THE LATIN FIFTH CONJUGATION

Traditional descriptions of Latin verbal inflection, dating from classical times, classify verbs as belonging to one of four formal subclasses. These sub-classes are based on the stem vowel that appears in the form of the present active infinitive. A verb is said to be a first conjugation verb if it is of the type of *amāre*. The second conjugation is made up of verbs of the *monēre* type. Verbs in *-ere* are assigned to a third conjugation. There is a fourth conjugation of which *audīre* is an example.

There is, within the sub-class traditionally designated third conjugation, a small set of items which are inflectionally special and are referred to as ,,- $i\bar{o}$ verbs of the third conjugation." An example of such a verb is *capere* (*capio*), classed as third conjugation because of the form of the present active infinitive and as a member of the sub-category on the basis of the shape of the 1st pers. sg. of the present indicative as well as that of other forms. The purpose of this paper is to advance what I believe to be a more satisfactory analysis of the array of Latin verb types, specifically with regard to the status of this last mentioned inflectional sub-category.

Below are displayed certain items from the third, "-io verbs of the third" and fourth conjugations, selected so as to point out the basis of the classificational problem under discussion. The forms are not labeled as to person/number/tense/mood but all items on any line are inflectional counterparts.

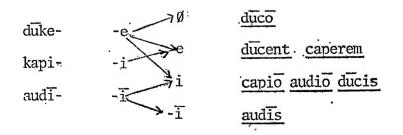
third	"- $i\bar{o}$ of the third"	fourth
ducere	capere	audīre
dūcō	capiō	audıō
dūcis	capis	audīs
dücunt	capiunt	audiunt
dūcēbam	capiēbam	audiēbam
dūcam	capiam	audiam
dūcerem	caperem	audirem
dūcant	capiant	audiant

As can be observed, the forms in the middle column are, in every case, inflectionally identical to a corresponding form in either the first or third column. If one inspects the thirty-one forms of the present active system, including the present active infinitive, he finds that of these twenty of the "-io of the third" forms correspond to their fourth conjugation counterparts and eleven are inflectionally identical to the corresponding item in the third conjugation. At the very least, we can say that the traditional view places a disproportionate emphasis on the coincidence of form in the infinitive.

Palmer (p. 268f.) noticed that the statistical and other evidence was in favor of a fourth conjugation affiliation and insinuates a reclassification along those lines. He missed the mark also, failing to note that verbs of the *capere* type constitute a separate sub-class, a fifth conjugation, which is distinct from both the third and fourth conjugations.

The complete complex argument for this reclassification will be forthcoming later in this paper. Preliminary to that material it might be well to discuss in somewhat informal terms the general considerations and type of evidence that has led to the classification that I am proposing.

In general, the argument proceeds from the following precepts, which are central to modern phonological theory. First, modern phonology rests on the assumption that much of the apparent complexity visible in inflectional paradigms such as those under investigation here often belies an underlying paradigmatic simplicity. For example, with respect to the matter at hand, it might be possible to posit for verbs of the capere type an underlying or psychological representation that has -i as the consistent stem vowel. (This is precisely what I will propose.) Modern phonology further assumes that the appearance of the various manifestations of such a consistent underlying entity can be attributed to the presence in the language of certain derivational or surface constraints. In this way, the stem vowel -e of the third conjugation can appear as e (*ducere*), *i* (*ducis*) or, under certain conditions, disappear $(d\bar{u}c\bar{o})$. The stem vowel of the fourth conjugation, -*i*, appears in some forms as i (audire, audis) and in other forms as i (audio). The stem vowel -i, distinguishing the fifth conjugation, appears as *i* (capio) or e (capere, caperem). These multiple and overlapping manifestations can be summarized as follows, ommitting, of course, all information concerning the conditions under which the various manifestations obtain. This information will be supplied later.



Below are displayed complete representative paradigms from the Latin present active system. Each paradigm has two parts, the surface forms, familiar to all and presented in standard orthography. To the left of each item is the corresponding underlying representation, in broad phonological transcription.

PRESENT INDICATIVE ACTIVE

PRESENT SUBJUNCTIVE ACTIVE

$am\overline{a} + \overline{o}$ $am\overline{a} + s$ $am\overline{a} + t$ $am\overline{a} + mus$ $am\overline{a} + tis$ $am\overline{a} + nt$	amō amās amat amāmus amātis amatis	$am\overline{a} + \overline{e} + m$ $am\overline{a} + \overline{e} + s$ $am\overline{a} + \overline{e} + t$ $am\overline{a} + \overline{e} + mus$ $am\overline{a} + \overline{e} + tis$ $am\overline{a} + \overline{e} + nt$	amem amēs amet amēmus amētis ament
$\begin{array}{l} mon\overline{e} + \overline{o} \\ mon\overline{e} + s \\ mon\overline{e} + t \\ mon\overline{e} + mus \\ mon\overline{e} + tis \\ mon\overline{e} + nt \end{array}$	moneō monēs monet monēmus monētis monent	$\begin{array}{l} mon\overline{e} + \overline{a} + m \\ mon\overline{e} + \overline{a} + s \\ mon\overline{e} + \overline{a} + t \\ mon\overline{e} + \overline{a} + mus \\ mon\overline{e} + \overline{a} + tis \\ mon\overline{e} + \overline{a} + nt \end{array}$	moneam moneās moneāt moneāmus moneātis moneant
$ \begin{aligned} d\bar{u}ke &+ \bar{o} \\ d\bar{u}ke &+ s \\ d\bar{u}ke &+ t \\ d\bar{u}ke &+ mus \\ d\bar{u}ke &+ tis \\ d\bar{u}ke &+ tint \end{aligned} $	dīcō dīcis dīcit dīcimus dīcitis dīcunt	$d\bar{u}ke + \bar{a} + m$ $d\bar{u}ke + \bar{a} + s$ $d\bar{u}ke + \bar{a} + t$ $d\bar{u}ke + \bar{a} + mus$ $d\bar{u}ke + \bar{a} + tis$ $d\bar{u}ke + \bar{a} + nt$	dūcam dūcās dūcat dūcāmus dūcātis dūcatt
aud $I + \overline{0}$ aud $I + \overline{s}$ aud $I + t$ aud $I + t$ aud $I + t$ is aud $I + t$ is aud $I + t$ int	audiō audis audit audimus audītis audītis audiunt	$aud\overline{i} + \overline{a} + m$ $aud\overline{i} + \overline{a} + s$ $aud\overline{i} + \overline{a} + t$ $aud\overline{i} + \overline{a} + mus$ $aud\overline{i} + \overline{a} + tis$ $aud\overline{i} + \overline{a} + nt$	audiam audiās audiat audiāmus eudiātis audiant
$\begin{array}{l} kapi + \overline{o} \\ kapi + s \\ kapi + t \\ kapi + mus \\ kapi + tis \\ kapi + \overline{u}nt \end{array}$	capiō capis capit capimus capitis capiunt	$\begin{array}{l} kapi+\overline{a}+m\\ kapi+\overline{a}+s\\ kapi+\overline{a}+t\\ kapi+\overline{a}+mus\\ kapi+\overline{a}+tis\\ kapi+\overline{a}+nt \end{array}$	capiam capiās capiat capiāmus capiātis capiant

IMPERFECT INDICATIVE ACTIVE

IMPERFECT SUBJUNCTIVE ACTIVE

$\begin{array}{l} am\overline{a}+\overline{a}b\overline{a}+m\\ am\overline{a}+\overline{a}b\overline{a}+s\\ am\overline{a}+\overline{a}b\overline{a}+t\\ am\overline{a}+\overline{a}b\overline{a}+tus\\ am\overline{a}+\overline{a}b\overline{a}+tis\\ am\overline{a}+\overline{a}b\overline{a}+tis\\ am\overline{a}+\overline{a}b\overline{a}+nt \end{array}$	amābam	$am\overline{a} + r\overline{e} + m$	amārem
	amābās	$am\overline{a} + r\overline{e} + s$	amārēs
	amābat	$: m\overline{a} + r\overline{e} + t$	amāret
	amābāmus	$am\overline{a} + r\overline{e} + mus$	amārēmus
	amābātis	$am\overline{a} + r\overline{e} + tis$	amārētis
	amābant	$am\overline{a} + r\overline{e} + nt$	amārent
$\begin{array}{l} mon\overline{e} + \overline{e}b\overline{a} + m \\ mon\overline{e} + \overline{e}b\overline{a} + s \\ mon\overline{e} + \overline{e}b\overline{a} + t \\ mon\overline{e} + \overline{e}b\overline{a} + mus \\ mon\overline{e} + \overline{e}b\overline{a} + tis \\ mon\overline{e} + \overline{e}b\overline{a} + nt \end{array}$	monēbam monēbās monēbat monēbāmus monēbātis monēbatis	$\begin{array}{l} mon\overline{e} + r\overline{e} + m \\ mon\overline{e} + r\overline{e} + s \\ mon\overline{e} + r\overline{e} + t \\ mon\overline{e} + r\overline{e} + mus \\ mon\overline{e} + r\overline{e} + tis \\ mon\overline{e} + r\overline{e} + nt \end{array}$	monērem monērēs monēret monērēmus monērētis monērent

$d\overline{u}ke + \overline{e}b\overline{a} + m$ $d\overline{u}ke + \overline{e}b\overline{a} + s$ $d\overline{u}ke + \overline{e}b\overline{a} + t$ $d\overline{u}ke + \overline{e}b\overline{a} + mus$ $d\overline{u}ke + \overline{e}b\overline{a} + tis$ $d\overline{u}ke + \overline{e}b\overline{a} + nt$	dūcēbam dūcēbās dūcēbās dūcēbāt dūcēbāmus dūcēbātis dūcēbant	$d\overline{u}ke + r\overline{e} + m$ $d\overline{u}ke + r\overline{e} + s$ $d\overline{u}ke + r\overline{e} + t$ $d\overline{u}ke + r\overline{e} + mus$ $d\overline{u}ke + r\overline{e} + tis$ $d\overline{u}ke + r\overline{e} + nt$	dūcerem dūcerēs dūceret dūcerēmus dūcerētis dūcerent
a $dI + \overline{e}b\overline{a} + m$ aud $I + \overline{e}b\overline{a} + s$ aud $I + \overline{e}b\overline{a} + t$ aud $I + \overline{e}b\overline{a} + mus$ aud $I + \overline{e}b\overline{a} + mus$ aud $I + \overline{e}b\overline{a} + tis$ aud $I + \overline{e}b\overline{a} + nt$	audiēbam audiēbās audiēbāt audiēbāmus audiēbātis audiēbātis audiēbant	$audI + r\overline{e} + m$ $audI + r\overline{e} + s$ $audI + r\overline{e} + t$ $audI + r\overline{e} + mus$ $audI + r\overline{e} + tis$ $audI + r\overline{e} + nt$	audīrēm audīrēs audīret audīrēmus audīrētis audīrent
$\begin{array}{l} kapi + \overline{e}b\overline{a} + m\\ kapi + \overline{e}b\overline{a} + s\\ kapi + \overline{e}b\overline{a} + t\\ kapi + \overline{e}b\overline{a} + mus\\ kapi + \overline{e}b\overline{a} + tis\\ kapi + \overline{e}b\overline{a} + nt \end{array}$	capiēbam capiēbās capiēbāt capiēbāmus capiēbātis capiēbātis capiēbant	$\begin{array}{l} kapi + r\overline{e} + m\\ kapi + r\overline{e} + s\\ kapi + r\overline{e} + t\\ kapi + r\overline{e} + mus\\ kapi + r\overline{e} + tis\\ kapi + r\overline{e} + nt \end{array}$	caperem caperes caperet caperemus caperetis caperent

FUTURE INDICATIVE ACTIVE

$am\overline{a} + be + \overline{o}$	amābō
$am\overline{a} + be + s$	amābis
$am\overline{a} + be + t$	amābit
$am\overline{a} + be + mus$	amābimus
$am\overline{a} + be + tis$	amābitis
$am\overline{a} + be + \overline{u}nt$	amābunt
$\begin{array}{l} mon\overline{e} + be + \overline{o} \\ mon\overline{e} + be + s \\ mon\overline{e} + be + t \\ mon\overline{e} + be + mus \\ mon\overline{e} + be + tis \\ mon\overline{e} + be + \overline{u}nt \end{array}$	monēbō monēbis monēbit monēbimus monēbitis monēbunt
$d\bar{u}ke + \bar{e} + m$	dūcam
$d\bar{u}ke + \bar{e} + s$	dūcēs
$d\bar{u}ke + \bar{e} + t$	dūcet
$d\bar{u}ke + \bar{e} + mus$	dūcēmus
$d\bar{u}ke + \bar{e} + tis$	dūcētis
$d\bar{u}ke + \bar{e} + nt$	dūcetis
$aud1 + \overline{a} + m$	audiam
$aud1 + \overline{e} + s$	audiēs
$uad1 + \overline{e} + t$	audiet
$aud1 + \overline{e} + mus$	audiēmus
$aud1 + \overline{e} + tis$	audiētis
$aud1 + \overline{e} + nt$	audient
$\begin{array}{l} kapi + \overline{a} + m \\ kapi + \overline{e} + s \\ kapi + \overline{e} + t \\ kapi + \overline{e} + mus \\ kapi + \overline{e} + tis \\ kapi + \overline{e} + nt \end{array}$	capiam capiēs capiet capiēmus capiētis capient

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These reconstructions, and note well that these are psychological and not historical in nature, are the point of departure for the derivations that reconcile the paradigmatic unity they evidence with the surface tactics manifest in the attested forms. As for the origin of the person-number/tense-mood material suffice it to say that it is of a deeper psycho-formal provenance that I consider well motivated but which I will not discuss here.

In the mode of modern linguistics, the underlying forms are rewritten according to a sequence of rules or instructions which explicitly state what happens to specific segments or, better said, classes of segments under specific conditions of environment or with respect to a specific point in the derivation. This latter condition is an alternate way of saying that for certain rules, the order in which these are applied is important. The underlying representations taken together with these rewrite instructions predict all of the forms in the domain of the grammar that the complex statement purports to describe. Failure to do so means that the grammar fragment fails to meet the lowest standards of adequacy. The following rules, applied correctly, specify the relationships between all of the surface forms and their underlying forms.

- 1) ā is deleted before \bar{e} or \bar{o} . (am $\bar{a}+\bar{o}\rightarrow am\bar{o}$)
- 2) e is deleted before \breve{o} , \breve{u} , or \breve{a} (d \breve{u} ke + $\breve{o} \rightarrow d\breve{u}c\breve{o}$)

Notice that this rule does not affect *moneo* because at this stage in the derivation the vowel (\bar{e}) is still long.

- The first of two identical vowels is deleted if the second is long, regardless of the length of the first. (dūke + ēbā + m → dūk + ēbā + m, monē + ēbā + m → mon + ēbā + m)
- 4) e is raised to i before a non-resonant consonant when this consonant is word final or when it occurs before a vowel, with or without a following consonant which, if it is present, is word final (dūke $+ t \rightarrow d\bar{u}cit$, dūke $+ tis \rightarrow d\bar{u}cits$).
- 5) The first of two successive long vowels is shortened (monē + ō → moneō, audī + ēbā + m → audiēbam)
- 6) A long vowel is shortened before final m (kapi + \bar{a} + m \rightarrow capiam).
- 7) A long vowel is shortened before final t. (audi + t \rightarrow audit
- 8) A long vowel is shortened before nt. (kapi + $\bar{u}nt \rightarrow capiunt$
- 9) i is lowered to e before r when this consonant is followed by a vowel (kapi + re \rightarrow capere).

For the purpose of further illustration of the effect of these rules there follow a number of complete exemplary derivations. The nomerafollowing each step refers to the rule the application of which has effected the new form. The last stage, the surface form, is represented in standard orthography. The formative boundary markers (+) are removed by convention.

 $d\bar{u}ke + \bar{e}b\bar{a} + t \rightarrow d\bar{u}k + \bar{e}b\bar{a} + t \quad (3) \rightarrow d\bar{u}c\bar{e}bat \quad (7)$ kapi + $\bar{e}b\bar{a}$ + t $\rightarrow capi\bar{e}bat$ (7) audi + $\bar{e}b\bar{a}$ + t \rightarrow audi + $\bar{e}b\bar{a}$ + t (5) \rightarrow audi $\bar{e}bat$ (7) $mon\bar{e} + be + \bar{o} \rightarrow mon\bar{e}b\bar{o}$ (2) $d\bar{u}ke + \bar{o} \rightarrow d\bar{u}c\bar{o}$ (2) $d\bar{u}ke + r\bar{e} + m \rightarrow d\bar{u}cerem$ (6) $kapi + r\bar{e} + m \rightarrow kapi + re + m$ (6) $\rightarrow caperem$ (9) audi + $r\bar{e}$ + m \rightarrow audirem (6) $d\bar{u}ke + re \rightarrow ducere$ (no change) $kapi + re \rightarrow capere$ (9) $mon\bar{e} + \bar{a} + m \rightarrow mone + \bar{a} + m$ (5) $\rightarrow moneam$ (6) $d\bar{u}ke + \bar{a} + m \rightarrow d\bar{u}k + \bar{a} + m$ (2) $\rightarrow d\bar{u}cam$ (6) kapi + \bar{a} + m \rightarrow capiam (6) audi $+ \ddot{a} + m \rightarrow audi + \ddot{a} + m$ (2) $\rightarrow audiam$ (6) $mon\bar{e} + be + s \rightarrow mon\bar{e}bis$ (4) $d\bar{u}ke + s \rightarrow d\bar{u}cis$ (4)

This new analysis, which I believe will be of considerable interest to Latinists in and for itself, has a broader significance, for studies of Latin language as such, and as a source of understanding of Latin as a resource language for studies in Indo-European and Romance linguistics.

The material and analysis I have presented in this paper can bet applied to an analysis of the perfective forms of fifth conjugation verbs. The perfectives of this sub-class are of two types, the sigmatic: quatio, quassi; specio, spexi and those that have a lengthened stem vowel: fugio, fugi; capio, cēpi; jacio, jēci; facio, fēci. This latter type is of special interest here because once it is understood that the these verbs have an underlying stem that ends in -i, the formation of the lengthened, and in three instances, mutant stem vowel perfectives can be explained. The forms of the first person singular of the simple perfective will be used to illustrate the new analysis.

We can assume that the underlying representations for illustrative forms are as follows: faki + i (*fēci*), iaki + i (*jeci*), kapi + i(*cēpī*) and fugi + i (*fūgi*). We can derive the surface forms from the underlying by assuming the operation of two rules. The first of these is a metathesis rule that shifts the stem vowel to a position inside the root syllable. This gives, as an intermediate form, faik + i, iaik + i, kaip + iand fuig + i. The resulting abstract dipthong then becomes a long vo-

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wel, a raised vowel in the case of the first three items. That is, -ai- becomes \bar{e} and ui becomes \bar{u} . This solution is in marked contrast to that offered by Palmer (p. 272).

Romance scholars have more and more begun to abandon the artificial view that the Romance languages come into existence sometime after Latin ceased to exist. A superior conceptualization involves seeing these languages as the result of the continuous change that links them all in an unbroken historical chain that leads back to spoken Latin and beyond. Proceeding within this framework, it is appropriate to search for embryonic romance tendencies within Latin.

The view of Latin fifth conjugation perfectives presented above, based on the reanalysis of the present system forms of these verbs can, in turn, shed some light on the development of certain Romance reflexes of Latin *primarius* such as Portuguese *primeiro* and Spanish *primero*. There seems to have operated in these forms the same sort of metathesis of -i- that is evident in the Latin fifth conjugation perfectives discussed earlier.

With respect to Indo-European studies, and to attempts at historical reconstruction in general, it goes without saying that the best point of departure is the earliest possible attestation. While I have been careful to point out that the underlying forms presented in this paper are not historical but rather synchronic and psychological, it is the case that such representations often do in fact reflect earlier stages of the language. These probably do.

The view provided by this analysis of *capio*, etc. reinforces the basis for the position that Buck (p. 272) takes with respect to the distinct status of the -i of *capio* and the -i of *audio* and the likelihood he saw for *e* in *capere* being a Latin development.

Conversely, this analysis serves to caution the reader of Meillet against uncritical assent to this great Indo-Europeanist's position with respect to the same question. Specifically, Meillet points out (p. 212) "Le latin a aussi sōpī-s'tu endors' en regard de skr. svāpáya-si, mais 1^{r^6} pers. sōpiō." Later (p. 219) "En latin, en celtique et en germanique, il a des formes a thématiques à côté des formes thématiques, ainsi, d'une part lat. capio, capiunt, got. hafja 'je leve, hafjand; mais d'autre part lat. capi-s, capi-t, capi-mus, capi -tis;" The analysis I have presented in this paper of these Latin forms, reinterpreted as a first step toward internal reconstruction, shows that Meillet's preoccupation with what can now be seen as superficial alternations in the Latin verb paradigm was unwarranted and his conclusions about Indo-European drawn from the data before it had been reanalysed are ill advised.

Perhaps the broadest aim of this paper has been to show that the methods and concepts of modern linguistic science can be profitably applied to the study of a classical language such as Latin. In so doing I hope that this will encourage Classicists to become more familiar with the science of linguistics and to use their knowledge in the pursuit of an even higher attainment of intellectual excellence.

El Paso. Texas.

Ch. Elerick.

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