

Stress and accent in English

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At least one vowel in any English word is stressed, let us call this the Stress Requirement (SR). (Monosyllabic function words may cliticize and lose their stress, thereby their (phonological) wordhood, hence they are not counterexamples to SR.) Stress here is marked by an accent mark, vowels without an accent mark are unstressed. Some words contain more than one stressed vowel because ① at least one of the first two vowels of a word must be stressed (so *maróon* is possible, but *macaróon* is not, it is *mácaróon*), let us call this the Early Stress Requirement (ESR), ② (in addition to vowels stressed due to SR or ESR, which may be in a light or in a heavy syllable) vowels that are in a heavy syllable are generally stressed (so *lagóon* is possible, but *pontóon* is unlikely, it is *póntóon*), let us call this the Heavy Stress Requirement (HSR); with the provision that there are certain rather well definable exceptions to HSR, or ③ some vowels are stressed just lexically (like in *báguette*, *róbót*, although *baguette*, *robót*, *robot* would theoretically all be possible).

In words with multiple stresses, one stress typically stands out, let us call it accent and mark it by double acute. Accent is mobile: while it is final in *mácaróon* or *póntóon* when these words occur in isolation or at the end of an utterance, it is initial in *mácaróon récipe* or *póntóon brídge* where they are neither final nor in isolation, let us call this the Rhythm Rule (RR). The conflation of accent and stress gives the impression that stress has degrees: an accented (and stressed) vowel is more prominent than an unaccented stressed vowel. Therefore words with multiple stresses are said to have a “primary” stressed (= accented) vowel and one or more “secondary” stressed (= unaccented, but stressed) vowels. Furthermore, some traditions distinguish a third degree of stress: vowels that are stressed but never accented. A stressed vowel may fail to ever be accented for a number of reasons. ① Accent may move to the left (*póntóon* ~ *póntóon* (*bridge*), as per RR), but not to the right (*cóntést* ~ *sóng cóntést*, not **sóng cóntést*), thus the last vowel of *cóntést* has no chance of being accented, although it is stressed. ② Accent also fails to land on a stressed vowel if another stressed vowel is available before it in the word: *MIÍ* ~ *MIÍ Préss* (not **MIÍ Préss*), thus the middle vowel in this word is never accented. ③ Accent also fails to move in words consisting of two stressed vowels followed by an unstressed vowel: *Móntána cówbóy* (not **Móntána cówbóy*), cf *Táiwán* ~ *Táiwán cówbóy*, *Ténnessée* ~ *Ténnessée cówbóy*, *Árizóna* ~ *Árizóna cówbóy*, thus the first vowel of *Móntána* (stressed by HSR) is never accented. Generally accent falls on a stressed and not on an unstressed vowel, so it moves in *Bághdád* ~ *Bághdád áirpórt* (first vowel stressed by HSR), but it does not move in *Madríd áirpórt*, where the first vowel is unstressed (it is in a light syllable). Ultimately, accent may land on any vowel for pragmatic reasons, eg *it's not wórking but it's wórkáble* or *Jóhn Lénnoón*, not *Lénńń*, where the contrasting portions of the two similar words is emphasized by the accent, even though lexically they are unstressed. Thus accent is responsible for rhythm, but it is also used for pragmatic purposes, like contrast, new information, etc.

Unlike accent, stress is a lexical property of some vowels (full vowels) as opposed to others (reduced vowels). Although stress frequently moves in lexical alternations to maintain a rhythmical pattern (*Japán* ~ *Jápanése*), this change in the location of stress is not obligatory

(*semántic* ~ *semántician*, *escápe* ~ *escápée*). I assume that the vowel inventory of (British) English consists of six short vowels, [i e a ə o u] and six long vowels [i: e: a: ə: o: u:]. (There is a long list of evidence showing that what are considered diphthongs in English are, in fact, sequences of one of the six short vowels and one of the two glides, [j] and [w].) All twelve vowels may occur in stressed position, but only three short ones ([i ə u]) may occur unstressed, that is, long vowels and [e a o] are always stressed, they cannot occur in unstressed position. Accordingly, when stress lexically moves, the qualities of the affected vowels potentially change: *Japán* [dʒəpán] vs *Jápanése* [dʒápəníjz], *particle* [pá:tikəl] vs *particular* [pətíkjələ], since [ə] and [i] can but [a] and [a:] cannot occur unstressed.

Stress is intimately related to segmental properties not only in the constraint that only a small subset of all the vowels may occur in unstressed position, but also in a number of other segmental phenomena. These include at least the following: ① syncope (sometimes called high vowel gliding) occurs before an unstressed but not before a stressed vowel (*Lebanon* [léb(ə)nən] vs [léb*(ə)nón]; *gradual* [grádʒ(u)wəl] vs *graduate* [grádʒ*(u)wéjt]), ② flapping and glottalling occur before an unstressed but not before a stressed vowel (*later* [léjtə] ~ [léjrə] ~ [léjʔə] vs *latex* [léjtéks], but not *[léjréks], *[léjʔéks]), ③ plosive epenthesis between a nasal and a fortis fricative does not occur before a stressed vowel (*prince* [prín(t)s], *Samson* [sám(p)sən] vs *insect* [ín*(t)sékt], *Samsung* [sám*(p)són]), ④ [j] is deleted after alveolar sonorants before a stressed but not before an unstressed vowel (*absolute* [ábsəl(j)úwt] vs *value* [vál*(j)uw], *avenue* [ávən(j)úw] vs *venue* [vén*(j)uw]), ⑤ unstressed [i] and [u] often alternate with [ə], while stressed [i] and [u] practically never do so (*chicken* [tʃíkin] ~ [tʃíkən], *sincere* [sinsí:] ~ [sənsí:] vs *princess* [prínsés], but *[prínsés], *Burundi* [burúndij] ~ [bərúndij], but *[burándij]; *ampulla* [ámpúlə] ~ [ámpólə] being a rare counterexample), ⑥ [w] may be deleted before a consonant after unstressed, but not after stressed [ə] and [u] (*obese* [ə(w)bíjs] vs *oboe* [ə*(w)bəw]; *unite* [ju(w)nájt] vs *unit* [jú*(w)nit]), ⑦ [w] is obligatorily deleted after unstressed [u] if there is an unstressed vowel in the next syllable (*stimulus* [stímju*(w)ləs] vs *stimulate* [stímju(w)léjt], *volume* [vólju(w)m]).

⑧ Since long vowels can only occur stressed, processes that create a long vowel are only applicable in stressed position. R-loss and compensatory lengthening result in a long vowel in *concern* [kənsón], but not in *modern* [módən], where the R is lost after an unstressed vowel. Likewise, glide loss and ensuing coalescence of the vowel preceding the glide and the schwa following it is only possible if the former vowel is stressed: eg *idea* [ájdíjə] > [ájdí:], *gambier* [gámbíjə] > [gámbí:], but *India* [índijə], *[índi:], *Gambia* [gámbijə], *[gámbi:]; *secure* [sikjúwə] > [sikjú:], but *jaguar* [dʒágjuwə], *[dʒágju:].

To summarize, rhythm in English is handled by both accent placement (RR, among other regularities not mentioned here) and stress placement (SR, ESR). Unlike accent, stress is also a segmental phenomenon: it is sensitive to syllable weight (HSR) and it interacts with several segmental rules (vowel quality, consonant lenition, consonant epenthesis, glide deletion, variability of vowels, creation of long vowels). These phenomena are not sensitive to the “degrees” of stress traditionally posited, they apply in the exactly same manner in the context of any stress degree. Therefore, it is reasonable to assume that stress has no degrees, it is binary, its apparent gradual nature is a result of conflating it with accent.