

The Latin Third Declension

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In the Latin nominal declension system, the part that is commonly labeled the third declension is by far the most complicated, as any beginning student could testify to. And it is not only hard to learn: the scholarly description and analysis of it has met with considerable difficulties, so that it still cannot be said that all problems have been solved, or even that the facts have been described in a quite satisfactory way. It is the purpose of this article to furnish a new description and, in connection with that, to discuss some of the still unsettled questions.

The grammarians of late antiquity (upon whose work most modern school grammars are ultimately based) have sections of varying length, but usually of similar organization, on the third declension. The most ambitious attempt at a complete description naturally was made by Priscianus. His section (Keil, *Gramm. Lat.* 2. 311–362) is a marvel of complication: among other things, he presents a list of 78 different endings (*vel paulo plus*, as he says) that are used in the nom. sing. of this declension.

The state of knowledge was not considerably advanced beyond Priscianus until the latter half of the 19th century. It was then realized by comparative linguists, who were rapidly gaining ground in those days, that the fundamental cause for the confusion in the Latin “third declension” is that from the historical point of view, it is a mixture of several earlier separate types of declension, mainly that for stems ending in *-i-* and that for those in consonant. From this time on, all discussions of the third declension have been in terms of *i*-stems and consonant stems. The most important modern treatments of the third declension along historical lines are to be found in the well-known works by Ferdinand Sommer, Manu Leumann, and Alfred Ernout¹).

¹) F. Sommer, *Handbuch der lateinischen Laut- und Formenlehre*, 3rd ed., Heidelberg (1914); M. Leumann, *Lateinische Laut- und Formenlehre*, originally published as part of Stoltz-Schmalz-Leumann-Hofmann, *Lateinische Grammatik*, München (1928), repr. 1963 as part of Leumann-Hofmann-Szantyr, *Lateinische Grammatik*; A. Ernout, *Morphologie historique du latin*, 3rd ed., Paris (1953).

Apart from these, and the monumental but ill organized collection of material by Neue and Wagener²⁾ (quoted hereafter as *NW*), only a few studies of the Latin declension system have been made in this century; notable are two articles by Hall and Householder³⁾. The aim of those authors was to describe the Latin declension system economically, and in accordance with the then latest developments of structural linguistics. Their results certainly are of some interest: however, their rather excessive brevity makes both studies somewhat sketchy and incomplete. Especially, I think that their elimination of adjectival declension deprives them of some interesting results. As for the "third declension" part of the system, they both superficially seem to reorganize the classification completely: in reality, both descriptions are firmly based on the results of the historical linguists, and the main distinction made is that between *i*-stems and consonant stems. I think it can be said rather safely that Hall and Householder have not done very much more than presented the main facts from Leumann, strictly abbreviated and somewhat reshuffled.

As a matter of fact, no one can reasonably doubt that the explanation of the Latin third declension as a fusion of (mainly) *i*-stems and consonant stems is historically correct. With that, the main part of the historical analysis is already achieved. But although knowledge of this is indispensable for our understanding of the system of classical Latin, it only takes us part of the way. For, as is of course realized by the historical linguists⁴⁾, the fusion is far too far-reaching to allow anything like a clear distinction between the *i*-stems and the consonant stems. Several types of words have some case endings that are typical for the *i*-stems and some that belong to the consonant stems. Why, then, have some forms changed and others not? Which were the rules that decided the distribution of forms that we find in classical Latin? Is it possible to find explanations for these rules? On the whole it seems that these questions have been neither asked nor answered by historical linguists.

That they have shown little interest is perhaps natural enough. For it is easily realized that the only way to attack these problems

²⁾ F. Neue, *Formenlehre der lateinischen Sprache*, 3rd ed. by C. Wagener, 4 vols., Leipzig (1892–1905).

³⁾ R. A. Hall, Jr., "Classical Latin Noun Inflection", *Classical Philology* 41 (1946) 84–90; F. W. Householder Jr., "A Descriptive Analysis of Latin Declension", *Word* 3 (1947) 48–58.

⁴⁾ See, e.g., Sommer p. 358; Leumann p. 256.

effectively is to discard, temporarily at least, the main result of the historical analysis, the distinction between *i*-stems and consonant stems, and investigate the “mixed” system of classical Latin in its own right.

The point of departure for the study must be the fact that Latin nominal forms are easy to divide into stem and ending, and that, when the “third declension” forms are thus divided, there occur two or more endings for some cases. That the alternative endings are the result of a relocation of the morphemic limit between the stem and the ending⁵⁾ does not explain the distribution of these endings completely. It should be made clear, among other things, to which degree it is necessary or appropriate to refer to the original distinction when describing the classical language. Thus, I find it worthwhile to present here a synchronic description of the “third declension” system in classical Latin. Even if few of the questions about ultimate causes are answered, I think that it will be made somewhat clearer than before exactly what was the system.

The description is based upon Latin literary texts from the period between ca. 85 B.C. and ca. 15 A.D. As “literary texts” are counted all those transmitted in manuscript form, and the long inscription of the Monumentum Ancyranum⁶⁾. Thus, the entire works of Cicero, as the earliest, and Ovid, as the latest author, are included. It was first intended that the time span should be much shorter, but it was found that to get a sufficient corpus of texts this was about the minimum, for there are many interesting forms (especially gen. plur.) that are of rare but normal occurrence: and there are other forms that

⁵⁾ Or perhaps rather a reorganization of original tripartite nominal forms, divided into base+vowel+ending, into bipartite forms, stem+ending, through absorption of the vowel into the ending. The whole Latin nominal system was thus reorganized; and even where the original elements can be seen beside each other, it is hardly proper to distinguish between them in an analysis of historical Latin, as Hall does: in view of *bon-i* etc., *bon-um* is a better analysis than *bon-u-m*. In the original system, there was one series of endings, and each base was assigned one of several possible vowels (zero vowel being one). In classical Latin, each stem is assigned one of several possible series of endings. The two series corresponding to original vowel *i* and to vowel zero merged incompletely into the “third declension”.

⁶⁾ Other inscriptions were excluded for practical reasons: there was relatively little of interest in the indices of the *CIL*, and most of what seemed relevant was in inscriptions that either cannot be dated or fall outside the period. Further, an inclusion of all the epigraphic material would make it necessary to account for sundry archaic or otherwise “abnormal” spellings and endings of no particular interest for a description of the literary usage.

do not occur, against the expectation. To include most of the former, and give some weight to the *argumentum ex silentio* regarding the latter, it was necessary that the amount of text should be rather large. It has been relatively easy to compile the material, as there are concordances or indices for most major authors of the period. In addition, much can be found in *NW*, in the *Thesaurus Linguae Latinae* (quoted hereafter as *TLL*), etc.

Evidently it is not entirely satisfactory to base a “synchronic” description on material produced successively during a whole century. But in fact, a synchronic description cannot be absolutely rigorous: it is always necessary to make at least the minimal assumption that an informant’s linguistic system remains the same for a short period. This has little practical significance for spoken languages. If, as in this case, the sample has to consist of the works of several authors from a relatively long period, it seems almost certain that some time-related changes of the nouns should turn out to occur. This is in fact the case, and I shall note below some cases of such historical development within the period. I think, though, that the changes are small enough to make the description valid as a synchronical one provided that the possibility of developments within the period is always kept in mind.

The description is for practical reasons graphemic, i. e. the signs of the extant written language are used. The macron has been used when it was desirable to mark a vowel as long. Whenever necessary, reference has been made to phonetic or phonemic conditions^{6a}).

The Latin nominal forms may function as nouns, as adjectives or as participles⁷). On the morphological level, there is a corresponding distinction between words of noun declension and words of adjectival declension (the participles side with the adjectives except for some special cases to be discussed later). The morphological distinction, although obviously related to the functional, is not identical with it. The function of a nominal form must be decided out of the context in

^{6a}) In matters of phonology, I have used with profit the short study by W. Brandenstein, printed as an appendix (pp. 481–498) to F. Altheim, *Geschichte der lateinischen Sprache*, Frankfurt a.M. (1951). The work by J. Horecký, *Fonologia Latinčiny*, Bratislava (1949) has not been accessible to me.

⁷) The difficult problems of the exact definition of these functions and of the intricate boundary lines between them have to be left, here, provisionally, with reference to current Latin grammars. Some special problems will be adumbrated below. It has been judged advisable to distinguish the three functions throughout, in spite of the present fondness for binary division in all syntactic analysis.

each case, whereas a morphological classification is based on the occurrence or absence of certain forms in the lexicon. Thus, there is nothing very surprising in the fact that forms which function as nouns may belong to words of adjectival declension, and the reverse.

The decisive difference between substantival and adjectival declension is obviously that substantival words have forms for one gender only, while the adjectival in some cases have different endings for different genders. In the part of the system to be discussed here, there is a gender distinction only in the nominative and accusative cases. Further, this distinction is only between neuter and non-neuter: except for some rare cases it is not possible to distinguish masculine and feminine in the third declension system. Thus, "words of substantival declension" are those that occur only as non-neuters or only as neuters, and "words of adjectival declension" those that occur as both. As a tool for the description of the system, it is possible to choose either the functional or the morphological distinction (most earlier descriptions are based on the tacit assumption of their identity, which is why I have underlined the incorrectness of this view); it may also be possible to combine the two aspects. I have considered it best to use the morphological distinction in the rules. The main problem with it is that there are stems which constantly occur as adjectives but for semantic or other reasons are not used in the neuter, and thus cannot be formally demonstrated to be of adjectival declension. I have not found, though, that any such cases cause any real difficulty in practice.

After these long preliminaries, the description will take the form of a set of numbered rules, that are intended to describe the facts as well as possible. After each group of rules there will be a discussion of their significance. These discussions are not rigidly synchronic: the main concern has been to demonstrate the place of each form within the system, but if the facts seemed to be interesting from a historical point of view, I have not refrained from discussing that.

1. The following rules apply to the Latin words which have the desinence *-is* in the genitive singular. The part of the word that precedes this ending is here designated the stem. Each word consists of an ending preceded by the stem.

To delimit the classes of Latin nominal forms with reference to the genitive singular has other advantages than that it is the traditional way since the first systematic distinction of classes by Remmius Palaemon. All the words included by the definition above have important formal properties in common: in each case except the nom. sing., there is at most two possible endings for

these words; and most of these endings do not occur in nominal forms not belonging to the class. The interplay with other types of declension is rather small. Thus, the outward limitation of the class is clear.

It should be noted that the definition automatically excludes Greek loan-words with gen. sing. in *-os*. As for remaining Greek and other recently borrowed words, no attempt has been made to account for their forms when deviating from the Latin norm.

The stem, as here defined, may end in any consonant except *f* (and, of course, *q*), and in the vowel *u*. It will remain unchanged before ending that begins in vowel. The only endings that do not (except *-bus* in *bobus subus*) are *-s* and zero (\emptyset) in the nom. sing. There, stem change rules have to be introduced.

Inscriptionally found *-es -us -os* are not of importance for this study. To nom. *ũis* no gen. sing. is found in the period: later *uīs*; accordingly, the singular of the word is regarded as falling outside the system here described.

2. Dative sing. ending: *-ī*

3. Dative and ablative plur.: *-ibus*

Exceptions: *bobus (bubus), subus* (also regular *suibus*)

These case forms are almost as regular as the genitive singular, and could have been used for the definition of the class but for the fact that both dat. sing. *-i* and dat.-abl. plur. *-ibus* occur in other paradigms too, e.g. *illi, uni, fructibus*.

4. Nominative sing., m. and f.: *-ēs, -is, -s, or ∅*

Nominative sing., n.: *-e, -s, or ∅*

4.1 Words of substantival declension, m. and f.:

4.11 Ending *-ēs* (type *sēdēs*):

The stems *ũall- subol- indol- mōl- prōl- lāb- tāb- nūb- pūb- clād- aed- caed- sēd- saep- uolp- rūp- ũāt- caut-*.

To *ũall-* also *-is*; to *pleb-*, sometimes *-es*, usually *-s*.

4.12 Ending *-s* (type *trabs*):

Stems in vocalic *-u-^{7a}*, in *-m-* preceded by vowel, and in stop preceded by vowel (except short vowel in monosyllabic f. stems) or *-l-, -n-, or -r-*.

Exc.: *gruis* (also *grus*); *ũitis sementis corbis orbis*.

Stem changes:

Before stop at end of stem, *-i-* is replaced by *-e-*, except in *lapis*. The combinations *-g-* and *-s*, and *-c-* and *-s*, are spelled *-x*. Before *-s*, *-d-* and *-t-* are dropped.

In the stems *ũad- ped- abiet- ariet- pariet-*, the last syllable is then long.

^{7a}) For orthography, n. 19.

4.13 Ending \emptyset (type *victor*):

Stems in *-r-* preceded by vowel or stop, in *-in-* and *-ōn-*, and in *-l-* preceded by short vowel.

Exc.: *naris febris Tiberis auris securis*.

Stem changes:

If stop precedes final *-r*, *-e-* is inserted before *-r*. Monosyllabic stems in *-ōr-* take *-ōs*. In the following disyllabic stems, this may happen: *honor-* *labor-* *color-* *odor-* *ūapor-*. In stems in *-ōr-* that do not take *-ōs*, the last syllable is short.

Stems in *-in-* are changed to *-o* except in *osce* *tubicen* *tībīcen* *pecten*.

Stems in *-ōn-* lose the final *-n*.

Irregular stem changes: *tellūr-* gives *tellūs*; *lepor-*, *lepus*; *ūener-*, *ūenus*; *pulūer-*, *pulūis*; *ciner-*, *cinis*; *mar-* *mās*; *lar-*, *lār*; *arbor-* occasionally *arbōs*, usually *arbor*; *sanguin-*, *sanguīs* or *sanguis*.

4.14 Ending *-is* (type *naūis*):

All others, viz. in consonantal *-ū-*, in *-l-*, *-n-*, or two consonants except as above, and monosyllabic f. stems in stop preceded by short vowel.

Exc.: *boū-* gives *bos*; *Iouū-*, *Iuppiter*; *sen-*, *senex*; *supellectil-*, *supellex*; *noct-*, *nox*; *ass-*, *as*; *semīss-*, *semis*; *carn-*, *caro*.

4.2 Substantival declension, n.: *-e* or \emptyset 4.21 Ending *-e* (type *cubile*):

Stems in consonantal *-ū-* and in *-il-*.

4.22 Ending \emptyset (type *nomen*):

All other stems.

Exc.: *praesaepe rete mare mantele*.

Stem changes:

Stems in *-in-* are changed to *-en*.

In stems in any two consonants, the last one is dropped.

In stems in *-r-* preceded by short *-e-*, or *-o-*, the *-r-* is changed to *-s*, and the vowel is changed to *-u-*. Exc.: No change in *uber*, *cadaūer*; the botanical words *papaūer*, *cicer*, *piper*, *siser*, *siler*; and *aequor*. Only vowel change in *robor-* *ebor-*. Irregular changes: To *itiner-*, *iter*; to *iociner-*, *iocur*.

4.3 Words of adjectival declension:

4.31 Ending -s for m.f.n. (type *ingens*)

Stems of more than one syllable, ending in stop preceded by vowel or by -l-, -n-, or -r-.

Exc.: *ūiridis imberbis delumbis*; the compounds *immit-ūegrad-* etc. are declined as the simple stems *mit-* etc. acc. to 4.34.

4.32 Ending \emptyset for m.f.n. (type *uber*)

Stems in -r- preceded by vowel except -ā-.

Exc.: m. *celer*, f. *celeris*, n. *celere*.

Stem changes:

The vowel of the last syllable of polysyllabic stem is short even if it is otherwise long.

Stems in -iōr- (comparatives) are changed to -ius in n. Irregular changes: *ūeter-* gives *ūetus*; *puber-*, *pubes*; *impuber-*, *impubes*; *par-* *pār*.

4.33 Endings \emptyset or -is m., -is f., -e n. (type *acer acris acre*)

Stems in -r- preceded by stop.

Stem changes: -e- inserted as in 4.13.

4.34 Endings -is m.f., -e n. (type *communis*):

All others, viz. in consonantal -ū-, in -l-, -m-, -n-, -ār-, monosyllabic stems in stop, and in any two consonants except the ones in 4.31 and 4.33.

Exc.: To *truc-*, *trux*.

4.4 Words of participial declension:

Ending -s for m.f.n.

Stem change as in 4.12.

Obviously, this complicated description of the nominative could have been eliminated by the traditional device of assuming the nom. sing. and gen. sing. of each stem to be known, thus relegating the divergencies of the nominative to the lexicon. But thereby one would also be deprived of the opportunity to study the formation of this case.

(4.1) The m. and f. nouns in the nom. sing. with their four possible endings constitute the most complicated group by far in the whole system. There are several lines along which one might explain the apparent confusion. I prefer to see it as the result mainly of a not

fully accomplished reorganization from an earlier system to one with different endings for different final phonemes of the stem, as here defined, so that, e. g., stems in stop get *-s*, those in *-r-* and *-n-* get zero, and those in consonantal *-ŭ-* and in certain consonant combinations get *-is*. The rules are arranged accordingly.

There is also a much weaker but noticeable tendency to differentiate according to grammatical gender, namely so that some stems that should have taken *-s* or zero ending according to the "phonemic" rules get *-ēs* or *-is* and are feminine. Whether this is survival of earlier conditions or reorganization need not concern us here. The fact, however, has some importance and will be noted regularly below in connection with the groups of words in question. It means that there was in this system a weak tendency towards a gender distinction of a type that corresponds to *serŭus* vs. *serŭa*. The rare ending *-ēs* in fact shows the gender as clearly as the *-a* of the first declension; grammatical gender is always feminine, but natural gender may supersede. For *-is*, there is not more than an appreciably higher probability for feminine than for masculine.

(4.11) First, then, the forms in *-ēs*⁸). It should be noted that all these nouns are feminine, except that *ŭates* and *ŭolpes* can also be masc., as natural gender⁹). Not only this fact and the ending itself points towards the "fifth declension": there are several other signs that this group of nouns in classical Latin is on the borderline between the traditional fifth and third declensions. Especially interesting are a few heteroclitic stems: To *fam-*, the abl. sing. ending is always *-ē*¹⁰), the nom. sing. regularly *-ēs*, but *-is* in Varro *Rust.* 2.5.15. To *plēb-*, endings of both declensions are found; in nom. sing. *-ēs* seems to be archaic in comparison with *-s*. Further, a word like *stirp-*, with regular forms of the third declension in all cases and normally *-s* in the nom. sing. takes *-ēs* Liv. 41.8.10. Similarly, *trab-* has *-ēs* in Ennius against normal *-s*. To these cases should be added: *ŭall-*, *aed-*, *pleb-*, mentioned in the rule, the form *palumbes* Cicero, according to Servius, the form *saeps* Varro *Rust.* 1.14.2, the stem *ŭerr-*, which has the ending *-ēs* only when used as a name¹¹), and several forms found in later texts, like *nubis*, *fidis*, *ŭulpis* etc.¹²). Thus, it is at least safe to say that the vacillation concerning this ending is considerable whether (as I think) because of its heteroclitic nature, or for some other reason. It is used, regularly or not, for words that according to normal rules should have *-is* or *-s*¹³). For that reason, it has to be regarded as an "extraordinary" feature of the system, outside the ordinary rules.

⁸) There is a very detailed discussion of this group of nouns in A. Ernout, *Philologica III*, Paris (1965) pp. 7–28.

⁹) Actually, for *ŭolpes* this is but an assumption. I have not found any case within the period where it is unequivocally masculine.

¹⁰) Heteroclysis in abl. sing. in the Lucretian word *contag-*: *-ē* 3.734, *-e* 4.336. No nom. sing. or other distinct form is found.

¹¹) Cf. below n. 34.

¹²) For details, see *NW* 1.279–281.

¹³) According to the rules given above, *subol-* and *indol-* would have taken zero ending if not in this group. But these stems are f., in contrast to the few

I would like to draw attention to two groups of stems that take the *-ēs* ending. The first consists of such as *aed- nūb- ūall- ūāt-*. Those occur frequently in other cases and have by-forms in *-is*. For several of them, it is at least possible to find an explanation to why the *-ēs* form has come to be used: when the ending *-s* was generalized for stems in stop (rule 4.12), some stems may have “escaped” for phonetical or other reasons into this anomalous group. So, for example, would **aes* and **vas* have been homonymous with other words; and in the other cases, the stop would also have been lost or phonetically changed. The second group comprises abstract words such as *prōl- lāb- tāb- pūb-*. The evidence for forms in *-is* is considerably weaker concerning those words¹⁴): further, they occur frequently in the nom. sing., otherwise mostly in the acc. and abl., hardly at all in the other cases of the sing. The word *lues* is excluded from the rule, as it occurs only as nom. sing. within the period, and thus cannot be said to be declined at all: only later do the forms *luem* (Seneca), *lue* (Val. Fl.) and even gen. *luis* (Cypr., Arnob.) appear. This group, then, seems to develop almost before our eyes: at least, it cannot be said to have its origin in the intrusion of the ending *-ēs* into already existing paradigms for the stems mentioned. This does not mean, of course, that the reason why a noun is in this group could not be that there is some difficulty involved in assigning a “normal” nom. ending to it.

As for the function, it is the only ending in the nom. sing. that can only be used substantively.

Several stems usually listed in this group do not appear in the rule above. Some have been mentioned in the discussion. Others are *strāg-*, of which no nom. sing. occurs in the period; *fēl-*, of which nom. sing. is *felis* in Varro *Rust.* 3.12.3, *feles* *ibid.* 3.11.3, with no other occurrences; *ūeh-*, which does not appear until Pliny the Elder and Colum., and in these authors, as it seems, with nom. sing. always *ūehis*; *stru-*, about which Varro says, *Ling.* 8.74: *nunc consuetudine . . . dicere . . . pro struis strues*¹⁵).

(4.12) The ending *-s* is of much greater importance for the system. Except for the two isolated stems in “vocalic *-u-*” (for the term see below) *su-* and *gru-* and the single one in *-m-*, *hiem-*, it is used for stems ending in stop. Although this has been realized for a long time, it does not seem to have been observed that this is not an optional but a universal rule. By the historical linguists, it is only said that the *-i-* is syncopated before the ending *-s* in many cases¹⁶). But it can be stated much more clearly that no *-i-* appears before the

stems of the *consul-* type. Thus, the difference in ending here corresponds to a difference in function.

¹⁴) See *NW*, loc. cit.

¹⁵) When Varro thus denotes a form as used but it is not found elsewhere, I have not regarded it as sufficient proof for its existence, partly for theoretical reasons but mainly because some of the given ones seemed suspect, such as *Ioum* (a gen. plur. of a god’s name must at least be extremely rare), *dentum* (always *dentium* when found in a context).

¹⁶) Leumann p. 257; Ernout p. 55f. In A. Meillet & J. Vendryes, *Traité de grammaire comparée des langues classiques*, 2nd ed., Paris (1948) it is maintained (pp. 461 and 145f.) that this happened universally if the last syllable of the stem was long, but not otherwise. This statement has to be

-s whenever the stem, as defined earlier in this paper, ends in a stop, except for a few well defined cases, when the *-i-* always appears.

These cases, then (found under 4.14) are first the ones when the stop is not preceded by vowel or *-l-*, *-n-*, or *-r-*. The occurring cases are *-s* plus stop: *fust-*, *host-*, *pest-*, *pisc-* etc., and stop plus stop: *uct-*, *nept-*. To the last group, there is one clear exception, *nox* to *noct-*, and one word that may possibly be counted as one, *supellex* to *supellectil-*.

The second group of exceptions are the monosyllabic short f. stems in dental stop preceded by short vowel. Such stems are *sit-* *rat-* *rud-* *nat-* *cut-* (also *fid-*, which has *-ēs* in Cic. and Prop., but *-is* in later texts, as Colum.). The two similar m. stems, *ped-* and *ūad-*, have *-s* with vowel length in nom. Corresponding stems in velar stop, both f. and m., always have *-s*: *nec-* *fac-* *nuc-* *greg-* etc. As for the ones in labial stop, *trab-* takes *-s* (cf. below), *ap-* takes *-is*, and the nom sing. of *dap-* *stip-* *op-* are avoided.

There is a third group of exceptions about which there is no direct statement in the rules: very few of the stems in *-b-* take *-s*, namely *urb-*, *caelib-*, and the just mentioned *trab-*. Of the others, *orb-* and *corb-* are listed as exceptions; *lab-* *tab-* *nub-* *pub-* take *-es*, *pleb-*, *-es* or *-s*; *palumb-* has *-es*, in Cic. (according to Servius), *-is* in Plin.; *scob-* and *scrob-* do not occur in nom. sing. within the period, but usually take *-is*. To this should be added the adjectival *imberb-* *delumb-* which take *-is* against rule 4.31.

There are plausible explanations at hand for most of these exceptions. That there are phonetical difficulties with *-s* plus stop plus *-s* and stop plus stop plus *-s* is obvious. Dental stop is dropped before final *-s*; thus, the monosyllabic stems with such a last element lose one of their usually three identifying elements before that ending. When the vowel is also short, even the second element is affected: for it seems that monosyllabic non-neutral forms have to have long vowel if they end in only one consonant. The evidence admittedly is scanty: except the mentioned *pēs* and *ūās* only the forms *lār* *mās* *sāl*, and the single adjective with short monosyllabic stem, *pār* (all listed as exceptions in the respective rules above). All the nouns, by the way, are masculine. But there is no such form with demonstrably short vowel, and it can at least be said that such ones were avoided. One obvious way to avoid them was to use the *-is* desinence. Why this was done with the feminine stems but not the masculine ones is not clear to me. It is known, however, that the majority of nouns in *-is* are in fact feminine.

The stems in *-b-* are also changed in so far as the stop becomes voiceless before *-s*, according to all handbooks¹⁷⁾. The main evidence is occasional spellings of the type *pleps* in inscription. The after all stronger evidence of the "normal" spelling, type *plebs*, found in the overwhelming majority of cases, calls however for some caution, especially as such assimilation is reflected in the "regular" spelling in other cases (types *nupsit*, *lapsus* from verbal stems

modified considerably, as it does not account for nouns of the type *hostis*, nor adjectives of the type *fortis*, nor several special cases, e.g. *simplex*. As it is normally on the evidence of the gen. plur. that the question if a word originally was an *i*-stem or a consonant stem has to be decided, the statement is in a way mainly another formulation of rule 8.2 below.

¹⁷⁾ E.g., Leumann, p. 173 and p. 151.

nub- lab-). But whether the assimilation took place or not in spoken language, the written evidence shows that this combination was somehow more complicated than the similar ones: while the Latin graphemic system excludes *gs* for *x* and allows *ds* only as spelling variant for *ss* in cases like *assigno*, both *bs* and *ps* occur. The only reason I can find for the avoidance of the ending *-s* to stems in *-b-* is reluctance against the problematic combination (which is not otherwise found in final position except for the rare *abs*, occurring only in the close connection *abs te*).

The not yet mentioned exceptions listed in the rule are *ūitis* and *sementis*. For the first, avoidance of homonymy with *ūis* may have played a part. The second one is a residue of the older declension, differentiated from "regular" *mens* etc. not only in nom. but also often in acc. *sementim*.

(4.13) The zero ending is used for stems in *-r-*, *-n-*, and *-l-*. Some such stems, however, take the ending *-is*, and it is not always easy to give reasons for the distribution, or even to describe it without having recourse to enumeration. No doubt the original distribution between consonant stems and *i*-stems has been maintained here to a higher degree than in most other groups. That it is not completely intact is quite clear.

The stems in *-r-* generally have zero ending. The exceptions are the nouns enumerated in the rule, of which all but the river name *Tiberis* are feminine. This word, with its acc. in *-im*, looks like another residue of original *i*-declension. In the *-r*-stems are here of course included the original *s*-stems, which are accounted for in the stem change rules. I am not inclined to accept Leumann's suggestion (p. 263) that those stems may have ending *-s* in nom. sing.

The two numerous groups of nouns in *-n-*, the ones in *-in-* and the ones in *-ōn-* (especially *-iōn-*) get zero ending and loss of the *-n*. The rather few remaining stems are given the *-is* desinence, a phenomenon that has been studied in depth by A. Ernout¹⁸).

Of the stems in *-l-*, there are only quite few that take zero ending, namely the masculines *consul- exul- ūigil- pugil- sal- sōl-*. The ones of the type *bīlis* (f. except for *caulis* m.) are not numerous either, and several of them have by-forms in *-ēs*: *felis* and *-es* in Varro is mentioned above; to *mel-* and *caul-* (*cōl-*), Varro has *-is*, but later authors, Pliny the Elder and Columella respectively, have *-ēs*. If to these are added the regular forms *mōlēs prōlēs subolēs indolēs* (and *ūallēs*) it becomes evident that there is great vacillation between *-ēs* and *-is* among the feminine nouns in *-l-*.

(4.14) The stems that have *-is* ending and have not yet been discussed are those in "consonantal *-ū-*" and in two consonants. To treat the last group first, it consists mainly of stems in combinations ending in stop (cf. above and in geminates like *tuss- turr-* etc). Further, there are a few combinations, like *ūerm- ax-*; and there are a few words that can be counted either in this group or among the *-n*-stems, like *ign- amn-*.

As for the stems in "consonantal *-ū-*" there is first a terminological problem. In this case, there is a discrepancy between the graphemic and the phonemic inventory of the language; as there is no formal phonemic analysis to refer to, I have to make a few remarks about the problem.

¹⁸) *Philologica I*, Paris (1946) ch. 12, especially p. 140.

The Latin grapheme *u*¹⁹⁾ may denote a consonant, as in *avis*, a short vowel, as in *sunt*, or a long vowel, as in *rus*. There are words which are identical except for the element denoted by *u*: *uoluit* (from *uelle*) is always trisyllabic when the metre is decisive (e.g. Hor. *Carm.* 1.12.14) while *uoluit* (from *uoluerē*) is always disyllabic (e.g. Verg. *Aen.* 1.101); as for the vowel length, there is for example the difference between the present *fugit* and the perfect *fūgit*. Thus, it is reasonable to use three different symbols in a phonemic transcription: for example /w/ for the consonant, /u/ for the short vowel, and /u:/ for the long vowel.

Several problems are connected with the distinction between /u/ and /w/; these are left aside here, as they are not of importance for the third declension²⁰⁾. It is enough to state that the difference between consonantal and vocalic *u* in the graphemic description above is caused by the fact that the grapheme represents two distinct phonemes²¹⁾.

That stems ending in /w/ take the ending *-is* rather than *-s* or zero is hardly surprising. Zero ending would be impossible, as classical Latin never has /w/ as a terminal phoneme except in the apocopated /sew new cew/²²⁾.

¹⁹⁾ The Latin grapheme has an interesting history itself. In ancient times there was normally only this grapheme, although sometimes /w/ was indicated by gemination, *uu*, and the emperor Claudius tried to introduce a reversed digamma for it. In the first printed alphabets, there were often two forms of the letter, *u* and *v* (in majuscles, *U* and *V*). During the first century of printing, or even longer, these were often used as positional variants for the same grapheme, *v* in the beginning of words, *u* otherwise: thus, one spelled *vrit*, *vua*, *avis*, etc. This system is still often used in the 17th century. Only gradually was a distribution on two graphemes accepted (*uva*, *volvit* vs. *voluit* etc.) under the influence of Ramus. This spelling is not the classical one and not strictly phonemic (*suadet* for /swadet/; *audit*, which I think should be transcribed /awdit/; cf. also below on cases like *qui*).

²⁰⁾ There is one detail of the phonemic analysis of direct interest here, though. Should *qu* be regarded as two phonemes /kw/ or as one /q/? Brandenstein (op. cit. p. 487) and Sturtevant (E. H. Sturtevant, "Pronunciation of Latin *qu* and *qu*", *Language* 15 [1939] 221–223) have given good reasons for the latter, and W. Sidney Allen in *Vox Latina*, Cambridge (1965) p. 9 and 16ff. also thinks that most of the evidence favours this interpretation. However, in order not to complicate the argument here more than necessary, I have provisionally regarded stems as *torqu-*, and similarly such as *angu-*, to end in /w/.

²¹⁾ This has to be stated explicitly, as Hall (op. cit. p. 84 n. 4) has maintained the opposite.

²²⁾ It should be observed that these forms occur only before a consonant in classical Latin, as far as I have been able to ascertain. This is especially interesting in the case of /ce:w/, for which there was no "full" form like /si:we/ or /ne:we/ available for use in such cases. Still, it seems that no one used this word before a vowel till Pliny the Elder, who took a fancy for this chiefly poetical particle. The alleged instance in Petron. 89.58 (trimeter) is more than dubious. And even if the text is correct, there is hiatus, not elision, as has been shown by J. Soubiran (*L'élision dans la poésie latine*, Paris [1966]

The *-s* ending would be almost equally problematic, as the phoneme /w/ cannot normally occur before a consonant in Latin^{22a}). That is, forms like /ciws/, not to speak about /torkws/, are out of the question.

(4. 2) For neuters of substantival function, the zero ending is almost universal. Except for the one stem in /w/, *conclavī-*, which as explained above could hardly have zero ending, and for the four stems *mar- mantel- ret- praesaep-* (of which the two latter have feminine alternative forms and *mantelē* has a doublet *mantelium*), only a few stems in *-l-* take the *-e* ending.

There are rather few words in *-īl-* that are used in the nom. or acc. sing. during the investigated period. Only *cubile* and *monile* are relatively frequent. The words *orbile* and *bubile* are found once each in Varro (*Rust.* 3.5.15 and 1.13.1, respectively), while *hastile ancile oīle* are found in Ovid. Several of these words are more frequent in the plural, especially *ancilia hastilia oīilia*. The rare *fenilia* is found in Verg. *Georg.* 3.321; the form *sedile* does not seem to be in any text before Celsus, but the abl. sing. and the plural forms are found in the Augustan poets. Infrequent words of similar type are found both before and after the period (*molile* Cato, *equile* Suet., *suile* Colum., etc.). Thus, there is a small but well established group of n. nouns in *-īl-*, and these have the ending *-e* in nom. acc. Only one of the stems, *oīil-* is ever used adjectivally (and that not in the classical period). For the majority of these words, no connection with adjectival function can be shown.

It is maybe hazardous to attempt to explain why this group of nouns takes the *-e* in contrast against almost all other types, including the formally very similar in *-āl-*. With full awareness of the possibilities to forward theories based on analogy, on type words, etc., I should like to suggest that avoidance of similarity with the m. type *pugil* etc. may possibly have played a part.

Another group of stems in *-l-* is usually given more attention in this context, the stems in *-āl-*, with their dissimilated counterparts in *-ār-*. Most of these words are obviously substantivized adjectives, and several stems are used both substantivally and adjectivally: so *animal- ūectigal- capital- exemplar-* etc. As is known, substantival function is regularly denoted by zero ending, adjectival function by *-e* ending in the nom. acc. of these types of words. Thus, there is obviously a functional distribution of the endings.

Here should be noted the exceptions against the rule. In the earlier part of the period, it seems that the rule is always followed

p. 404 n. 1). This may be taken as evidence for the common etymology from **ceiue* with apocope (so Walde-Hofmann, *Lat. Etym. Wörterb.*) and certainly shows that /w/ was not a normal terminal phoneme. The word *heu* and its variant *heus* has been left out of consideration here, as it is an interjection and thus may stand outside the phonemic system of the language (Leumann, *op. cit.* p. 80; cf. L. Bloomfield, *Language*, New York [1933; repr. 1965] p. 147).

^{22a}) The exceptions are the words with *eu*, including the ones just discussed and *neuter*, which appears as a trisyllabic only toward the end of the period treated; and words like *aut*, if they are to be regarded as /awt/.

for the not very numerous nom. acc. forms found: *puteal tribunal toral cubital bidental capital soliar calcar cochlear exemplar torcular lupanar pulvinar lacunar*²³). These words are also later almost always given zero ending if substantival. In the Augustan period there is, however, a small number of occurrences of stems, not met earlier, with ending *-e* in substantival function: *focale* (Hor. *Sat.* 2.3.255) *funale* (Ov. *Met.* 12.247) *penetrable* (Liu. 41.20.7) *scutale* (Liu. 38.29.6, 42.65.10) *naūale* (Ov. *Met.* 3.661). No such stem in *-ār-* was found within the period (unless *sub laqueare* in *Culex* 64, of uncertain date, be interpreted as acc., not abl., which seems improbable); later, forms like *altare* (Petron.) *promulsidare* (id.) *alūeare* (Colum.) also occur. Thus, as far as it can be seen from our evidence, it seems that words that became substantivized before the Augustan period got the zero ending in the new function, but words substantivized later kept the adjectival *-e*.

Several of the words that get *-e* are much more frequent in the plural: so *altaria naūalia laquearia*. There are other similar words which occur only in the plural, as *frontalia* (Liu.) *genualia* (Ov.), and still others that are found in the plural within the period but have a singular (in *-e*) only later, as *ramalia luminaria*. It is perhaps not too speculative to suppose that this is a phenomenon of transition: for some time, new forms with zero ending were not created any more, but there was still a reluctance against the primarily adjectival form in *-e* in substantival use; thus, one was helped out by use of the plural. It is worth remembering, though, that neutral substantivized adjectives generally occur more frequently in the plur. than in the sing.

Against this whole interpretation may be adduced the fact that there are some words that occur in nom. acc. sing. only in post-Augustan texts and still take the zero ending. Such are *cerūical* (Petron., Mart., Iuuenal.), *feminal* (Apul.), *minutal* (Mart., Iuuenal.), *subdiūal* (Tertull.), *palear* (Sen. trag.), *subligar* (Mart., Iuuenal.), *gemellar* (Colum.; also *gemellarium*, see *TLL*), *pugillar* (Auson.), *specular* (Tertull.), *boletar* (*Anthologia Latina* 53.3)²⁴. On the face of it, this looks like strong proof of the continued productivity of this type. As a matter of fact, these rare occurrences hardly show anything else

²³) This list, as well as similar ones, is compiled with the help of the reverse index in: O. Gradenwitz, *Laterculi Vocum Latinarum*, Leipzig (1904). Naturally, the occurrence of forms and words has been checked in current dictionaries, indices, and concordances, as well as in the texts themselves.

²⁴) The generally printed *quinquepedal*, the lemma to Mart. 14.92, should certainly be read *quinquepeda* with the other MS family, as is shown by *decempeda*, *multipeda*, and the formally similar *bipeda*, *centumpeda*, *millepeda*.

than that it was regarded as a permissible license in poetry (and in the very high-flown prose of Apuleius and Tertullian) to use the old formation. Several of the words occur in the plural in prose or in earlier poetry; so *minutalia* (see *TLL* s.v.), *palearia* (Ou., Verg.), *subligaria* (Plin.), *pugillaria* (Catull. etc.), *specularia* (Sen., Plin.), *boletaria* (Mart. in lemma). Thus, the majority of the forms seem to be “singularizations” of existing *pluralia tantum* (cf. above). This may be the case also with the exceptional, non-poetical *gemellar*. As for *ceruical*, again more frequent in the plural, it may have been created when the old type was still productive, although for stylistic reasons it does not occur in literary texts until later.

As for other stems with zero ending, it is enough to point out that there is no correspondance to the rules for the m. and f. stems: it makes no difference whether the stem ends in a double consonant (*mell-*), stop (*capit-*, *cord-*), or *-r-* (*fulgur-*): all alike get zero ending, with necessary modifications of the stem. Only one group presented some difficulties: the construction of these rules made it impossible to distinguish original *s*-stems and *r*-stems with preceding *-e-* in the stem otherwise than by enumeration of the least frequent group.

(4.31, 4.4) Adjectival stems in stop preceded by stop or *-l-*, *-r-*, or *-n-*, have the ending *-s* in the nom. sing., just as non-neutral nouns. This rule has the same kind of validity as the one for the nouns: there are exceptions, but they almost all belong to a clearly definable group.

There is a considerable number of stems that take the *-s* ending after this rule; at least the type *audac-* seems productive in classical Latin. Further, there are many stems containing prefixes, like *dement-*, *inert-*, *reduc-*, etc., and several other stems, like *atroc-*, *simplic-*, *felic-*, *sollert-* etc. Finally, all adjectival *-nt-* stems belong here, like *ingent-* *sapient-* etc.

Normally, this rule coincides with the corresponding one for m. and f. nouns: thus, adjectives derived from nouns usually are declined as the nouns; exceptions do occur, though. The noun *op-* is not used in the nom. sing., as noted above, but *inops* is frequent. Especially interesting are the short monosyllabic f. stems in dental (see above). To *cutis*, there is the adjective *intercus* (found only in Plautus, though). To the stem *pot-*, *compos* and *impos* (the latter before and after the selected period only) are formed. This may seem not to belong here, as *pot-* is classed as only adjectival in classical Latin. But this classification rests mainly on the facts that there are comparative and superlative forms, and adjectival declension in the nom. sing., i.e. *potis* vs. *pote*. As a matter of fact, the adjectival function of these latter forms can be seriously questioned. *Potis* and *pote*, the only existing forms of the “adjective”, are used only verbally, either with or without a form of *esse*, and are being eliminated, during the investigated period, by the wholly verbal *potest* etc. Thus, *potis* and *pote* in historical Latin can hardly be said to be anything else than petrified nominal forms of verbal function²⁵). From the etymology of the word, it seems that it originally was a noun **potis* “lord, powerful man” (see Walde-Hofmann, *Lat. Etym. Wörterbuch* s.v.). It is best, I think, to regard the

²⁵) The relation between the two forms should be the same as between *magis* and *mage*. Whether the forms in *-e* are regular neutral forms or results of a special phonetic development I am not prepared to decide. Cf. Leumann, *op. cit.* p. 176.

old words *compos* and *impos* as derivations from this substantival stem, as there do not seem to exist any similar words based on adjectival stems²⁶).

The most important exception to the general rule is that monosyllabic stems get *-is* and *-e* according to 4.34. The number of such stems is quite restricted: only *mīt- iug- rud- dulc- grand- turp- fort- dīt-* are found. The few compounds of the type *praedulc-*, *ūgrand-* etc. are treated as the simple stems. For reasons not clear to me, the stem *truc-* takes the ending *-s*²⁷). Otherwise, the rule is strict. An interesting illustration is provided by the variant forms of one stem, *dīūit-* or *dīt-*. The disyllabic stem form always gets *-s*: *dīūes*. The monosyllabic *dīt-* has the same ending only in Terent. *Ad.* 770. On the other hand, *dītis* is in the *Priapea* 75.3 (which may or may not have been written within the selected period), n. *dīte* a little later (Val. Fl.).

The isolated exception *ūirid-* is a special case. The stem is an adjective formed from a verbal stem, of the same type as *pallid- florid- liūid-*, but for some reason this stem has got the endings of the third declension²⁸). It is understandable that the suffix is not obscured by the use of the ending *-s* to such a stem. For *imberb-* and *delumb-* see above.

As for the participles, the proviso about monosyllabic stems does not apply: the few stems of the type *dant-* take *-s*. As there are no adjectival stems of this type, it would be possible to say instead that the proviso does not apply for *-nt-* stems. It seems rather obvious, though, that the decisive common characteristic is the quality of participle rather than the similarity in form.

Lastly, the neutral forms of all the stop stems are conspicuously different from the neutral nouns. While the latter always take zero ending, the adjectival forms take either *-s*, an unknown ending for the nouns, or *-e*.

(4.32, 4.33) The stems in *-r-* get zero ending. Excepted is the most numerous group, stems in *-ār-*, type *militaris*: the *-r-* in these words is the result of dissimilation of *-l-*, and the type naturally agrees with the undissimilated one, like *ūocalis*. Further, the stems in *-r-* preceded by stop take endings *-is* and *-e*: type *muliebris*, *muliebre*. Some of these, however, also have zero ending²⁹): if so, it is reserved for the masculine. Thus, stems of this type may show complete gender distinction in the nom. sing. However, the trend never developed to a hard and fast rule. Although it is true that the zero ending normally is used for masculine, if found, the *-is* ending is also possible for most stems even in the selected period. If examples from earlier and later times are

²⁶) The difficult passage in Varro, *Ling.* 5.4, seems to me rather to suggest a heteroclitic declension *impos*, *impotentis* than a derivation of *pot-* from *potentia*; that is, I believe that the MS reading *impotentem* should be retained. The material in the *TLL* does not contradict the theory that *impos* may have functioned mainly as a facultative nom. sing. to the stem *impotent-*, as the stems have by and large the same meaning and the nom. sing. is the only occurring form of the stem *impot-*, except for the uncertain *impoti* in Plaut. *Trin.* 131 and acc. *impotem* in late texts, beginning with Apul. *Plat.* 2.18.

²⁷) It may be argued that *trux* has been formed in accordance with the formally similar noun stems such as *dux nux crux*; but in that case, why are not *dulcis grandis turpis fortis* influenced by *falx glans stirps ars*?

²⁸) Cf. Leumann, p. 225.

²⁹) For details about the stems which take this ending, see *NW* 2.15–20.

adduced, there does not seem to be a single stem for which zero ending is invariably used in the masculine.

Regarding the stems with zero ending in all genders, it seems that neutral forms in *-r* were mostly avoided. As is known, the original *-s* of the stem has been retained in the neuter, but not in the other genders, of the comparatives. The remaining stems, such as *memor- discolor- pauper- uber-* etc. are not normally used in the neuter. The exception, as could be expected, is the *s*-nominative *vetus*. *Par* is frequent as a noun and verbal (*par est*) but not as an attributive adjective.

(4.34) All remaining types of adjectival stems take the endings *-is* and *-e*. In most cases, m. and f. forms in this way get the same ending as corresponding m. and f. nouns. It should be noted, though, that of the *l*-stems, m. nouns with preceding short vowel have zero ending, but the extremely frequent adjectives in *-il-* constantly have *-is*. Also, the rather few adjectives in *-m-*, like *infāmis, incolumis, cōmis*, contrast against the single noun *hiems*.

In the neuter, there is again a vast difference between adjectives and nouns. Only for stems in */w/* and in *-il-* is *-e* used for both. All other adjectives in this group, by far the most numerous one in the system, have *-e* in n. against zero for neutral nouns.

The rules for the m. and f. forms of the adjectives thus coincide in many, but far from all, cases with the ones for the corresponding nouns, and neutral nouns and neutral adjectival forms are mostly different. To take a few examples: *mollis* m.f. is formed as *follis* m. but *molle* n. not as *mel* n; *concor* m.f. as *heres* m. (or f.) and *ars* f., but *concor* n. not as *cor* n. Difference in the nonneutral forms is found mainly in cases like *fortis* vs. *ars* and *humilis* vs. *pugil*. Those discrepancies are in striking contrast to the constant identity in the other adjectival declension: *bonus bona bonum* like *serūus mensa bellum*.

But the rules given relate to the form. Now, the distinction between stems of adjectival (including participial) and of substantival function is generally clear within the system. Mostly, stems with noun declension can function only as nouns and those with adjectival declension only as adjectives. There are a few cases of normally substantival stems that are used as adjectives (type *ūictor exercitus*), mainly among the *-r-* and *-ōn-* stems; but the majority of stems with double function are the regularly or occasionally substantivized adjectives. This procedure becomes problematic when the substantival ending is not identic with the adjectival one. Thus, it seems worthwhile to give some attention to the extent of substantivization in the nom. (and acc.) n. sing. of the third declension.

To begin with the neuters, the stems in *-āl-* and *-ār-* have already been discussed: they represent one way of solving the problem, to

change the ending according to the function: *animal* is substantival, *finale* adjectival.

The alternative solution is simply to avoid substantival use. This is the case for the majority of the adjectives in the system, in marked contrast to “second declension” adjectives³⁰). It is notable that this reluctance against substantival use concerns only the singular. I shall try to state precisely which adjectives are ever used substantivally in the singular.

As has been shown above, there are very few adjectives that have zero ending in the nom.-acc. sing. (Of these, incidentally, *par* is commonly substantivized.) The rest have either *-s* or *-e*. Of the former, substantival use practically does not occur at all: the only instance known to me is *consequens* in Cic. *Fin.* 4. 68. (*ibid.* 3. 32 the word is used by the author as a translation of *ἐπιγεννηματικόν*.) In the plural, the word is often used as a noun. There remain the ones in *-e*, of which a few may be used substantivally.

The most frequent are *insigne* “mark of distinction”³¹) and *commune* “the common”. In philosophical passages of Cicero and Lucretius, *inane* “the void” is also much used (this is of course a loan-translation of *τὸ κενόν*); from Vergil, it is also used poetically to designate “space” or “air”. The others occur each in one author only during the period: so *simile* in Cicero, *utile* in Horace³²), *sollemne* in Livy. *Viride* seems to occur once only in the period, Liu. 34. 26. 8³³).

Thus, there are few cases of adjectivally declined stems that function as neutral nouns in the sing. Further, these cases are restricted to a handful of stems. Thus, although such use is possible, it is obviously avoided. Only in special situations (e. g. to render a Greek term) does the usage become frequent.

To sum up the facts, it is clear that while zero ending in nom.-acc. sing. n. practically always denotes substantival function (except

³⁰) See Kühner-Stegmann, *Ausführliche Grammatik der lat. Sprache*, 2. Band: *Satzlehre*, vol. 1, Hannover (1912) p. 228.

³¹) Actually, it is quite doubtful whether this word is historically identical with the neuter of *insign-* “distinguished”; see note by Leumann in *TLL* s. v. However this may be, I do not think that it is advisable to distinguish in classical Latin between an adjectival and a substantival stem in this case.

³²) It should be noted that expressions of the type *utile est facere* are not regarded as instances of substantival use. The analysis is far from self-evident, as the place of *utile* can also be occupied by a noun: type *consuetudo est facere*. However, the fact that very many adjectives that do not otherwise function as nouns occur in this construction seems to be one of several reasons for excluding cases of this type here. The whole problem of the syntactical structure of Latin clauses with the verb *esse* might perhaps be illuminated considerably by transformational analysis.

³³) Of the stem *pingu-*, I have found no nom. or acc. form. In Verg. *Georg.* 3. 124, the abl. is used substantivally. The same form is usually printed in Lucr. 1. 257; but the *pinguis* of *O* and *Q* may be defended: see the apparatus of Merrill's edition (1917).

the comparative forms), and the *-s* ending always adjectival function, the ending *-e* is not wholly unambiguous: in the large majority of cases, the function is adjectival, but there are some stems with this ending that have only substantival function and a few that may have both.

It seems clear, incidentally, that there is a development within the period regarding *-e* in substantival function. In the earlier authors, only a few words in *-īle*, and *mare rete* are found in addition to the adjectives above. In the Augustan age there are not only the few words in *-āle -āre* but also *mantele praesaepe* and the further substantivizations mentioned.

In the masculine and feminine genders, there are only a couple of stem types for which there is not identical ending in substantival and adjectival function. The first consists of the monosyllabic stems in stop like *fortis*; the other group, which is extremely numerous, is constituted by the stems in *-il-*; I have not found a single instance of substantivization of either of these³⁴).

(4.) To sum up, the extreme complexity of the formation of the nom. sing. is caused by the fact that the different endings are distributed according to three different, and sometimes conflicting, principles: in accordance with the final phoneme(s) of the stem, or the declension type (substantival vs. adjectival), or the gender.

³⁴) As is well known, there are not too many instances of substantivization of any other forms either in the nom. sing. m. or f. The ones that are found are mostly either collectives used in philosophical texts, clearly under influence from Greek (*sapiens* = *ὁ σοφός*, etc.), or proper names (*Quintus Fabius Maximus* can be regarded as three adjectives). In both categories, there are many adjectives with endings *-us* or *-a* and some with ending *-s* (*sapiens*, *Felix*, *Capax* etc.) or zero (*Celer*, *Nobilior*) but very few with ending *-is*. In the lists of I. Kajanto, *The Latin Cognomina*, Helsinki (1965) I have found 14 words of the type *Regillensis*, *Pisauensis*, *Parmensis* from republican times: but most of them cannot be regarded as names; they are rather designations of origin. Cf. Degrassi in *Latomus* 25 (1966) 163–164 (review of Kajanto). The same is true for *Fontinalis*, the alleged name of a consul of 454. Except for those, there are only several *Villius Annalis* (Cic. *Fam.* 8.8.5–6 al; for the history of the name cf. Liu. 40.44.1), *Clodius Vestalis* (late first century B.C.) and the names *Liberalis*, *Nobilis*, and *Sodalis* (a freedman), found on one inscription each. *Apollinaris*, *Dapsilis*, and *Provincialis* are but conjectures. Later, the reluctance against such names evidently gave way: in the index to Tacitus' *Historiae*, there are, among others, *Pacensis*, *Apollinaris*, *Cerialis*, *Martialis*, *Iuvenalis*, *Agrestis*. This shift may possibly in some way be related to the above-mentioned change from zero to *-e* ending for *-al-* and *-ar-* nouns: both cases are instances of substantivizations of earlier exclusively adjectival forms.

To look at the whole nominal system for a moment, the main difference, as has been hinted earlier, between this and the other main declension type, *bonus bona bonum*, is that there, gender is shown almost perfectly but no difference between substantival and adjectival declension is found. It may be asked what importance, if any, this only very spottily realized designation of substantival or adjectival function might have in the system of the language. This question cannot be answered, I think, until the other case-forms also have been studied.

5. Accusative sing. m. and f.: *-em* (rarely *-im*)

Accusative sing. n.: *-e*, *-s*, or zero

5.1 M. and f. stems:

Ending *-em* except for the stems *pupp-* *sit-* *tuss-* *Tiber-* *secur-* *bipenn-* which take *-im*, and *naŭ-* *sement-* which take either.

5.2 N. stems:

Endings as nom. sing. n.

In this case, there is always distinction between neuter and non-neuter. The neutral forms have been treated. As for the non-neuters, Leumann (*op. cit.* p. 267) talks of “die merkwürdige Beschränkung des lat. *-im* auf Feminina” (when discussing the historical explanation of the form). The ending, accordingly, could perhaps be interpreted as a rudiment at least of a formal distinction between masculine and feminine. This is however hardly commendable, mainly because Leumann’s statement is not quite correct: he omits the frequent m. *Tiberim* (possibly because it is the name of a river, but I cannot see that this is a very good reason). Further, it is notable that the stems are all nouns, and that no one of them is of a type productive in classical Latin. It seems rather clear that these forms are isolated remnants of an earlier declension system (however that may have looked).

6.1 Nom. plur. m. and f.: *-ēs*

6.2 Nom. plur. n.: *-a* or *-ia*

6.21 Ending *-ia*

Stems with ending *-e* or *-s* in nom. sing. n., including the stems in *-āl-* and *-ār-*.

6.22 Ending *-a*:

Stems with ending \emptyset in nom. sing. n.

Exc.: To *par-*, *paria*.

(6.2) Traditionally, ending *-ia* in the plur. n. has been associated with gen. plur. *-ium* and/or abl. sing. *i*, and grammarians who formulate rules have usually connected them. For the historical linguists, presence of the endings

-ia and *-ium* in the paradigm of a word is taken as the surest indication of original *i*-stem³⁵).

However, there are not too few words for which there is not a strict correspondence between these forms. The most important are perhaps the stems in *-nt-*, of which several may take *-um* in the gen. plur., but all invariably take *-ia* here. There are also more isolated cases like *plura* but *plurium* and *celeria* but *celerum*³⁶). On the other hand, as can be seen from the rules above, the correspondence with the nom. sing. n. is almost perfect. The only exception is the single short monosyllabic stem that would “regularly” have taken *-a*, *par-*.

7.1 Acc. plur. m. and f.: *-ēs* or *-īs*

Ending *-ēs* except for stems with *-ium* in gen. plur., which may take *-īs* instead.

7.2 Acc. plur. n.: *-a* or *-ia*

As nom. plur. n.

(7.1) The limits for the occurrence of the ending *-īs* are easiest defined, I think, by the traditional reference to the gen. plur. The ending is clearly becoming less frequent during the period studied, but is still often used by Augustan poets, at least Vergil. One may well suspect that by his time that usage was already archaistic: it is very hard, though, to get precise information about the development, as it seems very probable that several texts may have been partly or completely “normalized” in this respect at some point in the tradition.

In this situation, the inscriptions are important. The only one from the period which contains enough acc. plur. forms to give clear indications of the norm of the author, the Monumentum Ancyranum, turns out to be quite interesting. The possible nouns all have *-ēs* (with or without apex): *fines* (three times), *aedes gentes* (twice each), *naūes*. The forms of adjectives and participles are different: *inferentIs agentIs omnIs curulIs* (once each) against *labentes omnes* (once each)³⁷). It seems that the rule is that nouns always get *-ēs*, adjectives either ending. Thus, there would be a kind of distinction between substantival and adjectival declension. Unfortunately, the material is too small to form the basis for any more general theories. And even if this distribution seems to be followed strictly in this text, it cannot be maintained that it can ever have been very generally observed: there are too many *ciūis*, *turris* and the like in shorter inscriptions from the time. The form *ciūis* is even found in other official texts from the time of Augustus, viz. the coin legends³⁸).

One may ask, all the same, why the acc. sing. *-im* and the acc. plur. *-īs* are so differently distributed: while the former, as shown above, is on the

³⁵) Leumann *op. cit.* p. 256 Cf. also Ernout, *Morphologie*, p. 57.

³⁶) Cf. also *corda* but (postclassical) *cordium*, *maria* but (preclassical) *marum*.

³⁷) To these cases should be added 1.22, where the expansion of . . . *rIs* to *plurIs* seems most probable. As for *supplices* 5.41, cf. n. 48.

³⁸) See O. Hey, “ob ciuis seruatos”, *Archiv für lat. Lexicographie* 11 (1900) 270–271.

whole restricted to a handful of stems with which it occurs constantly, *-īs* remains a facultative possibility for a very large group of stems up to the time when it finally disappears. There may be a historical explanation³⁹): it should be noted, in any case, that there is a difference in the degree of information that the two endings give. Whereas *-im* gives exactly the same information as *-em*, *-īs* stands for acc. plur. only, while *-ēs* stands for both nom. and acc. Thus, it may possibly have been more widely used because syncretism was thus avoided⁴⁰).

8. Gen. plur.: *-ium* or *-um*

8.1 Ending *-ium*:

Stems in consonantal *-ŭ-*; in *-l-*; in any two consonants; and in *-n-* or *-r-* preceded by long vowel (except *-ōn-* *-ōr-* *-ūr-*)
Exc.: *boum*; *consulum exulum uigilum*; *patrum matrum fratrum mensum*; in poetry, *ŭolucrum* and participles in *-ntum* may occur.

8.2 Ending *-um*:

Stems in *-ōn-* *-ōr-* *-ūr-*; in *-n-*, *-r-*, or stop preceded by short vowel; in vocalic *-u-*.

Exc.: *apium* (also *-um*) *anatum* (usually *-um*)

8.3 Vacillating:

Stems in stop preceded by long vowel.

Of these, stems of adjectival declension normally take *-ium*; of the others, those with *-ō-* before the stop usually take *-um*; of the rest, the ones in velar stop take *-um* (exc. *faucium*), those in labial *-ium*; of those in dental stop, *merced-* *hered-* *sed-* *laud-* *ŭirtut-* take *-um*, the ones in *-āt-*, *-um* or *-ium* indiscriminately, and the others usually or constantly *-ium*.

(8.) In the gen. plur., the two existing endings are not functionally distinguished: they show neither different genders nor substantival vs. adjectival function or declension⁴¹). The distribution of the end-

³⁹) It is usually assumed that *-im* in acc. sing. is the original ending for acc. sing. of *i*-stems, just as *-īs* in acc. plur. In Leumann, p. 267, is also discussed the theory that *-im* goes back to original *-īm*: thus, the ending should have been quite rare from the beginning. There are several difficulties with this theory, though.

⁴⁰) I have allowed myself to disregard the scattered evidence for *-īs* as nom. plur. ending. It seems that this use is hardly of interest for the period which is discussed here.

⁴¹) It has occasionally been alleged that *-um* implies substantival, *-ium* adjectival function: so, e.g., NW 2. 128 f. But it has not been shown that any

ings is here described as a function of the preceding phoneme or phonemes.

(8.1) In the first place, there is an imperative rule that stems ending in /w/ take the ending *-ium*, e.g. *ciūium*, *naūium*, *graūium*, *oūium*, *ungūium*. It is a well-known fact that the phonemic sequence /wu/ was avoided in the Latin language of this period. In many cases, this was effected by occurrence of *-o-* instead of expected *-u-*, as in *serūom*, *ūolnus*. In other cases, alternative forms could be chosen⁴²). Here, then, it seems quite natural that *-ium* should constantly be chosen in a case like this when *-um* would cause an embarrassing combination.

An almost as imperative rule was found to be that all stems ending in *-l-* have the ending *-ium*. This is a more numerous group of stems than the previous one, including, above all, the adjectives in *-āl-* *-īl-*. There is, however, a small group of exceptions, including the stems *consul-* *exul-* *uigil-*, that take the ending *-um*. There is no obvious explanation neither for the rule nor for the exceptions. The distinction separates the same two groups as in the nom. sing.

The group of "stems in two or more consonants" often figures in the rules of school grammars. I have found it practical to make it a universal rule that such stems take the ending *-ium*. The most important exceptions are a few nouns ending in *-tr-*: *patrum*, *matrum*, *fratrum* (*accipitrum* does not occur until Pliny the Elder and Tacitus). It seems more appropriate to treat these few frequent words as exceptions than to formulate a special rule for them, as similar noun stems follow the main rule: *utrium*, *februm*, *ūeprium* etc. As for *ūolucr-*, Cicero has *ūolucrum*, but Vergil *ūolucrum*, probably for metrical convenience. Adjectival stems invariably have *-ium*; *putrium*, *acrium* etc. The next exception, that participles in *-nt-* may take *-um* in dactylic poetry, obviously is conditioned by metrical expediency. The last one, the stem *mens-* may perhaps have to do with the well-known fact that the nasal in this position was not heard as a separate sound, but as nasalization of the preceding vowel or not at all⁴³). Besides, this form was quite vacillating: except *mensium* (Vell Pat. and later) there exist the heteroclitic *mensuum* (Cic.) *me(n)serum* and *me(n)sorum* (inscr.)

So far, it is possible to describe the distribution of the endings by simple rules with few exceptions. The remaining group, stems in a long vowel followed by *-n-* or *-r-*, is more difficult. There are two very numerous groups of stems in this category: nouns in *-ōn-*, especially feminines in *-iōn-*, and stems in *-ōr-*, especially the masculine *nomina agentis* and the comparative adjectives. All

one stem changes ending with function. The most that can be said is that most words of adjectival declension have *-ium* (although some undeniably have *-um*). But for these words (type *omnium*) as for all others in gen. plur., the majority of the occurrences have substantival function.

⁴²) See E. Norden, *Vergilius: Aeneis VI*, 3rd ed. Leipzig (1927), p. 456, on *nec* instead of *neque* before vocalic *u-*.

⁴³) See Leumann, p. 121.

these stems have *-um*, and so do the few in *-ur-*, like *fur- crur-* etc. except *plurium*⁴⁴). Only the relatively few remaining stems take *-ium*.

(8.2) The ending *-um* is further used for the two stems in /u/ and perhaps for stems in *-m*⁴⁵). But the most important of the rules is that about the short last syllable of the stem.

Few seem to have observed that *-ium* in gen. plur. is not often preceded by a short syllable⁴⁶). I am unable to give any very good reason for the rule. It tallies quite well with the facts of the classical period, but it has to be qualified to such an extent that its validity may possibly be denied. I have chosen to state it anyhow, as it seems to organize the facts better than any alternative one.

To begin with the most problematic group, the monosyllables, several of the not too numerous stems are not used in the gen. plur. at all (partly for obvious semantic reasons): so *sit- cut- nat- rud- rud-*. Others do get the *-ium* but do not occur till after the selected period: so *ratium* (Lucan.) *scrobium* (Colum.) *fidium* (Ammian.) *trabium* (Auson.) *stipium* (Tertull.). The others take *-um*, e.g. *ducum pedum opum larum senum*. There are a few exceptions left: *apium* (Cic. etc.) to which there is the variant form *apum* (Liu. etc.); *marium* "of males" (Cic. *Part. Orat.* 35)⁴⁷); and the frequent *parium*.

When it comes to dissyllabic or longer stems, the rule is working better. First, it covers large groups of neutral nouns in *-n-* and *-r-*, types *nominum temporum*, and other words in *-r-* such as *augurum ueterum* etc. Further, there are not too few words in stop, as *militum diuitum inopum supplicum*⁴⁸) *iudicum* etc. That the short last syllable of the stem really has a causal connection with the ending seems to me to be rather strongly implied by the relation between the normal form *diuitum* and the form *ditium* (Sall.) from the contracted variant of the same stem⁴⁹).

⁴⁴) To *mur-* however, the gen. plur. is *murium* as well as *murum*.

⁴⁵) The form *hiemum* is found as probable conjecture for *hiemen* in Cic. *Rab. Post.* 42. Of the adjectival stems *infam- com-* etc. I have not found any gen. plur. form; to *birem-*, there is the form *biremium* in Tac. *Hist.* 5.23.

⁴⁶) Cf. however Householder, *op. cit.* p. 49. Further, I have not checked school grammars or works older than Kühner-Holzweiser: it is quite possible that this and other rules given here may have been formulated before.

⁴⁷) Ernout (*Aspects*, p. 108) seems doubtful about this form, on grounds that are not wholly clear to me. To *mar-* "sea", no gen. plur. is found except in a fragment from Naevius in Priscianus, where *marum* is read.

⁴⁸) Ernout uses this word, in his *Morphologie*, p. 57, as a paradigm for the adjectives with *-s* ending in nom. sing., which are, according to him, *i-*stems (although *inops*, *quadrupes*, *artifex* and others are excepted: cf. *ibid.* p. 59). The choice of type word is not felicitous: the gen. plur. is *supplicum* (see *NW* 2.128f.) not *-ium*; and the nom.-acc. plur. does not exist (*NW* 2.123). Besides, this whole group of words seems to be better taken care of by the here discussed rule of the short last syllable than by Ernout's analysis.

⁴⁹) A form like *compotum* (Liu.) hints that original *-i-*stems may be transformed to fit the rule: but cf. also above p. 126f. The heteroclitic *aliturum* is found in dactylic poetry (cf. *mensuum* above).

(8.3) The last group in the rules, stems in stop after long vowel, has here been called “vacillating”, not primarily because it is hard to formulate valid rules for it but because several stems in the group do take now one and now the other ending. It seems that for this group more than for any other, different rather weak and sometimes conflicting tendencies have caused the distribution.

The stems of adjectival declension take the ending *-ium*. There are, however, a few examples of *-um* in dactylic poetry: so *fallacum* (Catull. 30.4) and *ferocum* (Ps.-Ou. *Cons. ad Liviam* 275). As for the stems of noun declension, there is only one numerous group, feminines in *-āt-*. These have either *-ium* or *-um*, and it does not even seem possible to indicate with any high degree of certainty which form was usually preferred. I quote *NW* 1.408: “Ueblicher ist tatum, doch ist auch tatium nicht selten, besonders bei Liv. und dem älterem Plin.” The collection of examples that follows the quote includes several instances of *-ium* also from Cicero and other prose authors; as could be expected, *-um* seems to be favored in poetry. The same vacillation is found concerning other stems in *-āt-*, as *optimāt-*, *ūāt-*. The remaining stems in a dental stop are almost evenly distributed between the two endings: *clad-* *aed-* *caed-* *fraud-* *crat-* *lit-* *ūit-* (*caut-* and *ret-* later) and usually *Quirit-* *Samnit-* take *-ium*, while *merced-* *hered-* *sed-* *laud-* *palud-* *sacerdot-* *nepot-* take *-um*. The least inconvenient way to state these facts was found to be as in the rule above.

The stems in velar stop, namely the feminine nomina agentis in *-trīc-* and the stems *cerūic-* *ūoc-* *leg-* *reg-* *frug-*, have the ending *-um* (the exception *faucium* is in the rule), while the very few in a labial stop have *-ium* (in the described period only *nubium*: later *rupium* Seneca, *plebium* Prudent.).

(8.) I want to point out that it has been altogether possible to describe the distribution of the endings *-ium* and *-um* without reference to the nom. sing.: and with the possible exception of some small groups of stems, the description would not have been simpler or more correct by referring to the nominative. It seems that mostly, there is no correspondance whatsoever between the rules for these two cases.

9. Abl. sing.: *-ī* or *-e*

9.1 Ending *-ī*:

Stems that may take either *-e* or *-im* in acc. sing. including the stems in *-āl-* and *-ār-*; and *memori* (poetical).

9.2 Ending *-e*:

All other stems (except the ones in 9.3)

9.3 Ending *-ī-* or *-e*:

Stems in stop (except the ones included in 9.1) and *-par-* *ūigil-*. Normally, ending *-e* is used when the function is that

of noun or participle, *-ī-* when it is that of adjective. However, *-e* may be used in adjectival function in poetry. The nouns *ūit- orb- amn- ign- ferr- turr-* and those in consonantal *-ŭ-* take *-e* or *-ī*.

(9.) In the treatment of this case, there has been less attention paid to “abnormal” forms of rare occurrence than in the other parts of the study. This is because in the first place, the norms seem to have been especially loose here, so that there was perhaps a certain amount of more or less random variation, and in the second place, the textual tradition is unusually often of doubtful value regarding this ending. The rules, therefore, are meant to cover the large majority of cases, but do admit a number of occasional exceptions.

(9.1) In the Latin declension system, syncretism is relatively common. Dative and ablative plural are always identical: so are dative and ablative singular for many words. For neutral forms, nom. and acc. are always identical, and in the plural, this is true also for many non-neutral forms. Further, there are cases of syncretism between nom. sing. and gen. sing. (type *ciŭis*) and between nom. plur. and gen. sing. (type *serŭi*), and between gen. sing. and dat. sing. (type *mensae*). But there are no instances of syncretism between the forms for nominative (or accusative) and the forms for dative (or ablative)⁵⁰. The rule that words which take the ending *-e* in the nom.-acc. n. take *-ī* in abl. is of course of crucial importance for the upholding of this general distinction.

In this case, it is also easy to show that the formal distinction is indeed important for the effective function of the language. In Latin, there are some prepositions after which either acc. or abl. are used, with different meaning. This distinction is possible only if there is no syncretism between acc. and abl.

Thus, although for other words the endings *-e* and *-ī* in the abl. sing. were often used as alternatives, there are no examples of *-e* as abl. ending to stems with the same ending in the acc. This means, of course, that most stems of adjectival declension get this ending.

⁵⁰ The type *cornu* is but an apparent exception. Although the form *cornu* is listed as both nom./acc. and abl., I have not found that any author within the period has used both the abl. and the nom./acc. of any of the three words usually declined this way, viz. *cornu genu ūeru* (cf. NW 1.529). Even these three words have by-forms, and the whole type of declension is obviously near extinction in the classical period. Cf., for another way of stating the facts, Brandenstein, *op. cit.* p. 483.

The words with acc. sing. ending *-im* have to be regarded as remainders of an earlier system.

(9.2) The majority of remaining stems are nouns; the ending *-e* is used exclusively for most of them. The only ones for which this ending is not used are the rather few neuters with *-e* in nom.-acc. and those with *-im* in acc. (cf. above). Thus, the main groups of stems taking the endings *-e* and *-ī* are nouns and adjectives, respectively. This contributes to the understanding of the functional distribution in the remaining, vacillating group. (It should be remembered, though, that the comparatives belong to 9.2)

(9.3) As the stems in stop take zero or *-s* ending, respectively, in the neuter, there is no risk for syncretism regarding these stems. The stems of adjectival declension, however, take the ending *-ī* like the majority of adjectives all the same, if they are used as adjectives. But when those stems are used in substantival function, they almost always have the ending *-e*, as most other nouns. Thus, there is a small group of adjectival stems that may have either ending, depending on the function. Such are, e.g., *reduc- supplic- artific- consort-*. The in other ways irregular stems *par-* and *ūvigil-* show the same kind of distinction⁵¹). A few stem, such as *felic-*, have the *-e* ending only when used as names.

In this connection, the participles are of special interest. As is known, there are mainly two ways to use a participial form in the ablative in Latin: in the “ablative absolute” construction and as an attributive adjective. In the case of the present participles, *-e* is constantly⁵²) used in the participial function, but usually *-ī* in the adjectival. Thus, the distinction for this group is similar to, or can perhaps profitably be analysed as identical with, the one for the adjectives mentioned⁵³). It should be noted however that there are

⁵¹) I prefer to regard *uberi* “fertile” and *ubere* “udder” as derived from two homonymous stems.

⁵²) Or almost constantly: see *NW* 2. 100 f. for a collection of cases where the tradition gives *-ī* for forms in the abl. abs.

⁵³) A satisfactory syntactic analysis of the basic structure of classical Latin remains to be done: thus, for example, the boundaries between the functions of noun, adjective, and participle, have not been studied; nor the more fundamental problem if indeed those three should be set up as three different functions. In the case of the abl. abs., the parallel *Cicerone sciente* – *Cicerone consule*, together with the fact that *Cicerone ūvīo* may be an abl. abs. but *Cicerone mortali* may not, may perhaps give reasons to interpret the abl. abs. as consisting of two nouns.

no participles which are frequent with both endings. Most occur only with *-e* in the abl. abs., while the ones that are used attributively can very often be said to be adjectives altogether: such are, e. g., *ardenti flagranti constanti*.

Beside this functional distinction, it has sometimes been assumed that *-e* is in certain cases preferred for non-neutral, *-ī* for neutral substantivizations. In *NW* 2.88–89, such a distinction is discussed for names of the type *Arpinat- Samnit- Veient-* etc. I cannot find that the adduced material supports such a conclusion: what can be said safely is only that these words vacillate to an unusual degree.

(9.) The most important rule for the abl. sing., then, is that *-ī* is necessary when *-e* might have caused syncretism; otherwise, *-e* is the rule. The stop stems are a marginal group, where there is much variation. The functional distinction undoubtedly exists for a group of such stems.

At the end of this description, it must be all too obvious for the patient reader that, as for complexity, Priscianus has a worthy competitor in the author of this study. I apologize for this, but still feel that the blame must be on the facts rather than on the investigators. Be that as it may; this investigation still seems to have been worthwhile because of the new light that is occasionally shed on well-known facts when they are arranged in new ways. To conclude, then, I should like to point to a few things of interest that seem to emerge a little more clearly from this discussion than from previous ones.

In the first place, it has been shown possible (with few exceptions) to describe the distribution of the endings in the crucial cases nom. sing., abl. sing. and gen. plur. with reference only to the phoneme before the ending, and not to the distinction between *i*-stems and consonant stems. Of course this does not mean that the distinction is not at all applicable to the material. It is necessary to assume it in order to understand the existence of several endings, to begin with. It is also possible, though far from obvious, that the description of what is above called *r*-stems and *l*-stems could have been clearer if it had been applied. But on the whole, it seems that the system is really most appropriately described without the distinction. This implies, of course, that the classical Latin declension system is so far removed from the state when the distinction between *i*-stems and consonant stems was complete that it is not meaningful to relate the facts to that distinction. How, or why, the fusion was effected are questions which have not been asked here.

The description above may possibly provide a better basis for investigations in this direction than previous studies.

The distinctions that do remain are to a certain extent reinterpreted in the language. Most of the stems that keep the *i*-stem endings throughout are adjectives, and most of the consonantal stems are nouns. As has been shown above, there are in fact several groups of stems for which the final of the stem is identical but the noun stems get the ending without, the adjectival stems the ending with the *i* element. For two rather small groups, the neutral substantivized adjectives in *-āl-* or *-ār-* and the abl. sing. of stems in stop, it seems that the procedure is rather the reverse, so that the ending is chosen according to the function of the stem. Thus, there are clear traces of a development towards a separation between noun declension and adjectival declension. But the development did never go further; actually, it seems that one of the distinctions was abandoned during the investigated period.

As for the “new” groups of stems that emerge from the rules above, the most interesting one by far is the one constituted by stems in stop. I think that the arrangement used here has made it clear that these follow common, though complicated, rules, and that most of the real vacillation between endings that occurs concerns these stems. A detailed explanation of these phenomena cannot be attempted here. It seems to me, though, that such an explanation has to be at least partly historical. The crucial fact in the development seems to me to be the almost complete generalization of the ending *-s* for stop stems in the nom. sing., which definitely obscured the distinction of the original two types of declension and made possible the confusion in other cases. But I leave this historical question to the interested scholar: here it must be enough to have pointed to the problem.

Appendix

As is known, Latin substantivized neutral adjectives occur mostly in the nom. and acc., not too seldom in the abl. (mainly after preposition), but rarely in the dat. and gen., especially in the singular. The infrequency of the dat. can partly at least be explained by the fact that abstracts word, as these are, would not be found too often in the dative anyhow. More difficult to explain is the genitive. To begin with, there is one important exception to the rule: adjectival stems of the “second declension” may be used as partitive genitives

after neutral pronouns and *nihil*, as *quid noŭi? nihil mali* etc. I think it should be stressed more than has been done that this is really a not too far-reaching exception. The one limitation that has attracted attention is that “third declension” stems cannot be used⁵⁴). But the use is also restricted to the partitive, and sometimes to the objective, gen.: it is not possible to use neutral *boni* etc. as possessive gen. (otherwise more frequent than the partitive), as gen. to verbs, as gen. to *causa, gratia* etc., or in any other function of the case. And within the narrow section left, there is another severe restriction: the partitive gen. can be used only to qualify a few quantitative words and pronouns in the neuter sing. nom. or acc. They do not ever occur even with a noun like *pars*. It can hardly be said that the types not used are such that would be senseless or useless.

This should be compared, I think, with how the substantivized gen. sing. masculines are used. They are very frequent in one construction, the so called possessive gen. to *esse*, type *timidi est*, or *fortis est*. Apart from this, they mainly occur as possessive gen. to words like *animus, corpus* etc. Only the substantivized present participles are used a little more freely.

These facts together strongly suggest to me that the dispersion of substantivized adjectives is restricted mainly by the fact that confusion of non-neuter and neuter is possible, as the m. and n. endings are identical for all types of Latin adjectives⁵⁵). The frequent cases are such where no misunderstanding can occur: neutral quantitative words cannot possibly be qualified by a gen. sing. denoting a person (while a plural, incidentally, is quite possible: type *plus hostium*). The objective gen. n. (type *studium ũeri*) are

⁵⁴) E. Löfstedt (*Syntactica* I, 2nd ed., Lund (1942) p. 136–142) brilliantly demonstrates that the form discussed have substantival function and deduces that the absence of third declension forms is caused by the general lack of substantivizations of these in any case-form. The objection by Szantyr (*op. cit.* p. 58) that if this were so, one would still find some genitive forms of the third declension adjectives that are substantivized, is hardly well founded: he does not seem to have realized how very few these substantivizations are. And in the few cases when substantivization does occur, the use of the partitive gen. is possible: so *plus . . . inanis* Lucr. 1.365: *potior utilis quam honesti cura* Liu. 42.47.9.

⁵⁵) Pace Löfstedt, who somewhat contemptuously rejects such thoughts (*op. cit.* p. 136). He is of course right in denying that the difference between *aliquid utile* and *aliquid boni* can be explained in this way: but the more general problem that is treated here requires consideration of the general tendency to avoid the possibility of misunderstanding.

usually about as unambiguous. The m. genitives to *esse* are just as clear; and the present participles, which if substantivized denote an agent, are the most unambiguously non-neutral of all the forms. On the other hand, forms like *boni* and *fortis* are never used with words like *memini*, *memoria*, or *causa*: it is necessary to specify with a noun, type *bonae rei* or *uiri boni*.

The Prosody of *puluis*

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Ennius Ann. 282 *iamque fere puluis ad caeli uasta uidetur*;
Verg. Aen. 1.478 *per terram, et uersa puluis inscribitur hasta*.

On the strength of these two lines Lachmann, on Lucr. 1.853, declared the last syllable of *puluis* to be long, and Norden, Aen. VI³ p. 451, although he considered the Ennian scansion an instance of metrical lengthening, added with due caution: "wenn *puluis* nicht vielmehr eine Analogiebildung nach *sanguis* ist". In 1948 I showed (see now *Studia Enniana*, 1968, 32f.) that the prosody of Ennius Ann. 315 *puluis fulua uolat* was relevant to the problem, because, whereas a final syllable consisting of short vowel plus *s* is always, except in proper names, treated as short in the thesis by Ennius¹), here the final of *puluis* is treated as long. I deduced that Lachmann was right.

Sebastiano Timpanaro, *Gnomon* 42, 1970, 361f., holds that Lachmann was wrong, because in the whole of Latin poetry there is no instance of *puluis* with long final in the thesis before a vowel, and because Vergil, Aen. 11.877, scans *puluis*. Timpanaro's views on such matters carry the greatest weight, and I must therefore reply

¹) There is, apart from the line under discussion, one alleged exception to the rule, Ann. 216 *studiosus quisquam*, in a passage which, for other reasons, I consider patched by Cicero. Timpanaro, to be quoted immediately, now admits, as against his earlier denial, that the preceding line was patched by Cicero; on this one he refuses to accept my view. Let us assume, for a moment, that he is right: can it be an accident that, of the only two exceptions, one is formed by a word which Lachmann had declared to be a spondee before this particular issue arose?