

STRESS AND ACCENT IN ENGLISH

Phonology Forum ✧ Tokyo, 2025-08-26

Péter Szigetvári ['sɪɡɛtvɑːri], Eötvös Loránd ['œtvœʃ 'loːrand] University, OTKA #142498

szigetvari@elte.hu

main claims

- stress in English is binary: it is not gradual, there is no primary, secondary, tertiary stress, any vowel is either stressed or unstressed
- the reason there seem to be several degrees of stress is the effect of accent
- stress is a segmental and phonological phenomenon
- accent is a rhythmic and syntactic/semantic/pragmatic
- both stress and accent are partly lexical
- British English has six vowels: *i ə u e a o*, each may occur short or long; each vowel may occur stressed, but only three (*i ə u*) may occur unstressed ("diphthongs" are clusters of a vowel and a consonant)

generalizations on stress

Stress Requirement (SR)

there must be a stressed vowel in any word (clitics are not phonological words)

Early Stress Requirement (ESR)

one of the first two vowels of any word must be stressed (like in Old English)

Heavy Stress Requirement (HSR)

vowels in a heavy syllable are generally stressed

Stress Stability (SS)

stressed vowels do not get unstressed, unstressed vowels do not get stressed postlexically

Stress Requirement (SR)

- *mán* ($\neq$ *mén*)
- *póstman* (= *póstmen*), stem + affix/clitic: [[*póst*] *man*]
- *sándmán* ($\neq$ *sándmén*), compound word, ie *man/men* is a word here: [[*sánd*] [*mán*]]
- at least one vowel within a pair of brackets must be stressed

legend: *ú* = stressed vowel, *v* = unstressed vowel

multiply stressed words

some words have more than one stressed vowel because of

- 1 Early Stress Requirement
- 2 Heavy Stress Requirement
- 3 other, lexically stressed vowels

1: Early Stress Requirement (ESR)

one vowel before stressed	more than one vowel before stressed
maróon	* macar óon → m á caróon
agénda	* corrig énda → c ó rrigénda
dramátic	* proble mátic → pr ó blemátic
vorácíty	* vola tíity → v ó latíity
polárity	* profi tabíity → pr ó fitabíity
profánity	* peri pheráity → per í pheráity
cremátion	* clari ficátion → cl á rificátion
fricátion	* era dicátion → er á dicátion

moras and "syllable" weight without syllables

(stress is not marked on this slide)

- a vowel is always moraic: **j**es (when not, we call it a consonant: **j**es, **sej**, **waw**)
- a long vowel is two moras (that is, **ː** is moraic)
- a consonant followed by another consonant is moraic: **dol**fin (with the exception of some obstruents followed by a sonorant: **te**flon, **ə**k**w**ajə, **əd**res; perhaps **te**f'on, **ək**ˈajə, **əd**'es?)
- other consonants are not moraic, that is,
 - a consonant followed by a vowel is not moraic: **dol**fin
 - a word-final consonant is not moraic in English: **dol**fin

⇒ two adjacent moras are "heavy", a single mora is "light"

2: Heavy Stress Requirement (HSR)

in addition to Vs stressed by SR and ESR, **double moras** are stressed, **except** in Latinate prefix

double mora stressed	single mora unstressed	exc. in Latinate prefix
<i>Montana</i> móntánə	<i>Managua</i> mənágwə	<i>continue</i> kəntínjuw
<i>antenna</i> ánténə	<i>agenda</i> ədzéndə	<i>compare</i> kəmpéː
<i>Bagdad</i> bágdád	<i>Madrid</i> mədríd	<i>cognition</i> kəgnífən
<i>Kaspersky</i> kásbáːsgij	<i>Zelensky</i> zəlénsgij	<i>admire</i> ədmájə
<i>Manhattan</i> mánhátən	<i>Sahara</i> səháːrə	<i>absolve</i> əbzólv
<i>torment</i> tóːmént	<i>lament</i> ləmént	<i>obtain</i> əbtéjn
<i>Berlin</i> báːlín	<i>balloon</i> bəlúwn	<i>aspire</i> əsbájə
<i>martini</i> máːtíjnij	<i>graffiti</i> grəfíjtij	<i>ascribe</i> əsgrájɓ

2: Heavy Stress Requirement (HSR)

double mora stressed	single mora unstressed	exc. coronal clusters
<i>aspect</i> ásbégt	<i>aspen</i> ásbən	<i>absent</i> ábsənt
<i>insect</i> ínségt	<i>ingot</i> íngət	<i>instance</i> ínsdəns
<i>transept</i> tránsébt	<i>transom</i> tránsəm	<i>balance</i> báləns
<i>podunk</i> péwdəŋk	<i>paddock</i> pádək	<i>pedant</i> pédənt
<i>retard</i> ríjtá:d	<i>dotard</i> dəwtəd	<i>second</i> sékənd
<i>Mycroft</i> májkrófd	<i>secret</i> síjkrət	<i>herald</i> hérəld
<i>Kazakhstan</i> kázágsdá:n	<i>Abadan</i> ábədá:n	<i>Kurdistan</i> ké:disdá:n

some further exceptions (mostly noninitial and nonfinal): ánəptýxis, cávəlcáde, chárəctər, mélancholy, prómulgáte, sépulchre

3: lexically stressed vowels

some vowels are stressed lexically (that is, not due to SR, ESR, HSR)

single mora stressed	single mora unstressed		coronal clusters	
<i>robot</i> réwb ót	<i>abbot</i> áb ət		<i>advent</i> ádv ént	<i>absent</i> ábs ənt
<i>Zagreb</i> zágr éb	<i>Arab</i> ár əb		<i>stipend</i> sdájp énd	<i>husband</i> héz bənd
<i>access</i> ágs és	<i>actress</i> ágtr əs		<i>insult</i> íns ólt	<i>difficult</i> dífík əlt
<i>Slovak</i> sléww ák	<i>champak</i> tǵámp ək		<i>kobold</i> kób óld	<i>Harold</i> hár əld
<i>baguette</i> bág ét	<i>gazette</i> gəz ét		<i>contest</i> kónt ésd	<i>forest</i> fórs əsd
<i>rattan</i> rá tán	<i>Japan</i> dzəp án		<i>finance</i> fájn áns	<i>licence</i> lájs əns

the unpredictability of stress

(in addition to the previous slide)

- *ugly* églij vs *agree* əgríj
- *hallow* háləw vs *hallo* həlów
- *argue* á:gjuw vs *Corfu* kó:fúw
- *basilar* bázilə vs *vanilla* vənílə
- *calendar* kálində vs *Melinda* məlíndə
- *sinister* sínisdə vs *semester* səméisdə
- *canopy* kánəpij vs *jalopy* dzəlópij
- *Kennedy* kénədij vs *Kentucky* kéntákij
- *Subaru* súwbəruw vs *kangaroo* káŋgəruw
- *edification* édifikéjʃən vs *eradication* irádikéjʃən

accent

- in multiply stressed words one stress is more prominent than the other(s)
- let's call this extra prominence ACCENT and mark it by double acute: *Kentucky* kéntő^ːkij
- conflating stress and accent gives the impression that stress has degrees:
 - stress + accent = "primary" stress
 - only stress = "secondary" stress
- accent is a rhythmic phenomenon, it is context dependent, it is mobile, its location is determined by the Rhythm Rule (RR) and other syntactic, semantic, pragmatic considerations (stress is not affected by nonphonological considerations), therefore marking this type of accent in dictionaries is superfluous and misleading:
 - *pontoon* may be ,pon'tuwn (ie póntúwn) or 'pon,tuwn (ie pőntúwn),
 - dictionaries should have 'pon'tuwn (ie póntúwn)

"lexical" accent

accent mobile	accent stable
<i>arcade</i> á:kéjd or ǎ:kéjd	<i>decade</i> dǎkéjd (*dékéjd)
<i>torment</i> _v tó:měnt or tǒ:mént	<i>torment</i> _n tǒ:mént (*tó:měnt)
<i>Calabar</i> káləbǎ: or kǎləbá:	<i>Valdemar</i> vǎldəmə: (*vǎldəməǎ:)
<i>jamboree</i> dzǎmbərīj or dzǎmbərīj	<i>pedigree</i> pǎdigrīj (*pǎdigrīj)

two solutions:

- 1 *decade*, *Valdemar*, *pedigree* is stressed "differently" than *arcade*, *Calabar*, *jamboree*, or
- 2 in some words accent is assigned lexically

the Rhythm Rule (RR)

shift the accent to the stress on the left before another accent ($\acute{V}...\breve{V} \rightarrow \breve{V}...\acute{V} / _ \breve{V}$)

accent is final	accent is initial when followed by accent
Bághd ^{ád}	B ^á ghdád ^á irpórt
pónt ^{oon}	p ^{oon} tóon br ^{idge}
Táiw ^{án}	T ^{ái} wán cr ^í sis
mácar ^{oon}	m ^á caróon r ^é cipe
fúndam ^{éntal}	f ^ú ndaméntal fl ^á w
phónol ^{ógical}	ph ^{oon} ológical f ^ó rum

RR moves accent only to a stressed vowel

accent is final	accent remains although followed by accent
Madríd	Madríd áirpórt
lagóon	lagóon páradíse
Quebécc	Quebécc crísis
retúrn	retúrn tícket
Julý	Julý stórm
phonólogy	phonólogy fórum

- note the vacillation *direct* **dájrégt** or **dərégt**, hence *direct debit* is either **dǎjrégt débit** (accent moves) or **dərǎégt débit** (accent does not move)
- RR cannot force the creation of stress due to SS

a third "degree" of stress: stress that is never accented

reasons why a stressed vowel never gets accented:

- 1 RR moves accent to the left, not to the right:

sống c^ốnt^ést, *sống c^ốnt^ést

wéll-édu**c**ated, *wéll-édu**c**áted

- 2 RR does not move accent to a *´* if there is another *´* before it in the word:

*íntercóntinental ~ ińtercóntinental flíght, *íntercóntinental flíght*

MÍŤ ~ MÍŤ Prës, *MÍŤ Prës

Kázákhstán ~ Kǎzákhstán's hístory, *Kázǎkhstán's hístory

- ### 3 RR does not move accent in monomorphemic *v́v* words:

*Móntána cǫwbóy, *Mǫntána cǫwbóy; Óctóber snǫw, *Ŏctóber snǫw; íǫtta sígma, *íǫtta sígma;*

*Váncóuver Cíty, *Văncóuver Cíty; híǎtus hěrníá, *híátus hěrníá; mónádic lógic, *mőnádíć lógic*

(vs nonmonomorphemic *góod-lóoking* ~ *góod-lóoking cǫwbóy*, *úpdǎted* ~ *űpdáted sǫftwáre*)

notation in dictionaries

"degree"	description	British (LPD)	American (Merriam-Webster)
primary	accented	,kæŋ gə 'ru:	,kaŋ-gə-'rü
secondary	stressed not accented	,kæŋ gə 'ru:	,kaŋ-gə-'rü
tertiary	stressed never accented	'kɒn tɛst	'kän-,tɛst
		mɒn 'tæn ə	män-'ta-nə
		,ɪnt ə ,kɒnt ɪ 'nɛnt əl	,ɪn-tər-,kän-ti-'nɛn-təl
		,em əl 'ti:	,em-,ī-'tē
		,kæz æk 'stɑ:n	,kä-(,)zäk-'stän
		'reɪs ,ɪz əm, 'æns est ə	'rā-,si-zəm, 'an-,se-stər

"tertiary" stress is either not marked or marked as "secondary"

excursus on the vowel inventory of British English

	short/checked vowels	long vowels (only stressed)
nonlow	KIT i , STRUT ə , FOOT u	NEAR iː , NURSE ɜː , CURE uː
nonhigh (only stressed)	DRESS e , TRAP a , LOT o	SQUARE eː , START aː , FORCE oː

- all twelve vowels above may occur in stressed position
- only **nonlow short vowels** (**i ə u**) may occur in unstressed position
- "diphthongs" are composed of a short vowel and a glide: FLEECE = KIT + **j**, FACE = DRESS + **j**, PRICE = TRAP + **j**, MOUTH = TRAP + **w**, GOAT = STRUT + **w**, CHOICE = LOT + **j**, GOOSE = FOOT + **w**

arguments for dumping diphthongs

- 1 schwa epenthesis after "diphthongs"
- 2 gap in the distribution of glides
- 3 some glides do not occur after some "diphthongs"
- 4 no hiatus filling after "diphthongs"
- 5 "HAPPY tensing" and the distribution of unstressed GOAT and GOOSE

1: schwa epenthesis

some word-final obstruent/sonorant + sonorant clusters are repaired by schwa epenthesis

- OF *triple* tripl > E tripəl, OF *spasme* spazm > E sbazəm
- IrE *film* filəm, *farm* farəm, *earn* ərən, *girl* gərəl
- *mile* majəl, *veil* vejəl, *deal* dijəl, *boil* bojəl (also *owl* %awəl, *rule* %ruwəl, *known* %nəwən)
- *sire* sajə(r), *fear* fijə(r), *hour* awə(r), *coir* kojə(r)

but no epenthesis before V

- *triplet* trip(*ə)læt, *spasmic* sbaz(*ə)mik, *Miley Cyrus* majlij sajɹəs

vacillation before #V

- *tripling* trip(ə)liŋ, *seasoning* sijz(ə)niŋ, *mileage* maj(ə)lidʒ, *sourer* saw(ə)rə

⇒ ij behaves like ip, aj and aw behave like az, etc

2: gap in the distribution of glides

	l	r	j	w
#_V	lay lej	ray rej	yea jej	way wej
C_V	clay klej	grey grej	cue kjuw	dwel dwel
´V_V	ally álj	arrow árəw	*	*
V_´V	allay əlj	array ərj	beyond bjond	away əwj
V: _V	gala gá:lə	Zara zá:rə	sawyer só:jə	narwhal ná:wəl

⇒ the gap is only a consequence of not analysing "diphthongs" as vowel + glide:

ion ájən, hour áwə, layer lejə, royal rójl, poem péwəm, ruin rúwin fill the gap

3: approximant clusters: no geminates

	l	r	j	w
l	*	<i>walrus</i> wólrəs	<i>value</i> váljuw	<i>Alwin</i> álwin
r	<i>barley</i> bárlij*	*	<i>area</i> é:rjə	<i>narwhal</i> nárwəl*
j	<i>silent</i> sájlənt	<i>siren</i> sájrən	*	<i>Taiwan</i> tájwón
w	<i>owlet</i> áwlət	<i>dowry</i> dáwrij	<i>alleluia</i> áləlúwjə	*

* to show only gaps due to the ban on geminates, these are rhotic pronunciations

⇒ no j-final diphthong before j, no w-final diphthong before w
because there are no geminates

4: no hiatus after "diphthongs"

British English does not tolerate hiatus, it is repaired by

- vowel deletion: *extraordinary* égsdr<ə>ó:dinərij
- r insertion: *extra hours* égsdrə r áwəz

hiatus filling occurs after

- ə (see above)
- long vowels:
 - *rawest* ró:rɪsd, *four hours* fó: r áwəz,
 - *ska orchestra* sgá: r ó:kəsdərə, *jarring* dzá:rɪŋ,
 - *idea of* ájdí: r óv, *blurry* bló:rɪj

⇒ hiatus filling does not occur after "diphthongs" since there is no hiatus after j or w

5: HAPPY tensing

- unstressed *i* > *ij* prevocally and word finally: *happy* hápij, *create* krijéjt
- this change is not plausible unless *ij* is not a diphthong, but a VC sequence:
if so, the *j* inserted is not moraic
- motivations for HAPPY tensing (C insertion):
 - avoid word-final vowel: *happy*
 - avoid hiatus: *create*
- unstressed *əw* and *uw* may always lose *w* before a consonant, where it is moraic:
obese ə(w)bíjs, *unite* ju(w)nájt (cf HSR), but not before a vowel (*coerce* kə*(w)é:s, *duet* dʒu*(w)ét) or word finally (*value* válju*(w)), here it inhibits hiatus and a word-final vowel

⇒ unstressed *ij əw uw* is VC, the C of which is moraic before a consonant, but not elsewhere

stress is a segmental phenomenon

	unstressed	stressed
vowels	i ə u	i ə u e a o
syncope	<i>Lebanon</i> léb(ə)nən	<i>Lebanon</i> léb*(ə)nón
high V gliding	<i>gradual</i> grádʒ(u)wəl	<i>graduate</i> grádʒ*(u)wéjt
flapping	<i>tatter</i> tát/r/ə	<i>Tatar</i> tát/*r/*ʔá:
plos. epenth.	<i>prince</i> prín(t)s, <i>Samson</i> sám(p)sən	<i>incest</i> ín(*t)sésd, <i>Samsung</i> sám(*p)səŋ
alternation	<i>chicken</i> tʃíki/ən, <i>sincere</i> si/ənsí:	<i>pinyin</i> pínjín, <i>princess</i> prínsés
j deletion	<i>value</i> vál*(j)uw, <i>menu</i> mén*(j)uw	<i>absolute</i> ábsəl(j)úwt, <i>new</i> n(j)úw
w deletion	<i>obese</i> ə(w)bíjs, <i>unite</i> ju(w)nájt	<i>oboe</i> ə*(w)bəw, <i>unit</i> jú*(w)nit
	<i>stimulus</i> sdímju(*w)ləs	<i>stimulate</i> sdímju(w)léjt, <i>volume</i> vólju(w)m

legend for the previous slide

- 1 only a subset of vowels (the less sonorous ones) may occur unstressed
- 2 no syncope before stress
- 3 no high vowel gliding (= syncope) before stress
- 4 no flapping/glottalling before stress
- 5 no plosive epenthesis before stress
- 6 no vowel vacillation in stressed position
- 7 no j deletion before unstressed vowel
- 8 no w deletion after stressed vowel
- 9 w deletion obligatory before unstressed vowel

further segmental effects of stress

long vowels cannot be unstressed, consonants cannot be stressed

- 1 no compensatory lengthening in unstressed position
- 2 no smoothing ("diphthong" + ə > long vowel) in unstressed position
- 3 no syllabic consonant formation (SCF) in stressed position

1: no compensatory lengthening in unstressed position

CL applies in stressed position	no CL in unstressed position
<i>defer</i> diféː	<i>differ</i> dífə(*ː)
<i>bombard</i> bombáːd	<i>standard</i> sdándə(*ː)d
<i>concern</i> kənséːn	<i>modern</i> módə(*ː)n
<i>desert</i> dizéːt	<i>desert</i> dézə(*ː)t
<i>merger</i> méːdʒə	<i>merger</i> méːdʒə(*ː)

2: no smoothing in unstressed position

smoothing possible in stressed position	smoothing impossible in unstressed position
<i>idea</i> ajdíjə%ajdiː	<i>India</i> índijə (*-diː)
<i>gambier</i> gámbíjə%gámbíː	<i>Gambia</i> gámbijə (*-biː)
<i>career</i> kərijə%kəriː	<i>linear</i> línijə (*-niː)
<i>revere</i> rəvíjə%rəvíː	<i>Xavier</i> zéjvijə (*-viː)
<i>secure</i> sikjúwə%sikjúː	<i>jaguar</i> dzágjuwə (*-juː)
<i>sulfuric</i> səlfjúwərik%səlfjúːrik	<i>sulfuret</i> səlfjuwəréɪt%-jur-%-jər- (*-juː-)

3: no SCF in stressed position

SCF possible in unstressed position	SCF impossible in stressed position
<i>tunnel</i> tənəl%tən	<i>anull</i> ənəl, *ən
<i>doctoral</i> dógtərəl%dógtɾəl	<i>immoral</i> imórəl, *imɾəl
<i>Axel</i> ágsəl%ágs	<i>Maxell</i> mágsél, *mágs
<i>camel</i> káməl%kám	<i>Intel</i> íntél, *ínt
<i>Dixon</i> dígsən%dígsɿ	<i>Exxon</i> égsón, *égsɿ
<i>caramel</i> kárəməl%kárəm	<i>philomel</i> fíləmél, *fíləm

stress is binary

- none of the differences listed above are sensitive to "degrees" of stress (or accent!)
- the difference between "1ry" and "2ry" stress is the place of context-sensitive accent
- "3ry" stress is where accent cannot land for various reasons
- the apparent graduality of stress is an effect of accent

ご清聴ありがとうございます。

some sources

Bloomfield, Leonard. 1935. The stressed vowels of American English. *Language* 11: 97–116 • Burzio, Luigi. 1994. *Principles of English stress*. Cambridge: Cambridge University Press • Gussenhoven, Carlos. 1991. The English Rhythm Rule as an accent deletion rule. *Phonology* 8: 1–35 • Hayes, Bruce. 1995. *Metrical stress theory: principles and case studies*. Chicago: University of Chicago Press • Kenstowicz, Michael. 1997. Quality-sensitive stress. *Rivista di Linguistica* 9: 157–188 • Lindsey, Geoff. 2012a. The British English vowel system. <http://englishspeechservices.com/blog/british-vowels/> • Lindsey, Geoff. 2012b. *Strut for dummies*. <http://englishspeechservices.com/blog/strut-for-dummies/> • Merriam-Webster. 2019. *Merriam-Webster.com dictionary*. Springfield, Mass.: Merriam-Webster Inc • Schane, Sanford A. 1979. Rhythm, accent, and stress in English words. *Linguistic Inquiry* 10: 483–502 • Schane, Sanford A. 2007. Understanding English word accentuation. *Language Sciences* 29: 372–384 • Szigetvári, Péter. 2016. No diphthong, no problem. In E. Cyran and J. Szpyra-Kozłowska (eds.) *Phonology, its faces and interfaces*. Peter Lang. 123–141 • Szigetvári, Péter. 2018. Stressed schwa in English. *The Even Yearbook* 13: 81–95 • Trager, George L. and Bernard Bloch. 1941. The syllabic phonemes of English. *Language* 17: 223–246 • Trager, George L. and Henry Lee Smith. 1957. *An outline of English structure*, vol. 3 of *Studies in Linguistics: Occasional Papers*. Washington: American Council of Learned Societies • Vanderslice, Ralph and Peter Ladefoged. 1972. Binary suprasegmental features and transformational word-accentuation rules. *Language* 48: 819–838 • Wells, John C. 1982. *Accents of English*. Cambridge University Press • Wells, John C. 2008. *Longman pronunciation dictionary* (3rd ed.). Harlow: Pearson/Longman.