



Title	The accentuation of -al adjectives in English : Exceptions to the Latin Stress Rule
Author(s)	Yamamoto, Takeshi
Citation	言語文化共同研究プロジェクト. 2020, 2019, p. 70-83
Version Type	VoR
URL	<a href="https://doi.org/10.18910/77066">https://doi.org/10.18910/77066</a>
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# The accentuation of *-al* adjectives in English: Exceptions to the Latin Stress Rule<sup>1</sup>

Takeshi YAMAMOTO

**Summary.** It is widely accepted that English adjectives ending with the suffix *-al* follow the Latin Stress Rule, by which primary stress is placed on the penult when it is heavy and on the antepenult otherwise. However, the rule allows exceptions such as *artisanal*, where primary stress can be placed on the light penult or on the pre-antepenult. Furthermore, another kind of anomaly is found in words such as *adjectival*, which follow the Latin Stress Rule, but which have undergone a vowel change. We will argue that these exceptional cases can be handled if we assume that the suffix can inhibit resyllabification and that reduction takes place on relevant syllables.

## 1 Introduction

It is well known that suffixed adjectives in English are stressed in a similar way as nouns.

(1) Primary stress in nouns (Chomsky and Halle 1968: 71)

I	II	III
América	aróma	veránda
cíne <sup>m</sup> a	balaláika	agénda
aspáragus	hiátus	consénsus
metrópolis	horízon	synópsis
jávelin	thrombósis	amálgam
vénison	coróna	uténsil
ásterisk	aréna	asbéstos
ársenal	Minnesóta	phlogíston
lábyrinth	angína	appéndix
análisis	factótum	placénta

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1) This work was supported by JSPS KAKENHI Grant Number JP25370567.

(2) Primary stress in suffixed adjectives (Chomsky and Halle 1968: 81)

I	II	III
péersonal	anecdótal	dialéctal
máximal	adjectíval	incidental
medícinal	sacerdótal	fraternal
municipal	polyhédral	univérsal
ephéméral	mediéval	abýsmal
magnánimous	desírous	moméntous
polýgamous	polyhédrous	amórphous
rígorous		polyándrous
precípitous	sonórous	treméndous
calámitous	decórous	stupéndous
vígilant	compláisant	repúgnant
méndicant	defiant	relúctant
signíficant	clairvóyant	obsérvant
árrogant	obéisant	indígnant
díssonant	adjácent	redúndant
ínnocent	complácent	depéndent
díffident	antecédent	contíngent
benévolent	inhérent	recúmbent

Reference to syllable weight allows us to say that heavy, or bimoraic, penults attract primary stress and that light, or monomoraic, penults yield it to the antepenult. This generalization is known as the Latin Stress Rule, and when the rule is applied to English, it appears to be implied that unstressed penults reduce, as *America* and *personal* indicate among the words below.<sup>2</sup>

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2) Three degrees of stress, primary, secondary, and no stress, are distinguished and indicated here and hereafter. The distinction between syllables with secondary stress and those with no stress is attributed to the syllable nucleus: the former contain a full, or strong, vowel, and the latter, a reduced, or weak, vowel.

(3) Latin Stress Rule

I	II	III	
A'me.ri.ca	a'ro.ma	ve'ran.da	Noun
'per.s <u>o</u> .nal	,a.nec'd <u>o</u> .tal	,di.a'lec.tal	Suffixed adjective
<hr/>			
V	VV	VC	Penultimate rhyme
Light	Heavy	Heavy	
Monomoraic	Bimoraic	Bimoraic	

The penult of a suffixed adjective corresponds to the ultima of its morphological base except that the final consonant is resyllabified into the following syllable according to the onset maximality principle. Therefore, if the ultima of the base contains a bimoraic vowel or ends with more than one consonant, the penult of the adjective becomes heavy and stressed; otherwise, the adjective has a light penult and is antepenultimately stressed.

In this paper, we are going to discuss adjectives ending in the suffix *-al*, including its allomorph *-ar*. In section 2, we will deal with those in (4a) which have variants that do not conform to the Latin Stress Rule. In section 3, we will treat the words in (4b): they have a form, as the only pronunciation or as a variant, which follows the rule, but of which the penultimate vowel is not the same as the corresponding vowel of its nominal equivalent. In section 4, we will discuss stress neutrality found in the adjectives treated in the preceding sections, with those in (4c) added to the discussion.

(4) *-al* adjectives that show irregularities

- a. azimuthal; artisanal; archival, epochal
- b. adjectival, infinitival, monarchal; palatal, disciplinal;<sup>3</sup> doctrinal, urinal, vaccinal
- c. alveolar, spiritual

## 2 Exceptions to the Latin Stress Rule

### 2.1 Stressed light penults and pre-antepenultimate stress

*Azimuthal* and *artisanal* have a variant of which the light penult is stressed in addition to a regular form that complies with the Latin Stress Rule. Besides, *artisanal* can be stressed pre-antepenultimately. The variants recorded in the references consulted are shown in (5), arranged according to the position of primary stress.<sup>4</sup> The form of each adjective that is predicted

3) *Disciplinary* also has a variant that is classified into (4a) as discussed in the text.

4) The following references are consulted: Clive & Kretzschmar (2017), Jones (2011), Merriam-Webster (2009), and Wells (2008). Transcriptions are standardized including the following: a secondary stress mark is put before

by the Latin Stress Rule is boxed here and hereafter, when relevant; variants specific to a certain dialect is so labeled.

(5) *Azimuthal* and *artisanal*

	Penultimate	Antepenultimate	Pre-antepenultimate
a. azimuthal	[a.zi'm[ju:].thal]		
	,a.zi'm[ʌ].thal		
b. artisanal	,ar.ti's[æ].nal	[ar'ti.s[ə].nal] <sub>(Br.)</sub>	'ar.ti.s[ə].nal <sub>(Am.)</sub>

It is plausible that the irregular pronunciations have been influenced by the pronunciations of their morphological bases, which are given in (6).

(6) *Azimuth* and *artisan*

	Ultimate	Penultimate	Antepenultimate
a. azimuth			'a.zi.m[ə]th
b. artisan	,ar.ti's[æ]n <sub>(Br.)</sub>		'ar.ti.s[æ]n 'ar.ti.s[ə]n <sub>(Am.)</sub>

### 2.1.1 *Azimuthal*

*Azimuthal* has two variants, which have penultimate stress in common but have different penultimate vowels.

(7) *Azimuthal*

- a. [a.zi'm[ju:].thal]
- b. ,a.zi'm[ʌ].thal

(7a) follows the Latin Stress Rule, in which stress goes to the heavy penult, whereas the stressed penult is light in (7b).

The underlying vowel of the ultima of the base *azimuth* is considered to be /ʌ/, which is reduced to [ə] because the following consonant is not a “nondental obstruent” (Ross 1972: 250); /ju:/ would not reduce in the ultima of a dactyl as in '*mole, cule*' or '*ridi, cule*'.

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every unreduced syllable unless a primary stress mark is given, and short o and long o are transcribed as [ɒ] and [oʊ], respectively, regardless of the dialect.

(8) *Azimuth* and *molecule*

- a. 'a.zi.muth /ʌ/ → [ə]
- b. 'mo.le.cule /ju:/ → [ju:]

It seems that /ʌ/ in the ultima closed by one consonant normally changes into /ju:/ when a vowel-initial suffix is added as the following example shows.<sup>5</sup> It is probably because the relevant syllable has been rendered open.

(9) *Consul* and *consular*<sup>6</sup>

- a. 'con.sul /ə/ → [ə] / unstressed Cf. 'a.zi.muth
- b. 'con.su.lar (Br.) /ju:/ → [ju] / unstressed Cf. a.zi'mu.thal

The above observation induces us to assume that, when stress is assigned to (7b), the morpheme boundary inhibits resyllabification<sup>7</sup> and creates a heavy penult, /mʌθ/. Therefore, although (7b) is exceptional because of the anomalous behavior of the boundary, it does follow the Latin Stress Rule. We will hereafter employ a “+” instead of a regular syllable break sign to specify a morpheme boundary with this effect.

(10) *Azimuthal*

- a. a.zi'm[ju:].thal
- b. ,a.zi'm[ʌ]th+al

### 2.1.2 *Artisanal*

*Artisanal*, which is tetrasyllabic as *azimuthal*, shows a somewhat different pattern.

(11) *Artisanal*

- a. ,ar.ti's[æ].nal
- b. ar'ti.s[ə].nal (Br.)
- c. 'ar.ti.s[ə].nal (Am.)

(11b) follows the Latin Stress Rule, while (11a, c) do not. (11a) has a light penult stressed as ,a.zi'm[ʌ]th+al, and (11c) has exceptional pre-antepenultimate stress.

5) Pairs such as *angle/angular* and *circle/circular* could also be added.

6) In American pronunciation, Yod Dropping in *consular* blurs the distinction of the two vowels.

7) Wells (1990: 81–2) discusses the effect of morpheme boundaries on syllabification, but the syllabification he discusses is phonetic, which is to account for allophony.

Fudge (1984) classifies derivational suffixes according to accentual effects as in the following five groups.

(12) Derivational suffixes (Fudge 1984: 40–6)

- a. Stress-neutral
- b. Autostressed
- c. Pre-stressed 1
- d. Pre-stressed 2
- e. Pre-stressed 1/2

The adjективizing suffix *-al* is classified as pre-stressed 1/2, which means that the suffix places stress one or two syllables leftward from itself depending on the weight of the penult, i.e., that it assigns stress complying with the Latin Stress Rule. Therefore, (11b) is the predicted form.

The noun *artisan* has the following three variants recorded.

(13) *Artisan*

- a. ,ar.ti's[æ]n (*Br.*)
- b. 'ar.ti,s[æ]n
- c. 'ar.ti.s[ə]n (*Am.*)

Comparison of (11) with (13) leads us to think that (11c) inherits the stress of (13c). It seems that derivatives have a tendency to preserve the stress of their morphological bases. One way to handle this is to assume that adjективizing *-al* behaves as a stress-neutral suffix in this case. We will employ a “#” to specify a word boundary with this effect as illustrated in (14). Note that a “+” boundary would produce penultimate stress as in (14a). Note also that (11a) can be regarded either as containing a “+” boundary as in (14a) or as inheriting the stress of (13a) as in (14a').

(14) *Artisanal*

- a. ,ar.ti's[æ]n+al      *Cf.* ,a.zi'm[ʌ]th+al
- a'. ,ar.ti's[æ]n#al
- b. [ar'ti.s[ə].nal] (*Br.*)
- c. 'ar.ti.s[ə]n#al (*Am.*)

## 2.2 Unreduced penults

### 2.2.1 *Archival* and *epochal*

Trisyllabic adjectives can be treated in the same manner as tetrasyllables, though, of course, exceptional pre-antepenultimate stress for stress preservation cannot arise. Regular antepenultimate stress suffices for the primary stress of a trochaic noun to be preserved in its adjectival counterpart, provided that the noun does not end with a consonant cluster.

#### (15) *Archival* and *epochal*

	Penultimate	Antepenultimate
a. archival	[ar'ch[ai].val]	'ar, ch[ai].val (Br.)
b. epochal	,e'p[v].chal (Br.)	'e,p[v].chal (Br.)

[e.p[ə].chal]

#### (16) *Archive* and *epoch*

	Ultimate	Penultimate
a. archive		'ar, ch[ai]ve
b. epoch	,e'p[v]ch (Am.)	'e,p[v]ch (Br.)

'e.p[ə]ch

In (15), we find a new type of anomalous accentuation: both adjectives have antepenultimately-stressed variants whose penult is irregularly unreduced. This accentuation preserves the primary stress of their morphological bases, just as pre-antepenultimate stress in tetrasyllables, and can be attributed to the effect of a “#” boundary. However, *,e'p[v].chal* should not be derived from *,e'p[v]ch*, because the former is recorded as a British pronunciation while the latter, an American one; this form is considered to contain a “+” boundary. To summarize, the variants of the two adjectives are given in (17) and (18) with relevant boundaries specified.

#### (17) *Archival*

- a. [ar'ch[ai].val]
- b. 'ar, ch[ai]v#al (Br.)

#### (18) *Epochal*

- a. ,e'p[v]ch+al (Br.) *Cf. ,ar.ti's[æ]n+al, ,a.zi'm[ʌ]th+al*
- b. 'e,p[v]ch#al (Br.)
- c. [e.p[ə].chal]

### 3 Vowel alternation

#### 3.1 *Adjectival, infinitival, and monarchal*

We found in the previous section that some *-al* adjectives do not follow the Latin Stress Rule. In this section, we will discuss some adjectives, conforming to the Latin Stress Rule, which have undergone vowel alternation.

Wells (2014: 3) states that “There are one or two exceptions in which the penultimate vowel lengthens on adding *-al*, as *adjectival* - ‘**taɪvəl**.’ The penultimate vowel of this word is bimoraic [aɪ], which means that it follows the Latin Stress Rule; but the corresponding vowel of its base, the ultimate vowel of *adjective*, is monomoraic [ɪ], which would predict antepenultimate stress in its adjectival counterpart. This is illustrated in (19), with another example added; an asterisk indicates, here and hereafter, that the form is not recorded in the references consulted.

#### (19) *Adjectival and infinitival*

Noun	Adjective	
	Penultimate	Antepenultimate
a.    'ad.jec.t[ɪ]ve	,ad.jec't[ <u>aɪ</u> ].val	* <u>ad'jec.t[ɪ].val</u>
b.    in.'fi.ni.t[ɪ]ve	in.fi.ni't[ <u>aɪ</u> ].val	* <u>in.fi'ni.t[ɪ].val</u>

To understand what occurs in the examples above, it is worthwhile to point out that the vowel in question alternates between a reduced one and an unreduced one, but not between a short one and a long one. If we assume that the unstressed *-ive* is underlyingly /aɪv/ in the calculation of stress position, the adjective forms can be accounted for straightforwardly, and the vowel [ɪ] in the nouns can be regarded as resulting from destressing of the ultima, just as that of *azimuth* is reduced as shown in (8a).

#### (20) *Adjective and adjectival*

- a.    'ad.jec.t*ɪ*ve            /aɪ/ → [ɪ]    / unstressed
- b.    ,ad.jec'*tɪ*.val        /aɪ/ → [aɪ]   / stressed

The assumption that the *-ive* in *adjective* is underlyingly /aɪv/ will also be supported by the accentuation of this antepenultimately-stressed noun, in which the heavy penult does not attract stress. This accentuation is typically found among those trisyllables which have a penult closed by a sonorant, but it occasionally occurs even if the coda of the penult contains an obstruent. Hayes gives the nouns in (21a, b) as examples of Sonorant Destressing (Hayes 1982: 253), but admits that the rule does not account for the accentuation of the words in (21c), of which the penult is

closed by an obstruent. However, the words in (21) have in common secondary stress in their ultima, so it is plausible that the ultima with secondary stress causes the exceptional stress pattern. We assume that *adjective* is accented in the same way as those in (21c), but that its ultima reduces after stress has been assigned. The reason it reduces in spite of the fact that it ends with [v], a “nondental obstruent” mentioned in §2.1.1, is probably that *-ive* is originally an adjectivizing suffix.

(21) Unstressed heavy penults (Hayes 1982: 254, 256)

- a. Hóttentòt, bálderdàsh, Háckensàck, Álgernòn, Jáckendòff, ámpersànd, Árkansàs, máckintòsh
- b. dávenpòrt, cávalcàde, mérchandìse, Áberdèen, Áppelbàum, pálindròme, mísanthròpe, níghtingàle
- c. pálimpsèst, Árbuthnòt, ánecdòte

It can be confirmed by the word pair in (22) that the vowel alternation in question is that between an unreduced and a reduced vowel, in which [a:] alternates with [ə].<sup>8</sup> The reduction of the ultima of the noun is considered to result from what is called the Arab Rule, which applies to trochaic feet with a light initial syllable;<sup>9</sup> dactylic '*matri,arch*', '*oli,garch*', and '*patri,arch*' have no reduction. Note that the ultima of the base *monarch* can remain unreduced unlike that of *adjective*.

(22) *Monarch* and *monarchal*

- a. 'mo, narch /a:/ → [a:] / stressed
- a'. 'mo. narch /a:/ → [ə] / unstressed
- b. mo' nar.chal /a:/ → [a:] / stressed

### 3.2 *Palatal and disciplinal*

*Palate* and *palatal* can be treated in a similar way, except that the adjective, but not the noun, shows variation.<sup>10</sup> We can attribute the reduction of the penult of the adjective to a “#” boundary; we would not need to assume that the penult contains monomoraic /æ/.

8) Fudge (1984: 58) states that *-arch* is a compound-forming element but suffix-like in being destressed.

9) See Chomsky & Halle (1968: 146, fn. 100).

10) Wells (2008; 2014: 48) mentions an accentual difference of *palatal* in phonetics and anatomy.

(23) *Palate* and *palatal*

- a. 'pa.late /eɪ/ → [ə] / unstressed
- b. pa.'la.tal (Br.) /eɪ/ → [eɪ] / stressed
- b'. 'pa.lat#al /eɪ/ → [ə] / unstressed

The assumption that (23b') contains a “#” boundary can also be evidenced by the words in (24) below, in which the tetrasyllabic adjective exhibits pre-antepenultimate stress as in '*ar.ti.san#al* in (14c). We are going to discuss stress neutrality further in §4.

(24) *Discipline* and *disciplinal*

- a. 'dis.ci.pline /aɪ/ → [ɪ] / unstressed
- b. dis.ci'pli.nal (Br.) /aɪ/ → [aɪ] / stressed
- b'. 'dis.ci.plin#al /aɪ/ → [ɪ] / unstressed

**3.3 *Doctrinal*, *urinal*, and *vaccinal***

*Doctrinal*, *urinal*, and *vaccinal* are all trisyllabic adjectives that have two variants, but their morphological bases display different patterns. The ultima of *doctrine* is always reduced, but those of *urine* and *vaccine* allow variation: the former can remain unreduced in British English, and the latter can be reduced in the same dialect.

(25) *Doctrinal* and *urinal*

	Penultimate	Antepenultimate
a. doctrinal	,doc'tr[aɪ].nal (Br.)	'doc.tr[ɪ].nal
b. urinal	u'r[aɪ].nal (Br.)	'u.r[ɪ].nal
c. vaccinal	,vac'c[i:].nal (Am.)	'vac.c[ɪ].nal

(26) *Doctrine* and *urine*

	Unreduced ultima	Reduced ultima
a. doctrine		'doc.tr[ɪ]ne
b. urine	'u,r[aɪ]ne (Br.)	'u.r[ɪ]ne
c. vaccine	,vac'c[i:]ne (Am.)	'vac.c[ɪ]n (Br.)

'vac,c[i:]ne

For those speakers who pronounce *,doc'tr[aɪ].nal*, the underlying vowel of the penult of *doctrine* should be /aɪ/, which reduces to [ɪ] as in *adjective* (27a); however, even for those who

pronounce '*doc.trɪne*', we would not necessarily have to postulate /ɪ/ for the vowel in question but could posit /aɪ/ and assume that it reduces to [ɪ] as in its nominal counterpart (27b).

(27) *Doctrine* and *doctrinal*

a.	'doc. <u>trɪne</u>	/aɪ/ → [ɪ] / unstressed
	,doc' <u>trɪ.nal</u>	/aɪ/ → [aɪ] / stressed
b.	'doc. <u>trɪne</u>	/aɪ/ → [ɪ] / unstressed
	'doc. <u>trɪ.nal</u>	/aɪ/ → [ɪ] / unstressed

#### 4 Stress neutrality

We saw in §2.1 that *artisanal* and *disciplinal* can exhibit exceptional pre-antepenultimate stress; we also saw in §2.2 that *archival* and *epochal* can have an exceptional unreduced penult. We ascribed those phenomena to *-al* functioning as a stress-neutral suffix, but we did not discuss in what conditions the suffix behaves in that manner.

When we review the adjectives discussed so far, we find that not all tetrasyllables have a variant with pre-antepenultimate stress, and that not all dactyls allow their penult to remain unreduced.

(28) Adjectives containing stress-neutral *-al*

	Foot reversal	←	→	Penultimate reduction
	,(σ.σ)'(σ.σ)		'(σ.σ),(σ.σ)	'(σ.σ).σ.σ
a.	,ar.ti's[æn]+al		*ar.ti.s[æn]#al	'ar.ti.s[ən]#al (Am.)
b.	,dis.ci'pl[ain]+al (Br.)		*dis.ci.pl[ain]#al	'dis.ci.pl[m]#al
c.	,a.zi'm[ʌθ]+al		*'a.zi,m[ʌθ]#al <sup>11</sup>	*'a.zi.m[əθ]#al
d.	,ad.jec't[aɪv]+al		*'ad.jec.t[aɪv]#al	*'ad.jec.t[ɪv]#al
	,(σ)'(σ.σ)		'(σ),(σ.σ)	'(σ.σ).σ
e.	,ar'ch[aɪv]+al		'ar, ch[aɪv]#al (Br.)	*'ar, ch[ɪv]#al
f.	,e'p[ɒk]+al (Br.)		'e, p[ɒk]#al (Br.)	'e.p[ək]#al
g.	u'r[ain]+al (Br.) <sup>12</sup>		*'u,r[ain]#al	'u.r[m]#al
h.	,vac'c[i:n]+al (Am.)		*'vac,c[i:n]#al	'vac.c[ɪn]#al

11) *Oxford English Dictionary* (1989) gives "⟨æzɪ, mju:θəl⟩" as the only pronunciation of the word, but it is uncertain how common it is at present.

12) The initial foot has been destressed.

The forms in the second column are generally not preferred in terms of prosody: it is likely that the feet will be reversed to create penultimate stress as in the first column,<sup>13</sup> or that the penult will reduce to result in pre-antepenultimate stress as in the third column.

Although foot reversal is found in every case, penultimate reduction is not in all. What we notice in the above arrangement is that it takes place provided that the base ends in [n], with '*e.p[ək]#al*' being an exception, in which the reduction can be regarded as caused by the Arab Rule or as inherited from one of its base forms '*e.p[ək]*', already reduced. The asymmetry between [n] and obstruents is also seen in '*ar, ch[əiv]#al*' and '*e, p[ək]#al*' in British English; '\*'*u, r[əɪn]#al* and '\*'*vac, c[i:n]#al* are not attested.

We may wonder if we can generalize the behavior of [n] to sonorants in general. *Alveolar* and *spiritual* are promising candidates for the litmus test, but they might be arguable regarding what their bases are.

(29) *Alveolar* and *spiritual*<sup>14</sup>

	Penultimate	Antepenultimate	Pre-antepenultimate
a. alveolar	,al.ve'[ou].lar	,al've.[ə].lar	'al.ve.[ə].lar (Br.)
b. spiritual			'spi.ri.t[ju].al

As for *alveolar*, it is not clear whether the base is the bound root *alveol-*, from which the noun *alveolus* is created, or the word '*al.ve.ole*'. If the latter is the case, the pre-antepenultimately-stressed variant is considered to derive from unattested '\*'*al.ve.[əʊl]#ar*, resulting in the reduction of the penult closed by [l].

*Spiritual* has pre-antepenultimate stress, and the penultimate rhyme is [ju]. Although *spirit* lacks the vowel, it is regarded as a thematic vowel, thus part of the base, and not as epenthetic.<sup>15</sup> Note that thematic vowels can be stressed as in *an'nuity* and *anx'iety*.

(30) *Alveolar* and *spiritual*

	Foot reversal	←	→	Penultimate reduction
	,(σ.σ)'(σ.σ)		'(σ.σ),(σ.σ)	'(σ.σ).σ.σ
a.	,al.ve'[ou.l]ar		*'al.ve,[ou]#ar	'al.ve.[ə.l]ar (Br.)
b.	*'spi.ri.t[ju:].al		*'spi.ri.t[ju:]#al	'spi.ri.t[ju].al

13) *Ar.ti's[æn]+al* and *vac'c[i:n]+al* coincide with their equivalents with a “#” boundary derived from *ar.ti's[æn]* and *vac'c[i:n]*, respectively.

14) For *spiritual*, forms without Yod Coalescence are given.

15) Likewise, [t] in *horizontal* can be regarded as belonging to the base.

The above cases, together with those in (28), indicate that heavy syllables, unless closed by an obstruent, occasionally count as light and reduce, which leads to exceptional pre-antepenultimate stress so that the primary stress of their bases is preserved. This reduction is comparable with Sonorant Destressing in nouns illustrated in (21a, b). The assumption that syllable reduction causes pre-antepenultimate stress may also imply that we do not need to distinguish the “#” boundary from the “+” boundary, and that the apparent effect of the former can be regarded as that of the latter combined with syllable reduction.

It is worth pointing out that the condition that the syllable not be closed by an obstruent is a necessary, but not a sufficient, condition for this kind of reduction, because \*'me.di.c[m]+al, \*o.ri.g[m]+al, and \*'mo.le.c[jʊl]+ar, for example, are unattested. It would be possible to postulate a monomoraic vowel for the ultima of *medicine* and *origin* but a bimoraic vowel for the nouns that exhibit vowel alternation when suffixed, but this hypothesis is untenable for *molecule*. Even though we admit that it is a necessary condition, it is likely that consonant weight will affect stress neutrality found in suffixation.

## 5 Conclusion

We discussed the accentuation of *-al* adjectives that do not appear to obey the Latin Stress Rule and compared it with that of their morphological bases. We concluded that the exceptionality is attributed to the suffix inhibiting resyllabification and to subsequent syllable reduction.

We did not deal with adjectives such as *skeletal*, of which the base is not a word but a bound root, *skelet-*. Among them, however, interesting cases are found such as *coronal* and *lacunar*, which have a variant with antepenultimate stress in addition to one with penultimate stress, which preserves the penultimate stress of *co'rona* and *la'cuna*. This means that penultimate reduction caused by a sonorant coda, [n], results in shifting the stress of the nouns, and that we will have to reconsider *vaccine* and *vaccinal* in §3.3, because those speakers who say *vac'cine* but *'vaccinal* display the same pattern. Further research will be needed.

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