of this is the **Oxford Concordance Program**, also available in microcomputer version, prepared by the "Oxford Electronic Publishing" department of the Oxford University Press.

4. This meaning can be found in most generally available grammars.

5. E. Ritsch, **o.c.**, p. 6 sqq prefers however to include the notion of participle in his analysis of gerund and gerundive.

6. An excellent approach to this might be found in the **Grand Larousse Encyclopïedique en 10 Volumes**, tome dixïÜeme, Librairie Larousse, Paris, 1964, s.v. "stylistique".

7. See however A.G. Way, Caesar : **Alexandrian, African and Spanish Wars with an English Translation.** Heinemann, London, 1955. pp. : VII-XI; 3-5; 139-143; 303-307.

8. Current work in progress.

9. See L.R. Palmer, **The Latin Language,** p. 322. Bristol Classical Press, 1988(1954); and D. Knecht **Beknopte Latijnse Syntaxis,** p. 98. Bijlage 2 bij Didactica Classica Gandensia, Gent, s.d.

10. See E. Ritsch, **o.c.**, p. 159 sqq.

11. The lines have been counted according to the edition in the Oxford Classical Texts, edited by R. Du Pontet, t.I (1900, DBG) and II (1900, DBC, DBAl, DBAf, DBHis).

12.     See R.M. Oglivie, l.c. p. 285 and G.E.F. Chilver, **Bellum Africum and Bellum Hispaniense**, in: Oxford Classical Dictionary, p.164-165.
        Clarendon Press, Oxford, 1970.

13.     See E. Ritsch, o.c., p. 159 sqq.

14.     See e.g. N. Chomsky, **The Logical Structure of Linguistic Theory**, p. 113.
        Plenum Press, London-New York, 1975.

15.     See Larousse, l.c. (n.6).

16.     See explicitly J. Michel, **Grammaire de base du Latin**. p. 234.

17.     See mainly L.R. Palmer, o.c., p. 322 sqq. and H. Pinkster, **Latijnse syntaxis en semantiek**, p. 97 sq. B.R. Gruner, Amsterdam, 1984.

18.     See L.R. Palmer, o.c., p. 323.

19.     We did not want to express any preference for a second supine = a dative or = locative. See however L.R. Palmer, o.c., pp.280 and 325.

20.     See note 18 above.