Márton Jánosy *Stress patterns before the* -able *suffix**

0. Introduction

Lindsey (2019) reports that a number of English words originally ending in three (or more) successive unstressed syllables in RP are now taking on a different stress pattern more in line with the alternating stress tendency of the language (cf. Chomsky & Halle 1968:77–79). Most of the affected lexical items share a similar morphological structure; namely, they contain a final Latinate suffix. These include:

(1) *applicable, communal, comparable, controversy, demonstrable, exquisite, formidable, hospitable, lamentable, subsidence, transferable*

(Lindsey, 2019:73)

Notably, many of the cited examples end in–*able*. In this paper, I examine the factors that motivate or influence stress-placement before this suffix. I argue that the treatment of *-able* either as a categorically stress-neutral suffix or as a categorically stress-placing suffix is untenable. In Section 1, I outline some obvious problems that arise from a traditional view of English morphophonology, demonstrating that the behaviour of the majority of Latinate suffixes in English is variable with respect to stress-placement, and is influenced by the complex interaction of several factors. Section 2 addresses the behaviour of stems ending in a tertiary-stressed syllable when followed by *-able*. In Sections 3–4, I demonstrate how free stems and bound stems pattern differently before this suffix. Section 5 addresses further processes that may influence or contribute to variable stress-placement. Section 6 concludes.

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1. Suffixation and stress-placement

1.1. Earlier accounts

English suffixes have been traditionally categorized according to their ability to determine the place of the stress within the word (Aronoff, 1976, Burzio, 1994, Burzio, 1995, Fudge, 1984, Strauss, 1982). These accounts suggest that (i) stress placement is a binary parameter of affixes, and (ii) the specific stress pattern that a given affix imposes on the word is invariable. However, the rigid dichotomy between stress-placing and stress-neutral affixes is contradicted by the behaviour of many Latinate suffixes, including *-able*.

The treatment of this suffix in the literature is controversial; some authors (e.g. Burzio, 1995) categorize it as a Class II stress-neutral affix, while others (e.g. Aronoff, 1976) argue for two distinct *–able* suffixes belonging to Class I and Class II, respectively. Strauss (1982) points out that that while *–able* may or may not determine the placement of stress, its combinations with other suffixes rule out the possibility of there being a Class II *–able*. Crucially, even if it does not cause stress shift (as in *góvernable*), other Class I prefixes may follow: e.g. *governability*. This fact suggests that *governable* also ends in a Class I suffix, since suffixes of these two strata can only combine in a fixed order (Class I before Class II, but not vice versa). Apparent contradictions like these led phonologists to seriously criticize this view of level-ordering (e.g. Fabb, 1988).

1.2. Stress placement as a probabilistic feature of suffixes

Level-ordering More recent views of English morphophonology (e.g. Hay, 2004, Hay, Jennifer & Bayeen, R. Harald, 2005) assume that the characteristics associated with suffixes traditionally categorized as belonging to either of the two classes are a function of parsability, a gradient property of morphemes, which is determined by phonotactics and the relative frequency of the derivative compared to the base. Affixes which are easily parsed out display Class II characteristics, while affixes with low parsability are associated with Class I characteristics. Under this view, affix ordering is also determined by the relative parsability of the concatenated morphemes. In Hay's words, "an affix which can be easily parsed out should not occur inside an affix which can not" (2004:14). Therefore, complexity-

based ordering is essentially a function that translates a gradient property (i.e. parsability) into a binary choice (i.e. whether the affix can appear in a certain position with respect to another affix). If parsability accounts for characteristic properties traditionally associated with Class I or Class II suffixes, it is logical to assume that stress-placement (the binary choice determining whether stress can fall on a syllable in a given position) is also an output of a similar function based on non-categorical properties. This means that suffixes can assign stress to a certain syllable, but only with a certain probability. In other words, there are suffixes that place stress in a fixed place with a probability of 0 (never stress-placing, e.g. *-ed, -ing, -ish_{adj}, -less, -ness*) and others with a probability of 1 (always stress-placing, e.g. *-ity, -ify, -esque*), but the vast majority of Latinate suffixes fall between the two ends of the continuum as exemplified by data in (2) and (3).[1]

(2) *pólitic, héretic, lúnatic* vs. *prolífic, genétic, neurótic*
    remédiable, compárable, applícable[2] vs.
    góvernable, knówledgeable, méasureable
    áccuracy, ádvocacy, délicacy vs. *diplómacy, aristócracy, suprémacy*

Furthermore, variation can apply not only across words ending in the same suffix, but also within a given lexical item:

(3) *láboratory~labóratory, compénsatory~compensátory,*
    innóvative~ínnovative, cóntroversy~contróversy,
    tránsferable~transférable

Steriade (1999) attributes the variation in the behaviour of these suffixes to paradigm effects, arguing that the availability of a derivative with a similarly stressed root can enable stress shift if the resulting pattern is metrically more optimal. For instance, the stress-shifted form *remédiable*, is arguably due to the availability (listedness) of the related form *remédial*, even though the morphological base is *rémedy*. The resulting stress pattern escapes the sequence of four successive unstressed syllables, which would occur in

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[1]Data based on Wells (2008).

[2]Note that stress-placement here means that the stress falls in a predictable place with respect to the suffix. This may or may not coincide with the original place of the stress in the base. Therefore, it can cause stress shift in some cases (e.g. *remédiable*), but not in others (*compárable, applícable*).

	Freq. base	Freq. deriv.	$f_{derivative}/f_{base}$	Ratio of $\acute{\sigma}able$
programmable	18060	78	0.004	0.15
identifiable	4923	549	0.273	0.45
recognizable	2048	263	0.128	0.25
justifiable	2007	307	0.152	0.25
verifiable	247	81	0.327	0.1
quantifiable	243	97	0.399	0.31

Table 1: Tertiary stress promotion before *-able*

*rémediable, the form that is faithful to the stressing of its morphological base. In stress-shifted *remédiable*, the violation of the *Lapse constraint[3], which disprefers a longer string of stressless syllables, is thereby avoided.

2.   Tertiary stress promotion

One of the generalizations that can be made about variable stress before *-able* concerns forms where a stem (or a preceding suffix) ends in a syllable containing a full (3ry stressed) vowel. Data in Wells (2008) and recordings obtained from Youglish[4] suggest that in these cases stress-shift is always available (although it does not take place deterministically). This means that words like *expeditable, extraditable, justifiable, realizable, recognizable, reconcileable, programmable, substitutable, executable, un-put-downable* can be realized with 1ry stress on the syllable before *-able*. Data in Table 1 shows that in such words it is the absolute frequency of the derivative, rather than the relative frequency that corresponds to higher ratios of stress shift. Frequency data in Table 1 (and in tables hereafter) are based on the British National Corpus[5], and stress shift data was collected from Youglish.[6]

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[3]*Lapse encodes the Alternating Stress Tendency in constraint-based grammars by assigning violations to sequences of two or more unstressed syllables.

[4]Retrieved January, 2020, from https://youglish.com/.

[5]Retrieved January, 2020, from https://www.english-corpora.org/bnc/.

[6]Set to UK English, based on ear-testing 20 unambiguous tokens/word.

Note also that forms like *arguable* or *valuable* can never undergo stress shift: *ɑːɡjúwəbəl, *valjúwəbəl, which provides evidence that the last vowel of the stem in these words is reduced.[7]

3. Free stems

When -*able* can attach to a free stem, the derived form can always copy the stress pattern of its base: *compáre – compárable*, *transfér – transférable*, *lamént – laméntable*. Again, this does not happen deterministically, but the faithful form is always available. Remarkably, this applies even to highly frequent and highly invariable[8] derivatives like *prefér – preférable*, or *repúte – repútable* (stress-shifted forms listed in Wells (2008)). In line with Hay (2004), Table 2 reveals that low parsability (high relative frequency) may result in a stress pattern that is unfaithful to the stem (e.g. *repúte – réputable, lamént – lámentable*), whereas high parsability (*transferable, comparable*) triggers faithful stress placement. Note that the effect of frequency can override the effect of the *Lᴀᴘꜱᴇ constraint and the effect of other listed allomporphs, i.e. if other things were not at play, *reputable* or *lamentable* should always appear as *repútable* and *laméntable*, as these forms do not violate *Lᴀᴘꜱᴇ, and allomorphs with such stress patterns are present in the paradigm (*repúte, lamént)*, yet the fact that the derived forms are more frequent than the stems (which means that their relative frequency is higher than 1.0), the forms *réputable* and *lámentable* are preferred over the more faithful and less marked candidates (*repútable* and *laméntable)*.

Since paradigm uniformity constraints apparently rank higher than *Lᴀᴘꜱᴇ, stress shift is always blocked if a) the candidate is not faithful to the stress pattern of the stem, and b) there is no listed allomorph with an identical (stress-shifted) pattern: e.g. *fáshionable* ⟶ *fashiónable* (no allomorph with *fashión-)*[9] See 5 for further dimensions of variation in this group.

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[7]This is supported by the fact that an independent phonological process, yod-dropping fails to apply before these vowels.

[8]Note that in my data, *preferable* has a variability of 0, yet Wells (2008) suggests, that it *is* potentially variable, therefore, I refer to it as a highly invariable item.

[9]Note that the same condition does not apply for the derivatives listed in 2, where tertiary stress promotion is possible even if the (free) stem does not have a listed allomorph with a stress-shifted pattern: *jùstifíable*, but *jùstifý*.

	Freq. base	Freq. deriv.	$f_{derivative}/f_{base}$	Ratio of $\acute{\sigma}able$
transferable	6737	176	0.026	0.75
preferable	3586	693	0.193	0
comparable	2376	1857	0.781	0.45
indefatigable	480	84	0.175	0.11
reputable	87	260	2.988	0.05
lamentable	56	68	1.214	0.61

Table 2: Stress shift in free stems before *-able*

4.   Bound stems

When *-able* cannot attach to a free stem, stress shift is sporadic, but it is more likely to happen in highly frequent words. Wells (2008) reports the following ratios based on pronunciation preference polls:

(4) *applícable* 0.85 vs. *ápplicable* 0.15
formídable 0.54 vs. *fórmidable* 0.46
hospítable 0.81 vs. *hóspitable* 0.19

My own findings (summarized in Table 3) reflect similar distributions. The most frequent item, *applicable*, is always *applícable* in my dataset, whereas in the case of the least frequent word, *replicable,* only 4 tokens (out of 20) have stress shift: *replícable*.

	Freq. deriv.	Ratio of $\acute{\sigma}able$
applicable	1388	1
formidable	1046	0.6
explicable	130	0.7
inexplicable	130	0.6
hospitable	117	0.9
replicable	14	0.2

Table 3: Stress shift and frequency in bound stems

Note that in the case of these stems, listed allomorphs with the right stress pattern are not necessary for stress shift to occur (e.g. *hòspitálity, hóspitage, hóspital*, etc., but *hospít-* only occurs in *hospítable*). This is, of course, in line with the observation that lower rates of parsability correspond to higher rates of stress shift by *-able*. It is a significant difference compared to free stems, where the presence of an allomorph with identical stress pattern (usually the stem) is a necessary condition of stress shift before *-able*.

5.   Further problems

5.1.   Syncope and gliding

As we have seen, stress shift before *-able* is motivated by *Lapse. However, there are two further processes that can produce metrically more optimal forms: if syncope or gliding applies within the word, causing the loss of an unstressed syllable before the suffix, there is no need for stress shift to occur. These processes can take precedence over the mechanism of stress shift before the *–able* suffix. Therefore the words in (5) and (6) typically have stem-initial stress (but note that they still have optimal stress pattern, since the deletion of the syllable is just another strategy to avoid a sequence of several unstressed syllables, and as a result, the primary-stressed syllable still ends up next to *–able*.)

(5) **Gliding**: *variable* (várjəbəl), *enviable* (énvjəbəl), *amiable* (ɛ́jmjəbəl)

(6) **Syncope**: *separable* (sɛ́prəbəl), *measurable* (mɛ́ʒrəbəl), *assimilable* (əsímləbəl), *pensionable* (pɛ́nʃnəbəl), *personable* (pə́ːsnəbəl), *unfathomable* (ənfáðməbəl)

5.2.   Trisyllabic shortening

So far, the segmental consequences of stress shift have been ignored, as in most cases they are limited to regular alternations of reduced/full vowels. However, there is at least one important case of vowel change that must be mentioned in connection with the subject of this paper; namely, trisyllabic shortening. As this (optional) process affects antepenultimate long stressed vowels, it can apply in the environment σ́ː_able. Therefore, in the case of words like *comparable* or *transferable*, there is a three-way variation as shown in (7).

(7) kɔ́mpərəbəl (no stress shift) vs.
    kəmpéːrəbəl (stress shift only) vs.
    kəmpárəbəl (stress shift + trisyllabic shortening)

    tránsfərəbəl (no stress shift) vs.
    transféːrəbəl (stress shift only) vs.
    transférəbəl (stress shift + trisyllabic shortening[10]

The fact that this process is restricted to free stems poses an apparent problem: if we accept that parsability (morphological complexity) facilitates stress shift, how can a lexical process (indicative of morphological simplicity) apply on it? To resolve this contradiction, I suggest that we think of trisyllabic shortening as lexical tendency favouring $\breve{V}\sigma\sigma\|$ over $\bar{V}\sigma\sigma\|$. As such, it can be captured in a markedness constraint, (e.g. $*\bar{V}\sigma\sigma\|$), and in this way, variation can be expressed in terms of its possible ranking positions with respect to *Lapse and the constraints supporting paradigm uniformity.

6. Conclusion

In this paper, I have outlined several factors influencing variable stress placement before *-able*, and I have argued that *-able* (and by extension, many other Latinate suffixes) contribute to stress placement in a quasi-probabilistic manner. Based on corpus and dictionary data, I examined how various lexical groups are affected differently by the constraints and tendencies that influence stress placement. While the present paper is far from being a comprehensive account of the subject, the results may point in interesting directions for future experimental research.

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[10]Note that the alternation of [əː~ɛ] is not covered under a traditional definition of trisyllabic shortening (a.k.a. trisyllabic laxing in e.g. Nádasdy (2006)), as the original vowel (əː) would be categorized as broad lax under this view. Here, trisyllabic shortening refers to a general lexical tendency (and its analogical effects), namely, that primary stressed syllables followed by two (or more) unstressed syllables typically contain short vowels.

References

Aronoff, Mark. 1976. Word formation in generative grammar. MA: MIT Press.

Burzio, Luigi. 1994. Principles of English stress. Cambridge studies in linguistics, Cambridge University Press.

Burzio, Luigi. 1995. On the metrical unity of Latinate affixes. In H. Campos, & P. M. Kempchinsky (ed.) Evolution and revolution in linguistic theory: Essays in honor of Carlos Otero. Georgetown University Press.

Chomsky, Noam & Halle, Morris. 1968. The sound pattern of English. Harper & Row.

Fabb, Nigel. 1988. English suffixation is constrained only by selectional restrictions. Natural language & Linguistic theory 6: 527–539.

Fudge, Erik. 1984. English word-stress. George Allen and Unwin.

Hay, Jennifer. 2004. Causes and consequences of word structures. Outstanding Dissertations in Linguistics Series, Taylor & Francis.

Hay, Jennifer & Bayeen, R. Harald. 2005. Shifting paradigms: gradient structure in morphology. Trends in cognitive sciences 9 .

Lindsey, Geoff. 2019. English after RP: Standard British Pronunciation Today. Palgrave Macmillan.

Nádasdy, Ádám. 2006. Background to English pronunciation: Phonetics, phonology, spelling. Nemzeti Tankönyvkiadó.

Steriade, Donca. 1999. Lexical conservatism. In Linguistics in the morning calm, selected papers from SICOL1997. Hanshin Publishing House. 157–179.

Strauss, Steven. 1982. Lexicalist phonology of English and German. Dordrecht: Foris.

Wells, John C. 2008. Longman pronunciation dictionary. Longman Pronunciation Dictionary Series, Pearson Longman.

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