Is there vowel reduction in English?

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(1) aims

a. to reduce redundancy

b. to rid phonology of nonphonological "processes"

c. to understand what stress is

(2) textbook views

a. stress is scalar: primary, secondary, tertiary, etc ("five degrees must be distinguished" Wells 1990: 683), reduced vowels only occur in the lowest degree;
SPE stress is cyclically assigned and potentially has infinite degrees

b. word stress is relational: a given syllable is stressed if the adjacent syllable is less stressed, and it is not stressed if the adjacent syllable is more stressed

c. stress and reduced vowels

i. reduced vowels occur in unstressed syllables *or*

ii. vowels are reduced in unstressed syllables

(3) symptoms of stress

a. syllable may receive tonic (undebated, some claim this is the *only* symptom of stress, eg Ladefoged 2001, Bolinger 1986): **T-stress**

b. syllable initiates a foot (how to detect this?): **Fo-stress**

c. syllable contains a full vowel (but what *is* a full vowel?): **Fu-stress**

(4) scalar stress?

a. unlike(?) in Hungarian, in English a one-root word may contain multiple stresses

b. in the citation form of a multiply stressed word, which is a tone unit(!), the tonic falls on the last stress, but this has nothing to do with the word, this does *not* mean that this syllable is inherently stronger (ie "primary" stressed): *Piccadílly*

c. in a phrase with a multiply stressed word followed by another word the tonic may fall on the first stress, again this is independent of the word itself: *Píccadilly Circus* (nb in the default case, tonic would fall on *Cír*-!)

d. conclusions

i. primary = secondary stress
it's not just that the difference is predictable, there *is* no difference

ii. a lexical item may contain maximally two T-stresses
the tonic never falls on *-bi-* in *áutobiográphical* or on *-B-* in *FBI*

(5) being foot initial (Fo-stress)

Harris (in press) shows that the beginning of a foot is much less prone to lenition than other places

a. no [r] loss: *foray* **fɔ́re**, *ferrite* **fɛ́ɹaɪt** vs *America* **əmɛ́ɻəkə**, *very* **vɛ́ɻi**

b. no [h] loss: *Abraham* **ɛ́jbrəham**, *Stockholm* **sdɔ́khəwm**
vs *Graham* **gréjəm**, *Denholm* **dénəm** (*Denholme, WYks* **dénhɔlm**)

(6) a symptom of a full vowel (Fu-stress)
no flapping/voicing: *atoll* **átɑl** vs *atom* **árəm**, *modem* **módɛm** vs *modal* **mórəl**
≈ aspriation: *atoll* **áthɑl** vs *atom* ***áthəm** (Bolinger 1986)

(7) Fo-stress = Fu-stress (hereafter F-stress), further symptoms

a. no syncope: *separate* **sépɒ́ɹət** vs **sépəɹɛjt**

b. no high vowel gliding: *affiliate* **əfíljət** vs **əfílɪjɛjt**, ***əfíljɛjt**;
graduate **gráʤwət** vs **gráʤəwɛjt**, ***gráʤwɛjt**
nb high vowel gliding = syncope!

c. no yod-dropping: *value* **váljəw** vs *absolute* **ábsələwt**
menu **mɛ́nju** vs *avenue* **ávənu**

(8) all of the above restrictions also hold in the case of T-stress!
both Bolinger and Ladefoged claim that syllables with a full vowel that are not potential hosts for the tonic are unstressed, it is only their length that make us feel they are stressed (Ladefoged 2001: 95); it is suspicious though that the same phenomena occur together with these F-stressed vowels as with T-stressed ones

(9) full vs reduced vowels

a. Bolinger's (1986) system: no overlap
i. full vowels: **i ɪ e ɛ æ ʌ a ɔ o ʊ u + aɨ aɵ ɔɨ**
ii. reduced vowels: **ɨ ə ɵ** (Kenyon & Knott (1953) have **ɪ ə ʊ**!)

b. Wells' (1990) system: some overlap
i. full vowels: **iː ɪ eɪ e æ ʌ ɑː ɒ əʊ ʊ uː + aɪ aʊ ɔɪ + ɪə eə ʊə**
ii. reduced vowels: **i ɪ ə (əʊ) ʊ u uː**

c. the CUBE (2013) system: full overlap: RV ⊂ FV
i. full vowels: **ɪj ɪ ɛj ɛ a ə ɑː ɔ əw ɵ ɵw + ɑj aw oj + ɪː ɛː ɵː**
ii. reduced vowels: **ɪj ɪ ə (əw) ɵw**

(10) "vowel reduction"

a. is never caused by word-level affixation

b. alternations only in *some* function words (*of* **ɔv**, **əv**, but *off* **ɔf**, ***əf**)

c. the relationship of *barometer* **bərɔ́mətə** ∼ *barometric* **bárəmɛ́trɪk** is *not* phonological, only semantic (like that of *sing* **sɪ́ŋ** ∼ *sang* **sáŋ** ∼ *sung* **sə́ŋ** ∼ *song* **sɔ́ŋ**): only the consonants are identical in the allomorphs

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