

WORD ORDER IN SUBORDINATE CLAUSES
IN CICERO'S TUSCULAN DISPUTATIONS

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INTRODUCTION

Since in the Latin language syntactical relations, which in English are indicated by means of position, are made clear by inflection, the Latin word order is far less fixed than the English, and can be used more freely to point out thought relationships, rather than syntactic ones. Though for this reason the order of words is almost unrestricted, in certain cases, in Latin as in English, word order must be used to point out syntactic relationships. Such a case occurs in complex sentences. An indiscriminate mixing of words would lead to the confusing of subordinate subjects and objects with the subjects and objects of the main clause. In the sentence "Sed si qualis sit animus ipse animus nescit," for example, it is impossible to tell whether "ipse" belongs to the main clause or to the subordinate one. It is therefore to be expected that generally the order of words in complex sentences will be such as to avoid confusion. Since a knowledge of the rules governing such word order is important, not merely that we may understand the temper and genius of the Latin mind, but that we may more readily read Latin literature, a most legitimate question is: "What is the word order in Latin subordinate clauses?"

GRAMMAR STATEMENTS REGARDING WORD ORDER IN SUBORDINATE CLAUSES. The

unfortunately seem to know little about the word order in subordinate clauses. Not only are their statements painfully inadequate, but they differ greatly from one another. I shall quote statements on word order from representative grammars to see what suggestions of value they may have to offer:

Allen and Greenough:

596: As in other languages, the subject tends to stand first, the predicate last.

a. There is in Latin, however, a special tendency to place the verb last of all, after all its modifiers. But many writers purposely avoid the monotony of this arrangement by putting the verb last but one, followed by some single word of the predicate.

597: In connected discourse the word most prominent in the speaker's mind comes first, and so on in the order of prominence.

b. The most important word is never placed last for emphasis.

598, b: Numeral adjectives, adjectives of quantity, demonstrative, relative and interrogative pronouns and adverbs tend to precede the word or words to which they belong. NOTE: This happens because such words are usually emphatic; but often the words connected with them are more so, and in such cases the pronouns, etc., yield the emphatic place.

601. In the structure of the period the following rules are to be observed:

a. In general the main subject or object is put in the main clause, not in a subordinate one:— Hannibal cum recensisset auxilia Gades profectus est. Livy xxi.21.

d. A change of subject, when required, is marked by the introduction of a pronoun, if the new subject has already been mentioned.

f. The Romans were careful to close a period with an agreeable succession of long and short syllables. . . . Quintilian (ix.4.72) lays down a general rule that a clause should never open with the beginning of a verse or close with the end of one.

Bennett:

But for the sake of emphasis the normal arrangement (subject first, predicate last) is often abandoned, and the emphatic word put at the beginning, less frequently at the end, of the sentence.

350, 9: Words or phrases referring to the preceding sentence or to some part of it regularly stand first.

12: At the end of a sentence certain cadences were avoided; others were much employed.

351, 2: A word serving as the common subject or object of the main clause and the subordinate one, stands before both.

a. The same is true also

(1) When the subject of a subordinate clause is at the same time object (direct or indirect) of a subordinate clause.

(2) When the subject of a subordinate clause is at the same time object (direct or indirect) of the main clause.

Burton:

1064 (1) Emphasis is secured by putting a word in a position in the clause earlier than that in which it would normally stand, by giving it the first place.

1068 When the subject or object of the main and subordinate clauses is the same, or when the subject of the one is the object (either direct or indirect) of the other, it usually stands at the beginning of the sentence.

Gildersleeve:

672, 2 a. In all sentences beginning and end are emphatic places. In long sentences the means as well as the extremes are the points of emphasis.

b. Much depends on the rhythmical order of words, for which the treatises of the ancients are to be consulted.

680. A word that belongs to more than one word regularly stands before them all, or after them all, sometimes after the first.

Hale:

624, 8: Relative pronouns and conjunctions normally stand first in their clauses.

9: Determinative words referring to something in the preceding sentence stand, like relatives, at the beginning (first word or first phrase).

628: An emphatic word is often taken out of a dependent clause and put before the connective, especially if it belongs in thought to both the dependent and the main clause.

a. Sometimes many words of the dependent clause precede the connective.

Harkness:

665: Emphasis and the relative importance of different parts of the sentence often cause a departure from the grammatical arrangement (subject first, predicate last); thus:

1. Any word except the subject may be made emphatic by being placed at the beginning of the sentence.

2. Any word except the predicate may be made emphatic by being placed at the end of the sentence.

669: The context often has some share in determining the arrangement of words in the sentence. Thus

1. A word or phrase closely related to some part of the preceding sentence generally stands at or near the beginning of its own sentence.

2. A word or phrase closely related to some part of the following sentence stands at or near the end of its own sentence.

677, 1: Conjunctions or relatives may follow emphatic words.

684: When either the subject or the object is the same both in the principal and in the subordinate clause, it usually stands at or near the beginning of the sentence.

Madvig:

463: Since in Latin the connection and construction of words may easily be known from their inflection, their position is not determined by such strict and definite rules as is usually the case in English and other modern languages, but is regulated in a great measure by the emphasis which is laid on individual words according to the sense of the passage and sometimes also by a regard to Euphony.

465, b: Relative words, which refer back to what precedes, can never (in prose) be dislodged from the first place. Relatives, on the contrary, which refer to a demonstrative proposition following, as well as the interrogative pronouns, may stand after a very emphatic word. So likewise when a conjunctive subordinate proposition precedes the leading proposition, the conjunction may stand after one or several words which have a particular emphasis, frequently after pronouns which refer to something preceding. In prose the verb is never put before the relative or conjunction.

Obs. Ut or ne, even when the leading proposition comes first, have sometimes one or several words before them: in particular a negative word often stands before ut signifying so that (*vix ut, nemo ut, nihil ut, nullus ut, also prope ut, paene ut*).

476 a, Obs. 1: A period is often formed in Latin, when the leading proposition is broken off, by placing first a word of the leading proposition which belongs at the same time to the subordinate (e. g., as a common subject or object) and which points with emphasis to the person or thing to be mentioned, and the subordinate proposition immediately after it.

Nutting, Advanced Latin Compositions:

P. 7, Ex. 4, footnote 4: When the same person or thing is referred to in both the main and subordinate clause, this subject of discourse should be placed first, with the subordinate clause immediately following. This arrangement makes the subject of discourse a part of the main clause: e. g., *Romani, cum venissent, castra posuerunt.*

Roby:

1044: Relative pronouns regularly stand at the commencement of their clause, never after their verb.

1045: But sometimes an emphatic word (or words) is prefixed to the relative, especially when the demonstrative sentence is put after the relative sentence.

1046: Connective adverbs and interrogative pronouns usually (except for emphasis' sake) stand at the head of their clause or only after words (e. g. relative or demonstrative pronouns) referring to the preceding sentence; never after their verb.

Sloman

555: Introductory and Connective particles, if any, stand naturally at or near the beginning of their own clause. NOTE: The verb *esse* seldom stands at the end of its clause or sentence, except in its trisyllabic or quadrisyllabic forms.

558: The arrangement and choice of words in a sentence is determined by considerations of sound as well as sense. This is especially the case with the final word or words known as the clause.

The statements of the grammars may be summarized as follows:

1. The relative or other connective word tends to stand first.
2. Exceptions to this statement may be explained generally by emphasis, which most grammars regard as all important in the matter of word order.
3. But a common syntactic factor (or according to Hale and Nutting, a common thought factor) is often placed first (Nutting says "should be placed first") followed immediately by the subordinate clause. Except by Nutting and Hale this is restricted to a common subject or object, or to a factor which is the subject of one clause, the object (direct or indirect) of the other.
4. A word may sometimes stand before the connective to make a thought connection with the preceding sentence.
5. The end of the subordinate clause is not mentioned by the grammars, except so far as general statements concerning the position of verbs may hold true for subordinate clauses in particular.
6. Harkness suggests that a word may stand last to link with the following sentence.
7. Rhythm is said to influence word order. Allen and Greenough mentions a tendency of the verb to stand last but one in a sentence; and several grammars mention the metrical arrangement in the clausulae.

OTHER INVESTIGATIONS IN SUBORDINATE CLAUSE WORD ORDER. Finding the grammar statements inadequate and contradictory, six candidates for the master's degree at the University of Kansas have conducted investigations in various authors, and from their findings have written theses upon the

word order of subordinate clauses. Those persons, with the year and the scope of their theses, are:

Florence Hale, 1917: Caesar B. G. i-ii; Cicero Cat. i-ii; de Sen.

Hazel Murray, 1918: Livy i.

Daisy H. Dickerman, 1919: Sallust's Catiline.

Kate B. Miles, 1919: Caesar B. G. iii-iv; Cicero Cat. iii-iv; Tacitus Agricola; Livy xxii, 36 chapters.

William Bell, 1928: Twenty letters of Cicero; Livy, through i.32.12

Stella Hall, 1932: Livy xxi.

Their conclusions have been as follows:

1. In subordinate clauses the relative or other introductory word generally stands first, the verb last.

2. In clauses standing at the first of the sentence, however, there is very often a word preceding the relative, forming a thought connection with the preceding sentence or introducing a new subject of discourse.

It is not true that a common thought or syntactic factor generally stands first, followed immediately by the subordinate clause; nor is emphasis an exceedingly important factor in forcing words to stand before the relative.

3. In most authors sum stands at the end of the clause far less often than other verbs; but even sum stands more regularly at the end of subordinate than of main clauses.

In Livy sum seems to be final as often as other verbs, perhaps more often, both in main and in subordinate clauses.

4. Perspicuity of thought and logical thought connection seem to

be the guiding principles in subordinate clause word order.

PURPOSE AND METHODS OF THIS INVESTIGATION. In order that the rules established in these six theses might be tested still further, I have examined the clauses in the first book of Cicero's Tusculan disputations in the light of grammar statements and of these theses. My findings are presented in this paper. I have in addition summarized all the materials presented in former theses, and have thus drawn general conclusions concerning word order in subordinate clauses in the field they cover.

For the purposes of this paper the subordinate clauses are the more important; but all main clauses have been examined for the purpose of comparison. A period, a colon, a semicolon or a question mark have been taken as the determinant for the end of a sentence; and every finite verb has been listed as a clause. In some instances one introductory word may serve to introduce two subordinate "clauses" in this way; and for all purposes the subordinate clause, thus defined, has been used in compilations and tables. In certain places in the thesis this duplication is indicated by the words "two verbs," "three verbs," etc., written in parentheses. Clauses in which an infinitive phrase stands after the verb are listed as regular if no other part of the clause follows the verb; thus "Caesar milites iussit venire" is regular, just as "Caesar militibus imperavit ut venirent" would be.

RESULTS. A total of 1096 subordinate clauses and 885 main clauses have been examined. Table I will give a general idea of the irregularity of the subordinate clauses. It will be seen that seventy per cent of the clauses follow the enclosing order, i. e., begin with the connective

and end with the verb. This number is evidently sufficient to warrant the use of the term "regular" in speaking of clauses in which the con-

TABLE I

Total No. of Clauses	Number of Clauses Irregular			Total Irreg. Clauses	
	at Beginning	at End	at Begin- ning and end	No.	%
1096	64	249	13	326	29.7

nective stands first and the verb last.

The discussion of irregularities will be divided into two parts, the first dealing with clause beginnings, the second with clause endings. At the end will be presented a general summary of the findings of the seven University of Kansas theses upon the word order in subordinate clauses.

CLAUSE BEGINNINGS

Table II shows in somewhat greater detail the irregularities at the beginning of clauses. It can be seen that for clauses which do not stand at the beginning of the sentence, the exceptions to the en-

TABLE II

	Total No. of Clauses		Irreg. at Beginning		
Initial Clauses	202	48	23.7	%	
Clauses not Initial	<u>894</u>	<u>29</u>	<u>3.2</u>	<u>%</u>	
Total	1096	77	7.0	%	

closing order are almost negligible; but for initial clauses, the enclosing order is violated nearly one-fourth of the time. Table III lists the connectives used in subordinate clauses, with the number of times each stands at the head of its clause, and the number of times each is preceded by some other word. For comparison, similar figures are quoted from the other theses mentioned in the introduction except that of William Bell, whose lists are incomplete.

Table III

	Tusculan Disputations		Other Theses	
	First in Clause	Not first in Clause	First in Clause	Not first in Clause
antequam	2	--	5	--
cum	86	27	448	215

TABLE III -- Continued

	Tusculan Disputations		Other Theses	
	First in Clause	Not first in Clause	First in Clause	Not first in Clause
cur	9	-	5	-
dum	2	-	54	5
ecquid	1	-	1	-
etenim si	1	-	2	-
etiam si	4	-	-	-
etsi	4	-	9	6
ne	13	1	118	28
-ne	3	2	4	-
nisi	21	1	37	24
perinde ut	1	1	-	-
priusquam	1	-	29	1
proinde quasi	3	-	-	-
propterea quod	2	-	24	-
qualescumque	1	-	-	-
qualis	11	3	10	-
quam (comparative)	1	-	48	2
quam (intensive)	2	1	5	-
quamquam	3	-	29	8
quamvis	4	-	4	-
quando	1	-	7	-
quantus, -a, -um	9	2	55	6
quasi	7	1	4	-
quatenus	1	-	1	-
quemadmodum	2	1	-	-
qui, quis	470	12	1984	40

TABLE III -- Continued

	Tusculan Disputations		Other Theses	
	First in Clause	Not First in Clause	First in Clause	Not first in Clause
qui (how)	1	-	-	-
quia	20	-	95	6
quicumque	4	1	7	2
quidquid	3	1	2	-
quin	7	-	23	-
quippe qui	2	-	5	-
quo (purpose)	1	-	13	3
quod (causal)	20	-	220	26
quod (substantive)	1	-	28	-
quodsi	8	-	24	-
quoniam	3	-	4	-
quomodo	2	-	1	-
quoniam	9	-	39	2
quoquomodo	1	-	-	-
quot	1	-	3	-
si	78	16	247 (98) ¹	41 (16)
sicubi	1	-	1	-
sicut	2	-	26	2
sin	8	-	5	-
sive (seu)	11	-	3	-
ubi	3	-	135	41
unde	4	-	32	1
ut	148	7	571 (217) ²	43 (21)

NOTE 1: Miss Miles' figures for si, nisi, etc., are kept separate from the other figures for si alone.

NOTE 2: Miss Miles' figures for ut, ne, etc.

TABLE III -- Concluded

	Tusculan Disputations		Other Theses	
	First in Clause	Not first in Clause	First in Clause	Not first in Clause
utrum (an)	2	-	18	1
No introductory word	13	-	20	-

Words occurring in material covered by other theses, but not in Tusculan Disputations, exceptions listed in parentheses: Postquam, 77 (21); interrogative pro nescio, 50 (7); velut, 6 (2); tametsi, quoad, each 5 (2); cum primum 5(1); velut, 3 (1); simul, 2 (1); simul atque, 1 (2); acsi (ut primum), 1 (1); donec, 18; dummodo, tamquam, each 8; quare, neve, each 5; necubi, num, prout, each 3; ac, contra atque, ita, praeterquam quod, quamdiu, quotiens, each 2; modo, nam, praesertim cum, tamdiu dum, tantumne, utpote, utcumque, utque, necunde, posteaquam, each 1.

POSSIBLE EXPLANATIONS FOR EXCEPTIONS: THE COMMON FACTOR THEORY. We have seen the inadequacy and variation of the grammars in their efforts to explain just what happens at the beginning of clauses. Though these statements leave a baffling uncertainty as to the real cause for words standing before the introductory word at the beginning of clauses, they will serve as a guide in the search for a true explanation. The possible explanations which the grammars give include the statements that a common syntactic or even a common thought element tends to stand first, and to be followed immediately by the subordinate clause; that emphasis may throw a word before its connective; and that thought connection may require a word to stand at the head of its clause. The common factor theory is almost universally adopted by grammars; only less universal is the insistence upon the importance of emphasis. Thought connection has received very little mention, either in connection with word order in general, or with word order at the beginning of subordinate clauses.

To test the common factor theory, I have examined all the common factors in the Latin covered, both in clauses regular at the beginning, ^{and in those irregular at the end} It should be explained that in cases in which a common subject stood immediately before the subordinate clause, while the main clause came last, i. e., in such a sentence as "Caesar, cum venisset, vicit" the subordinate clause has been classified as irregular upon the grounds that "Caesar" might belong to the subordinate clause. I believe personally that Caesar in such an instance is a part of the main clause, but the classification which I have adopted will guarantee fairness. The classification of the 170 clauses in which an element expressed in one clause was common to the other clause, but not expressed in it, is given in Table IV, on page 14. If the grammars are correct, in each of these 170 clauses the order should be that designated in the table as order 1; actually, however, only 48 examples stand in this order. Order 4 alone contains 71 clauses. Moreover, even though one considers the common subjects alone, order 4 contains more common subjects than order 1. The common subject alone of all common elements of thought or syntax tends to stand first, followed immediately by the subordinate clause; and even the common subject does so in but two-fifths of the examples. Common objects did not occur in the Latin covered. The conclusions to be reached from Table IV may be summarized as follows:

1. Common factors of syntax or of thought do not tend to stand first in their sentences, with the subordinate clauses immediately following, and the main clauses last of all.

2. Common subjects are often so placed, in two-fifths of the examples in Book I of the Tusculars.

TABLE IV

Element in Subord. (S) Clause and in Main (M) Clause	Order 1 Com. F., Sub. Cl., Main Cl.	Order 2 Sub. Cl., contain- ing C. F., Main Cl.	Order 3 Sub. Cl., Main Cl., contain- ing C.F.	Order 4 Main Cl., Contain- ing C.F., Sub. Cl.	Order 5 Main Cl., Sub. Cl., contain- ing C.F.	Sum of 2, 3, 4, and 5.
Common Subject	33	9	6	34	-	49
Common Subject O. O.	6	-	1	8	-	9
Subject M Object S	-	3	-	1	4	8
Subject S Object M	4	-	3	5	-	8
Object S Subj. Inf. M	1	-	-	-	-	-
Subject S Subj. Inf. H	-	-	-	1	-	1
Subject M Subject Inf. S	-	-	-	-	1	1
Ablative S Subject M	-	2	-	-	1	3
Ablative M Subject S	-	-	-	4	-	4
Accus. plus prep. S Subject M	-	1	-	-	-	1
Dative M Subject S	2	-	6	12	-	18
Dative S Subject M	1	3	-	-	4	7
Genitive or Poss. Pronoun M Subject S	1	-	-	6	-	6
Genitive or Poss. Pronoun S Subject M	-	4	-	-	3	7
	48	22	16	71	13	122

3. The common factor theory, therefore, cannot explain the violation of the enclosing order at the beginnings of clauses.

POSSIBLE EXPLANATIONS FOR EXCEPTIONS: THOUGHT CONNECTION. After the common factor theory was discredited, an examination of the irregular clauses themselves led to results which not only explain initial exceptions to the enclosing order, but likewise give valuable material for the evaluation of the influence upon word order of emphasis and of thought connection. Careful analysis of the 77 clauses in which some part of the clause stands before the connective shows that there are five types of such irregularity. These types may be listed as follows:

1. LINKING ORDER. In connected discourse there is an even flow of thought from sentence to sentence. Often a word which links a sentence to what has preceded is placed before the connective to make a thought connection clear. Such a word I call a linking word.
2. NEW TOPIC ORDER. From time to time, however, the flow of thought is broken by the introduction of a new topic. Often this new topic is introduced before the connective, so that the reader may have it clearly in mind.
3. SERIES ORDER. A word which is in series with other words may stand before the connective in order that it may be readily recognized as a member of the series.
4. EMPHATIC CONTRAST ORDER. A word strongly contrasted with another word or idea may be placed before the connective so that the opposition may be readily noticed.
5. EMPHATIC ORDER. A word standing before the connective, and not falling under one of the preceding categories, may be so placed purely for emphasis.

A list of all the clauses in which the connective does not stand first follows, classified according to the reason for irregularity. Although there might be some doubt as to the classification of particular clauses, yet from the list general conclusions may be drawn which will be

evident to anyone. Initial clauses are listed separately from clauses which are not initial.

1. LINKING ORDER, 50 examples.

INITIAL CLAUSES, 37 examples.

- i.11.23 haec sunt fere de animo sententias ... Harum sententiarum quae vera sit deus aliqui viderit:
- i.17.40 Quae cum constant, perspicuum debet esse ... (Quae sums up the content of the preceding paragraph.)
- i.18.42 Is autem animis; qui, si est horum generum ..., ex inflammata anima constat ...
- i.19.43 Nihil est animo velocius; qui si permanet ... necesse est ita feratur ut ...
- i.20.43 ... omne caelu m hoc, in quo ...; quam regionem cum superavit animus naturamque sui similem contigit et agnovit, ... insistit ... (Three verbs)
- i.21.49 ... didicissent se ... totos esse perituros. Quod ut ita sit -- nihil enim pu gno -- quid habet ...? (Quod refers to the thought of "se ... totos esse perituros.")
- i.22.52 "Nosce animum tuum." Hunc igitur nosse nisi divinum esset, ...
- i.23.54 Nam haec est propria natura animi atque vis. Quae si est una ex omnibus quae se ipsa moveat ...
- i.23.55 Sentit igitur animus se moveri; quod cum sentit, illud una sentit ..
- i.24.56 ... divina quaedam? Cum si cernerem quoniamadmodum nasci possunt, etiam ... viderem.
- i.24.59 et eorum ... qui versantur; quorum quanta mens sit difficile est existimare.
- i.25.62 ... astra ... Quorum conversiones omnesque motus qui vidit, is ...

- 1.25.63 ... dissimillimos motus una regeret conversio. Quod si in hoc mundo sine deo non potest ... (Quod refers back to the action in dissimil^{im}os ... conversio.)
- 1.28.70 Haec igitur et alia innumerabilia cum cernimus, possumusne ... (After a page-long enumeration of natural phenomena)
- 1.29.81 Nihil sit animis admixtum ... Quod cum ita sit, certe ... (Quod sums up the preceding sentence.)
- 1.31.75 Quo cum venerimus, tum denique vivemus. (Quo picks up the idea of after life in the preceding sentence.)
- 1.31.76 in Consolatione ...; quam cum lego, nihil malo quam ...
- 1.32.78 Movemur enim saepe aliquo acute concluso, labamus mutamusque sententiam ... Id igitur si acciderit, simus armati. (Id refers to the entire preceding sentence.)
- 1.34.84 nobis ...; qui et domesticis et forensibus solaciis privati si ante occidisset ...
- 1.35.85 Priamum ... Hic, si vivis filiis incolumi regno occidisset ...
- 1.35.86 Pompeius ... Qui, si tum obisset ..., is ...
- 1.37.89 ad non dubiam mortem concurrerunt. Quae quidem si timeretur, non L. Brutus ... concidisset ...
- 1.38.92 ... mors ... Quam qui levio^{rem} faciunt, somni simillimam volunt esse.
- 1.39.94 Omnia ista perinde ut cuique data sunt pro rata parte, ... dicuntur. (Omnia ista refers to the fates of mortals, just discussed.)
- 1.39.94 ... bestiolas ... Ex his igitur hora octava quae mortua est, provecta aetate mortua est. (Notice hora standing outside the clause also, for emphatic contrast with provecta aetate.)

- i.40.96 ... Theramenes ... Qui cum ... venenum ut sitiens obduxisset, reliquum ...
- i.42.100 Intelligamusque si mors malum sit, esse sempiternum malum; nam vitae miserae mors finis esse videatur. Mors si est misera, finis esse nullus potest.
- i.43.102 Quid? Theodorum Cyrenaesum ... nonne miremur? cui cum Lysimachus crucem minaretur, ... inquit ...
- i.42.102 Qualis tandem Lacaena? quae cum filium in proelium misisset et interfectum audisset, ... inquit ... (Two verbs)
- i.43.102 Etiam de humatione et sepultura dicendum existimem ... De qua Socrates quidem quid senserit apparet in eo libro ...
- i.44.106 Haec cum pressis et flebilibus modis, qui ... inferant, ... concimuntur, ... (After a quotation from tragedy)
- i.46.110 Quorum similitudinem aliquam qui arripuerit ... gradietur ... (After an enumeration of Greek and Roman Heroes)
- i.47.114 Simile praecatione Trophonius et Agamedes uel dicuntur. Qui cum Apollini Delphis templum exaedificavissent, ... petiverunt ...
- i.49.117 Quae cum ita sint, magnam^a tamen eloquentia est utendum ...
- i.49.117 Sin autem perimit ac delet omnino ... Quod si fiat, melior Enni quam Solonis oratio.

CLAUSES NOT INITIAL, 13 examples

- i.8.15 Nunc video calcem, ad quam cum sit decursum, nihil sit praeterea extimescendum.
- i.10.20 dixit aliquid quod ipsum quale esset erat multo ante dictum et explanatum a Platone.
- i.12.26 ... antiquitate, quae quo propior aberat ab ortu, hoc melius ...
- i.17.39 ... cum Platone, quem tu quanti facias scio ...
- i.22.51 Nisi enim quod numquam vidimus id quale sit intelligere non possumus.

- 1.23.55 ... sed ne hoc quidem ipsum quam subtiliter conclusum sit intelligent. (Hoc equals "aeternum animum esse, quod se ipse moveat," implied in the preceding lines.)
- 1.33.80 idque quasi constet, rationem ... adfert. (After a statement by Aristotle.)
- 1.41.97 tali nocte, cui si similis futura est perpetuitas omnis consequentis temporis, quis me beatior?
- 1.43.104 Anaxagoras, qui cum Lampsaci moreretur, ... inquit ...
- ~~1.46.111 Laconis ... qui cum Rhodius Diagoras ... vidisset, accessit ...~~
- 1.47.114 tertium diem, qui ut illuxit, mortui sunt reperti.
- 1.48.114 Adfertur etiam de Sileno fabula quaedam, qui cum a Mida captus esset, hoc ... dedisse scribitur:
- 1.49.118 id (genus humanum) ... quod cum exanclavisset omnes labores tum incideret in mortis malum sempiternum.

2. NEW TOPIC ORDER, 7 examples.

INITIAL CLAUSES, 5 examples.

- 1.4.7 Sed ut Aristoteles, vir summo ingenio, scientia, copia, cum motus esset Isocratis rhetoris gloria, dicere etiam coepit ... (Cicero turns from his own philosophical teachings to Aristotle's)
- 1.9.18 A. Nos ad audiendum parati sumus. M. Mors igitur ipsa, quae videtur notissima res esse, quid sit primum est videndum. (Mors announces the subject of the discourse.)
- 1.25.60 Animae sit ignisne nescio, nec ... (Discussion the constitution of the soul, Cicero brings into the discussion as possible constituents anima, ignis.)
- 1.38.91 Natura vero si se sic habet, ... (Having discussed the abiding glory of good deeds, Cicero turns to the point that naturally death can bring no personal pain or displeasure.)

- 1.46.110 Verum multitudinis iudicium de bonis si quando est, magis laudandum est quam illi ob eam rem beati. (While speaking of the glory which follows good deeds, Cicero turns rather parenthetically to the popular judgment of good.)

CLAUSES NOT INITIAL, 2 examples.

- 1.8.16 Ut enim non efficias quos vis, tamen mors ut malum non sit efficias. (Turning from the general subject set for discussion, the speaker singles out the topic mors.)
- 1.12.26 Docebis carere omni malo mortem. Ego enim istuc ipsum vereor ne malum sit, non dico carere sensu, sed carendum esse. (istuc ipsum introduces the new topic expressed more fully in non ... esse.)

3. SERIES ORDER, 2 examples.

INITIAL CLAUSES, 1 example.

- 1.2.4 Epaminondas ...; Themistoclesque aliquot ante annis cum in epulis recusaret lyram est habitus indoctior.

CLAUSES NOT INITIAL, 1 example.

- 1.10.22 Xenocrates ...; Plato ...; Dicaearchus ...; Aristoteles ..., cum quattuor nota illa genera principiorum esset complexus, censet ...

EMPHATIC CONTRAST ORDER, 9 examples.

INITIAL CLAUSES, 4 examples.

- 1.6.13 Ego autem non commemini, antequam sum natus, me miserum; tu si meliore memoria es, velim scire aequid de te recordare.
- 1.18.41 membrorum vero situs quam possit harmoniam efficere, non video.
- 1.22.52 Nam corpus quidem quasi vas est aut aliquod animi receptaculum;

lum; ab animo tuo quidquid agitur, agitur a te.

1.36.87 De mortuis, qui nulli sunt; Nos qui sumus, num aut cornibus caremus aut pinnis?

CLAUSES NOT INITIAL, 5 examples.

1.7.14 Aut hoc dicis, "Miser est Crassus," ut possit iudicare verum id falsumne sit, aut nihil dicis omnino.

1.9.17 nec tamen ut Pythius Apollo, certa ut sint et fixa quae dixerō, sed ut homunculus unus e multis probabilia coniectura sequens.

1.10.19 (Dicunt animum esse) ipsius corporis intentionem quandam, velut in cantu et fidibus quae ἀρμονία dicitur, sic ex corporis totius natura et figura varios motus cieri tamquam in cantu sonos.

1.33.80 Hominum autem similitudo in corporum figura magis exstat, et in si animi magis refert quali in corpore locati sint.

1.45.108 Sed quid singulorum opiniones animadvertam nationum varios errores perspicere cum liceat?

EMPHATIC ORDER, 9 examples.

INITIAL CLAUSES, 1 example.

1.7.13 An tu egressa porta Capena, cum Calatini, Scipionum, Serviliorum, Metellorum sepulcra vides, miseros putas illos? (Emphatic tu; context implies I shouldn't.)

CLAUSES NOT INITIAL, 8 examples.

1.11.24 Non sentientis autem nihil est ullam in partem quod interest.

1.13.29 Si vero scrutari vetera et ex iis ea quae scriptores Graeciae prodiderunt eruere coner, ipsi illi maiorum gentium di qui ha-

berentur hinc profecti in caelum reperientur. (Even those gods!)

- 1.15.32 Quid in hac re publica tot tantosque viros ob rem publicam interfectos cogitasse arbitramur? iisdemne ut finibus nomen suum quibus vita terminaretur?
- 1.16.37 Tantumque valuit error ... ut corpora cremata cum scirent, tamen ea fieri apud inferos fingerent quae sine corporibus nec fieri possent nec intelligi.
- 1.31.76 Numquam ita te ... dimittam, ulla uti ratione mors tibi videri malum possit.
- 1.34.83 A malis igitur mors abducit, non a bonis, verum si quaerimus.
- 1.42.99 id scit ipse ..., nam dixit ante; sed suum illud, nihil ut adfirmet, tenet ad extremum.
- 1.47.112 illa enim te, verum si loqui volumus, ornaverat.

This classification of clauses may be tabulated thus:

	Initial	Not Initial	Total
Linking order	37	16	53
New Topic order	5	2	7
Series order	1	1	2
Emphatic contrast order	3	5	8
Emphatic order	1	8	9

From the results which appear in this table, we are prepared to understand the word order at the beginning of subordinate clauses; and to understand as well the reason for the inadequacy of the grammars. For evi-

dently the word order at the beginning of the clause is fixed, not by some mechanically acting common factor, not solely by emphasis, but by the necessity of providing for a connected flow of thought. The relative is the natural thought connective for the subordinate clause; hence it generally stands first. But in some instances where the thought link is not the relative, or where the relative links up with the sentence to follow (as it would naturally do in initial clauses), some other word must stand ahead of the connective. When thought connection is broken by the introduction of a new topic, or by some emphatic or contrasting word, naturally the new topic or emphatic word replaces the linking word at the head of the clause. Now none of the grammars have realized the importance of thought connection as a word order determinant in all Latin writing. Considering the absurdities reached by the grammars upon the general subject of word order -- e. g., in saying that every Latin sentence is arranged so that each word is less emphatic than that which precedes --, one could not expect the correct application of the principle of thought connection with regard to subordinate clauses.

CONCLUSIONS. The following rule may be given for word order at the beginning of clauses:

1. In subordinate clauses, the connective generally stands at the beginning of its clause; this is true for 93 % of all clauses.

2. But at the beginning of the sentence, nearly one-fourth of the clauses have some word coming before the connective. Initial clauses constitute only 17.5 % of all subordinate clauses, but they account for over 60 % of all irregularity.

3. Only 3.3 % of the clauses which do not stand at the beginning of the

sentence are irregular.

4. The word preceding the connective is generally a word which joins the sentence with what precedes; less frequently it introduces a new topic, or points out some series, emphatic contrast, or emphasis.

CLAUSE ENDINGS

There were 262 clauses which did not end with the verb, or a total of 23.8 %, as shown in Table V. For comparison a list of all main clauses is likewise given; of these 36.36 % do not end with the verb. It is noticeable that subordinate clauses end with the verb more regularly by fifty per cent than main clauses, as we should expect when we

TABLE V

	Main Clauses			Subordinate Clauses		
	Total no. of Clauses	Irregular No.	%	Total no. of Clauses	Irregular No.	%
Ordinary Verbs	629	226	35.9	746	149	19.9
<u>Sum</u> -Compounds	50	14	28.0	64	9	14.0
<u>Compound Verbs</u>	49	15	30.6	89	18	20.2
Verbs not <u>Sum</u>	728	255	35.0	899	176	19.5
<u>Sum</u>	157	87	55.4	197	86	43.6
Total	885	342	38.6	1096	262	23.8

consider the danger of confusion from an irregular subordinate clause. To test the behavior of different kinds of verbs, four different classifications have been given: Sum, and three classes of verbs not sum, namely, compounds of sum (most of these are examples of possum), compound verbs, in which a participle appears with some form of sum (these are classified as regular if one or both parts of the compound are final; i. e., qui nati non sint, Caesar est crudeliter interfectus, and si

rex interfectus esset are all classed as regular compound verbs), and verbs not included in any of these categories, hereafter called "ordinary" verbs, for the sake of shortness. Of these verbs, sum is so often irregular that it can scarcely be said to follow the enclosing order; this fact holds true in every author examined in the theses mentioned in the introduction, except for Livy, in whose writings sum seems to be regular as often as other verbs, if not more often. A possible explanation of the greater irregularity of sum in most authors might be that as a copula, sum plainly requires a predicate noun or adjective to complete its meaning, and this word in the predicate would as clearly indicate the end of the clause as the verb does in other cases. The behavior of possum as listed under the heading "sum-compounds" supports this contention; for possum, which is not used as a copula, is more regular than other verbs. To explain the apparent contradiction to this explanation which the behavior of sum in Livy makes, much more Latin would have to be examined, both in Livy, and in other authors. At any rate, sum is more regular in the subordinate clauses than in the main clauses, like every other class of verb.

POSSIBLE EXPLANATIONS OF IRREGULARITY. Especially noticeable is the fact that words stand after the verb much more often than they stand before the connective. It is natural that this should be true, when we consider the function of the connective as a linking word, and the greater necessity for thought connection at the beginning than at the end of a clause, where the thought already introduced and placed in its proper relationship to the sentence needs but be completed.

Nevertheless the connection of thought is a matter of great importance at the end of the clause as well as at the beginning. It is now my plan to attempt an explanation of the clauses which do not end with the verb, quoting such examples as may be necessary.

1. LINKING ORDER. Of the 262 clauses which are irregular, 31 have some word following the verb and serving as the antecedent of a following relative or demonstrative. These examples I quote:

- i.2.3 oratio Catonis, in qua obiecit ut probrum M. Nubiliori, quod is ...
- i.11.23 ... ut, quascumque vera sit earum sententiarum, quas exposui ...
- i.13.29 ... ut viderentur ei qui vita excesserant vivere.
- i.16.36 Cuius ignoratio finxit inferos earque formidines quas ...
- i.18.41 ... quorum alter ... ita delectatur quis cantibus ut eos etiam ad haec transferre conetur.
- i.18.42 Necesse est ferantur ad caelum et ab iis perrumpatur et dividatur crassus hic et concretus aer qui est terrae proximus.
(Two verbs)
- i.18.42 ... ardentior animus quam est hic aer quem modo dixi crassum atque concretum;
- i.18.42 qui si est horum quattuor generum ex quibus omnia constare dicuntur.
- i.19.43 Necesse est ita feratur ut penetret et dividat omne caelum hoc in quo nubes ... coguntur; (Two verbs)
- i.19.43 Accedit ut eo facilius animus evadat ex hoc aere quem saepe iam appello, ...
- i.19.43 ... in quo nulla re egens aletur et sustentabitur eisdem re-

- bus quibus astra sustentantur et aluntur. (Two Verbs)
- 1.20.45 ... qui ostium Ponti viderunt et ens angustias per quas penetravit ea quae est nominata Argo. (Two clauses)
- 1.21.48 Quae est anus tam delira quae timeat ista quae vos ... timeretis ...
- 1.22.50 At si iam possent in homine vivo cerni omnia quae nunc tecta sunt ...
- 1.22.51 Quia difficilis erat animi quid aut qualis esset intelligentia ...
- 1.23.54 Quae si est una ex omnibus quae se ipsa moveat, ...
- 1.24.56 Si nihil esset in eo nisi id, ut per eum viveremus ... (eo looks ahead to eum, id to the whole ut-clause.)
- 1.24.57 Quem locum multo etiam accuratius explicat in eo sermone quem habuit eo ipso die quo excessit e vita. (Two Clauses)
- 1.25.60 sive anima sive ignis sit animus, eum iurarem esse divinum.
- 1.27.86 Ita, quidquid est illud quod sentit, quod sapit ...
- 1.32.79 quod declarat eorum similitudo qui proferuntur, quae etiam in ingenis ... appareat. (Both words link with separate succeeding clauses.)
- 1.33.80 Quodsi tanta vis est ad habitum mentis in his quae gignuntur in corpore ...
- 1.34.84 ... in quo quidam a vita per inediam discedens revocatur ab amicis, quibus respondens ...
- 1.37.87 Triste enim est nomen ipsum darendi, quod subicitur haec vis habuit, non habet, desiderat, requirit, indiget.
- 1.41.97 Necessesse est enim sit alterum de duobus, ut aut sensus omnino

omnes mors auferat, aut in alium quendam locum ex his locis migratur.

i.43.102 De quas Socrates quid senserit apparet in eo libro in quo moritur ...

In contrast with these thirty-one clauses in which the antecedent of a following relative or demonstrative stands after the verb are thirty-two clauses in which such an antecedent stands within the clause. That is, both at the beginning and at the end of the subordinate clause, the enclosing order is liable to be violated when there is a necessity for the linking of thought with an adjacent sentence or clause.

It has been suggested that the ends of clauses might possible be more irregular than ^{of other clauses} ~~the beginnings~~ because at the end of sentences there

Table VI

	Main: Total Final			Main: Irregular Final			
	Main Claus- es	Simple Sent- ences	Total	Main Claus- es	Simple Sent- ences	Total	Irreg. %
Ordinary Verbs	138	174	312	31	70	101	32.3
<u>Sum</u> -compounds	12	9	21	1	2	3	14.3
Verb Compounds	14	11	25	3	3	6	24.0
Verbs not <u>sum</u>	164	194	358	35	75	110	30.7
<u>Sum</u>	30	52	82	16	29	45	54.8
Total	194	246	440	51	104	155	35.3

	Main: Not Final			Subordinate: Final			Subord.: Not Final		
	Total No.	Irregular No.	%	Total No.	Irregular No.	%	Total No.	Irregular No.	%
Ordinary Verbs	317	125	39.4	218	48	22.0	528	103	19.1
<u>Sum</u> -compounds	29	11	37.9	20	3	15.0	44	6	13.6
Compound Verbs	24	9	37.5	28	6	21.4	61	12	19.6

Table VI -- Concluded

	Main: Not Final			Subordinate: Final			Subord.: Not Final		
	Total No.	Irregular No.	%	Total No.	Irregular No.	%	Total No.	Irregular No.	%
Verbs not <u>sum</u>	370	145	39.1	266	57	21.4	633	121	19.1
<u>Sum</u>	75	42	56.0	48	26	54.1	149	60	40.2
Total	445	187	42.0	314	83	26.4	782	181	23.1

would be no chance of confusion. Table VI shows that while there is a slight tendency for the subordinate clauses to be more irregular when final than otherwise, main clauses are quite noticeably more irregular when they are not final. One may suppose, therefore, that main clauses may be made irregular within the sentence by the necessity of linking with some subordinate clause which is to follow; this principle would have less effect on subordinate clauses, since fewer subordinate clauses would have clauses dependent upon them; and the difference in irregularity between subordinate clauses which are final and those which are not final is too small to enable us to draw any definite conclusions as to the effect of the position of the clause in the sentence.

2. NEW TOPIC ORDER. In addition to the linking order, already examined, we find the new topic order used, when giving an author's name, in such sentences as these which follow:

1.12.27 Priscis illis, quos cascos appellat Ennius ...

1.19.45 Patriam illam et acetam, ut ait Theophrastus, Philosophiam.

1.30.74 Tota ... vita, ut ait idem, commentatio mortis est.

1.42.100 Cum ... dixissetque ei quidam inimicus:

1.23.68 Altera australis, ignota nobis, quam vocant Graeci ἀντίχθονα.

This customary usage accounts for 15 of the irregular clauses.

3. EMPHATIC CONTRAST ORDER. The emphatic contrast order seems to be the reason for 28 irregular clauses.

FINAL CLAUSES, 9 examples

- i.3.5 ut si occupati profuimus aliquid civibus nostris, proximae etiam si possumus otiosae.
- i.11.23 Effecit ... ut ... mors aut malum non sit aut sit bonum ut potius.
- i.13.31 Ergo arbores seret diligens agricola, quarum aspiciet bacam ipse numquam.
- i.29.70 Ut deum aoris, etiamsi eius ignores et locum et faciem, sic animum tibi tuumnotum esse oportere etiamsi ignores et locum et formam.
- i.37.90 Nec pluris nunc facere M. Camillum hoc civile bellum quam ego vivo illo fecerim Romam captam.
- i.42.100 Mors si est miseram, finis esse nullus potest.
- i.44.105 Non igitur Hectorem traxisti, sed corpus quoddam fuerat Hectoris.
- i.28.116 Iphigenia se immolari iubet, ut hostium eliciatur suo.
- i.49.118 ... quod, cum exanclavisset omnes labores, tum incideret in mortis malum sempiternum.

NOT FINAL, 19 examples.

- i.9.17 nec tamen ut Pythius Apollo, certa ut sint et fixa quae dixerit, sed ut homunculus unus e multis probabilia coniectura sequens.
- i.15.34 in iis libris ipsis quos scribunt de contemnenda gloria, sua nomina inscribunt.
- i.23.53 quando finem habet, motus, vivendi finem habeat necesse est.

- i.22.53 Sed si qualis sit animus ipse animus nesciat, ...
- i.23.54 vel concidat omne caelum omnisque natura consistat necesse est.
- i.24.56 Item si nihil haberet animus hominus nisi ut appeteret aut fugeret, id quoque esset si commune cum bestiis.
- i.25.60 Animae sit ignis nescio ...
- i.28.69 incultas, quod aut frigore rigeant aut urantur calore:
- i.28.70 Tamen, ut deum agnoscis ex operibus eius, sic ex memoria rerum et inventione ... vim divinam mentis agnoscito.
- i.31.75 Hoc et dum erimus in terris erit illi caelesti vitae simile.
- i.31.76 Verear ne homine sihil sit non malum aliud, certe sit nihil bonum aliud potius ... (Two Clauses)
- i.34.82 ... etsi Democritum insimulant Epicurus, Democriti negant.
- i.29.70 ... ut deum noris, etsi eius ignores et locum et faciem, sic ... (The succeeding clause has already been quoted as a final clause.)
- i.31.75 cum a voluptate, id est, a corpore, cum a re familiari, quae est ministra et famula corporis, ...
- i.39.94 Omnia ista, perinde ut cuique data sunt pro rata parte, aut longa aut brevia dicuntur.
- i.47.113 Cum enim ... morarenturque iumenta, tunc iuvenes ad iugum accesserunt.
- i.48.116 Codrum, qui se in medios immisit hostes veste familiari, ne posset agnosci si esset ornatu regio ... (Two Clauses)

4. Emphatic ORDER. The emphatic order accounts for 9 irregularities:

FINAL CLAUSES: 3 examples.

- i.8.16 sed quae sunt ea quae dicis te maiora moliri? (The speaker, dubious as to whether or not there are really maiora, places that word after the verb.)
- i.34.82 An quod ipse animi discessus a corpore non fit sine dolore? (Sine dolore might perhaps be better classified as new topic order)
- i.45.108 ... cera circumlitos condunt, ut quam maxime permaneant diuturna corpora.

NOT FINAL: 6 examples.

- i.2.4 Themiſtoclesque aliquot ante annis cum in epulis recusaret lyram, est habitus indoctior. (coming directly after a reference to the great reverence for music among the Greeks, lyram is made emphatic.)
- i.8.16 mors, ... cui proximum tempus est post mortem, in quo mali nihil esse concedis.
- i.22.50 nequeant qualis animus sit vacans corpore intelligere ...
- i.37.90 Qui enim satis viderit, id quod est luce clarius, ...
- i.47.113 Ita sacerdos adverte in fatum cum currus esset ductus a filiis, precata a dea dicitur ut id illis praemii daret pro pietate quod maximum homini dari posset a deo;

5. OTHER INFLUENCES OF THOUGHT CONNECTION. In addition there are 16 clauses in which parallel subordinate clauses have some word belonging to both placed between them. A few examples of this are:

- i.3.5 ut si occupati profuimus aliquid civibus nostris, proximis etiam, si possumus, otiosi.
- i.4.8 ... quasi agatur res, non quasi narretur.
- i.10.21 vim ... qua vel agamus quid vel sentiamus.
- i.19.43 quam regionem cum superavit animus naturamque sui similem contigit et agnovit.
- i.25.60 Quid sit illa vis et unde sit intelligendum puto.
- i.33.80 Existunt multa quae acuunt mentem, multa quae obtudunt.
- i.43.104 sive occiderit animus sive vigeat.
- i.44.107 Pelopis, qui non erudierit filium nec docuerit quatenus esset quidque curandum.

In 12 examples a word or a phrase has been added, as if by afterthought. These I have classes as irregular clauses, although they might more probably have been called regular; examples are:

- i.13.31 Quod omnibus curae sunt, et maximae quidem, quae post mortem futura sint.
- i.22.51 qualis animus in corpore sit tamquam alienae domui.
- i.26.65 vis quae tot res efficiat et tantas.
- i.47.112 Tu vero istam ne relinqueris quam semper ornasti, et quidem iure.

EUPHONY AND RHYTHM AS EXPLANATIONS OF IRREGULARITY. In this way we have explained 111 of the irregular clauses by means of thought connection, emphasis, and so on. This leaves 151 clauses, however, which cannot be explained in this way.

There are nevertheless certain other considerations which may influence the order of words at the end of clauses, the demands of the ear. Euphony and the metrical lengths of the words at the clause endings -- the clausulae -- play a considerable part in word order.

1. EUPHONY. In order to vary the monotonous succession of clause after clause ending with the more or less similarly constructed verbs, Cicero quite often placed a single word after his verb. Sometimes he indicated that this word was a member of the clause by linking it syntactically with some word within the clause. Thus, an adjective or a noun agreeing with each other might be separated by the verb:

1.3.6 Quare si aliq̄d oratoriae laudis nostra attulimus industria,...

1.18.41 quorum varia compositio etiam harmonias effecit plures.

A genitive and its noun may be similarly separated:

1.19.44 Profecto beati erimus, cum corporibus relictis et cupiditatum et aemulationum erimus expertes.

1.34.84 cum ei nihil accidisset adversi.

Sometimes correlative conjunctions indicate that something is to follow the verb:

1.34. 84 Cum mors nec ad vivos pertineat nec ad mortuos.

There are in all 25 cases in which this syntactic connection indicates that some word will follow the verb.

There are 46 other examples in which one single word stands after the verb, without the indication of a syntactic connection; and 42 clauses in which a single closely knit unit of words stands after the verb. Thus:

1.49.118 denuntiatus videatur ut exeamus e vita.

1.36.84 Proinde quasi ... certi quidquam sit in rebus humanis.

1.4.7 cum essent complures mecum familiares.

In such cases the word or phrase standing without the clause is quite easily and clearly understood to be a part of the clause.

There remain 4 clauses in which the word standing after the verb is a postpositive word, such as ne ... quidem, which could not be placed before the verb; and 34 clauses (12.9 %) which are not explainable. The reasons for the irregularities of the ends of clauses may thus be tabulated as follows:

Thought connections:		115
Linking order	31	
New topic order	15	
Emphatic contrast order	28	
Emphatic order	9	
Word placed between two parallel clauses	16	
Word or phrase added by afterthought	12	
Postpositive word causes irregularity	4	
Euphony		113
Word with syntactic connection follows verb	25	
Single unconnected word follows verb	46	
Single unconnected word unit follows verb	42	
Clauses left unexplained	34	34

2. THE CLAUSULAE. The other factor of sound which determines the order of clauses at the end of the clause is the metrical order of syllables in the clausulae. Cicero was nearly as careful about the

arrangement of long and short syllables at the end of his clausulae as Virgil was about his hexameters. The clausula is composed of a base (which is either a cretic (- ∪ -) or a molossus (- - -)), followed by a trochaic cadence. Clausulae are classified as follows:

Verae Clausulae - ∪ - : - ∪ or - ∪ - : - ∪ ∪ or - ∪ - : - ∪ - ∪ .
or - - - : - ∪ ∪ - - - : - ∪ - ∪

Licitae Clausulae, in which any of the first three long syllables in the clausulae may be resolved into two short syllables, or in which a choriambus (- ∪ ∪ -) or an epitrite (- ∪ - -) may be substituted in the base.

Selectae Clausulae, in which a spondee is substituted for the first trochee of the cadence.

Malae Clausulae, in which one or more trochees intervene between the base and cadence of the Verae Clausulae.

Pessimae Clausulae, in which anadactyl takes the place of a trochee in the base or more often in the cadence.

Zielinski, in his Das Clauselgesetz in Ciceros Reden, finds that 86 % of all the periods in Cicero's orations end with Licitae or Verae Clausulae. The clausulae in Book I of the Tusculan Disputations may be classified as follows:

	Main Clauses		Subordinate Clauses	
	Regular	Irreg.	Regular	Irreg.
Verae Clausulae	209	127	301	95
Licitae Clausulae	181	132	312	134
Selectae Clausulae	30	8	21	1
Malae Clausulae	41	22	43	20
Pessimae Clausulae	6	7	15	3

Clauses consisting of only the connective and verb were not considered in this table; likewise, a number of other clauses were found too short for determination. It is evident that one cannot point to any particular *vera clausula* in which the verb does not stand at the end and say that the irregularity was caused by the necessity of obtaining a good *clausula*; but it is likewise clear that if certain metrical endings are predominant, at least some of the irregularities of clause endings must have been caused by such a necessity.

CONCLUSIONS: The following rules for word order at the end of clauses may be given:

1. The verb stands at the end of the subordinate clause in 75 % of the examples; subordinate clauses close with the verb much more frequently than mainclauses.

2. Sum, in the *Tusculan Disputations*, does not stand at the end of its clause in 43 % of the examples; other verbs in but 19 %. This is possibly due to the fact that the predicate noun or adjective which is necessary to complete the meaning of sum would indicate the end of the clause, which in other instances is indicated by the verb itself.

3. As at the beginning of the clause, a word is very likely to stand outside the clause to link with a following relative or demonstrative; or to demonstrate other thought connections, such as are indicated by a new topic word, an emphatic contrast word, or some other emphatic word.

4. Euphony and metrical considerations influence word order at the end of the clause. Often a word or word group stands after the verb,

in order to break the monotonous succession of verb endings. Certain Clausulae which are strongly preferred may change word order.

5. Since the necessity for thought connection is less at the end than at the beginning of the clause, exceptions are frequently found which are explicable only by the caprice of the writer.

GENERAL CONCLUSIONS

From a consideration of all the theses written at the University of Kansas upon the word order in subordinate clauses, the following rule can be derived:

1. In subordinate clauses the connective tends to stand first, the verb last.
2. The connective is almost always first in its clause when the clause is not first in the sentence; but in 36.9 % of the initial clauses examined, words precede the connective.
 - a. Such words generally serve as thought connections with the preceding sentences.
 - b. Sometimes such words serve instead to point out a new topic, to indicate a series or a contrast, or to emphasize the word which stands first.
 - c. Emphasis is not as important a factor in the determination of word order as the grammars imply.
 - d. A common subject is often placed first in the sentence, followed immediately by the subordinate clause; this occurs in about two-fifths of the examples of common subjects. Other common factors are rarely so placed.
3. In approximately five-sixths of the material examined, the verb stands last in its clause.
 - a. 1) Sum is last in its clause scarcely more often than not, except in Livy, where it is slightly more regular than other verbs, as may be seen from the tables on page 43. For all authors, sum

is irregular in 30 % of the examples. Other verbs follow the rule in 86 % of the examples.

- 2) Subordinate clauses are noticeably less irregular than main clauses.
- b. Exceptions occur frequently because of thought connection.
- 1) Linking words often stand after the verb..
 - 2) New topic, contrast, emphatic and similar words may stand last in their clause.
- c. Word order at the end of clauses is often affected by the demands of euphony and meter.
- 1) Often a word or phrase stands after the verb to break the monotony of verb endings.
 - 2) Certain preferred metrical clausulae influence word order.
- d. 1) Since the end of the clause is not nearly as important as the beginning in indicating what thought relationship the clause bears to the rest of the sentence, words standing after the verb are not infrequently so placed for no apparent reason.
- 2) The irregularity in the different authors varies considerably. In general, Cicero's Letters, the Tusculans, and the de Senectute are more irregular, and Caesar, Sallust and Tacitus more regular than the average. The Catilinarians, Caesar, and the de Senectute are exceedingly irregular at the beginning, in proportion to other authors; one may suppose that the orator and the political pamphleteer, desiring greater clearness of thought, naturally placed more linking words before the connective. A possible explanation of the greater irregularity of

the philosophical works and the Letter of Cicero might be that for leisurely and thoughtful reading such as they could get, or for an informal style, extreme clearness might be sacrificed for a more rambling manner. These three words of Cicero are above average in final irregularity, Sallust, Tacitus and Caesar much below; but for Sum, Caesar is exceedingly irregular, followed closely by Cicero. Livy seems average in all respects, except that he places sum at the end of the clause as often as other verbs.

4. A explanation for the behavior of subordinate clause word order is to be sought in the general rule that in the ancient languages the order of words tended to approximate the order of thought, while the syntactic order was indicated by inflections. However, since in a complex sentence a careless arrangement might mean a confusion of the elements of various clauses, a subordinate clause is generally pointed out by having its connective and its verb at the beginning and the end respectively. The connective, being the natural thought link, quite naturally takes the first place in its clause; but in cases where some word within the clause provides a better thought link, that word naturally precedes the ordinary connective. Similarly the verb, being the only absolutely essential element of the subordinate clause besides the connective, serves naturally enough to indicate the end; but the exigencies of thought may cause some other word to stand last. But since the end of the clause is not so important for the purposes of thought connection, a word may often follow the verb merely for euphony, or by the caprice of the author, if by so doing it will not cause confusion of thought.

	LIVY I	LIVY XXI	LIVY XXII
TOTAL NO. OF CL.	884	835	511
Irregular	206 (.236)	204 (.244)	

BEGINNING IRREG.

Total	884	835	511
Irregular	77 (.086)	56 (.066)	41 (.084)
Initial	152	109	61
Irregular	49 (.322)	46 (.422)	21 (.344)
Not Initial	732	726	450
Irregular	28 (.038)	10 (.013)	22 (.047)

END IRREGULAR

MAIN

Total	1217	918	507
Irregular	387 (.317)	282 (.307)	166 (.327)
SUM	117	116	51
Irregular	34 (.290)	40 (.344)	18 (.353)
Not SUM	1100	802	456
Irregular	353 (.348)	242 (.301)	148 (.324)

SUBORDINATE

Total	884	835	511
Irregular	140 (.158)	156 (.186)	94 (.184)
SUM	162	113	85
Irregular	16 (.098)	23 (.203)	14 (.165)
Not SUM	722	722	426
Irregular	124 (.171)	133 (.183)	80 (.187)

NOTE: The figures for Livy xxi are from a thesis not yet finally revised; those for Livy xxii are for thirty-six chapters only.

SUMMARY TABLES OF STATISTICS FROM THESE

44.

	CATLINE I-IV	DE SENECTUTE	GIG. LETTERS	TUSC. DISP.
TOTAL NO. OF CL.	813	430	681	1096
Irregular				326 (.297)

BEGINNING IRREG.

Total	813	430	681	1096
Irregular	74 (.091)	44 (.102)	36 (.050)	77 (.070)
Initial	112	59	85	202
Irregular	60 (.535)	32 (.542)	28 (.320)	48 (.237)
Not Initial	701	371	596	894
Irregular	14 (.0199)	12 (.032)	8 (.010)	29 (.032)

END IRREGULAR

MAIN

Total	777	557		885
Irregular	263 (.338)	267 (.479)		342 (.386)
SUM	67	88	98	157
Irregular	50 (.746)	59 (.670)	59 (.60)	87 (.554)
Not SUM	710	469	683	728
Irregular	213 (.300)	208 (.443)	274 (.400)	255 (.350)

SUBORDINATE

Total	813	430		1096
Irregular	110 (.135)	123 (28.6)		262 (.238)
SUM	62	82	70	197
Irregular	34 (.548)	31 (.378)	31 (.440)	86 (.437)
Not SUM	751	348	598	899
Irregular	76 (.101)	92 (.265)	90 (.15)	176 (.195)

	TAC. GERM.	SALL. CAT.	CAESAR I-IV	TOTALS
TOTAL NO. OF CL.	201	597	1350	7398
Irregular		76 (.127)		

BEGINNING IRREGULAR

Total	201	597	1350	7398
Irregular	8 (.039)	34 (.056)	144 (.106)	593 (.080)
Initial	17	115	199	1111
Irregular	4 (.235)	24 (.208)	99 (.497)	411 (.369)
Not Initial	184	482	1151	6287
Irregular	4 (.022)	10 (.02)	45 (.039)	182 (.029)

END IRREGULAR

MAIN

Total	408	699	926	7669
Irregular	103 (.25)	110 (.157)	118 (.127)	2371 (.309)
SUM	33	94	53	874
Irregular	12 (.36)	21 (.223)	44 (.83)	424 (.485)
Not SUM	369	605	873	6795
Irregular	91 (.246)	89 (.132)	74 (.084)	1947 (.287)

SUBORDINATE

Total	201	597	1350	7385
Irregular	25 (.124)	42 (.0703)	120 (.088)	1193 (.167)
SUM	18	112	98	999
Irregular	3 (.166)	9 (.080)	55 (.561)	302 (.302)
Not SUM	183	485	1252	6386
Irregular	22 (.020)	33 (.068)	65 (.051)	891 (.139)