

Discussioni

# What are we talking about when we talk about 'iambic shortening'? 

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#### Abstract

The aim of the present article is to offer a collection of the available data on IS, focusing especially on the most relevant aspects from a linguistic point of view. Since many theories and beliefs about IS circulating in the literature have never been properly proved by means of a thorough analysis of the attestations, in parallel with the description of the phenomenology of IS a discussion of some traditional assumptions is included, in order to show which of them should be considered still valid and which are to be discarded instead. An overall interpretation of the phenomenon will not be proposed, because, in the author's view, a satisfactory description of data must be pursued before and without being influenced by any hypothesis on them.


Key words: Iambic Shortening, brevis brevians, Latin prosody, Plautus.

## 1. Introduction

Iambic Shortening (henceforth IS) is a very complex phenomenon which has been object of great scholarly interest both for linguists and classical philologists. Unfortunately, especially in recent times, linguists interested in IS are less aware of the many philological and metricological problems related with it, and usually rely on older studies which today are considered obsolete or erroneous. The aim of this paper is to offer an up-to-date presentation of the available data on IS, which should all be taken in account in the attempt to give an explanation of this phenomenon.

I already proposed a personal interpretation of IS as a non-linguistic phenomenon in a forthcoming work (Fattori, in press), so it will not be my task to defend my hypothesis here. The focus of this paper will rather be on the primary evidence - that is the direct attestations of IS in the texts which is valid regardless of one's idea on the nature of IS. In my opinion, the best way to make some actual progress in the knowledge of such a difficult
subject is to distinguish clearly the sphere of hypothesis from that of facts, and to rule out the theories which are not compatible with the latter. In doing this, I hope to offer a reliable critical basis for linguists interested in Early Latin prosody to develop further research on this intriguing topic, whatever their overall interpretation of IS may be.

Since many reference works on the Latin language only give a partial description of IS, limited to the less problematic cases and often neglecting the most controversial ones, we will first go through a detailed exposition of all the possible manifestations of IS (\$2). This descriptive section will be followed by a discussion on the rules governing the action of IS (\$3). A critical review of the theories concerning the behaviour of IS seemed to me necessary because some obsolete ideas which have been disputed or even proved wrong by metricists and philologists are still circulating and accepted as true in the linguistic literature. Finally, a brief discussion of the most recent attempts to explain IS as an entirely linguistic phenomenon will be presented, with the ultimate aim of highlighting the many unsolved problems implied by this approach.

## 1. What is 'iambic shortening'?

Calling two or more things by the same name does not make them the same. Although this might seem obvious, it must be kept in mind while discussing what is called 'Iambic Shortening', because the very existence of a unique term to indicate an extremely multifaceted phenomenon has caused, and still causes, a lot of confusion. To understand better why this terminology exists, and why it can be misleading for a linguist concerned with Early Latin prosody, it will be useful to explain briefly the context in which IS was first discovered.

Due to its extreme complexity, the prosodic system regulating the Early Latin scenic verse was not fully understood anymore in the classical period ${ }^{1}$,

1 Cf. Hor. (Ars poetica 270-274): at vestri proavi Plautinos et numeros et / laudavere sales, nimium patienter utrumque, I ne dicam stulte, mirati, si modo ego et vos / scimus inurbanum lepido seponere dicto / legitimumque sonum digitis callemus et aure ("Yet your forefathers, you say, praised both the measures and the wit of Plautus. Too tolerant, not to say foolish, was their admiration of both, if you and I but know how to distinguish coarseness from wit, and with fingers and ear can catch the lawful rhythm", tr. Fairclough, 1926), who perceives the metrical and prosodic peculiarities of Plautus's lines as mistakes against the classical norm (legitimus sonus).
and had to be rediscovered from scratch by modern scholars through a long process started in the 16th century ${ }^{2}$. With the ultimate aim of defining objective criteria to decide whether the text of the manuscripts should be considered corrupt or not, great philologists such as Richard Bentley and Friedrich W. Ritschl began to collect solid evidence that, in some cases, syllables which would have been scanned as long according to classical prosody required to be scanned as short in Plautus and Terence's comedies. It was not until the end of the 19th century that scholars established that these "shortenings" (lat. correptiones) occurred almost exclusively when the shortened syllable (lat. brevianda) was preceded by another short (lat. brevians), that is, in iambic sequences ${ }^{3}$. As can be easily seen, we are dealing with a purely empirical definition, based on metrical observations.

Unfortunately, soon after the definition of the rules regulating the occurrence of IS in the verse, some scholars wrongly applied the same terminology referring to language and traced a false parallel between Maasian metrical laws and phonetic laws describing sound change. For example, Lindsay (1922: 36) speaks of a <law of Latin Phonetics [...] known as the Law of Breves Breviantes or Brevis Brevians Law (i.e. short syllable shortening a following syllable)». This is conceptually wrong, because the categories of 'long' and 'short' defining metrical syllables - which are not, by the way, equivalent to the categories of 'heavy' and 'light' defining linguistic syllables ${ }^{4}$ - are not themselves phonological properties but rather depend on the phonological structure of words. Therefore, no 'phonetic law' can state that metrical syllables become short ${ }^{5}$. One could at most assume, as some scholars did (see below $\S 4.1$ ), that a conspiration of phonological processes had the effect of making some syllables light and consequently scanned as short in the verse, but to do so the specific sound changes affecting the coda of each syllable type for which IS is attested should be discussed separately. In fact, it is incorrect to speak of

[^0]a 'linguistic iambic shortening', because IS is nothing more than a group of metrical data belonging to the same metrical context (scil. iambic sequences in the verse), and the only way to give them a linguistic significance is by distinguishing the phonological contexts in which they occur and single out the sound changes that could have led some heavy syllables to become light (e.g. syncope, vowel shortening, nasalization etc.).

In the following paragraphs we will present a typology of IS with the precise aim of demonstrating that the only criterion of the distribution in the verse (scil. in iambic sequences) cannot be considered sufficient to treat together forms that are so different from a linguistic point of view.

### 1.1. Disyllables ending in a long vowel

One of the most common phenomena going under the name of IS is the shortening of final long vowels in iambic words (e.g. běnē > bĕnĕ, mödō > mödö) ${ }^{6}$. Although in the linguistic literature this group has been considered the most prototypical example of IS, it rather represents an exceptional case. As Bettini (1990) has convincingly shown, the shortening of final vowels in iambic disyllables is a distinct phonological process which should be kept separated from all the other examples of IS, whether or not they are to be explained as the result of phonological processes as well.

The main arguments put together by Bettini are the following:
a. This kind of shortening is also found in later poetry (e.g. Lucr. 1.1008: ipsa modum porro sibì rerum summa parare but also 1.365: ni mirum plus esse sibī declarat inanis).
b. It is the only group occurring in cretic and bacchiac meters (cf. Questa, 2007: 415 who calls these words <bisillabi quasipirrichii»).
c. Words like běnĕ, mŭhŭ etc. can belong to different metrical elements, whereas all the other cases of IS are strictly limited to syllables belonging to the same metrical element (so for example Plaut. Mil. 925: qui noverit me quís ĕgŏ sim? - nimi' lepide fabulare has /qui.se/ in the 6th element and /go/ in the 7th element, which must scan as short, see Questa, 2007: 341).
${ }^{6}$ Since we are mostly going to deal with metrically relevant shortenings, with the breve and longum signs we will only indicate the quantity required by metrical scansion, as is usually done in dealing with IS. The phonological notation between slashes will only be used when vowel length in closed syllables is relevant to the discussion (e.g. hăbēns $=/$ habe:ns/ but lĕgūnt =/legunt/).
d. In some cases where the original iambic quantity was not restored by analogy (e.g. declension forms like virō or lüpī), the shortening of the final vowel has left traces in further phonological developments in the history of Latin such as syncope of the shortened syllable in compound verbs like călé facio $>$ călĕfacio $>$ calfacio $^{7}$ or apocope of the final short syllable in quō mŏdō > quōmŏdŏ > como ${ }^{8}$.
e. The only 'iambic' shortenings mentioned by ancient grammarians and lexicographers belong to this group (e.g. Quint. Inst. 1.6.21 on (h)ävē > hăvĕ for which see Ax, 2011: 261-262; Paul. ex Fest. 125, 1-2 Lindsay on adverbial mŏdŏ to be distinguished from declension forms of modus).
f. Iambic disyllables are the only word forms for which short scansion of long vowels is statistically more frequent than short scansion of heavy syllables with consonantal coda. For all the other possible configurations short scansion of closed syllables is significantly more frequent (see below § 2.3).

It should be emphasized that, since the very definition of IS depends on metrical criteria, the fact that this group shows a special metrical behaviour is a decisive proof of its different status in comparison with all the other types of IS. Although today many scholars have accepted this crucial difference ${ }^{9}$, this kind of vowel shortening is still called IS or brevis brevians in the literature.

This terminological equivalence, which has neither metrical nor linguistic significance, has originated an equally unfounded theory, which is still found in many reference works on the history of Latin. For example,

[^1]Leumann (19775: 109) states <doch ist die metrische Iambenkürzung [i.e. the short scansion of closed syllables] die Ausweitung einer Aussprachebesonderheit ihrer [i.e. the ancient playwrights] Zeit», implying that shortenings like $\sin (e)$ invidia or vŏlüptatem were not due to a real phonological change, but were used by the poets in analogy with the double prosody of iambic disyllables ${ }^{10}$. Again, this formulation suffers from the fact that IS has first been defined as a prosodic phenomenon, i.e. concerning the process of assigning a metrical quantity to phonological segments. However, once acknowledged that the action of a sound change had produced doublets like bënē and bĕnĕ, prosody is no longer part of the problem. If it is true that the ancient poets scanned as short the last syllable of these words simply because, in their linguistic repertoire, they found forms like bĕnĕ that could be scanned as a pyrrhic according to the normal rules of prosody, then why should they perceive this as a prosodic exception that could be extended to other word forms? In other words, we have no reason to think that Plautus, using bĕně in his lines, was aware of a rule such as 'in iambic words ending in long vowels, the final syllable can scan as short'. It is much more likely that he just thought 'bene can have a short final vowel'. Obviously, in this perspective there can be no space for an absurd analogy like 'just as words like bene can have a short final vowel, so too closed syllables in iambic sequences can be scanned as short'.

The lexicalization of pyrrhic quantity shows to be inversely related to the morphological function of the affected vowel, since the 'shortened' words surviving in classical Latin are mainly adverbs like bene, modo, heri, diu etc. whose morphological transparency had already been lost in Early Latin, whereas declension and conjugation forms retain the original iambic quantity. For this reason, the shortening of final long vowels - which, as we already said, should no longer be called IS - must be distinguished from other shortening phenomena affecting verbal and nominal endings with a long vowel followed by a consonant (e.g. amōr > amŏr, amāt > amăt) ${ }^{11}$. As Ceccarelli (1999: 184-186) has rightly pointed out, short verbal and nominal endings in iambic words are overrepresented in Plautus and Terence only because the metrical scheme and other purely metrical restrictions (the so called rules of métrique verbale) of iambo-trochaic lines prevent the identifi-

[^2]cation of the quantity of endings in polysyllabic words ${ }^{12}$. However, scansions like splendët (fr. 14 Vahlen²), mandebăt (Ann. 125 Skutsch) and Hannibăl (Ann. 371 Skutsch) in Ennius suggest that the shortening process affected all the endings regardless of the prosodic structure of the words.

Some scholars proposed that the so called Endsilbenkürzung should be linked with final long vowel shortening of the type bĕnĕ (cf. Sommer, 1914: 147; Kieckers, 1960: 82-83) assuming that it began in iambic verbs and nouns like $\check{a} m a ̆ t$ and $a$ ămŏr and was then extended to all word forms. To defend this hypothesis, it has to be explained why iambic imperatives like vălé and $\mathfrak{a} m \bar{a}$ did not retain the short quantity in classical times. If the two typologies were affected by an identical phonological process, there is no apparent reason why morphological pressure should have prevented the fixation of *vălĕ and *ămă whereas it did not with vălĕt and ămăt.

### 1.2. Shortening of closed syllables in iambic sequences

As we already saw, the most common type of proper IS is represented by the short scansion of a closed syllable. It should be noted that in this case the term 'shortening' can be misleading: in fact, there is no independent evidence that these syllables could really become light (Weiss, 2009: 127; see below $\S 4.1$ for further discussion). A more accurate definition of what we observe in metrical texts is what Corssen (1859) called Positionsvernachlässigung, that is, "disregard for length by position".

In this paragraph we are going to distinguish according to linguistically significant criteria the different contexts in which these shortenings can occur. Again, the aim of this classification is to show that, although they have the same effect on the metrical structure, these shortenings can hardly be attributed to an identical linguistic reason.

### 1.2.1. Final syllables

In iambo-trochaic lines these shortenings can almost exclusively occur in disyllables due to a metrical restriction preventing a metrical element from being made of the two final light syllables of a polysyllable (the so-

[^3]called 'Law of Hermann-Lachmann') ${ }^{13}$. However, there are some places in iambo-trochaic lines where this rule does not apply ${ }^{14}$, and there IS of the two final syllables of polysyllables is sometimes found. Anapaestic lines are free from this rule too, and there IS of final syllables occurs very often.
a. Iambic disyllables ending in a heavy syllable with complex coda:
(1) adest optum(e) ipse frater-peri(i) hercl(e): obsecro [...] (Ter. Eun. 905) $\simeq \simeq-|\smile \quad-|\smile-|-\quad \underline{\smile}|-\quad-| \cup \times \quad$ (iamb. 6)
"Excellent! The brother is coming" - "Damn! Please [...]."
b. Polysyllables ending in a heavy syllable with complex coda:
(2) ire decetm(e) uter(ae) obsequens fiam [...]

(Plaut. Pers. 181)
(an. 7, first 4 feet)
"I have to go in order to be obedient to my mistress."
In these cases, it makes no difference whether the following word starts with a vowel (as in Eun. 905) or with a consonant (as in Pers. 181), because the syllable weight is due to the complex coda in the final syllable of the words affected by IS. On the contrary, there are syllables whose long quantity in the verse is caused by the presence of a following consonant, because otherwise the final consonant would be resyllabified as the onset of the following metrical syllable (e.g. facit bene $\rightarrow$ /fa.kit.be.ne/ vs. facit illud $\rightarrow$ /fa.ki.til.lud/). Many attempts to explain IS as a linguistic phenomenon, especially those that propose to link it with accentual feet (see below $\S 4.2$ ), only deal with isolated word forms without taking in account external sandhi. However, as will become clear from some further examples in this paragraph, IS often operates through word boundaries and a satisfying linguistic explanation of it should take in account this very significant factor.
c. Iambic disyllables ending in a heavy syllable with simple coda:
(3) ibi tuae stultitiae semper erit praesidium, Clitipho (Ter. Heaut. 967)

"There you'll always find aid against your own foolishness, Clitipho."

[^4]d. Polysyllables ending in a heavy syllable with simple coda (only the second case of IS is relevant here):
(4) nequior nemost nequ(e) indignior quoi [...]
(Plaut. Bacch. 616)
$\smile \cup-|--|\smile \quad \cup-| \smile \cup-$
"Nobody is more worthless and less deserving [...]."

### 1.2.2. Word-internal syllables

These shortenings are mainly attested in the second syllable of polysyllables starting with an iambic sequence although in principle they can occur anywhere apart from the accented penultima of a polysyllable (see below § 3.2 for this restriction).
a. Second syllable of a polysyllable:
(5) quin si voluntate nolet, $v(i)$ extrudam foras
(Plaut. Mil. 1124)

- -|ㅡ -| -|- - - - | $\smile x$
"If she doesn't leave willingly, I'll kick her out by force."
b. Word-internal syllable:
(6) qu(ae) bic administraret ad rem divinam tibi
(Plaut. Epid. 418)
-     - |ఒし -|- - | - -|- - | $\downarrow x$
(iamb. 6)
"So that she could help you with the sacrifice here."


### 1.2.3. Word-initial syllables

This category shows a very remarkable linguistic feature that distinguishes it from the ones mentioned above. In order for the first syllable of a word to be shortened by IS, it has to be preceded by a short syllable belonging to a different word. The most common case is a word beginning in a vowel following a monosyllable or an elided disyllable, but in some exceptional circumstances (e.g. anapaestic lines) one can find a shortening between two polysyllables. This category is often neglected in the linguistic literature ${ }^{15}$,

[^5]but since many of the most frequent cases of IS (e.g. quǐs ille etc.) belong to this group, any attempt to give a comprehensive linguistic explanation of IS should take them in account. Some scholars have argued that word-groups should be considered equivalent to polysyllables with regard to IS (e.g. Oniga, 2010: 358, who compares in ŏcculto with sĕnĕctutem) assuming that IS can only happen between words belonging to the same accentual group. However, there are at least two reasons why this idea cannot be accepted. Firstly, there are many cases in which the shortening affects a proclitic monosyllable which depends accentually on the following word (e.g. Plaut. Bacch. 188: salutem tĭb( $i$ )ăb sodali solidam nuntio) and therefore cannot constitute a clitic group with the preceding monosyllable. Secondly, clitic groups of preposition + lexeme are not reaccented according to the Penultimate Law unless they have been subject to univerbation in a pre-historical phase (e.g. not *ín lŏco but ín lóco; reaccented only in ílico < *í loco, see Fortson, 2011: $101)^{16}$, and therefore this kind of proclisis can neither have consequences on prosodic footing, which is defined on the basis of the Penultimate Law ${ }^{17}$, nor, ultimately, on IS.
a. Proclitic monosyllable + polysyllable:
(7) [...] in occulto miseri victitant suco suo
(Plaut. Capt. 83)
$\simeq \underline{\smile}-|-\simeq \simeq|--|\cup-|--| \cup x$ (iamb. 6)
"[...] hiding, poor and wretched, they live of their own juice."
b. Lexical word + polysyllable:
(8) nos for(e) invito domino nostro diebus paucis liberas

(Plaut. Poen. 1207)
(troch. 7)
"That we would be free for a few days against our master's will."
the accent fell on a preceding light syllable, as in citŏ, égŏ, módŏ, uólüptátem», which clearly does not describe shortenings like ĭn öcculto. All the works dealing with IS in a generative metrical framework only deal with shortenings happening within the same word (see for example Prince, 1990: 15-17 and Mester, 1994: 11 ff.). On the contrary, Leumann (19775: 109) and Fortson (2008: 191 ff.) rightly emphasize the peculiarity of shortenings between two words.
${ }^{16}$ In lines such as Plaut. (Curc. 354): postquam cenati atque adpoti, talos poscit sib(i) in manum a re-accentuation of word-groups (in manum instead of in manum) would imply the shortening of a tonic syllable, which must be forbidden for the 'suprasegmental' theory of IS to work (see below on both IS in accented syllables and the 'suprasegmental' or 'prosodic' theory of IS).
${ }^{17}$ Cf. Prince (1990), Mester (1994), Marotta (2000), Prince and Smolensky (2004: 66 ff .) and $\mathrm{ONIGA}^{(2010)}$ and see below for further discussion.

Note that here fore is syntactically linked with nos and liberas whereas invito belongs to a circumstantial clause with domino nostro ("against our master's will"). Therefore, no special prosodic link between fore and invito can be postulated. On the idea that IS is somehow related to a syntactic connection between words see below $\$ 3.3$.
a. Polysyllable + polysyllable:
(9) male perditu' pessum(e) ornatus eo
(Plaut. Aul. 721a)
$\smile \smile-|\cup \smile-|\smile \quad-\quad| \cup \smile-$ (an. sys., 4 feet)
"I'm ruined, I walk around in such a miserable state!"
b. Two monosyllables belonging to different clitic groups ${ }^{18}$ :
(10) eum quid(em) ad carnific(em) est aequius [...]
(Plaut. Rud. 322)

- $\quad \cup|-\underline{\smile}|--\mid \cup x$
(iamb. 7, first half)
"He should rather [go] to the hangman [...]."
Note that quidem is a left-leaning particle and depends on eum whereas $a d$ is a preposition and depends on carnificem ${ }^{19}$.
c. Proclitic monosyllable + accented first syllable of disyllables or trisyllables (for the alleged prohibition of IS in accented syllables see below):
(11) sed uxor scelesta m(e) omnibus servat modis
$\smile \smile-|\smile-|\smile \quad-|\smile-|--| \smile \times$
(Plaut. Rud. 895)
"But my wretched wife is always guarding on me."
(12) non eg(o) illam mancupi(o) accepi. - Sedill(e) ill(am) accipiet. Sine.

$$
\begin{aligned}
& \text { (Plaut. Merc. 448) } \\
& \text { (troch. 7) }
\end{aligned}
$$

"I haven't bought her officially" - "But he will surely do!"
The second example is particularly useful in showing that IS is not related to pragmatic emphasis, and that in Early Latin an enclitic paradigm of ille did not exist. As one can easily see, in Merc. 448 the first case of IS affects

[^6]an unemphatic anaphoric pronoun, which would correspond to an enclitic in the Romance languages (e.g. It. non l'ho presa, Fr. je ne l'ai pas prise), but in the second case the shortened form ille is surely emphatic and constitutes the rhematic information of the sentence (e.g. It. io non l'ho presa, ma lui la prenderà, Fr. moi, je ne l'ai pas prise, mais lui, il va la prendre). The two options are equally possible and there is no need to postulate that syllables bearing word-accent could result superficially unaccented in pragmatically unemphatic words to justify IS (on this see below $\$ 3.3$ ).

### 1.3. Shortening of syllables with a long vowel or diphthong

For almost each of the typologies presented above there are examples of shortening of open syllables which are heavy because they contain a long vowel or a diphthong (e.g. /a.mi..ki.ti.am/ $\rightarrow$ ămŭcitiam, /qu्مi.saêk/ $\rightarrow$ quĭs haĕc, /ne.quau.di:.vi:/ $\rightarrow$ nĕqu(e) aŭdivi etc.). These attestations of IS do not respect any of the conditions listed above which prove that bĕnĕ, mŏdŏ etc. were real forms in Latin and therefore cannot be regarded as ascertained cases of vowel shortening. Unfortunately, some scholars present the type ămücitia and vĕrĕbamini together with bĕnĕ and mŏdo, wrongly suggesting that these are the 'normal' cases of which the types sĕnĕx and vŏlŭptatem are an analogical extension ${ }^{20}$. On the contrary, it has long been recognized that, apart from iambic disyllables, IS of syllables long 'by nature', i.e. with a long vowel and no consonantal coda, is much rarer than IS of closed syllables (the so called Positionsvernachlässigung), and therefore must be regarded as the exception rather than the rule ${ }^{21}$.

Although its importance is often underestimated, the striking rarity of IS in syllables long 'by nature' is very significant from a linguistic point of view. Firstly, it shows that the possibility of repairing the alleged prosodic problem posed by iambic sequences - which is the cause of IS according to some scholars - with a simple vowel shortening is not relevant in favouring IS. If we were dealing with a phonological process whose frequency is related to the coda structure of the syllable to be shortened (on this theory see below $\S 3.3$ ), we would expect a very high frequency of the type ămücitia, and there is no reason why such shortening should not have been lexicalized as it

[^7]happens with bĕnĕ ${ }^{22}$. This is a problem to which no convincing solution has been proposed yet by scholars who tried to explain IS as a unitary linguistic phenomenon ${ }^{23}$.

In addition, the rarity of shortenings like dīcǐtŏ (< dīcǐtō) where they are allowed (see above fn. 13 and 14) casts serious doubts about a possible link between IS in Early Latin poetry and the shortening of final $-\bar{o}$ in Classical Latin, which has been postulated by some scholars through the definition of a 'cretic shortening ${ }^{\prime 24}$. In the framework of a 'phonological' interpretation of IS, as it has been envisaged by Devine and Stephens (1980), vowel shortenings like dīcŭtŏ should be considered the result of a real linguistic tendency which, unlike the simplification of consonantal codas, was strong enough to survive until classical times. If this were true, one would expect the type dīcǐtŏ to be particularly frequent in Early Latin poetry and to have a special status distinguishing it from the cases of $P_{0}$ sitionsvernachlässigung, just like iambic disyllables of the type bĕnĕ. Quite the contrary, this kind of IS occurs in the texts approximately half as much as the shortening of closed syllables ${ }^{25}$, and remarkably it is absent from cretic and bacchiac lines, where it would be very useful since in these meters dactylic word endings are permitted. Furthermore, in later poetry the type dīxě̌rŏ (Hor. Serm. 1.4.104) is not significantly more frequent than the type tollŏ (Ovid. Am. 3.2.16) and findŏ (Prop. 3.9.35) ${ }^{26}$, and the alleged 'cretic shortening' is never found in words like ōptime and pēssime $\bar{e}$, which parallel perfectly adverbs like bĕnĕ and mălĕ.

For all these reasons, the shortening of final -ō in Classical Latin should be regarded as a morphophonological change strictly confined to some specific endings (first person of verbs, nominative of nasal stems etc.) which was independent from the prosodic structure of words and consequently from

[^8]IS ${ }^{27}$. Incidentally, it should be pointed out that, in absence of external evidence, it makes no sense to create sub-distinctions within the category of IS considering word forms that contain an iambic sequence ('cretic shortening', 'anapaestic shortening' etc.): IS is by definition a phenomenon involving disyllabic sequences regardless of their position in respect of word boundaries.

## 2. Outdated laws and false problems

After giving a full account of the contexts where IS is attested, we need to discuss another very important point which is strictly related with the linguistic explanations hitherto proposed: the conditions that cause and prevent IS.

The most famous formulation of these conditions is the so called Iambenkürzungsgesetz first expressed by F. Skutsch (see above fn. 3), who claimed that a long syllable preceded by a short one can be shortened if:
a. it constitutes one metrical element with the brevians;
b. it does not bear the word-accent;
c. a word accent falls on the preceding or on the following syllable;
d. it belongs to the same word as the brevians.

Although these 'rules' can still be found in some recent linguistic literature - which usually depends on obsolete works - it should be stressed that most of these restrictions today have proved to be false. In addition, some further constraints to IS have been postulated which have not been properly demonstrated and are often held to be true in recent literature. In the following paragraphs the most relevant of these positions will be critically discussed ${ }^{28}$.

[^9]
### 2.1. IS can only occur in a pre-tonic or post-tonic context

The idea that IS was caused by the proximity of an intensive accent is paradoxically older than IS itself, inasmuch it was already proposed by the first humanist philologists who discovered unusual shortenings, not yet recognized as 'iambic', in Plautus and Terence's lines ${ }^{29}$. Bettini ( 1990 passim) in his historical introduction has described well how this theory gained more and more success especially among German scholars who, in opposition to the 'French' school, notoriously gave a great importance to the phonetic effects of expiratory accent ${ }^{30}$. Unfortunately, this is a good example of how some assumptions about IS were postulated on the basis of theoretical plausibility before - or without - verifying if they could be confirmed by the actual attestations. In fact, Bettini (1990: 333 ff.) has demonstrated that this restriction is unfounded. His main arguments are the following:
a. The only context in which the shortened syllable follows the accented syllable is in iambic disyllables, but since in this word form the accent could not fall anywhere else, one cannot infer any relevant information from that.
b. IS regularly happens in cretic-shaped words where the shortened syllable is not preceded by the accent (see ex. 2 in $\$ 2.2 .1$ above), and all the attempts to justify this group of occurrences with a secondary stress have failed (see Bettini, 1990: 336-338) ${ }^{31}$.
c. There are some occurrences showing regular IS even if the accent does not follow the shortened syllable (e.g. căvillatiónes, which would not fit in iambo-trochaic lines without IS, in Plaut. Truc. 628, Stich. 228;

Meiser, 2002: 76) is equal to saying that IS must occur within a single metrical element, because by definition ictus falls on every other element of the line and the only case in which it would be neither preceding nor directly following the brevianda is when it falls on it. However, this last option implies that the brevians belongs to the preceding element (e.g. **sed ŭt inncïdisset scanned [ $\smile \cup]\left[\underline{\prime}^{\prime} \cup\right][-][-\bar{\prime}$ ), which is prohibited according to the only assured 'law' of IS; see Bettini (1990: 332-333) and below $\$ 3.2$.

29 See above for the discovery of IS.
${ }^{30}$ The old debate on the nature of the Latin accent was born in the 19th century and involved two opposing trends. One, traditionally associated with German scholarship, assumed that Latin had a strong intensive accent, just like the Germanic languages. The other, headed by French scholars, upheld the 'melodic' nature of the Latin accent. On this querelle cf. Lepschy (1962) and Probert (2019: 17-45).
${ }^{31}$ Some scholars have taken the lack of accent on the preceding syllable as a good reason to distinguish 'cretic shortening' from IS (see for example Mester, 1994: 32-33: «The crucial difference between Iambic Shortening and Cretic Shortening lies in the relation of the shortened syllable to the word accent»), but once it is recognized that the accent has no role in inducing IS, regardless of its position, the distinction does not make sense anymore.
ădŏptaticium in Plaut. Poen. 1045; pĕr ŏppressiónem in Ter. Adelph. 238). The rarity of these cases is partly due to the general low frequency of such long words and partly to the fact that the poets usually exploit the prosodic structure of long words to build their lines and feel no need to change $\mathrm{it}^{32}$.
d. In words with an attached enclitic IS can regularly take place even if the accent is shifted onto the final syllable (e.g. věnŭstatíque in Ter. Hec. 848 , see below $\$ 3.2$ for the effect of enclitic accentuation on IS).

To these cogent arguments one could only add that in word groups it happens frequently that the nearest word-accent is more than one syllable away from the shortened syllable (e.g. eum quĭd(em) ăd carnificem in ex. 10, see above § 2.2.3).

Since the alleged necessity of an accented syllable to induce IS has proved to be non-existent, all the attempts to give a linguistic explanation of the phenomenon based on pre- or post-tonic weakening are to be discarded ${ }^{33}$.

### 2.2. IS cannot affect accented syllables

This idea constitutes the exact counterpart of the one that has just been discussed. The reasoning behind it is very clear: if word accent has the power of weakening and consequently shortening near syllables, the syllable on which it falls will be free from all these phenomena, as it is from other ac-cent-related sound changes (e.g. syncope, pre-historic vowel weakening etc.). Such rule has been almost universally accepted in the literature, and scholars put a lot of effort in trying to show that the cases of IS affecting a normally tonic syllable were possible because in Pre-classical Latin these syllables were not accented. Once again, no serious examination of the attestations has been made to verify if the prohibition of IS in tonic syllables is statistically confirmed in all contexts. I dedicated a forthcoming work to this problem (Fattori, in press) and showed that this theory happens to be false to a great extent. The only circumstance where a real tendency to avoid IS of accented syllables seems to hold true is in the penultimate syllables of polysyllables,

[^10]whereas for all the other categories (e.g. tonic antepenultimate, tonic penultimate in disyllables, last syllable become tonic by enclitic accentuation) IS is approximately as frequent as in non-tonic syllables or is avoided for compositional strategies independent from it.

The main points of the argumentation, which are extensively demonstrated in my forthcoming work, can be summed up as follows:
a. IS of the first syllable in ille, iste and bic is one of the most frequent types of shortening, and the assumption that in Latin these forms could be enclitic when not pragmatically focused is arbitrary and can be confuted by some counterexamples like Plaut. Merc. 448 (ex. 12 in § 2.2.3), Most. 627-628 (Non ĕg(o) ĭstuc curo qui sit <quid sit> unde sit / id volo mibi dici, id me scire | expeto), Ter. Adelph. 17-18 (quŏd ĭlli maledictum vehemens esse existumant, / <ea>m laudem hic ducit maxumam quom illis placet), where the pronouns are put in emphatic opposition ${ }^{34}$. Therefore, one must accept that these are totally legitimate cases of IS of syllables bearing a normal word accent. This holds true also for a wide group of words usually considered 'potentially unstressed' (e.g. hercle, intus, usque etc.).
b. Although rare, cases of IS in the first syllable of disyllables or trisillables with full lexical meaning (e.g. uxor, optume) ${ }^{35}$ occur approximately with the same frequency as the corresponding words with a heavy penultimate (e.g. uxorem, argentum) when compared with the total number of possible cases. In particular, groups like sed úxor show IS in the $9 \%$ of cases ( $13.75 \%$ including the alleged 'potentially unstressed' words mentioned above); groups like sed óptume show IS in the $12 \%$ of cases and groups like sed uxórem - which are the regular ones according to the traditional view - show IS in the $10.3 \%$ of cases (see Fattori, in press for all the data). Once acknowledged that cases such as sĕd ŭxor and sĕd ŏptume are not at all exceptional, one must simply accept that IS of accented syllables is allowed in these contexts rather than search for a way to interpret them as unstressed.

[^11]c. The rarity of shortenings like mïsĕrrimus in Plautus in comparison with the apparently equivalent type sĕd ŏptume can be explained as a consequence of Plautus's compositional strategies. The poet shows a very strong tendency to exploit the prosodic structure of this kind of words to fulfil the clausula of iambo-trochaic lines (mīsērrimūs, which perfectly fits the last two feet of many iambo-trochaic meters) and therefore had no interest in changing it. Conversely, clausulas like sëd ōptŭmē, ending in a cretic-shaped word, are accurately avoided, so that IS can be more useful in order to place these word-groups elsewhere in the line. Thus, the rarity of IS in words like misérrimus cannot be linked with the presence of a word accent on the antepenultimate syllable, and cases like sătĕllites (Plaut. Trin. 833) and simĭllumae (Plaut. Asin. 241), although rare, should be accepted as legitimate examples of IS.
d. There is no reason to think that the accentual shift caused by enclitics implied a change in the phonological effects of word accent. So, the frequent occurrences of IS in words with an enclitic (e.g. /li'ketque/ $\rightarrow$ lĭcëtque) should be regarded as regular cases of IS in a stressed syllable.

The only group for which a real tendency to avoid IS can be proved on a statistical basis consists in polysyllables with an accented penultima (e.g. amōrem, oportet etc.), whereas accent can fall on every other available syllable without preventing the shortening. In Fattori (in press) I proposed an explanation of this prohibition in the framework of a non-linguistic interpretation of IS that will not be dealt with in this article, both for space reasons and because it belongs to the sphere of hypothetical interpretation of data which - as was said in the introduction - is being kept out of the present work. Leaving aside the explanation of the accent-related limitations to IS, it will rather be useful to explicit the possible consequences that the new and more accurate description of data regarding IS and accent exposed above can have on the linguistic research on this phenomenon.

Firstly, the possibility for a stressed syllable to undergo IS can create serious difficulties to the two main linguistic approaches so far adopted to explain IS, which we may call 'phonological' or 'segmental' and 'prosodic' or 'suprasegmental'. This problem will be discussed in detail in the following section together with a brief description of these two theories, but for the moment it is enough to observe that the 'phonological' approach strongly depends on the assumption that the shortened syllables were unstressed, and the 'prosodic' approach interprets IS as a repairing strategy to avoid the
(allegedly) unnatural prosodic configuration $\underline{\underline{\prime}-}$-, which is not avoided, but rather created by shortenings like /se'd uksor/ $\rightarrow$ séd ŭxor (with spondaic $\bar{u} \times \bar{r} r$ changed into iambic $u x x o ̄ r$ with a tonic first syllable).

Once established that IS in accented syllables is generally allowed, the high number of unexplained exceptions to the old rule is drastically diminished, but at the same time the potential significance of the exceptions that still remain - that is cases of shortening of accented penultimate syllables like săgittta, prơfécto etc. - becomes bigger. Since the traditional interpretation (i.e. strict avoidance of IS in every accented syllable) had to face a wide variety of exceptions (üxor, öptume, satéllites etc.) which could hardly be attributed to a single explanation, scholars were compelled to limit the rigidity of the accentual constraint labelling it a 'tendency' (Bettini, 1990:370). Instead, if the real restriction only operates on the penultimate syllable of polysyllables, one can really assume - at least as a working hypothesis - that the accent constraint is a real rule, and exceptions can be interpreted as evidence for a different accentuation. The idea that some words showing IS in a heavy penultimate syllable could have a proparoxytone accentuation in Early Latin has been widely accepted since the 19th century, and is mainly based on the fact that in more than one case the words affected by this kind of IS are Greek loanwords which did present proparoxytone accentuation in the source language (e.g. Pbilľ̈ppus $<\Phi i ̂ \lambda \iota \pi \pi o \varsigma$, tălĕntum < $\tau \dot{\lambda} \lambda \alpha \nu \tau o v$, maybe Tärē̆nti < Táp $\alpha \nu \tau$, nom. Tápas and măchăera $<\mu \dot{\alpha} \chi \alpha 1 \rho \alpha)^{36}$. These examples lead to an obvious question: is it possible that in Early Latin the Penultimate Law was only partially operating, and proparoxytone accentuation in words with a heavy penultimate could exist in certain categories of the inherited lexicon as well? The answer is yes: it is theoretically possible. In fact, almost nothing is known of the process which must have led from the pre-historic protosyllabic stress to the classical accentuation first explicitly described by Quintilian in the 1st century $\mathrm{AD}^{37}$. Some punctual hypotheses have been proposed (e.g. dédisti, bibisti preserving a columnar accent throughout the conjugation, see Bettini, 1990: 364) but a complete analysis of the problematic cases is still missing. As it always happens with similar circumstances, a thorough philological exam of the occurrences is the only

[^12]possible starting point to evaluate if IS could really be associated with specific classes of words ${ }^{38}$. Although this work may require a lot of effort, a positive result could represent a very significant step forward in our knowledge of Early Latin prosody, and therefore this particular aspect of IS should be given much more attention by linguists researching in this field.

### 2.3. IS is conditioned by phonological, syntactic and pragmatic factors

It is an old belief that IS can be favoured or prevented by certain linguistic factors. Since most of these alleged restrictions have never been duly demonstrated but most scholars dealing with IS hold them as true, it will be useful to show that none of these assumptions is unproblematic.

### 2.3.1. Phonological constraints

Although in principle it should only be relevant to the 'phonological' approach to IS, the idea that <the heavier the heavy syllable, the less likely it is to be shortened» (Fortson, 2008: 177) is very often accepted also by scholars who think that IS should only be considered a prosodic or metrical problem ${ }^{39}$. It has already been pointed out by Devine and Stephens (1980: 156-157) that this theory has never been properly proved, and in fact there is at least a strong argument against it. As we observed above, the avoidance of IS in open syllables with a long vowel or diphthong overtly contradict this assumption, because in a hierarchy of phonetic complexity they should figure as the least complex and thus most easily shortened type.

In addition, the examples usually quoted to support this position are totally insufficient: the main source is Drexler's work (1969) from which emerges that the participle amans and nouns ending in a super-heavy syllable like ferox (/fero:ks/) are rarely shortened and forās, forēs and forīs (adv.)

[^13]are shortened more often in antevocalic than in anteconsonantic position ${ }^{40}$. Actually, in order to properly prove this theory one should consider all the cases in which external sandhi would imply super-heavy syllables (e.g. bŏnĭs Latinas in Ter. Eun. 8, tămën surripiuntur in Plaut. Rud. 384 with lengthening of vowel before a fricative etc.) and give an explanation of the very high frequency of IS in a word like herrcle, whose first syllable should contain a long vowel (gr. 'Hpak $\bar{\eta} \bar{s})$. A complete analysis should be made taking in account the absolute frequency of each configuration, maybe including IS in syllables with a complex coda (e.g. 弁b(i) ăbstrudam in Plaut. Aul. 673). Since this has been never done, I believe that the theory according to which su-per-heavy syllables are less likely to be shortened should be considered wrong until proved otherwise.

Anyway, it should be pointed out that a frequential approach is only useful in evaluating whether manuscript readings are likely to be due to copy errors or not. But once established that a reading is correct, it can at most give information on a poet's stylistic choices. If one believes that a particular type of IS was used by the poets because it existed in language, one sure attestation should suffice to prove that a 'shortened' form was effectively found in Latin and could be used if needed. In order to show that frequential distribution is linguistically significant, one should be able to collect evidence that every time the poet chooses to use an 'exceptional' shortening, he wants to imitate a linguistic variety in which it is found. However, the idea that IS in a line such as mănŭs ferat <ei> ad papillas, labra ab labris nusquam auferat? (Plaut. Bacch. 480, with IS of a super-heavy syllable in /manu:s/, acc. pl.) could be deliberately used by Plautus to depict a <greater degree of allegro» (Devine and Stephens, 1980:157) than mănŭm si protollet pariter proferto manum (Plaut. Pseud. 860, with IS of a regular heavy syllable in /manum/, acc. sing.) seems to me quite arbitrary.

### 2.3.2. Syntactic constraints

It has been claimed that IS can only occur in words with a close syntactic relation with the following word ${ }^{41}$. Again, this assumption was never proved true, and Fortson (2008: 187 ff .) convincingly showed that it is actually false collecting a list of counterexamples (see also above the commentary to ex. 8

40 Cf. Devine and Stephens (1980: 157) and Soubiran (1971: 410).
41 See again Allen (1973: 180), Mester (1994: 12-13 fn. 15) and Marotta (2000: 397) whose positions ultimately depend on the literature quoted in fn .40 .
in $\S 2.2 .3$ ). In my opinion, the most definitive proof against this position is the very common shortening of interjections (e.g. hercle) and illocutionary particles (cave, inquam) which are by definition syntactically independent.

### 2.3.3. Pragmatic constraints

The idea that words affected by IS must not bear the phrasal stress that is to say that they must not be pragmatically focused - has first been proposed with regard to 'potentially enclitic' words like ille and iste (see above fn. 34) but was recently extended to all lexical items by Fortson (2008) whose linguistic explanation of IS largely depends on this point. Admittedly, Fortson has the merit of recognizing the undeniable fact that IS can also affect syllables bearing word accent (called by him 'underlyingly stressed'), which represents a significant step forward in the linguistic debate on this topic. However, his inference that IS does not depend on the regular lexical accent but rather on a pragmatically conditioned phrasal stress is hardly acceptable.

Firstly, one cannot but notice that his argumentation starts from questionable premises. His chapter on IS in full-content lexemes begins as follows:

We established in the previous chapter that a precondition for BB [scil. brevis brevians, IS] was deaccentuation, and based this conclusion especially on the occurrence of BB in function words. But BB can affect full-content lexemes as well [...] Based on the results of Ch. 7 [i.e. the previous chapter], it stands to reason that fullcontent lexemes that exhibit BB do so because they were pronounced with a lesser degree of tonicity than surrounding material. (Fortson, 2008: 217)

It is not hard to see that we are dealing with a petitio principii: one cannot establish that IS requires deaccentuation only taking in account a part of the occurrences - namely, the one supporting the author's hypothesis - and then extend this conclusion to words that could contradict it. The truth is that both function words and full-content lexemes can be affected by IS, and the only reason to think that it is caused by some kind of destressing is the preliminary assumption that it must be a phonological phenomenon ${ }^{42}$. In

[^14]order to show that IS is really linked with pragmatic emphasis one should start from scratch and show that every possible occurrence actually respects this condition. In fact, it is easy to show that this idea is wrong through some counterexamples.

We already quoted some lines above ( $\$ 2.2 .3$ and $\S 3.2$ ) where an emphatic ille is shortened by IS. In particular, Plaut. Merc. 448: Char. non ĕg(o) îllam mancupi(o) accepi. Dem. Sĕd illl(e) ill(am) accipiet. sine ("Char. I haven't bought her formally. Dem. But he will buy her formally. Let it be" tr. De Melo, 2011b, his emphasis) is a perfect example of what pragmatic prominence is: Demipho's answer includes all the information already expressed by Charinus (i.e. the topic or thema) except for ille which is the only word in the sentence expressing the new information (i.e. the comment or rhema).

A general methodological fault of Fortson's (2008: 217-232) analysis is that he only selects positive examples from names and adjectives. It is well known that usually the topic of an unmarked sentence includes its subject and the comment is represented by the verb plus its object. So, to quote one of Fortson's examples, in ăvěs adsuescunt (Plaut. Asin. 217) the topic is aves and the comment is adsuescunt. Following the same reasoning, one would expect that in similar sentences verbs are never affected by IS, but in fact this regularly happens, and often the verb is pragmatically focused. See the following examples (since these are not special cases of IS, full metrical scansion is omitted):
(13) ămăt: dabitur a m(e) argentum dum |erit commodum (Ter. Adelph. 118)
"He's having an affair: I'll give him the cash as long as it suits me."
(tr. Brown, 2007)

Here amat stands alone as the only element of a sentence which is clearly separated from what follows and cannot but be the focus of the message. Similar cases are Stich. 47, Pers. 848 etc.
(14) Phorm. nĕgăt Phanium esse hanc sibi cognatam Demipho?
hanc Demipho negat esse cognatam? GET. negat.
Phorm. neque eius patrem se scire qui fuerit? Get. negat.
(Ter. Phorm. 352 ff.)
"Phorm. Does Demipho deny that this girl Phanium is a relative of his? Does Demipho deny that she's a relative? Get. He does.
Phorm. And denies that he knows who her father was? Get. He does." (tr. Brown, 2007, his emphasis)

The emphatic role of negat in the first question is confirmed by Geta's answer: Phormio is not asking what is that Demipho denies - in which case the focus would be the following infinitive clause - but rather whether or not he denies something that both the listener and the character already know.

A last example will suffice to show that this theory is unfounded.
(15) nam quoivis homini vĕl ŏptumo vel pessumo
(Plaut. Most. 410) ${ }^{43}$
"To any man, either good or bad."

In this line we find IS in a syllable bearing the word accent. According to Fortson, this kind of IS should only become possible when the affected word is not pragmatically prominent, but here optumo is put in a polar opposition with the following pessumo, which implies a quite strong pragmatic emphasis.

In general, it can be observed that if weak pragmatic emphasis were a sufficient condition to enable IS in stressed syllables, this phenomenon should be homogeneously distributed among the different possible word forms. On the contrary, it can be demonstrated that IS is much more frequent in the types sĕd ŭxor and sĕd ŏptume (around $10 \%$ of the possible cases) while the shortenings in the accented penultimate syllable of polysyllables listed by Fortson represents less than $1 \%$ of the possible cases (see above fn. 38). This statistical difference can hardly be due to chance, and therefore, as pointed out above, it is highly probable that shortenings like mŏdĕstus, săgĭtta etc. need a different explanation.

## 3. The main linguistic theories on IS: some structural problems

Since IS was discovered, the main concern of scholars was to give a substantial explanation of it, that is to explain what it is and why it happens. On the one hand, there is a growing group of scholars who agree on interpreting IS as a peculiarity of Early Latin versification and thus deny any strictly lin-

[^15]guistic foundation of the phenomenon: according to this position, IS is not linked with spoken language ${ }^{44}$. On the other hand, many linguists believe that IS was a feature of the Early Latin language.

Leaving aside some punctual problems which have already been pointed out during the presentation of data, the aim of this last paragraph will be to single out some theoretical issues that affect the linguistic interpretation of IS.

As we already said, the hypotheses hitherto proposed can be divided into two main trends: a 'phonological' or 'segmental' theory, and a 'prosodic' or 'suprasegmental' theory.

### 3.1. The 'phonological'theory

According to the most recent supporters of this theory ${ }^{45}$, IS should be interpreted as the effect of a conspiration of phonological processes that should have led the 'shortened' heavy syllables to become light. As rightly pointed out by Devine and Stephens (1980: 153) the old Iambenkürzungsgesetz (for which see above) only provides the context in which these phenomena should have taken place, but the actual sound changes involved have not been properly described yet. It should be emphasized that, in this perspective, the rules of versification are the same as in Classical Latin and syllables are not 'affected' by a 'shortening' but are scanned as short because they are short in some register of the spoken language.

Since none of the phenomena that can be invoked to explain IS is supported by external evidence, scholars have been compelled to postulate a variety of spoken Latin - which is by definition unattested - called 'conversational Latin' by Lindsay (1922) in which such sound changes could take place. This kind of speculation is indeed legitimate, but must be pursued without losing sight of the comprehensive sociolinguistic framework we are dealing with. In my opinion, the main conceptual fault both of Devine and Stephens's (1980) and Fortson's (2008) analysis is to treat Plautus and Terence's lines as if they were recordings of real spoken language, trying to imagine how they could sound when recited out loud ${ }^{46}$. In this perspective

44 Among the reference works on Latin this theory is accepted by Leumann (19775: 108-109), Meiser (2006: 76-77) and Weiss (2009: 126-128). See Bettini (1990) for the development of this position.

45 Cf. Devine and Stephens (1980) and Fortson (2008) and see Bettini (1990) for earlier positions.
${ }^{46}$ Incidentally, it should be noticed that the widespread idea that IS is a feature of colloquial speech is generally questionable, inasmuch it is strongly conditioned by the overrepresentation of
they evaluate the possible effects of fast-speech and pragmatic emphasis on the prosodic structure of words. This kind of reasoning a posteriori does not take in account the fact that these are metrical texts produced by the linguistic and stylistic competence of a poet, who had to actively filter his language through the very rigid prosodic criteria of dramatic versification. The poet did not just transcribe real life utterances, but had to make up his lines from scratch according to the abstract metrical scheme of the verse. Regardless of how fast or unemphatically a sentence could be uttered in everyday speech performance, the playwright had ultimately to face the problem of its abstract prosodic structure in order to use it in his lines, and the only relevant feature to that - at least according to Classical Latin prosody - is syllabification, which depends on phonological segments. In other words, in order for an Allegroform to be reproduced in the verse, it must have become part of the poet's linguistic repertoire, either as a lexicalized form (e.g. vïdĕn < vǐdēsne) or as the predictable outcome of a canonized sound change (e.g. caldus < calidus, virdis < viridis, valde < valide) ${ }^{47}$, so that it could be recognized as a low-register variant with its own segmental makeup and not only as the phonetic deformation of an underlyingly identical word ${ }^{48}$. It follows that most of the typological parallels quoted by Devine and Stephens (1980: 151-152) are not relevant to our problem, because they describe purely phonetic tendencies. The only example in which an actual correlation between a performance feature and segmental change is really found are doublets like fáilu (it. filo) vs. nufilu fáinu (it. unfilo fino) in southern Italian dialects, that show Umlaut only in words bearing phrasal stress. However, this single example represents little basis for assuming that all the phonological phenomena related with IS could depend on performance, especially

[^16]because it has been shown above that IS regularly takes place in words bearing the phrasal stress.

Leaving aside speech tempo and pragmatic prominence, the only way to explain a 'phonological' IS is by postulating regular phonological changes (syncope, vowel shortening etc.) which do not depend on speech performance and are usually held back by external factors (preservation of syllabic quantity, morphological functionality etc.). In order to formulate a formally acceptable hypothesis - which in any case would not make it much more plausible - one should compile a list of all the phonological changes needed to justify all the attested types of IS. I deliberately chose some examples among the most problematic ones:
a. $/ \mathrm{ks} />/ \mathrm{s} /$ without compensatory lengthening in absence of phrasal stress:
*sed usor scelésta /se.du.sor.sce.les.ta/ (as in Plaut. Rud. 895)
but úxor, non filia! /uk.sor.no:n.fi:.li.a/
b. /pt/ >/tt/ >/t/ without compensatory lengthening regardless of accent:
*volutátem (to be distinguished from volütatem < voluntatem with a nasalized short vowel)
but also *vel ótumo, vel péssumo (see ex. 15 above)
c. loss of any final consonant regardless of its morphological function ${ }^{49}$ : *sĕnĕ < senex, senem, senes; *ămă < amas, amat, amant etc.

Needless to say that, even if supported by some typological parallels, this perspective would imply great difficulties. The biggest one - at least in my opinion - is that phonological reductions of this kind usually imply a low functional rate of syllable weight in the 'shortened' positions, so that consonant clusters can be simplified without compensatory lengthening ${ }^{50}$. Even

49 Devine and Stephens (1980: 156) see this phenomenon as the «least problematic of all» because loss of final consonant is otherwise attested in vulgar Latin. However, it should be remarked that the degree of morphological simplification which needs to be reconstructed in order to justify IS in syllables closed by sandhi would be far more drastic than the one attested in the Romance languages, and this can hardly be considered unproblematic for late 3rd century BC spoken Latin.
${ }^{50}$ Cf. Носк (1986) for a discussion on compensatory lengthening in a traditional historical linguistic perspective. It should be pointed out that Latin always shows a tendency to preserve syllabic quantity in sound changes, also when they are limited to low register. E.g. ipsus > issus, not ${ }^{*}$ isus (on this see
 insidias. For nasal loss and vowel lengthening before fricative in Latin cf. Leumann (19775: 145-146).
assuming that this can happen so frequently in a language with distinctive vowel length, this strongly clashes with the fact that IS is limited to a quantitatively determined context, namely iambic sequences. For this condition to be rigidly respected - as it actually is in the texts - we must assume syllable weight to be fully functional in the breviantes, which however are usually as destressed as the shortened syllables. Actually, the idea that both the brevianda and the brevians should be weakly stressed is the core of Devine and Stephens's (1980) argumentation.

Another structural problem implied by this theory, which has never really been faced by supporters of a 'phonological' IS, is that this phenomenon is subject to a purely metrical restriction codified by the first rule of Skutsch's Iambenkürzungsgesetz: the shortened syllable must belong to the same metrical element as the brevianda. If the shortened syllable were actually a light syllable, one would expect that a word like ăbstŭlisti ('phonologically' shortened in */a.stu.lis.ti:/?) behaved exactly like words beginning in a real pyrrhic like dïdücisti, ăpĕriuntur etc. On the contrary, one observes that an iambic line such as Plaut. Pers. 80 is perfectly legitimate (metrical elements in the first foot of the following schemes are indicated by square brackets):
(16) sed aperiuntur aedes, remorandust gradus
$[\smile][\cup \cup]\left|\cup-\left|\smile-|-\underline{\smile}|^{-}-\right| \smile \times\right.$
"The doors are opening, I should slow down my pace."
Whereas a line starting as follows is absolutely impossible:
(17) *sed abstulisti [...]
$\left[\left.\begin{array}{lll}{\left.\left[\begin{array}{ll}u & \ddots\end{array}\right] \right\rvert\,-}\end{array} \right\rvert\,\right.$
"You took away [...]."
Instead, IS is regularly found at the beginning of trochaic lines like the following ${ }^{51}$ :

## (18) quid abstulist(i) hinc? [...]


"What did you take from there? [...]."
${ }^{51}$ Oniga's claim (2010: 358-359) that a shortening like ŭt incidisset is forbidden and his subsequent attempt to explain this restriction is based on a wrong interpretation of an acute observation made by Bettini (1990: 337). As one can easily see, ŭt inncidisset is perfectly parallel to quíd ăbstulisti and is perfectly legitimate as long as the brevians and the brevianda belong to the same element (see also above fn. 28), so Bettini is right in saying that we are dealing with a purely metrical restriction.

Such a distinction is clearly based on purely metrical criteria, which are conceivable only once a linguistic string has been mapped onto the abstract scheme of poetic verse. This seems to me a quite challenging point for the supporters of the 'phonological' theory, and honestly I cannot see how this problem could be easily solved.

### 3.2. The 'prosodic' theory

The idea that IS can be explained as a consequence of a linguistic property belonging to a higher level of analysis than phonology - thence I propose to call this theory 'suprasegmental' - has often been expressed in the history of this problem, although differently declined according to the linguistic trends of the times ${ }^{52}$. All these positions start from rejecting the idea that heavy syllables could so easily lose their consonantal coda and become light ${ }^{53}$. The justification of IS, according to them, comes to light if we call into question the linguistic features which are relevant to the assignment of short and long quantity in poetry. In other words, the concept of poetic prosody itself would need an adjustment. Traditional syllabification, only depending on the segmental makeup of words, is no longer considered the main source of prosodic organization, and new linguistic concepts are introduced, which can somehow give account of IS ${ }^{54}$. Since most of these theories have already been criticized in the previous literature (see fn. 52), we are going to exemplify the difficulties implied by this approach discussing only the most recent proposal, namely the interpretation of IS as a consequence of moraic footing seen in a generative phonological perspective (see above fn. 17 for literature). We will not enter in detail describing the theoretical background on which this theory lies for reasons of space, because it is quite complex. However, I believe that the following description is enough to introduce the final observations which I will propose.

52 See Bettini (1990) passim for a history of this approach and a discussion of the less recent positions. Some useful observations are also found in Fortson (2008: 183 ff .).
${ }^{53}$ Cf. Sommer (1914: 128): <positionslange Silben können in der Aussprache niemals kurz sein», Allen (1973: 183): «such syllables can hardly become light except by losing their oral arrest, i.e. their closing consonant(s) - which manifestly does not happen [...]» and Mester (1994: 12): «in this case [i.e. shortenings like vélintt] no segmental effects are visible».

54 Some examples are the so called Drucksilbe introduced by Sommer and Thurneysen (cf. SomMER, 1914) and the 'stress-matrix' introduced by Allen (1973) for which see the references mentioned above in fn .52 .

According to this theory, first fully formalized by Mester (1994), IS is due to a prosodic reorganization aimed at obtaining an optimal foot scansion with respect to accent placement. The optimal foot scansion for Latin is defined starting from some constraints, the most important of which is that «a foot must be at least bimoraic» (for some scholars it must be «strictly bimoraic», but this point is debated, see Marotta, 2000). This means that every isolated light syllable is problematic because it either remains unfooted (e.g. censeo $\rightarrow[k e: n]$ se $<\bar{o}>=[\mu \mu] \mu<\mu \mu>)$ or is part of an unbalanced trimoraic foot (e.g. censeo $\rightarrow[$ ke:nse $]\langle\bar{o}\rangle=[\mu \mu \mu]\langle\mu \mu\rangle$ ). In this framework, IS is interpreted as a strategy to eliminate isolated light syllables and thus create optimal bimoraic feet (censĕŏ $\rightarrow$ [ke:n][seo] $=[\mu \mu][\mu \mu]$; vŏlŭptates $\rightarrow[\operatorname{volup}][$ ta: $][$ te: $s]=$ $[\mu \mu][\mu \mu][\mu \mu])$. Since this process only involves a suprasegmental level of analysis, it can happen although <no segmental effects are visible».

As we already saw introducing this paragraph, such hypothesis implies the assumption that the linguistic parameter relevant to metrical scansion is not phonological syllabification but rather moraic footing, otherwise one could not account for heavy syllables being scanned as metrically short. Most scholars dealing with this topic did not feel the need to clarify what the relation between moraic feet and poetic prosody should be, but recently Oniga (2010: 360 ff .) expressed what seems to me the most obvious consequence of the preceding assumption: <ipotizzeremo che la poesia latina arcaica utilizzi i piedi fonologici, già formati dalla grammatica della lingua, per realizzare le sequenze metriche. Intendo cioè sostenere che i piedi fonologici delle parole tendono a coincidere con gli elementi metrici dei versi». In other words, the hypothesis is that each metrical element tends to be filled by one accentual foot ${ }^{55}$. Oniga goes on trying to link some norms of Early Latin versification with the fact that an accentual foot cannot be split between two words which is, as we are going to see, quite a big problem for this theory in general -, but he does not mention an obvious possible objection. Namely, that in iambo-trochaic lines a weak metrical element can regularly be filled by a single light syllable, whereas monomoraic accentual feet are theoretically impossible. If one is compelled to go back to segmentally determined moras to give account of short metrical elements I cannot see the point of giving special importance to phonological feet in the rules of versification.

[^17]In any case, the main fault of this theory is the fact that it cannot account for many of the attested shortenings. Being based on the Penultimate Law, the foot parsing algorithm described above can only be applied to independent words. However, as we saw in $\S 2$, IS regularly affects word groups (also of two monosyllables) for which a reaccentuation according to the Penultimate Law is out of question. In addition, the existence of shortenings of accented syllables like sĕd ŭxor (see above) clearly contradicts the hypothesis that IS aims to avoid sequences like $\dot{\prime}-$, because in these cases an optimal spondaic configuration ( $\bar{u} x \bar{o} r$ ) is changed into an ill-formed iambic sequence (й $x \bar{o} r$ ).

In the end, the only context in which such a theory could have some explanatory power is in motivating the final shortenings like bĕnĕ, mŏdŏ etc. Since, as we saw above, these should not be considered proper cases of IS, I think that the place for speculation on IS in generative metrical theory should be drastically reduced.

## 4. Conclusion

I shall conclude this paper with a general remark. At this point, it should be clear that any attempt to give a comprehensive explanation of IS as a linguistic phenomenon would be largely hypothetical and would imply a number of unprovable assumptions. Even if a theory were generally accepted by scholars - but none of the ones discussed above seems to be a good candidate -, it would not increase much our knowledge of the history of the Latin language. In fact, a 'phonological' theory of IS requires postulating an isolated register of spoken Latin which leaves no traces in the later documents of 'vulgar' Latin; and a 'prosodic' one - leaving aside all the difficulties that it entails - cannot but admit that the alleged need for a prosodic reorganization ultimately induced by the Penultimate Law simply disappeared with no traces in later Latin. In my opinion, there are more fruitful ways to research on this topic, both for linguists and philologists.

The most obvious task for philologists is to work on the aspects of the phenomenology of IS which are still obscure. As we saw above discussing the results of my work on IS in accented syllables (Fattori, in press), any new observation on the behaviour of this phenomenon can have relevant consequences on its theoretical interpretation. On the other hand, linguists should focus on the assured linguistic data that can be inferred from the
behaviour of IS regardless of its overall interpretation. For example, it is out of question that IS is conditioned by linguistic features such as word accent (only in the penultimate syllable of polysillables) or the difference between branching nucleus and branching rhyme. One can start from these facts (not hypotheses!) to attempt to answer to some historically relevant questions like the development of the Latin accent (see above) or the process which lead the pre-historical biphonematic diphthongs to be treated as open syllables with a long vowel, as suggested by the distribution of $I S^{56}$. Although problems of this kind may be less charming than the phonological earthquakes postulated by a 'phonological' theory of IS, they have more chances to be solved with a solid methodology and are more likely to lead to a concrete increase of our knowledge of Early Latin.

Provided that a substantial explanation of IS will always be largely conjectural, in my view it is safer to think that it was a peculiarity of Early Latin versification and not of the spoken language, if only because such position requires a smaller number of unproved assumptions. However, this does not mean that language should be completely ruled out of the discussion. Starting from the fact that some aspects of IS are linked to language beyond any reasonable doubt (i.e. accent and syllable structure, as we saw above), I proposed in Fattori (in press) that IS should be regarded as a prosodic licence which was actually reflected in an artificially 'shortened' pronunciation of the involved syllables. Under this perspective, the linguistic constraints applied to IS could be interpreted as strategies to avoid a too strong clash between the prosodic rules of the language and the deformation of the word required by the poetic performance. I believe that such an in-between approach to IS, neither denying completely its relationship with language nor postulating its identification with a feature of spoken language, is the best way to make some actual progress in the clarification of this phenomenon. As I hope to have shown in this paper, this can be done only by treating with caution and critical judgement all the secondary literature on this topic especially the older works - and undertaking new surveys directly based on the texts.

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[^0]:    ${ }^{2}$ An exhaustive history of the 'discovery' of IS can be found in Bettini (1990), which is an essential starting point for any up-to-date study on the subject.

    3 The first to express this principle clearly was MÜLLER (1869), but the most famous formulation of the so called Iambenkürkungsgesetz ("the law of Iambic Shortening", on which see below) goes back to Skutsch (1892-1895). In the literature this phenomenon is also called correptio iambica or brevis brevians, which are modern Latin expressions and not ancient technical terms as Baldi (2002: 264) seems to imply.

    4 In some circumstances a light syllable can fulfil a long metrical element in the verse. For example, in dactylic poetry the so called 'irrational lengthening' is found (e.g. Verg. Aen. 3.91: liminnăqué laurusque dei, see Thompson and Zair, 2020) and in Plautus some light syllables can scan as long in the so-called loci Jacobsohniani, for which see Questa (2007: 279 ff.).

    5 This problem has been rightly emphasized by Devine and Stephens (1980: 152 ff .).

[^1]:    7 Cf. Leumann (19775: 106). Note that cale facio was not yet univerbated when the shortening occurred, see Bettini (1990: 383).
    ${ }^{8}$ The apocopated form is surely attested in some defixiones dating from the 1st to the 3rd century AD (nn. 3.2 and 5.1.5 in Kropp, 2008 and the tablet published by Blänsdorf, 2014), with a very doubtful occurrence from 2nd century BC Pompeii (n. 1.5.4 in Kropp, 2008; see Urbanová, 2016: 331-332). In this case as well the shortening must have affected the word mödö (originally abl. of modus) before it underwent grammaticalization and univerbation because at the time of Plautus we still find non-univerbated forms of quo modo (see e.g. Plaut. Cist. 46: necesse est quo tu me modo voles esse, ita esse, mater, "I have to be the way you want me to be, my mother", tr. De Melo, 2011a). Therefore, this kind of shortening cannot be classified as 'cretic shortening', on which see below.

    9 Remarkably, Corssen (1858: 328 ff.), who writes before the formulation of Skutsch's Iambenkürzungsgesetz, discusses these vocalic shortenings together with other similar phonological phenomena called by him Vokalkürzungen and distinguishes them from what he calls Positionsvernachlässigung, i.e. short scansion of closed syllables. In the most recent literature, the substantial difference between these two phenomena is correctly recognized by De Melo (2011a: lxxxviii), Meiser (2006: 76-77, who speaks of a sprachwirkliche Iambenkürzung vs. a Lizenz), Marotta (2000) and Weiss (2009: 126-128).

[^2]:    ${ }^{10}$ Many attempts to explain IS as a unitary prosodic phenomenon, some of which will be discussed below, descend from this questionable assumption (e.g. Allen, 1973: 179 ff.; Mester, 1994: 11 ff.; Oniga, 2010).
    ${ }^{11}$ Cf. Sihler (1995: 79-80) and Fortson (2008: 177-178 fn. 4) for a prudent discussion of the problem.

[^3]:    12 See Ceccarelli (1999) and Bettini (1990: 387-389) for some statistical surveys showing that IS should not be invoked in this context. It should be emphasized that Ceccarelli's results partially contradict the traditional position expressed by Questa (2007: 17-19) that at Plautus's time all the etymologically long endings were preserved: it seems that shortened endings in Plautus were already alternating with the long ones and thus the beginning of the phenomenon must date earlier.

[^4]:    ${ }^{13}$ On the Law of Hermann-Lachmann, see Questa (2007: 213 ff.).
    ${ }^{14}$ Cf. Questa (2007: 221 ff .).

[^5]:    15 For example, Sommer (1914: 279) exposing the so called 'Drucksilbe' theory (on which see below) only mentions the type vŏlŭptates and sěnëx and Meillet and Vendryes (19664: 140) only speak of some 'traces' of shortenings in polysyllables like senectuti. Among the most recent literature, BALDI (2002: 264-265) only mentions shortenings in iambic disyllables and the type vŏlüptatem and Clackson and Horrocks (2007: 134) refer to IS in exposing some recent theories on prosodic foot scansion in Latin defining it as «the less forceful articulation of an unstressed heavy syllable when

[^6]:    18 For some surveys on IS between monosyllables cf. Fortson (2008: 191 ff .)
    19 Cf. Fortson (2008: 196) who explains these shortenings as an effect of the sequence of two prosodically weak words. See below $\$ 3.1$ and $\$ 3.3$ for a discussion on this approach.

[^7]:    ${ }^{20}$ See for example Allen (1973: 181 ff.).
    ${ }^{21}$ This difference is already clear to MÜLLER (1869: 403).

[^8]:    ${ }^{22}$ Allen (1973: 181) proposes that the cases in which the shortening is not attested in Classical Latin (which are the wide majority, since the shortening is only retained in compounds like călĕfacio, see above fn. 7) are due to an analogical restoration of quantity. This, however, does not explain why this kind of IS is very rare in Plautus and Terence.
    ${ }^{23}$ See Fattori (in press) for a possible explanation based on a non-linguistic interpretation of IS.
    ${ }^{24}$ The term is first found in Devine and Stephens (1980), whence it was taken by Stephens (1985; 1986), Mester (1994: 30 ff.) and Prince and Smolensky (2004: 66 ff.). For the shortening of final vowels (especially $-\bar{o}$ in verbs and nominative forms) see Leumann (19775: 110), Adams (2013: 49-50) and Loporcaro (2015: 9-10). A link between IS and other types of final vowel shortening (see fn. 27 for some examples) is also postulated by Kieckers (1960: 82-83), Safarewicz (1969: 84 ff.) and Vineis (2013 [1979]: 51-53).
    ${ }^{25}$ Cf. the examples collected by Klotz (1890: 59 ff.) and Ahlberg (1901: 37 ff.).
    ${ }^{26}$ Cf. Corssen (1858: 431 ff .) for a list of occurrences.

[^9]:    ${ }^{27}$ This position is widely accepted in the literature (see Allen, 1973: 182 fn. 2; Leumann, 1977 ${ }^{5}$ : 110) but a punctual confutation was needed because some recent works dealing with IS in a generative phonological framework accept uncritically the existence of a 'cretic shortening' and treat together Plautine scansions and classical forms. Cf. for example MESTER (1994:30 ff.) who starts from the unproved premise that <2nd century BC Latin regularly showed cretically shortened forms» and quotes forms taken from Plautus (maxume, dicito) as well as from later poets like Catullus (commoda), Horace (dixero, Pollio) and Tibullus (desino). Then, in fn. 40 he states that 'cretic shortening' - that is IS in final syllables of polysyllables - cannot be postulated for Classical Latin for the reasons we just pointed out, which is correct but contradicts his own examples (cf. also Marotta, 2000: 408-409).
    ${ }^{28}$ The problem of the existence of a verse ictus which interacted with IS will not be discussed because it is now rejected by most scholars (see Bettini, 1990 passim; Ceccarelli, 1991: 238 ff . and Fortson, 2011: 99-104). In fact, saying that ictus must precede or follow the shortened syllable (cf.

[^10]:    ${ }^{32}$ For the preferential use of long words to fulfil certain positions in the line - which however would need further investigation - see Chapter 4 in Fattori (in press).
    ${ }^{33}$ This idea is still found in Baldi (2002: 264-265), Clackson and Horrocks (2007: 134) and Fortson (2008: 204-207) who speaks of a 'pretonic shortening', even if elsewhere he agrees with Devine and Stephens (1980) on the view that IS cannot be caused by a near accent.

[^11]:    ${ }^{34}$ The optional enclisis of these demonstratives is widely accepted in works dealing with IS (a very influent position is that of Lindsay, 1922: 165 ff .) but, remarkably, it is hardly mentioned in historical grammars of Latin.
    ${ }^{35}$ For uxor see ex. 11 in $\$ 2.2 .3$. Other examples are Plaut. Epid. 474 (ei quae accessere, tǐb( $i$ ) ăddam dono gratiis) and Pers. 543 ([...] mercimonium. - Aequa dicis. sĕd ŏptume eccum ipse advenit). A full list of examples with a punctual discussion of philologically doubtful lines is offered in Fattori (in press).

[^12]:    ${ }^{36}$ See now Bettini (1990: 354) for a comprehensive discussion of the problem. A scansion măchăera rather than māchāera (gr. $\mu$ व̆ $\chi \alpha \iota \rho \alpha)$ in Plaut. Pseud. 593 is convincingly defended by Mancini (1990:35-37).
    ${ }^{37}$ Cf. Quint. (1.5.29-31). Cicero (Orat. 58) only mentions the fact that stress is limited to the last three syllables of a word. Cf. Weiss (2009: 106-113) for a brief historical description of Latin accent and further literature.

[^13]:    ${ }^{38}$ Some categories already seem to be recognizable (e.g. denominal adjectives like molestus, scelestus etc.) but the only collection of examples is Esch's (1897), which is obsolete and often implies scansions which are no longer acceptable today. Fortson's (2008: 210 ff .) approach, who indistinctly takes in account every suspect form regardless of philological and statistical criteria, is highly questionable. In fact, some of the lines he quotes can be scanned without IS (e.g. Plaut. Poen. 419 in which perque must be scanned as perq' as Fortson himself admits in fn . 99 , with the quite common apocope of final -e in -que; see QUesta, 2007: 27-28) and even including them the overall incidence of IS would be 38 cases over 3809 total trisillables with heavy penultimate (less than $1 \%$ ) among which approximately a half are repeated or belonging to similar morphological categories and thus require ad hoc explanations (profecto, dedisti, sagitta, modestus etc.).
    ${ }^{39}$ Cf. for example Allen (1973: 183), Mester (1994: 12-13 fn. 15), Marotta (2000: 397), Baldi (2002: 265).

[^14]:    42 Remarkably, Fortson often expresses reasonable doubts on the plausibility of some sound changes which would be implied by a phonological IS (e.g. the fact that a nasalization in words like perinde and voluntate would probably cause compensatory lengthening) so I cannot see how the postulation of a weak prominence of these words in the sentence could help in supporting this theory.

[^15]:    ${ }^{43}$ This line is considered spurious (i.e. not written by Plautus but added later in the text) by most editors, but this does not make the example less valuable. Since the line is perfectly metrical and shows IS, it could at most be considered an old interpolation penetrated into the text when Latin versification rules were still approximately the same as Plautus's (e.g. the time of Terentius), so it makes no difference to our purposes whether or not it was present in the original version of the Mostellaria.

[^16]:    comedy in respect to other poetic genres of the time. In fact, IS is also attested in tragedy and - although scantily - in hexametric poetry, for which an imitation of low register speech is out of question (see Lindsay, 1922: 42 ff.). In addition, as Gratwick (1990: 216) has observed, IS is very frequent in anapaestic lines which are highly stylized lyric verses which could hardly imitate everyday speech. Fortson's (2008: 181) objection that anapaests are «still not well understood» and thus «suspect» is far from convincing: the current interpretation of Plautine anapaests is the result of over a century of meticulous philological research and every scholar with experience in Latin metricology recognizes their existence and functioning (see Questa, 2007: 445-459).
    ${ }^{47}$ See Adams (2013: 90-100) and Loporcaro (2011: 58-64) for syncope as a feature of low-register Latin.
    ${ }^{48}$ This point, which seems to contradict the possibility of describing IS as a 'fast-speech rule', is recognized by Devine and Stephens (1980:152) who admit <the problem is how to interpret such a purely phonetic change in the context of a system of phonologically relevant syllable weight», but no answer is given to this crucial problem.

[^17]:    55 A similar assumption is made by Adiego Lajara (1999) who invokes the parameter 'position size' (sp. tamaño maximo) taken from generative metrical phonology in order to link IS and phonological feet.

[^18]:    ${ }^{56}$ As is well known, in pre-historical times Latin diphthongs were treated as groups of vowel + glide (e.g. */inkajdo:/ > /inkejdo:/ > /inki:do:/ whereas long vowels are not affected by post-tonic weakening) but it is not easy to determine how this phonological status evolved in Classical Latin. See for example the diverging positions expressed by Safarewicz (1950), Cser (1999) and Marotta (1999: 290). This problem is briefly discussed in the last chapter of Fattori (in press), with further literature.

