

Unstressed vowels in English: Distributions and consequences

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Syllable weight and stress are related in many languages. V is preferably unstressed, VV is preferably stressed, VC is variable (Hayes 1995). Some consequences of this hierarchy can be discovered in Current British English, too. In fact, the distribution of unstressed diphthongs suggests that they are not VV, but VC.

I assume that HAPPY-tensing is complete (Wells 1982), that FLEECE and GOOSE are diphthongs: [ij] and [uw] (Sweet 1900), and that STRUT is stressed schwa (Fabricius 2007). (Also see Lindsey 2012.) Based on their distribution, the vowels occurring in stressed position fall into three groups, as in (1).

- (1) a. only _C: KIT [i], STRUT [ə], FOOT [u]; DRESS [e], TRAP [a], LOT [o]
- b. _C & _# (not _V): NEAR [i:], NURSE [ə:], (CURE [u:],) SQUARE [e:], START [a:], FORCE [o:]
- c. anywhere: FLEECE [ij], GOAT [əw], GOOSE [uw]; FACE [ej], PRICE [aj], MOUTH [aw], CHOICE [oj]

The long vowels (VV) listed in (1b) do not occur in unstressed position. (CURE is merged with FORCE or NURSE for many speakers, who thus have one less long vowels.) Of the six checked vowels (V) in (1a) the three “higher” ones may occur in unstressed position: *valid* [váliid], *vassal* [vásəl], *volume* [vóljum]; the other three, [e], [a], and [o], only occur stressed. According to a wide-spread analysis, the vowels in (1c) are diphthongs. Following Trager & Bloch (1941), I take them to be VC (and transcribe them accordingly). Three of them may occur in unstressed position: *volley* [vólij], *wallow* [wóləw], *value* [váljuw]; the others, [ej], [aj], [aw], and [oj], only occur stressed.

One argument for accepting T&B’s analysis of the vowels in (1c) is the occurrence of [i] and [ij], [ə] and [əw], [u] and [uw] in unstressed position. A simple explanation for this fact is that the “diphthongs” are in fact the checked vowels that may occur unstressed, followed by a glide (a consonant). That is, *Polly* [pólij] and *polish* [póliʃ] differ only in their last consonant.

Even more telling is the distribution of the unstressed “diphthongs”. Any vowel may occur preconsonantly, except unstressed [ij]. It only occurs word finally (*happy* [hápij]) and prevocally (*create* [kriéjt], *atrium* [étrijəm]). Unstressed [əw] occurs word finally (*hippo* [hípəw]), rarely prevocally (*Genoa* [džénəwə]) and preconsonantly (*obese* [əwbíjs], note the impossibility of **óbese mén*, showing that the first vowel of *obese* is not stressed). Unstressed [uw] occurs in all three environments: *value* [váljuw], *actual* [áktʃuwəl], *commutate* [kómjuwtéjt]. Preconsonantal unstressed [əw] and [uw] are regularly followed by a stressed syllable.

The failure of unstressed [ij] to occur before a consonant is odd in light of the fact that all other vowels of English (perhaps of any language?) may occur in this position. If, however, [ij] is VC, it becomes obvious why it occurs word finally and prevocally only: here it does not

constitute a heavy syllable (while [ij]+C does). Preconsonantal [uw] and [əw] do form heavy syllables. Note, however, that an unstressed VC syllable is not outright impossible (*calendar* [kálində], *balluster* [báləstə], *character* [káríktə]). In fact, these [w]'s are often omitted: *unite* [ju(w)nájt], *commutate* [kómju(w)tèjt], *obese* [ə(w)bíjs] (Wells 2008), bringing the unstressed syllable to its preferred state: light.

Unstressed [i] and [u] often reduce further to [ə]: *rocket* [rókit]/[rókət], *record* [rikó:d]/[rəkó:d], *erase* [iréjs]/[ərəjs]; *accurate* [ákjurət]/[ækjərət]. The quality of unstressed [i] and [u] is preserved word-finally before certain consonants; [i] before palatals and velars: *finish* [fínɪʃ], *manage* [mánɪdʒ], *ostrich* [óstrɪʃ], *happy* [hápij](!), *panic* [pánɪk], *Charing* [tjárɪŋ]; [u] before labial consonants: *value* [váljuw](!), *volume* [vóljuwm]/[vóljum] (cf *fortune* [fó:tʃuwn]/[fó:tʃən], Wells 2008). These generalizations are only possible to make if we assume that [ij] and [uw] are VC, like [iʃ] or [um].

Analysing the vowels in (1c) as VC explains: (i) why [ij], [əw], and [uw] occur unstressed, while other vowels of this group do not, (ii) why [ij], [əw], and [uw] are rarer before a consonant than word finally and prevocally, and also (iii) the natural classes of consonants before which unstressed [i] and [u] are retained.

References

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