

McFetridge, balance of Chapter 8

...continuing with our examination of Latin verbs with the thematic vowel **e**. Consider again the following table:

Root	Root Borrowing	Thematic Stem Borrowing	Past Participial Stem Borrowing
√reg = rule	regular	regent	correct
√leg = read	college	legend	collect
√ag = act, say	agile	agent	act
√frag = break	fragile		fracture
√fig = mold	figure		fiction
√pig = paint	pigment		picture

We want to accommodate two things:

1. the fact that the thematic vowel is missing in the past participle stem borrowings, and
2. the fact that roots ending in “g” surface as “c” in past participle stem borrowings.

With respect to 1, we could either say that we’re dealing with some sort of “special” past participle (an unprincipled assumption) or posit a phonological rule that deletes the thematic “e”.

The rule $[e + t \rightarrow + t]_{\text{Latin}}$ will take of this. (Phonological rules of this sort are considered less costly than other solutions.)

With respect to 2, we need to recognize that “g” is [g], but “c” is actually [k].

So what we’ve got is a voiced velar stop “**devoicing**” to a voiceless velar stop before another voiceless stop. Whew!

This devoicing results from **partial assimilation**. Unlike the situation with “l” and “r” which caused total assimilation of the preceding “n” in the prefix “in”.

It would be a happy day if we could say that this partial assimilation is part of a bigger generalization. We need to find another voiced stop that acts the same way...

Well, [b] is a voiced stop and we have the Latin root “scrib” and, lo!, this gives us “scri**pt**” and “scri**pt**ure”.

So now we have [g + t → k + t] and [b + t → p + t]. Perhaps it's the case that in most cases stops will agree in voicing with a following consonant:

root	gloss	root borrowing	Stem _{PPP} borrowing	√ + ment
√fig	mold	figure	fiction	figment
√sec	cut	secant	insect	segment
√frag	break	fragile	fracture	fragment

So we must still go on. If [g] and [b] assimilate to the voicing of a following C, perhaps, say, [d] can as well.

Root	Root Borrowing	Thematic Stem Borrowing	Stem _{PPP} Borrowing
√vīd = see	invidious	evident	vision
√sed = sit	sediment	sedentary	session
√cād = fall		cadence	occasion
√cīd = cut	suicide		incision
√claud = close	conclude		clause
√suad = sweet	persuade		persuasion
√rōd = gnaw		rodent	erosion
√mit = sent	permit		permission
√pat = suffer		patient	passion
√pot = be able		potent	possible

Now focus on the last column. We know the thematic vowel deletes so that will give rise to a “t + t” sequence either through assimilation or because the root ends in “t” already.

We find that the reflex is actually either “s” or “ss” and that this seems to depend on the length of the root vowel.

The process that gives rise to something becoming “s”-like is called **assibilation**.

If we look at our table a little bit more carefully, we see that it's not only long vowels in the root that generate the single “s”, but rather any two vowels, i.e., a **diphthong**, will do the same thing.

We can represent this with the following rule:

$$\text{VV} + ss \rightarrow \text{VV} + s$$

We need one final rule to make the whole thing work. Consider the word “possible” = pot + e + t + ible. The thematic vowel deletes.

We've already got that rule, so now we've got pot + t + ible. We can get the form we need now with this

$$[t + t \rightarrow ss]_{\text{Latin}}$$

Let's see this all at once in what are called "derivations"...

mit	vīd	
mit + e	vīd + e	$[\text{Stem}_{\text{theme}} \Rightarrow \text{Root} + \text{V}_{\text{theme}}]_{\text{Latin}}$
mit + e + t	vīd + e + t	$[\text{Stem}_{\text{PPP}} \Rightarrow \text{Stem}_{\text{theme}} + t]_{\text{Latin}}$
mit + e + t + ion	vīd + e + t + ion	$[\text{Lex}_N \Rightarrow \text{Stem} + \text{ion}]_{\text{Latin}}$
mit + t + ion	vīd + t + ion	$+ e + t \rightarrow + t$
"	vīt + t + ion	Voicing Assimilation
mission	vīssion	$t + t \rightarrow ss$
"	vīsion	$VV ss \rightarrow VV s$
mission	vision	English Spelling

Note that your text offers no explanation as to why the “ss” in “mission” is pronounced differently than the “s” in “vision. We’ll examine this in lecture.

Let us now consider so-called “consonant cluster roots”.

Root	Root Borrowing	Thematic Stem Borrowing	Stem _{PPP} borrowing
√vert = turn	convert	convertible	version
√scand = climb	descend	scandent	ascension
√tend = stretch	extend	tendency	tension
√spond = promise	correspond	correspondent	sponsor
√pend = hang	pend	dependent	pension

The foregoing shows that the “s” is short after more than one C.

We could write a rule that captures this: $VC + ss \rightarrow VC + s$.

But that seems to miss a generalization. We already have a similar rule: $VV + ss \rightarrow VV + s$. Couldn't we somehow combine the two rules?

Yes, we can! We'll use “X” to stand for any segment and treat ourselves to this: $[VX + ss \rightarrow VX + s]_{\text{Latin}}$

A **final issue** in this section is the orthography v. sound hassle.

Root	Root Borrowing	Stem _{PPP} Borrowing
√nect = tie	connect	annex
√flect = bend	inflect	reflex

What is the expected etymological form of, say, “annex”?

annect + e + t

This should convert to **annecss** and then to **annecs**. But there’s really no problem here: we know from earlier on that “cs” = [ks] and that Latin used “x” to represent those sounds.

More puzzling are the forms “reflection” and “connection”. The suffix “-ion” added to the past participle should yield “reflexion” and “connexion”. We do, in fact, find these forms in British English.

What has happened is that in North American English, the final “t” of the root has been re-analyzed as the past participle marker, i.e., re + flec + t + ion.

Exceptions

There is always a tension between linguists who believe that language is purely rule-governed and those who see all theories as flawed.

This was a big deal in the 19th century. The “Atomists” said there are no regular rules: “Every word has its own history.”

The “New Grammarians” (Junggrammatiker) had the catchy line “No exception without a rule”. This suggested that any apparent exceptions to regular linguistic behaviour simply meant that the rule was wrongly formulated or that there were other rules that affected the original one.

— The New Grammarians looked good when they were able to explain an anomaly in Grimm’s Law:

Latin	English cognate
host	guest
stellar	star
stale	still
statue	stand
stratum	straw

That English [t] should be [θ] according to one of the rules of the Germanic Consonant Shift. But obviously it isn't.

— Reason: the rule fails when the voiceless stop is preceded by [s]. (This statement is **descriptively** accurate but doesn't exactly amaze us with **explanatory** value. So why might [s] block a following [θ]?)

Well, that's **Verner's Law** and there's not much more to say about it.

Consider now something we've been looking at: the short thematic vowel "e" deletes in past past participles, but long thematic vowels are retained. Most of the time.

— But among borrowings into English we find instances of the thematic vowel "ī" deleting, too:

The root √sent meaning "feel" has the thematic stem sent + ī and we have the English borrowing "sentiment".

The past participle stem is sent + ī + t, but the English borrowing is “sense”. This demonstrates that the ī has deleted. Do you see how the word “sense” provides this evidence?

More interesting is the case of words like

cessation
compensation
conversation
dictation
improvisation
sensation

As a first pass we would expect the common suffix “-ion” to add to the past participle “t” to form the noun. Before the “t” we would expect to find the thematic vowel — and there it is: “ā”. So that would yield the following etymological breakdowns.

cessation	cess + ā + t + ion
compensation	con + pens + ā + t + ion
conversation	con + vers + ā + t + ion
dictation	dict + ā + t + ion
improvisation	in + pro + vis + ā + t + ion
sensation	sens + ā + t + ion

But wait! These roots aren't right! The root of "cessation" is $\sqrt{\text{ced}}$, not $^*\sqrt{\text{cess}}$; the root of "dictation" is $\sqrt{\text{dic}}$ not $^*\sqrt{\text{dict}}$; the root of "sensation" is $\sqrt{\text{sent}}$, not $^*\sqrt{\text{sens}}$... What has happened?

reanalysis

Yes, that's right, reanalysis. Look at the following table where the original past participles are enclosed in square brackets.

cessation	[ced + e + t] + ā + t + ion
compensation	con + [pend + e + t] + ā + t + ion
conversation	con + [vert + e + t] + ā + t + ion
dictation	[dic + e + t] + ā + t + ion
improvisation	in + pro + [vid + e + t] + ā + t + ion
sensation	[sent + i + t] + ā + t + ion

Here's what's happened: Phonological rules have obscured the morphology of the past participles, e.g., it's not obvious that the root of "vision" is "vid".

- Reanalysis means that the root of "vision" is now "vis" and unrelated to the original "vid".

- The "new" roots have their own past participles and new lexemes are formed off these with the thematic vowel \bar{a} .

- " \bar{a} " is used to form new words in Latin and other Romance languages, e.g., the suffix "-ate", which is a combination of the thematic vowel, the past participle marker, and the English "e" to guide pronunciation.

- e.g., "cow" from Latin "vacca" → "vaccin**ate**"

Present participles

In CE, these are the “-ing” form of the verb. In Latin, present participles were formed with “nt”:

$$[\text{Lex}_{\text{PP}} \Rightarrow \text{Stem}_{\text{theme}} + \text{nt}]_{\text{Latin}}$$

Root	Root Borrowing	Present Participle Borrowing
√pend = hang	pendulum	dependent
√vid = see	provide	evident
√sed = sit	sediment	sedentary
√ag = drive, do	agile	agent
√err = wander	error	errant
√merc = trade	commerce	mercantile
√sta = stand		instant

There are oddball exceptions (see Table VIII.22 on p. 173) where “ i ” and “ e ” appear in a borrowing and it’s not clear which is the thematic vowel, which is part of the root, or which is the thematic vowel plus an **augment**.

Sound change and present participles

Latin could create nouns by adding “ia” to the present participle. Not common in CE, e.g., “dementia”, “in absentia”.

But “ia” forms were often borrowed into French where they underwent further development and were subsequently borrowed into English. The key rule is one of **assibilation** or the creation of a “sibilant” sound (a noisy, “hissy” sound) as we saw on slide 5.

In French, [t] would assibilate when followed by [i] and any vowel:

$$[t + iV \rightarrow s + iV]_{\text{French}}$$

So “absentia” would become in English “absence”.

English has present participle borrowings that have undergone assibilation and counterparts that have not:

Root	Unassibilated	Assibilated
√aud = hear		audience
√fid = trust	confident	confidence
√pat = feel	patient	patience
√curr = run	current	currency
√sci = know	scientist	science
√i = go	ambient	ambience
√pot = be able	potent	potency

Another kind of assibilation rule worked on past participles when the nominalizing suffix “-ion” was added, e.g., “nation” and “creation”. In these words the [t] does not surface as [s], but rather as [ʃ].

Bottom line

By knowing Latin roots and stems it's possible to recognize (and indeed create) an enormous number of lexemes through the application of a small number of morphological and phonological rules. The root $\sqrt{\text{scrib}}$, for example, as illustrated on p. 176 of your text, is at the bottom of 36 discrete words — and there are more that could be added to the list.

This chapter has highlighted our three recurring themes of **structure**, **change**, and **representation**.

Not everything from Latin is productive in CE. We can test for productivity by examining hybrid words. Thus, the English prefix “un” sits comfortably with the Latin stem “script”, i.e., “unscripted”.