Lachmann’s Law (LL) is the rule of Latin according to which verbal roots ending in an etymological voiced stop (*-b-, *-d-, etc.), but not a voiced aspirate (*-bh-, *-dh-, etc.), lengthen their root vowel in the past participle and its derivatives (e.g. *agō ‘drive’, ptcp. *actus (+āctō, etc.), *cadō ‘fall’, ptcp. *cāsus < *cāssus). Neglected for most of the twentieth century, LL became well known through its role in the brilliant 1965 doctoral dissertation of Paul Kiparsky. For Kiparsky, LL was the Paradebeispiel of rule insertion or non-chronological rule addition, a type of linguistic change said to be predicted by the theory of generative grammar but impossible to accommodate within the traditional Neogrammarian framework of sound change and analogy. Until the end of the 1970s, LL figured prominently in the often polemical debate over the status of analogy as a mechanism of language change; at one point no fewer than three squibs were dedicated to it in a single volume of Linguistic Inquiry.¹ Then, almost as abruptly as it had begun, the near-obsession with LL came to an end. Today, as before 1965, the rule is known mainly to specialists in the history of Latin.

A form like *actus can be derived historically from earlier *ag-tos by assuming two sound changes—one that lengthened the vowel before the voiced + voiceless cluster, and another that spread the voicelessness of the *-t- leftwards.² But voicing assimilation is found in every IE language and was clearly an inner-PIE process, while lengthening before voiced + voiceless clusters was a much later development peculiar to Latin, or at least Italic. How, then, can the cluster *-gt- have been accessible to speakers at the

¹ The year was 1979, and the squibs were the contributions listed below under the names of Joseph, Klausenburger, and Stephens. See n. 10.
² Transcriptions are informal; where no confusion would result I write ‘*ag-’ for ‘*h₂eg-’, ‘*-ō’ for ‘*-oh₂’, etc.
moment when the lengthening rule applied? The usual Neogrammariansolution, classically articulated by Saussure (1885: 256) and repeated asrecently as Leumann (1977: 114), was that inner-PIE *aktos was analogically
remade to *agtos in post-IE times. Secondary *agtos, according to this view,gave *āgotos, which then, by a second application of the voicing assimilationrule, gave *āktos (≡ āctus).

Kiparsky (1965: i. 32) rejected this scenario in no uncertain terms:

He [Saussure] supposes that IE aktos reverted to phonetic agtos, then was length-
ened to āgos and finally reassimilated to āktos. In spite of its ad hoc character
and phonetic implausibility (on which Saussure himself remarks) this has come
to be the generally accepted view. . . . But there are insurmountable objections to
it. To account for lengthening in dental stems (e.g. cāsus) we should then have to
suppose that forms like *cadtus were restored, and that after the lengthening by
Lachmann's Law these forms underwent not only reassimilation of voicing but
also reassimilation by the old rule that dentals became sibilants before dentals. This
kind of miraculous repetition of history stretches our credulity to the breaking
point. It snaps when we recall that dental clusters of secondary Latin origin do not
in fact assimilate in Latin, e.g. ad-terō > atterō, and not 'asserō'. There is, so far as I
can see, no way of saving Saussure's theory of Lachmann's Law.

LL, in Kiparsky's view, was a case of insertion: a rule that lengthened vowels
before -gt- and -dt-, viz.

[−consonantal] ⇒ [+ long] / [ + obstruent] [ + voiced] [−voiced]

was added to the synchronic grammar of Latin at a higher point in the
ordered list of phonological rules than the rule of voicing assimilation. In
schematic terms, taking G₁ and G₂ to represent chronologically successive
grammars,

G₁:

underlying form /ag-to-/ rules: ______

G₂:

underlying form /ag-to-/ rules: ______

voicing assim.

LL thus operated, according to Kiparsky, on underlying -gt- and -dt-, despite
the fact that these clusters never surfaced phonetically.

Kiparsky's analysis was an exciting proposal in 1965, since it seemed to
show that there were possible—and documented—linguistic changes that
could not be explained within the standard framework of (surface) sound change and (surface) analogy, but that could easily be accounted for within the more abstract model of generative phonology. Normal sound change, in the early days of generative phonology, was regarded as a process of rule addition: implementing a sound change meant appending a new rule to the end of an ordered list of synchronic phonological rules (cf. Halle 1962: 64 ff.). Enthusiasts for Kiparsky’s approach, such as King (1969), saw no essential difference between this process and rule insertion, which differed from ordinary rule addition only in that the ‘landing site’ of the new rule was synchronically higher than one or more historically earlier rules. LL was hailed as proof of the superiority of the ‘grammar change’ model of linguistic change to the classical Neogrammarian combination of sound change and analogy. In the ideological wars of the time, it was seen as another nail in the coffin of taxonomic (=structuralist) phonemics, with which the Neogrammarian approach to linguistic change was by implication identified.

Doubts, however, persisted. Normal sound change is rooted in acoustic and articulatory facts; in English, for example, the regular lengthening of vowels before voiced obstruents (cf. hat [hæt] vs. had [haːd]) reflects the natural tendency of speakers to assign part of the voicing of the consonant to the preceding vowel. Under Kiparsky’s analysis, no perceptual or production errors could have been involved in the replacement of late PIE *aktos by Lat. actus, since the crucial voiceless + voiced combination never surfaced phonetically. It was unclear, therefore, how or why a speaker of pre-Latin would ever have been tempted to enact Kiparsky’s LL scenario. King, after a long and futile search for typological parallels, dramatically reversed his 1969 position and concluded that rule insertion, as a species of linguistic change, did not exist (King 1973).

The rule itself was not free of difficulties. A total of seventeen Latin past participles satisfy the structural description of LL, but only thirteen of these actually show the expected lengthening. The examples can conveniently be arranged by root vocalism. The lengthening of -a- to -ã-, -u- to -ũ-, and -o- to -ô- is exceptionless:3

3 Compare forms with a voiceless stop or voiced aspirate and no lengthening: faciō 'do': fēci: fāctus; patiō 'suffer': pāssiō: pāspus; rapiō 'seize': rapiū: rāptus; nancēscor 'meet with': nāctus: pandō (< *patnō) 'extend': pandī: pāssus; trahō (< *-gh-) 'draw': trāxi: trāctus; fodīō (< *-dh-) 'dig': fōdiō: fōssus; docēō 'teach': docūs: dōctus; dūcō 'lead': dūxī: dūctus; rumpō 'break': rūpī: rāptus; inbō (< *-dh-) 'order': iūssī: iūssus; and others. Even before plain voiced stops, a synchronic morpheme boundary must be present; derivationally isolated forms like lāssus 'tired' < *lad-to- and tussis 'cough' < *tud-ti- retain their short vowel (cf. Kiparsky 1965: i, 31).
\[ \begin{align*}
\text{‘drive’} & \quad \text{agō (present): ēgī (perfect): āctus} \\
\text{‘fall’} & \quad \text{cadō: cecidi: ċāsus} \\
\text{‘break’} & \quad \text{frangō: frēgī: frāctus} \\
\text{‘fix’} & \quad \text{pangō: pepīgī: pāctus} \\
\text{‘touch’} & \quad \text{tangō: tētīgī: tāctus} \\
\text{‘pour’} & \quad \text{fundō: fūdī: fūsus} \\
\text{‘beat’} & \quad \text{tundō: tuītūdī: tuīsus} \\
\text{‘hate’} & \quad \text{ōdī: ōsus}
\end{align*} \]

\[-e- \text{ is lengthened to } \text{-ē- in four examples:}\]

\[- \begin{align*}
\text{‘eat’} & \quad \text{edō: ēdī: ēsus} \\
\text{‘read’} & \quad \text{legō: lēgī: lēctus} \\
\text{‘guide’} & \quad \text{regō: rēxī: rēctus} \\
\text{‘cover’} & \quad \text{tegō: ūtēxi: tēctus}
\end{align*} \]

\[...\text{but here there is a conspicuous exception:}\]

\[\text{‘sit (down)’} \quad \text{sedēō/sidō: sēdī: sēssum (supine)}\]

Finally, there is one ‘good’ example of the change of \text{-i-} to \text{-ē-}:

\[\text{‘see’} \quad \text{uīdeo: uīdī: uīsus}\]

\[...\text{but no fewer than three ‘bad’ ones, with no lengthening:}\]

\[- \begin{align*}
\text{‘split’} & \quad \text{findō: fīdī: fīsus} \\
\text{‘tear apart’} & \quad \text{scindō: scīcidī: scīsus} \\
\text{‘draw tight’} & \quad \text{stringō: strīnxī: strictus}
\end{align*} \]

In short, LL always ‘works’ when the root vowel is \text{-a-} (5 examples), \text{-u-} (2 examples), or \text{-o-} (1 example). It is usually also valid for \text{-e-} (4 good examples; 1 exception), but mostly fails for \text{-i-} (1 good example; 3 excep-

\[4 \text{ Again, lengthening is absent when the root ends in a voiceless stop or voiced aspirate: cf. uēhō (< *-gh-) ‘convey’: uēxī: uēctus; seō ‘cut’: sēcul: sēctus; metō ‘mow’: mēssui: mēsus; -spiciō ‘look at’: -spēxī: -spēctus; etc. The status of emō ‘buy’: ēmī: ēmptus with respect to LL is unclear. Etymologically, of the participle should have been *entsus < *(h₁)m-to- or *(h₁)em-to-; ēmptus must go back, directly or indirectly, to a reconstituted *em-to-, with *-m- reinserted from the present stem. While it is possible that restored *emto- simply gave *emtto-, with epenthetic *-b- and subsequent LL lengthening, a direct development from *emto- to *empto-, with automatic lengthening before -mpt-, is also thinkable.}\]

\[5 \text{ The supine is quoted instead of the participle, which is restricted to compounds (pos-

\[6 \text{ -sessus, obsessus, etc.).}\]

\[6 \text{- is expected, of course, before a root-final voiceless stop or voiced aspirate: cf. fingō (< *-gh-) ‘shape’: fīnxī: fīctus; pingō (prob. < *pīknuō) ‘paint’: pīnxī: pīctus; mingo (< *-gh-) ‘urinate’: mīnxī: mīctus; -linquō ‘leave’: -liquī: -lictus; uincō ‘conquer’: uīcī: uīctus; mittō ‘send’: mīsi: mīsus, etc.}\]
Kiparsky’s discussion of LL, embedded as it was in a general assault on analogy as an explanatory tool in historical linguistics, naturally called forth an analogical counterattack. The opening salvo was fired by the great theoretician of analogy, Jerzy Kuryłowicz (1968), who began by accepting Kiparsky’s dismissal of the Neogrammarian account:

To assume an intermediate phonetic arrangement, viz. the restitution of g under the influence of ago and second devoicing of *agtos, this time to aktos, would be clearly unacceptable. Nowhere and at no period has gt been a possible combination in I.E. languages opposing voiced g to voiceless k t.

Kuryłowicz’s response, however, was to construct an entirely different analogical scenario. Following an approach pioneered by Osthoff (1884: 113) and Kent (1928), he took the long vowel of actus, casus, etc. to be an import from the perfect. In a verb like legō ‘read’, the present active with *-ē- (3 sg. legit) served as forme de fondation to the perfect active with *-ē- (3 sg. lēgit); therefore, since the active as a whole ‘founded’ the passive, the long vowel was extended from the perfect active to the perfect passive:

\[
\begin{align*}
\text{pres. act. legit} & \quad \Rightarrow \quad \text{perf. act. lēgit} \\
\downarrow & \\
\text{pres. pass. legitur} & \quad \Rightarrow \quad \text{perf. pass. *lēctus (est) > lēctus (est)}
\end{align*}
\]

The other such cases cited by Kuryłowicz were

\[
\begin{align*}
edō & \quad : \quad ēdi, \quad \text{whence innovated} \quad ē(s)sus \\
uideō & \quad : \quad uidi, \quad \text{"} \quad \text{"} \quad uī(s)sus \\
emō (‘buy’) & \quad : \quad ēmi, \quad \text{"} \quad \text{"} \quad ēml(p)tas \\
\text{-- -- -- --} & \quad : \quad ōdi, \quad \text{"} \quad \text{"} \quad ō(s)sus
\end{align*}
\]

From these examples speakers supposedly abstracted the principle that roots in *-g-, *-d-, and *-m- formed their participles by adding -tus and lengthening the vowel of the present. Thus were created actus (: agō), cā(s)sus (: cadō), and tēctus (: tegō), even though the perfects of these verbs were not formed by simple lengthening (ēgī, not *āgī; cecidi, not *cādī; tēxī, not *tēgī).

As presented, this account is obviously unsatisfactory. Kuryłowicz’s initial group of five verbs (legō, edō, etc.) is arbitrary; no mention is made of two other lexical items, fōdiō : fōdi ‘dig’ and scābō : scābi ‘scrape’, which also form their perfects by lengthening the vowel of the present, but which
have root-final \*-dh- (not \*-d-) and \*-bh- (not \*-b-), respectively. In addition, there are endless problems of detail. To explain the non-lengthening of \textit{sci}sus, \textit{strictus} to \textit{*sci(s)sus}, \textit{*strictus}, Kuryłowicz is obliged to claim that the nasal of the presents \textit{scindō} and \textit{stringō} prevented speakers from connecting the present stem too closely with the participle. But this makes it hard to account for \textit{fū(s)sus} and \textit{tū(s)sus} (: fundō, tundō), which he attributes to a ‘tertiary’ analogy that substituted the attested forms for ‘correct’ \textit{*fūssus} and \textit{*tūssus} (rūptus (: rumpō) inexplicably failed to take part in this development). To explain the unexpected long vowel of \textit{tāctus} (: tangō) and \textit{frāctus} (: frangō), Kuryłowicz invokes \textit{pāctus} (: pango), which he sees as a PIE inheritance (cf. Gk. πηκτός).

Attempts to improve on Kuryłowicz’s solution soon followed from Watkins (1970) and Strunk (1976). Watkins accepted Kuryłowicz’s premiss that \textit{lectus} etc. acquired their long vowel from the long-vowel perfect, but tried, not very successfully, to explain the spread of long vocalism in the participle without reference to the voicing properties of the root-final consonant. \textit{rēctus} (archaic perfect \textit{rēgī}) and \textit{tēctus} (archaic perfect \textit{*tēgī?}) were, according to Watkins, first-order analogical formations like \textit{lectus} itself. Another such form was \textit{āctus}, with its long vowel taken from the hypothetical pre-Latin perfect \textit{*āgī; āctus} in turn generated \textit{frāctus}, \textit{tāctus}, etc., and, indirectly, most of the other LL forms. But herein lies the fatal problem: the perfect of \textit{ago} is not \textit{*āgī} but \textit{ēgī}, an inherited lengthened-grade preterite (\textit{< *h₂ēg-}, by Eichner’s Law) of the same type as \textit{lēgī}, \textit{ēmī}, \textit{ēdī}, and (perhaps) \textit{rēgī}.

Elements of Watkins’s solution—presence vs. absence of a long-vowel perfect, transparency vs. opacity of the present stem, relative lateness of certain forms—recur in Strunk’s monograph-length treatment of LL. When all is said and done, however, Strunk’s theory is little more than a \textit{post hoc}, case-by-case justification of why each form turned out the way it did.

Later discussions of LL add nothing new to the picture. In the last ana-

To be sure, the whole idea of associating length with the character of the root-final consonant seems counterintuitive. One wonders why Kuryłowicz’s speakers, having sensibly built \textit{lectus} to \textit{lēgī} and \textit{uisus} to \textit{uidī}, did not simply proceed to the creation of \textit{*fēctus} beside \textit{fēci}, \textit{*cēptus} beside \textit{cēpi}, \textit{*ēctus} beside \textit{ēgī}, etc.

Although the supposed perfect \textit{*āgī}, allegedly bolstered by ON \textit{āk} (: \textit{aλk} ‘drive’), is a staple of the LL literature, it cannot be emphasized too strongly that there is absolutely no evidence for such a form. For the pattern \textit{ago}: \textit{ēgī}, which cannot be explained within Latin and almost certainly goes back to PIE, see Jasanoff (1998: 305–7) and the references there cited.

See the succinct review by Anna Morpurgo Davies (1979).

This holds true, for example, of the three 1979 squibs in \textit{Linguistic Inquiry}, which are largely concerned with the pros (Klausenburger 1979; Stephens 1979) and cons (Joseph 1979) of converting the Kuryłowicz/Watkins theory into ‘rule addition’ notation. A genuinely dif-
lysis, we have three basic approaches to choose from: (1) the Neogrammari-
ian solution (analogical reintroduction of the voiced stop with subsequent
lengthening by sound law); (2) Kiparsky’s solution (rule insertion); and
(3) the Kurylowicz–Watkins–Strunk solution (analogical lengthening from
the perfect). The objections to (2) and (3) have been reviewed above; it is
time to return to (1).

Enough time has passed since the ‘analogy wars’ of the 1960s and 1970s
for us to be able to recognize the heavy rhetorical component in much of
the discussion surrounding LL. Both Kiparsky and Kurylowicz, as quoted
above, were witheringly dismissive of the possibility that a preform \( \ast akto s \)
could have been remade to \( \ast agto s \); Kurylowicz’s remarks in particular go
beyond the bounds of responsible generalization.11 Kiparsky, in rejecting
the scenario \( \ast kassos \Rightarrow \ast kadtos > \ast kädtos > \ast cässus > cäsus \), set up a straw
man; the real question to ask in connection with roots ending in \( *-d-\) was—
and remains—whether early pre-Latin \( kassos \) could have been remade, not
to \( kadtos \), but to \( kadsos \) (\( \ast kädso s > \ast cässus > cäsus \)), with \( *-d-\) restored
and \( *-s-\) retained (cf. the s-variant of the suffix in \( läpsus \) (\( : läbor ‘glide’\)),
\( mulsus \) (\( : mulçeō ‘stroke’\)), \( sparsus \) (\( : spargō ‘strew’\)), etc.). Simply to pose the
question is to see that the possibility cannot be dismissed out of hand—an
indication that the much-vilified Neogrammari an theory may not be so \textit{ad
hoc} or unnatural as its detractors have maintained.

Unexpected light is shed on the problem of LL by the seemingly unrelated
irregular superlative \( \text{maximus} \) ‘greatest’ (\( : \) positive \( \text{magnus} \), comparative
\( \text{maior} < \ast \text{mag-} jös-\)). From a second-century inscription (\( \text{CIL vi.} \text{2080.} \text{17} \)
where it is explicitly marked, we know that the \(-a-\) of this form is long. We
also know, thanks to the fundamental work on Italic and Celtic superlatives
by Warren Cowgill (1970), that the oldest reconstructable preform for
\( \text{máximus} \) is \( \ast \text{magismños} \), with the root \( \ast \text{mag-} \) of \( \text{magnus} \) and \( \text{maior} \) and
the Italic and Celtic superlative suffix \( *-is-\text{ŋmo-} \).12 There is only one way
that the \(-ā-\) of \( \text{máximus} \) could have come to be long: syncope of \(-i-\) brought

11 For counter-examples to Kurylowicz’s claim that voiced/lax + voiceless/tense clusters
are impossible in IE languages, we need look no further than English, where such groups are
perfectly common at historical morpheme boundaries (\( \text{tadpole, ragtime, magpie, bodkin,}
\text{absent, etc.} \)) and in proper names of non-Anglo-Saxon origin (\( \text{Aztec, Rabkin, Ahí, etc.} \)). A
Slavic example is given below.

12 Older treatments of the superlative in Latin—see e.g. Buck 1933: 215–16 and Leumann
1977: 497–8—are notoriously confused, with fluctuating roles assigned to sequences vari-
ously reconstructed \( *-\text{ŋmo-}, *-\text{ŋmo-}, *-\text{ŋmio-}, \) and \( *-\text{ŋmio-}. \) For our present purposes,
Cowgill’s essential result is that the \(-x-[-ks-]\) of \( \text{maximus} \) is not original, but the result of a
pre-Latin syncope.
the *-g- and the *-s-of *magis Damonos (or perhaps at this stage *magismos; cf. Vine 1993: 247 ff.) into contact, and the resulting sequence *-ags-developed to -aks-, with devoicing of the *-g- and lengthening of the preceding vowel. This, of course, is precisely the sound change that we know in a different guise as LL. What the example of maximus shows us is (a) that Latin at an earlier point in its history tolerated voiced + voiceless obstruent clusters, and (b) that such clusters were systematically devoiced with compensatory absorption of the voicing as length by the preceding vowel. Naturally, none of this proves that early pre-Latin *aktos and *kassos actually were remade to *agtos and *kadsos, as we would have to assume under a refurbished Neogrammarian account. But there is now independent evidence that such intermediate preforms, if they ever existed, would indeed have given the attested actus, casus.

What then of the supposed remodelling of *aktos, *kassos to *agtos, *kadsos—the step denounced as 'phonetically implausible' by Kiparsky and 'clearly unacceptable' by Kurylowicz? Watkins (1970: 57), in an interesting aside to his main discussion, mentions but does not fully explore a suggestively similar development in certain dialects of Ukrainian and Russian. The relevant facts are discussed by Andersen (1969) and Flier (1978). Proto-Slavic, like Latin, inherited the PIE rule of right-to-left voicing assimilation and the rule of sibilant insertion in dental + dental clusters (> Slavic *-sT-). Another change affected the cluster *-kt-, which gave PSl. *-t- and East Slavic *-č- before high front vowels. Early East Slavic (= Old Russian) thus had infinitive forms like the following:

- ved- 'lead' (1 sg. vedu) + -ti (infin.) > vesti 'to lead'
- vez- 'convey' (1 sg. vezu) + -ti (infin.) > vesti 'to convey'
- pek- 'bake' (1 sg. peku) + -ti (infin.) > peči 'to bake'
- bereg- 'guard' (1 sg. beregu) + -ti (infin.) > bereči 'to guard'

With the syncope of the jers (ů, ĭ), a number of previously disallowed con-

Note that these developments need not have preceded the pre-Latin voicing of intervocalic single *-s- to *-z-. The change of *-s- to *-z- (whence later -r-) was a purely subphonemic event; both before and after the rule, *magis was phonologically /magisomos/, and the cluster that resulted from the syncope of *-i- was phonologically /gs-/. That the phonological sequence /gs-/ would have been read [-gs-] and not [-gz-] is shown, in the last analysis, by its development to [-ks-] in maximus. I am indebted to John Penney for helping me clarify these issues.

Since *magis Damonos yielded maximus, it might have been expected that the parallel *pedis Damonos 'worst' (cf. peior 'worse' < *ped-jos-) would yield *pēsimus (< *pēss- < *pēts- < *ped-s-). The actual form is pēsimus—presumably reflecting the influence of the normal superlative type in -issimus, which 'protected' the *-ss-of *pēsimus and triggered shortening of *-č- to -č- by the 'littera-rule'.

Andersen (1969) is the 'forthcoming study' to which Watkins refers his readers (ibid.).
sonant clusters, including combinations of a voiced/lax obstruent with a following voiceless/tense obstruent, were introduced into the East Slavic phonological system. In many dialects, including those which led to Standard Ukrainian, such clusters were maintained. Dialects of this type exploited the new acceptability of voiced + voiceless combinations to introduce a secondary contrast between, for example, (Ukr.) vesty ‘to lead’ and vezty ‘to convey’ — the latter ‘helped’ by the restitution of -z- from the present stem. In some varieties of Ukrainian and Russian the process was taken further: forms like peći (: pek-) and bereći (: bereg-, Ukr. bereh-) were remade to pekti, berehti or to pekçi, berehcçi, with the hybrid groups -kç-, -hc-.

These facts, parallel in almost every respect to the first part of Saus- sure’s scenario for Latin, completely undercut any possible objection to the Neogrammarian approach in principle. It remains only to see how an updated Neogrammarian account would work in detail. The first step, clearly, must be to assume that at a stage of Latin following the earliest syncope rules—an a stage, for example, when the preform of maxi¬mum was *magso¬mos (vel sim.)—root-final -g- was restored before suffixes beginning with a voiceless obstruent:

\[ *\text{aktos}, *\text{rektos}, *\text{striktos} \Rightarrow *\text{aglos}, *\text{regtos}, *\text{strigtos} \]

(cf. Ukr. vesty \( \Rightarrow \) vezty)

When the root ended in -d-, the sequence -ss- (or its predecessor -ts-) was remade to the hybrid cluster -ds-:

\[ *\text{kassos}, *\text{tussos}, *\text{fissos} \Rightarrow *\text{kadsos}, *\text{tudsos}, *\text{fidsos} \]

(cf. Ukr. bereći \( \Rightarrow \) berehcçi)

Voiced -g- and -d- would not, of course, have been restored in synchronically opaque forms like lassos ‘tired’ (< *lad-to-) and tussis ‘cough’ (< *tud-ti-), both discussed by Kiparsky (cf. above). On the other hand, when a clear morphological boundary was present, there is no reason to assume that the analogical reintroduction of voicing would have been confined to the perfect passive participle. Thus, for example, the ‘faxim-type’

15 The consonant transcribed h in Ukrainian is a voiced velar fricative, the reflex of PSl. *g.

16 Syncope is attested at all periods of Latin (cf. Leumann 1977: 95 ff.); the precise formulation and chronology of the individual rules is of no concern to us here.

17 This type of contamination, in which the form targeted for analogical renewal is blended with a form that might otherwise have replaced it entirely, is familiar to speakers of English from child language plurals like *feets (=feet x/oots), *geeses (=geese x/gooses), etc.

18 Nor, indeed, is there any reason to rule out the possibility of restorations of the
subjective *aksim, *aksis, *aksit, etc. would presumably have been remade to *agsim, etc. in tandem with the remodelling of *aktos to *agtos. Similarly, the nom. sg. of the word for 'foot', originally *pods(s) (< *pōd-s), was probably remade to *ped-s at this time, with the 'weak' stem-form *ped-.  

Lachmann's Law proper converted the participles *agtos, *regtos, *kad-sos, *tud-sos, etc. to *ákotos, *rēktos, *kātos(s) (> aktus, rēctus, kā(s)sus, tū(s)sus),21 and the non-participles *mag-sosmos, *ag-si, *pteds to *mag-sosmos, *aksi-, *ptēs (> maximus, āxi-, pēs(s)). The rule itself was typologically unremarkable, recalling changes like the lengthening of vowels before devoiced syllable-final obstruents in Polish (cf. Bōg < Bogī 'God', gen. Boga; wōdka < wodika 'vodka' beside woda 'water').22 Pre-Lat. *-i- was not subject to LL lengthening (cf. strictus, fissus), in keeping with the cross-linguistic tendency of high front vowels to remain short (cf. e.g. OIr. dēt [dē:d] 'tooth' < pre-Ir. *dent, but -icc [ig] 'goes' < pre-Ir. *inuic).  

Two forms—uisus with -i- and sessum with -ē—show the 'wrong' Lachmann treatment. uiśus 'seen' is evidently a neologism based on the perfect uidi 'saw'; such a form may have been needed because the inherited participle *jüssus < *wid-to-, like its cognates in Celtic (OIr. *fess) and Germanic (*wissa-), had been specialized in the meaning 'known' in the IE dialect type *missos ⇒ *mis-sos (: mittō) or *jüssos ⇒ *jūd-sos (: iubeō), involving consonants other than etymological voiced stops. But since there would have been reassimilation without lengthening in such cases, there is no obvious way to recover them.

The length of the a- in āxim, -is, etc. is guaranteed by the absence of vowel weakening in Plautine forms of the type 3 pl. adaxint.

The long vowel of the regular nom. sg. pēs is more interesting than may at first appear. Lengthening no longer functions as a synchronic mark of the nom. sg. in Latin; lengthened-grade nominatives normally survive only in cases where they are synchronically perceived as suppletive (e.g. homō, stem homin-'man'; uerēs, stem uerr-'boar'), or where the long vowel has been levelled throughout the paradigm (e.g. uōx, stem uōc-'voice'; lex, stem lég-'law'). This makes it hard to see how the remodelled word for 'foot,' with its conspicuously innovated lack of qualitative ablaut, could have acquired an analogical lengthened-grade nom. sg. *pē(d)s, thereby becoming the only noun in Latin with a nom. sg. in -V-s and an oblique stem in -īf-s. The assumption of a remade nom. sg. *ped-s, with subsequent LL-type lengthening, seems much more efficient.

Here too perhaps belongs conīunx, conīug- 'spouse', if the presence of the nasal in the nom. sg. points to an older, synchronically irregular nom. sg. conīaix < (secondary) *-ug-s. Such 'false' lengthened grades in the nom. sg. would have been natural targets for levelling; this is probably what explains remex (stem rēnīg-) 'oarsman', with *-āx for expected *- āx < *-ag-s).  

The simplification of low-level *-ts- to *-ss-, of course, is independently motivated by assistō < ad-sistō, asserō < ad-serō, and countless other examples.  

Example from Pisani (1981); contrast plot < plota 'wall', gen. plota. Lengthening in Polish does not depend on devoicing, however, since it also operates before sonorants (cf. OPol. dōn < donīt 'house'; Michael Flier (pers. comm.)).
ancestral to Italic. In the case of *sessum, the initial pre-LL remodelling was not to *sedsum, which would have given *se(s)sum, but to *sezdsum, with *sezd- extracted from the perfect sēdī < *sezd- and the present sidō < *sizdō ‘sit down’. A preform of this shape, with loss of the *-d- through normal cluster reduction, would almost certainly have given sēssum.24

We have thus come full circle. During its brief period in the limelight, LL was made into something much more than it was—a metaphor for the claim that abstract phonology was ‘real’, that Neogrammarians and structuralism were different faces of the same bad coin, and that surface-driven analogy was as outdated as the Model T. Today we can take a calmer view of these issues. Both Kiparsky and Kuryłowicz saw LL as a proving ground for extreme positions, the one wishing to attribute almost nothing, and the other almost everything, to analogy. In fact, the truth lies somewhere in between. Sound change and analogy are both primary mechanisms of linguistic change, and the results of their interaction are varied and often surprising. LL, as a sound change that operated mainly on inputs created by analogy, is interesting in its own right. In the last analysis, however, its claim to a place in the history of linguistics stems not from what it is but from what it is not.

REFERENCES

23 Alternatively, of course, one could take the view—much less likely in my opinion—that LL did apply to *-i-, and that phonologically regular *strictus, *fi(s)sus, *sā(s)sus were analogically shortened on the model of pingō: pīctus, fingō: fictus, etc.
24 Cf. n. 13. Phonologically, *sezdsum would have been /sesdsum/, which with deletion of the *-d- would have given /sessum/. To be sure, no exact parallel is quotable apart from the now largely discredited derivation of cēdō ‘yield’: cess: cessus from *ke-zd-ō, *ke-zd-s-, *ke-zd-t- (IEW 887).


Osthoff, H. 1884: Zur Geschichte des Perfects im Indogermanischen (Strasbourg: Trübner).


