

censorship which were entirely familiar in Cicero's own experience. At the same time he was naturally disposed (as no doubt were most of his contemporaries) to see the misconduct of individuals and the abandonment of traditional standards in public life as the principal causes of the instability and disorder which Rome was experiencing. It was therefore entirely natural that the supervision of *mores* and the maintenance of senatorial standards should have been closely linked in his thought, that he should have perceived this aspect of the censorship as essential to the office, and that in the *De legibus* he should have envisaged for the censorship a role of special importance as the institution through which high standards might be maintained in the quality and conduct of those who governed.

Thus the treatment of the censorship in the *De legibus*, despite the element of novelty, is consonant with Cicero's other references to it. For him the censorship symbolized traditional values, orderly conduct, stability, and hence sound government. The strengthened role he visualized for it indicates an awareness that all was not well; but what he perceived was not a decline in the censorship but failings in *mores*. His sketch of the censorship does not have the appearance of an attempt to revivify a fading office, the functions of which had become obsolete or could be performed as well or better through other agencies. Rather, the office is seen as a most potent instrument, more continuous application of which could maintain order and sound conduct, both private and public. Whether Cicero's perception of the censorship of his day was widely shared by his contemporaries; how it compared with perceptions and with realities in previous generations; whether it failed to comprehend the true trend of the times: these are larger and more complex questions which must be treated elsewhere.²⁶

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NEW EVIDENCE CONCERNING IAMBIC AND CRETIC SHORTENING IN CLASSICAL LATIN

The standard theory of the shortening of final *-ō* in classical Latin posits the *brevis breviens* process of old Latin as the starting point from which the change gradually worked its way into the standard language.¹ Cretic shortening is

1. See, e.g., W. Lindsay, *The Latin Language* (Oxford, 1894), pp. 207–15; F. Sommer, *Handbuch der lateinischen Laut- und Formenlehre*² (Heidelberg, 1914), pp. 127–29; A. Meillet and J. Vendryes, *Traité de grammaire comparée des langues classiques* (Paris, 1963), pp. 140–41; C. D. Buck, *Comparative Grammar of Greek and Latin* (Chicago, 1933), pp. 95–96.

generally considered to be a process independent of *brevis brevians*,² and accordingly the shortening of final $-\bar{o}$ of cretic words (e.g., *dixerō*) in the classical language is treated as a second stage in the process of diffusion from shortened iambic words. Lindsay, for example, refers to "the course of development taken by $-\bar{o}$ in the literary period, viz. its shortening first in iambic words like *legō*, then in cretic words like *pellegō*. . . ."³ This view, however, is somewhat misleading and, in fact, not true in the case of verbs.⁴

The words in which $-\bar{o} > -\bar{o}$ establishes itself first in the standard language (*duō*, *egō*, *modō*, *citō*, etc.), like the words ending in other vowels in which *brevis brevians* is early established (*benē*, *malē*, *tibī*, *cavē* when it is no more than a prohibitive particle = *ne*, *putā* when it means only "for example"), are all pronouns, lower cardinal numerals, discourse particles, semantically bleached verbs, and the like: they are all nonlexical words, as opposed to full lexical words such as verbs, nouns, and adjectives.⁵ Nonlexical words are quite generally in the languages of the world subject to more extensive phonological reduction than lexical words.⁶ When we examine the shortening of $-\bar{o}$ of verbs in hexameter and elegiac verse, the difference between iambic and cretic shortening evanesces.

The first verb to undergo the change $-\bar{o} > -\bar{o}$ in hexameter or elegiac verse is the cretic *nescio* at Catullus 85. 2. The next verb is the iambic *scio* at Virgil *Eclogues* 8. 43. The shortening in these two verbs is almost surely encouraged by an analogical chain: $-\bar{o} > -\bar{o}$ probably began with *Kürzung durch Tonanschluss* in forms of *nesciōquis* (e.g., Catull. 80. 5, Verg. *Ecl.* 3. 103), proceeded to *nesciō* and then to *sciō*.⁷ Even aside from *nescio* and *scio*, the shortening of final $-\bar{o}$ in cretic verbs appears alongside shortening in iambic verbs. Horace scans *dixerō* (*Sat.* 1. 4. 104) as well as *volō* (*Sat.* 1. 9. 17) and elides *obsecro* (*Epod.* 1. 7. 95) onto a light syllable as he does *rogo* (*Epod.* 1. 1. 11). While Propertius admits *volō* (2. 10. 9) but avoids $-\bar{o} > -\bar{o}$ in cretic verbs, Tibullus scans *desinō* (2. 6. 41) but does not admit $-\bar{o} > -\bar{o}$ in iambic verbs.

Now A. M. Devine and I have argued for the fundamental phonological unity of the processes of *brevis brevians* and cretic shortening.⁸ It is therefore interesting, as a *prima facie* confirmation, to observe that in Republican and Augustan hexameter and elegiac verse, and in Ovid in particular, a very high proportion of pyrrhic verbs arising from $-\bar{o} > -\bar{o}$ are preceded by monosyllables which are in close syntactic connection with them.

2. See, e.g., W. S. Allen, *Accent and Rhythm* (Cambridge, 1973), p. 182; R. Pfister and F. Sommer, *Handbuch der lateinischen Laut- und Formenlehre*⁴ (Heidelberg, 1977), p. 105. Cf. the discussion by A. M. Devine and L. D. Stephens, "Latin Prosody and Meter: *brevis brevians*," *CP* 75 (1980): 142-57.

3. *Latin Language*, pp. 207-8.

4. Iambic third declension nouns are quite rare lexically and in text. Only verbs are frequent enough to permit valid statistical results outside the class of nonlexical words. See below and n. 6.

5. For a full discussion of the concept of nonlexical words, see A. M. Devine and L. D. Stephens, "Semantics, Syntax, and Phonological Organization in Greek: Aspects of the Theory of Metrical Bridges," *CP* 78 (1983): 1-25.

6. See Devine and Stephens, "Semantics, Syntax, and Phonological Organization in Greek."

7. *Homo* in some of its usages must be considered here. *Homo* is, as R. Hartenberger (*De o finali apud poetas latinos ab Ennio usque ad Iuvenalem* [Ph.D. diss., Bonn, 1911], p. 23) noted, "omnium nominum iambicorum longe usitatissimum in sermone Romanorum, et apud comicos quoque saepe pro pyrrhichio usurpatur." This high frequency is, of course, a result of the word's semantics: it is often bleached almost to the semantic status of an indefinite (cf. Lucr. 3. 925), so that it is not surprising that *homo* (as a quasi-nonlexical) is the first iambic noun shortened in hexameter or elegiac verse, at Lucretius 6. 652.

7. Cf. Hartenberger, *De o finali*, p. 30.

8. "Brevis brevians," p. 149.

Let us test the hypothesis that a preceding monosyllable in close syntactic connection is associated with the shortening $-\bar{o} > -\check{o}$ in originally iambic verbs. It will not, however, be sufficient merely to calculate the rates at which pyrrhic verbs arising from $-\bar{o} > -\check{o}$ are preceded by monosyllables. For, while it seems intuitively unlikely that, purely fortuitously, over eighty-six percent of such pyrrhic verbs in Ovid and almost eighty-six percent in Martial would be preceded by monosyllables in close syntactic connection, the percentages do not tell us whether the association is specific to the shortening process $-\bar{o} > -\check{o}$, or might rather be characteristic of pyrrhic-shaped words in general, or of verbs in general. The distribution of word-shapes in verse is the result of a complex interaction of language, metrical rules, and compositional strategies. The syntax of Latin might carry a built-in tendency for monosyllables (e.g., conjunctions and negatives) to precede verbs. Similarly, the positions in the verse in which pyrrhic words can be (or preferentially are) located might exert a compositional pressure to locate monosyllables before them. We must, therefore, construct a test that controls as completely as possible for such potentially skewing factors. This can best be done by comparing the rate at which pyrrhic verbs arising from $-\bar{o} > -\check{o}$ are preceded by monosyllables with the rate at which pyrrhic verbs in $-\check{V}l$ are preceded by monosyllables.⁹ In order, furthermore, to hold other syntactic factors as constant as possible, only indicative forms have been admitted in the test. Finally, it is also necessary to control for effects of the specific semantic and syntactic properties of the individual verbs. Accordingly, the control sample of pyrrhic verbs in $-\check{V}l$ has been limited to just those verbs which also appear in the first person singular indicative as pyrrhics; thus no third person singular indicative pyrrhic verb is admitted unless its first person singular indicative occurs in an unambiguously pyrrhic shape. Ovid is chosen because he is the earliest poet to provide a sufficient number of pyrrhic verbs arising from $-\bar{o} > -\check{o}$ for a statistical evaluation to have adequate power. Martial is selected both on grounds of sample size and in order to see whether any chronological development can be detected statistically (see table 1 and n. 11).

TABLE 1

TYPE OF PYRRHIC VERB	PROPORTION WITH PRECEDING MONOSYLLABLE			
	Ovid	N	Martial	N
- <i>ō</i>	86.36%	44	85.92%	71
- <i>Ūt</i>	58.00%	100	77.78%	36
	o.r.=4.58 d=1.27 $\chi^2=10.579$		o.r.=1.55 d=0.46 $\chi^2=0.741$	
	$\chi^2_{\text{homog.}}=1.532$ $\chi^2_{\text{assoc.}}=10.267$			

9. The change $-\bar{V}l > -\check{V}l$ is, of course, chronologically in advance of $-\bar{o} > -\check{o}$.

In Ovid the odds ratio (o.r.) reveals that the odds for a preceding monosyllable are over four and a half times as great if the pyrrhic verb results from $-\bar{o} > -\bar{o}$, and the standardized difference between the two rates (d) is greater than one. The χ^2 for Ovid shows that this is a highly significant association, which would arise by chance in only a little more than one case in a thousand. In Martial the association is weaker and indeed not statistically significant. However, the value of the $\chi^2_{\text{homog.}}$, which tests the significance of the difference between the values of d in the two poets, is not statistically significant.¹⁰ Consequently, a genuine weakening of the association cannot be assumed for Martial with the level of confidence that we would require. Such a weakening of the association would, of course, be consistent with the greater extent to which the change $-\bar{o} > -\bar{o}$ has spread in Martial's language.¹¹ The data in table 1 show, however, that the apparent decrease in the strength of the association is not so much the result of a lower rate of monosyllables before pyrrhic verbs arising from $-\bar{o} > -\bar{o}$ as of a higher rate of monosyllables before pyrrhic verbs in $-\check{V}t$. This would seem to indicate that compositional factors may be obscuring a genuine association of shortening with a preceding monosyllable in Martial.

The straightforward explanation for the association of preceding monosyllables with pyrrhic verbs arising from $-\bar{o} > -\bar{o}$ is that the monosyllable provides an environment which promotes the shortening. Such an environment can only be phonosyntactic: the monosyllable and the following word form a phonological syntagm corresponding to a cretic word. If this line of explanation is correct, it would follow that the preceding monosyllable should come preferentially from the class of monosyllables most likely to unite into a phonological unit with a following word. This class consists, of course, of prepositives and nonlexical monosyllabic words in general. Lexical monosyllables, on the other hand, should be avoided, since they are more likely to retain their phonological autonomy.¹²

We can begin to test this deduction from our phonosyntactic hypothesis by classifying the monosyllables observed before pyrrhic verbs as lexical or non-lexical and comparing their respective rates of occurrence before pyrrhic verbs arising from $-\bar{o} > -\bar{o}$ with the rates before pyrrhic verbs in $-\check{V}t$. The criterion of classification employed is unambiguous. Only nonpronominal monosyllables that enter into full inflectional paradigms (e.g., *vis*, *pars*, *aes*) are counted as lexical. Despite the small absolute frequency of lexical monosyllables, we obtain significant results, which are presented in table 2 for Ovid and Martial.

In both poets there is a strong tendency for lexical monosyllables to occur more rarely before pyrrhic verbs arising from $-\bar{o} > -\bar{o}$ than before pyrrhic verbs in $-\check{V}t$. In Ovid lexical monosyllables never precede pyrrhic verbs arising from $-\bar{o} > -\bar{o}$. The quantity p means that this result is statistically significant;¹³ it

10. For the mathematics of these statistical tests, see J. Fleiss, *Statistical Methods for Rates and Proportions* (New York, 1973), pp. 112–17.

11. Out of 72 originally iambic verbs in $-\bar{o}$ in Martial's elegiac epigrams, only one, *negō* (11. 49. 12), preserves long $-o$, a rate of shortening of 98.61 percent. In Ovid, by contrast, the rate of application of $-\bar{o} > -\bar{o}$ is only 48.81 percent, about half that of Martial.

12. See Devine and Stephens, "Semantics, Syntax, and Phonological Organization in Greek," for a discussion and parallels from Greek and other languages.

13. p is the exact probability calculated by the hypergeometric distribution.

TABLE 2

TYPE OF PYRRHIC VERB	PROPORTION WITH LEXICAL MONOSYLLABLE			
	Ovid	N	Martial	N
- <i>ō</i>	0%	38	5.00%	60
- <i>Ūt</i>	11.32%	53	21.42%	28
	o.r.=9.99 d=1.38 p=.034		o.r.=5.18 d=1.79 χ ² =5.606	
	χ ² _{homog.} =0.146 χ ² _{assoc.} =8.911			

would arise randomly in only three cases in a hundred. While in Martial there are a few lexical monosyllables before pyrrhic verbs arising from $-\bar{o} > -\bar{o}$, they are very much less frequent than before verbs in $-\bar{V}t$. The value of the χ^2 for Martial shows that this is a statistically significant result as well. Furthermore, the small value of the $\chi^2_{\text{homog.}}$ shows that there is no significant difference between the two poets in the association of nonlexical monosyllables with pyrrhic verbs arising from $-\bar{o} > -\bar{o}$. This result supports the conclusions from table 1 concerning Martial.

The preceding test, however, cannot be directly interpreted as evidence for the phonosyntactic nature of the association of nonlexical monosyllables with pyrrhic verbs arising from $-\bar{o} > -\bar{o}$. It is possible that the association might be the result of different syntactic properties of first- and third-person verb forms. Nominative singular lexical monosyllables are free to occur preceding third-person verbs as part of the subject-noun phrase. In contrast, the structure (*ego* +) Nominative + First-person Verb would be quite rare. In fact, there are a few cases of the structure Nominative + Third-person Verb (e.g., Ov. *Fast.* 3. 658 *pars putat* and Mart. 11. 71. 5 *vir rogat*), but none of the structure (*ego* +) Nominative + First-person Verb. Even in poetry, however, Latin remains a basically Subject-Object-Verb language, so that it is not surprising that cases of Nominative + Third-person Verb are relatively rare and do not make the association observed in table 2 a spurious one. We can demonstrate this and produce stronger evidence for the phonosyntactic nature of the association of nonlexical monosyllables with pyrrhic verbs arising from $-\bar{o} > -\bar{o}$ by restricting the test to only oblique case forms of monosyllabic substantives dependent on a following pyrrhic verb (thus excluding the skewing factor represented by nominative monosyllabic nouns and adjectives). There is no syntactic reason why the type *aes dabo* (Mart. 4. 72. 3) should be restricted relative to the type *res* (acc. pl.) *agit* (Mart. 5. 61. 7). Consequently, significant rarity of the *aes dabo* type will support the phonosyntactic hypothesis. The results of this test are presented in table 3 for Ovid and Martial combined.

TABLE 3

OBLIQUE CASES OF MONOSYLLABIC SUBSTANTIVES		N
- \bar{o}	1.04%	96
- $\bar{V}t$	9.21%	76
o.r.=9.64 p=.014		

We see that the odds for a monosyllabic substantive in an oblique case are over nine and a half times greater before pyrrhic verbs in $-\bar{V}t$ than before pyrrhic verbs arising from $-\bar{o} > -\bar{o}$. This result is statistically significant: as the value of p shows, there is only a little more than one chance in a hundred of the observed association arising at random.

The strong preference for nonlexical monosyllables before pyrrhic verbs arising from $-\bar{o} > -\bar{o}$ is not merely an artifact of the substantial frequency of parenthetical, semantically reduced verbs such as *puto* and *rogo*, the syntactic properties of which might have been considered as a skewing factor. If parenthetical verbs are excluded from the test, there is still a strong and statistically significant tendency to avoid lexical monosyllables before semantically full pyrrhic verbs arising from $-\bar{o} > -\bar{o}$ ($\chi^2 = 6.10$ for Ovid and Martial combined). In fact, two of the three lexical monosyllables in the $-\bar{o}$ class of verbs in Martial occur before parenthetical verbs (1. 5. 2 and 3. 55. 4).

In summary: the presence of a preceding monosyllabic word and particularly a (prepositive) nonlexical monosyllabic word promotes the shortening $-\bar{o} > -\bar{o}$ in iambic verbs.

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TACITUS *ANNALS* 2. 8. 2

In the second volume of his commentary,¹ F. R. D. Goodyear devotes four pages to "the worst crux in these books." He prints: "classis Amisiae relicta laevo amne, erratumque in eo quod non subvexit transposuitque militem dextras in terras iturum: ita plures dies efficiendis pontibus absumpti." He takes *Amisiae* as genitive with *laevo amne*, which is interpreted as "on the left hand side of the stream of the Ems." *Transposuitque* is a conjecture (falsely attributed to

1. *The "Annals" of Tacitus Books 1-6*, vol. 2 (Cambridge, 1981), pp. 208-12.