## $3 \leq m h=8$

PHOAETICS THE PRONUNCIATION ENGLISH SOUNDS IN INTERACTIONS OF ENGLISH (2)

Roland Raoul Kouassi
Félix Houphouët-Boigny University, Abidjan
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## Aim and objectives

* Aim: the students will learn the dynamics of English speech sounds in combination

Objective 1: they will be able to account for the combinatory phenomena
Objective 2: they will be able to account for the prosody of speech sounds in combination
Objective 3: they will be able to produce and discriminate speech sounds in interactions accurately
Objective 4: they will be able to transcribe accurately

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## Brief Contents

* Review of Basic Segmental Phonetics

English Speech Sound Combinatory
Phenomena
Prosody

- Regional Accent Phenomena
- Phonetic Transcription


## Preliminaries

Language is naturally oral.
This oral feature is called speech Sound is the basic variable of speech.
The regular practice of speech sounds guarantees a better communicative competence and performance

## What is Phonetics?

$\because$ Phonetics is the scientific study of speech sounds (phones).

The phonetician studies all speech sounds occurring during talks and interactions, that is the sounds of the speech chain.
$\because$ S/he investigates what sounds of speech are; how they are produced by the speaker; how they are processed by the listener; as well as the disorders or pathologies that may occur.

## Importance of Phonetic Study in EFL

\% enough through thorough thought bough
$\because$ think this those thong
$\because$ church chemistry loch Cheryl
$\because$ blood book food
$\because$ put rude but

## THE COMPONENTS OF SPEECH PRODUCTION SYSTEM




## Different branches of phonetics


\%Phonetics is divided into three main branches:
$\because$ Articulatory phonetics or the physiology of speech sound production: deals with how the human organs produces speech sounds (brain/mind to speech organs)
$\therefore$ Auditory Phonetics or the Aural Dynamics of Speech sound perception: deals with how the human auditory system perceives, processes and decodes speech sounds (auditory system to brain/mind)
\& Acoustic Phonetics or the Physics of Speech sounds: is concerned with describing the different kinds of acoustic signals that the activity of the vocal organs produces.

## The Individual Sounds of English

|  | $\frac{.0}{\frac{0}{0}}$ | . |  | $\begin{aligned} & \frac{1}{0} \\ & \frac{0}{\circ} \\ & \frac{亠}{4} \end{aligned}$ |  | $\begin{aligned} & \bar{\pi} \\ & \frac{\pi}{\overline{0}} \end{aligned}$ | $\frac{\stackrel{1}{6}}{>}$ | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unvoiced ( $-V$ ) <br> Voiced (+V) | -V +V | $-V+V$ | $-V+V$ | $-V+V$ | $-V+V$ | $-V+V$ | $-V+V$ | $-V+V$ |
| Stops (Plosives) | $\mathrm{p} \quad \mathrm{b}$ |  |  | $t \quad d$ |  |  | k g | 1 |
| Fricatives |  | f $v$ | $\theta$ ð | S Z | $\int 3$ |  |  | h |
| Affricates |  |  |  |  | ts ds |  |  |  |
| Nasals | m |  |  | n |  |  | $\eta$ |  |
| Lateral (approximant) |  |  |  | I |  |  |  |  |
| Approximant | $w^{2}$ |  |  | r |  | j | $w^{2}$ |  |



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## Front

Central Back

## High



| Consonants | Vowels |
| :---: | :---: |
| p pen, copy, happen <br> b back, baby, job <br> t tea, tight, button <br> d day, ladder, odd <br> k key, clock, school <br> g get, giggle, ghost | 1 kit, bid, hymn, minute <br> e dress, bed, head, many <br> æ trap, bad <br> v lot, odd, wash <br> A strut, mud, love, blood <br> ₹ foot, good, put |
| tf church, match, nature d3 judge, age, soldier | i: fleece, sea, machine <br> eI face, day, break |
| f fat, coffee, rough, photo <br> v view, heavy, move | aI price, high, try <br> गı choice, boy |
| $\theta$ thing, author, path <br> ð this, other, smooth <br> s soon, cease, sister | u: goose, two, blue, group əъ goat, show, no av mouth, now |
| z zero, music, roses, buzz <br> f ship, sure, national <br> 3 pleasure, vision <br> h hot, whole, ahead | 1ə near, here, weary <br> eə square. fair, various <br> a: start, father <br> -: thought, law, north, war |
| m more, hammer, sum <br> n nice, know, funny, sun | ซว poor, jury, cure <br> 3: nurse, stir, learn, refer |
| $\mathrm{\eta}$ ring, anger, thanks, sung | ə about, common, standard |
| 1 light, valley, feel | i happy, radiate. glorious |
| j yet, use, beauty, few | n suddenly, cotton |
| w wet, one, when, queen | 1 middle, metal |
| (glottal stop) | - (stress mark) |
| department, football |  |

## Practice

pat part port pot putt put poot pert Pete pit pout

## cat cart court cot cut coot Kurt skeet kit scout

| hat heart hot hut hoot hurt heat hit |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| bat bart bort bot but | boot | beat bit bout |  |  |  |  |  |
| at art ought |  |  |  |  | eat it out |  |  |
| æ a: | Ј: | D | ^ | v u: | 3: | i: | I |
| au |  |  |  |  |  |  |  |

## Find examples and practice

- [æ]
* [ $\varepsilon]$
* [aI]
- [eI]
- [כI]
* [Iə]
- [ชə]
* [3:]
heat hill hat hit hot
heart hear hair had hall
eat
ill
at
it
ought art ear air add all
* beware! there is a SILENT [h] in the following words:
*honor, honorable, honored, honoring ...
*hour, hourly, hourlong, hourglass
* honest, honesty, honestly
* heir, heiress, heirdom, heirless, heir-atlaw, heirship, heirloom
* herb (some US speakers)

The Combination of Speech Sounds

## Introduction

* In speech and interaction, individual speech sounds are combined to make words, phrases and sentences
* In combinations, speech sounds may undergo transformations
Combinations also bring about new facts on the segment or in the relation between a segment and others

Three kinds of phenomena occur in combinations: sound transformation, secondary features, and prosody.
The speaker of English as a second language is said to be fluent when he or she can accurately operate these three phenomena.

## Speech sound transformation

* Sound transformation has two realizations:
* A speech sound becoming another one in a given context, or
* $[\mathrm{t}] \rightarrow[\mathrm{r}]$ (better [betə]); $[\mathrm{n}] \rightarrow[\mathrm{n}]$ (ring [rin], thank [ $\because æ ŋ k])$
* A speech sound acquiring additional features or losing some features.
- $[\mathrm{p}] \rightarrow\left[\mathrm{p}^{\mathrm{h}}\right]$ and $[\mathrm{t}] \rightarrow[\mathrm{t}]$ (port $\left.\left[\mathrm{p}^{\mathrm{h}}: \cdot \mathrm{t}\right]\right) ;[\mathrm{l}] \rightarrow[\mathrm{t}]$ (will [wIt])


## Sound Combinatory Phenomena

* Aspiration [- h ]
* There is aspiration when a fortis plosive occurs before a vowel sound in an accented position.
* Velarization of [I]: [t]
* [I] is velarized when it occurs after a vowel within the same syllable; the single coda closing a syllable. It is then called velarized [I] or dark [I] as opposed to clear [I].
* Velarization of [n]
* [ n ] is velarized when it occurs before a velar consonant ([k]; [g]). It becomes [ n ]
* Unreleasing of fortis plosives [-]
* When fortis plosives occur at a final position, they are unreleased. The plosion is not realized.
* Vowel reduction [ə]
- When a vowel is not accented in a given structure, it is reduced and realized as schwa [ə]
* NB. the vowel of structure or grammatical words generally occur in their reduced form (a, the, ...)
- Vowel deletion
* A vowel that is reduced can be deleted in a structure.


## - Syllabicity [.]

* When the vowel of a syllable is deleted, the coda becomes the nucleus, a syllabic consonant. The diacritic of syllabicity indicates the deletion of the vowel.
* [ma:tn]; [s^dñ]; [prınsıpl]
* Palatalization by coalescence
* Two sounds come together to for a palatal sound
* $[\mathrm{t}]+[\mathrm{j}] \rightarrow[\overparen{t}]$ I want you [aI wont $\overparen{f}$ ]; nature [netit $\overparen{f}$.]
- [d]+[j] $\rightarrow$ [d3] I need you [aI ni:d3ə]
* [s]+[j] $\rightarrow[]$ I wish you... [ai wifə]; nation [neifən]

- In some varieties of spoken English (mostly USA and Australia), $[\mathrm{t}]$ and [d] are flapped when they occur at and intervocalic position.
* [wbțə] or [wbrə]; [lædֶə]or [lærə]]
* Rhoticity
* Spoken in English is divided into rhotic accents (where post-vocalic [r] is pronounced): [ $f 3:$ :rðər] or [f3-də-] (USA, Canada, Scotland, Ireland, West Lancashire, South West England...)
- and non-rhotic (where post-vocalic [r] is not pronounced): [f3:ðə] (most accents in England...)


## Prosody

## Stress

*What is word stress?

* In every word in English, there is one main emphasized syllable
* The vowel sound in this syllable sounds higher in pitch, longer, clearer and louder
* This phenomenon is called word stress
* This creates the rhythm of each English word and conditions understanding
- Each word has one primary stress
* English word stress is not always on the same syllable, like in some languages.
* It generally falls on one of the last three syllables of the word


## Word stress notation

* Written accent notation
* A written accent is put before the stressed syllable, top left. e.g. [prən^nsi'erfən]
* Numeric notation: the stressed syllable is marked "1" and the unstressed syllables are marked "0". e.g. pronunciation /00010/
* Syllable highlight: the stressed syllable is capitalized, underlined or written in bold. e.g. pronunciation; pronunciAtion...
* Other notations: colors, circles, squares, rods, etc. pronunciation; ㅁㅁ $\square \square$


## Secondary stress notation

* Complex words may have a secondary stress note "2" or with an accent noted down left of the syllable.
* [prə, n^nsi'eifən] or /02010/
* A secondary stress marks a syllable that held a primary stress in the derivational or inflectional history of the word
* Pronounce [01] $\rightarrow$ pronunciation [02010]


## Word stress rules

## Basics

* The phonological nominal stress rule
* a) Start scanning the noun from the end. Neglect the ultimate syllable. It's not stressable.
b) Check the penultimate. If it is heavy, stress it.
* c) If the penultimate is light, stress the antepenultimate
consénsus[kən'sensəs]
metrópolis[mı'tropəlis] horízon[hə'raizən]
synópsis[sinэpsis]
jávelin['dzævlin]
amálgam[o'mælgəm]
coróna[kə'rəunə] uténsil
[ju:'tensl]
ársenal['a:sınl] Minnesóta[,mini'səutə] angína [æn'ḑainə] appéndix[ə'pendıks] análysis [ə'næləsis]
*The phonological verbal stress rule
*a) Start scanning the verb from the end.
*b) Check the ultimate. If it is heavy, stress it.
*) If the ultimate is light, stress the penultimate


## COLUMN I COLUMN II COLUMN III

## édit

 prómise cáncelhámmer

quíbble
astónish consíder
embárrass
detérmine
erase
surmíse
caréen
appéar
cajóle
maintáin
caróuse
decíde
achíeve
tormént
usúrp adápt eléct
convínce
collápse exháust obsérve lamént

## Alternating Stress Rule (ASR)

The Alternating Stress Rule (ASR)

* If the phonological stress rule places primary stress on the ultimate of a polysyllabic word, the primary stress is moved to the antepenultimate, and the ultimate's stress is reduced to tertiary.


## 'decorate

## mo'nopolize

## 'constitute

## 'graduate

## 'amplify

'manifest
'implement

## Adjectives

* Adjectives have no phonological stress rule of their own. Instead, some of them are stressed like nouns, while others are stressed like verbs.

Disyllabic adjectives are generally stressed like verbs

* clever, correct, distinct, extreme, secure, minute, afraid
*Polysyllabic adjectives, on the other hand, are generally stressed like nouns
definite, similar, tremendous, feminine, usual, objective, abundant, reluctant, important, coherent, courageous, etc.


## Adverbs

* For adverbs, the overwhelming majority of them is formed from adjectives with the suffix -ly, which doesn't alter the stress pattern of the adjective, cf. relúctant $\rightarrow$ relúctantly, rígid $\rightarrow$ rígidly, etc.
* As for those adverbs which are not formed from adjectives, such as here, there, now, todáy, tomórrow, etc., we may note that many of them are monosyllabic; disyllabic and polysyllabic ones show a rather inconsistent stress pattern
* This inconsistency seems to be linked to the way the role the speaker assigns to those adverbs.


## Morphological constraints in stress placement

* Affixes often influence the placement of primary stress, sometimes producing stress patterns which contradict the phonological stress rules
* Morphological constraints may override phonological constraints
* the suffix -ic attracts stress on the immediately preceding syllable
* Neutral suffixes have no influence on the place of stress, and they are not stressed themselves, either. The procedure is the following:
* (i) disregard the suffix, (ii) determine stress placement in the remaining part (= the stem), (iii) primary stress will fall on the same syllable in the suffixed form
* \#(e)d: límit - límit\#ed, décorate - décorat\#ed, presént presént\#ed
* \#ing: límit - límit\#ing, décorate - décorat\#ing, presént presént\#ing
* \#(e)s: órange - órang\#es, páradox - páradox\#es (plural of nouns); órange's, páradox's (possessive; note the different spelling but identical pronunciation in the plural and the possessive); refúse - refús\#es, géneralise - géneralise\#s (3rd person verb forms).
* derivational suffixes
* \#able (V $\rightarrow$ Adj): décorate - décorat\#able, públish públish\#able
* \#al $(\mathrm{V} \rightarrow \mathrm{N})$ : arríve - arrív\#al, refúse - refús\#al
* \#er/or $(\mathrm{V} \rightarrow \mathrm{N})$ : mánage - mánag\#er, intérpret - intérpret\#er
* \#ful ( $\mathrm{N} \rightarrow$ Adj): béauty - béauti\#ful, púrpose - púrpose\#ful
- \#hood $(\mathrm{X} \rightarrow \mathrm{N})$ : párent - párent\#hood, bróther bróther\#hood
* \#ish ( $\mathrm{X} \rightarrow$ Adj): ámateur - ámateur\#ish, yéllow - yéllow\#ish
* \#ism ( $\mathrm{X} \rightarrow \mathrm{N}$ ): módern - módern\#ism, àbsentée àbsentée\#ism
* \#ize ( $\mathrm{X} \rightarrow \mathrm{V}$ ): módern\#ize, cháracter cháracter\#ize
- \#less ( $\mathrm{N} \rightarrow$ Adj): mércy - mérci\#less, párent párent\#less
* \#ly (Adj $\rightarrow$ Adv): béautiful - béautiful\#ly, définite - définite\#ly
* \#ment (V $\rightarrow \mathrm{N}$ ): agrée - agrée\#ment, encóurage - encóurage\#ment
* \#ness (Adj $\rightarrow \mathrm{N}$ ): cohérent - cohérent\#ness, mérciless - mérciless\#ness
* It may, of course, happen that more than one neutral suffix is added to a stem. For example, the verb regárd can be suffixed with \#less, yielding regárd\#less; then, \#ly can be added, forming regárd\#less\#ly.
- No matter how many neutral suffixes a word contains, the primary stress will be on the same syllable where it is in the form that remains when all neutral suffixes are removed
* Neutral suffixes, then, are added to forms which already have their own stress, and these suffixes cannot change it


## * Self-stressed suffixes

* they are primary stressed themselves
* -ade: lèmon-áde, èscap-áde, par-áde
* -aire: quèstionn-áire, million-áire, dòctrin-áire * -ee: rèfer-ée, nòmin-ée, degr-ée
* -ese: Jàpan-ése, Pòrtugu-ése, Chin-ése
* -esque8: pìctur-ésque, Ròman-ésque
* -ette: cìgar-étte, kìtchen-étte, cass-étte


## *Pre-stressed suffixes

* They attract primary stress on the syllable which precedes them
* They are all derivational suffixes
* +ic: heró+ic, histór+ic, dèmocrát+ic, semánt+ic
* +ial: tutór+ial, còntrovérs+ial
* +ian: Hungár+ian, màthematíc+ian, Canád+ian
* +ion: dècorát+ion, òpposít+ion, rebéll+ion,
* +ious: luxúr+ious, prestíg+ious, victór+ious
* +ible: divísible, permíssible, compátible, accéssible
* +ical: histórical, económical, grammátical, phonológical
* +ify: idéntify, solídify, persónify, syllábify
* +ity/+ety: historícity, varíety, publícity, serendípity
* +logy: sociólogy; psychólogy; pharmacólogy
* +al/+ar: orígin+al, fundamént+al, partícul+ar, famíli+ar
* +ance/+ence: signífic+ance, résid+ence, rélev+ance, cohér+ence
* +ant/+ent: signífic+ant, résid+ent, rélev+ant, cohér+ent
* +ual: evéntual, intelléctual, indivídual, habítual
* +uous: contínuous, ingénuous, conspícuous, promíscuous


## Compounds

* A compound is a word which consists of two or more independent words.
* 'doorstep, 'earthquake, 'hairbrush.
* loud'speaker, hard'working, home'made.
* prime 'minister, red 'herring, 'town hall
* old-'fashioned, 'heart- shaped, 'make-believe.
* 'no one or 'no-one, 'teapot or'tea-pot, 'trademark or'trade mark, 'egg cup, 'eggcup, or 'egg-cup.
* the variability in writing reflects to some extent variability in pronunciation


## Basic rule

- (i) If the first part of the compound is (in a broad sense) adjectival, the stress goes on the second element, with a secondary stress on the first. For example:
* loud'speaker; bad-'tempered; second-'class; three'wheeler
- (ii) If, however, the first element is (in a broad sense) a noun, the stress goes on the first element. For example:
- 'typewriter; 'car-ferry; ‘sunrise; ‘suitcase; 'tea-cup
* see Peter Roach 1983


## Functional or classificatory Stress

- 'conduct (n)
- 'produce (n )
- 'licence(n )
- 'convert (n)
- 'prospect (n )
* 'protest (n )
* 'record (n)
- 'present (n)
con'duct (v)
pro'duce (v)
li'cence (v)
con'vert (v)
pros'pect (v)
pro'test (v)
re'cord (v)
pre'sent (v)


## Accent and intonation

## Practice: transcribe the following words phonetically

* Thinking
* strategically
* Ecologically
* Possibility
* Strangers
* physics
*Foolishness
* Poetry
* catholic
* philology
* selfishness


## Phrasal and sentence accent

* Accent is the prominence pattern that falls on the phrase and the sentence:

A black city
A beautiful Ivorian woman The little boy waved in our direction.
a ,dancing 'teacher vs.
a 'dancing teacher
a ,young French 'teacher vs. a 'young French ,teacher

an ,English 'student<br>vs. an 'English student

an ,English 'teacher vs. an 'English teacher

## Compound stress and accent...

* a ,dancing 'teacher vs. a 'dancing teacher
a ,young French 'teacher vs. a 'young French ,teacher an ,English 'student vs. an 'English student
* an ,English 'teacher vs. an 'English teacher


## Using the accent

* The accent generally falls on the right-most lexical item in the phrase or the sentence.
- She started screaming when she saw the SNAKE.
* however, the accent can fall on any part of the phrase or the sentence as the speaker sees it. Even on the structure words.
- SHE started screaming when she saw the snake.


## Intonation

－He found it on the street？
＊［ hi＇faund It｜Dn ðә 兀＇＇strii：t｜｜］ Yes，he found it on the street．
［ $\downarrow$＇jes｜｜hi＇faund It｜Dn ðә ১＇stii：t｜｜］ How did you ever escape？
＊［フ＇＇hau didju：｜＇عvə｜əゝ＇＇skeip｜｜］

## Types of intonation

* Rising Intonation means the pitch of the voice rises over time [ 7 ];
* Falling Intonation means that the pitch falls with time [ $\llcorner$ ];
* Dipping or Fall-rise Intonation falls and then rises [ $\searrow \gg$;
* Peaking or Rise-fall Intonation rises and then falls [ $\nearrow \searrow$ ].


## Functions of intonation

* Attitudinal function: expresses emotions and attitudes
* Focusing: shows what information in the utterance is new and what is already known
* Indexical function: acts as a marker of personal or social identity
* Discourse function: shows how clauses and sentences go together in spoken discourse (e.g. Main clauses vs. subordinate clauses)


## Practice

* She is divorced again
* Thanks
* Good morning
* She beats him
* I'd love some
- Sorry
* Cool
- Yes, please.


## Spoken English Variety

| British Isles | America |
| :--- | :--- |
| England | United States |
| Wales | Canada |
| Ireland | The Caribbean |

## Africa

West Africa
East Africa
South Africa

## Asia, Pacific

South- and South-East Asia
Australia and New Zealand

The Pacific islands

## Some key varieties

- https://www.youtube.com/watch?v=VAWt0OJ65Bc
* https://www.youtube.com/watch?v=dABo DCIdpM
- Ebonics
- General American
- BBC Accent
- Lancashire Accent
* Southern US Accents
- Northern Accents
- Western Accents
* West African
* Jamaican Accent
* South African
- Indian Accent
* Australian Accent
* Irish Accent
* Scottish Accent


## Phonetic transcription

## Phonemic vs. phonetic

* Phonemic
* Gives broad facts
* Provides segments used in a pronunciation and indicates stress
- General linguistic facts
- Between slants, angle brackets, or slash marks (//)
* Phonetic
- Gives all the details as realized by the speakers
- Idiosyncratic facts
* Between square brackets ([])



## Practice

## Provide the accurate vowel sound

- a. tick
- h. dirt
- b. ghost
-c. flood
od. thaw
- e. sprout
- f. good
- g. folk
- i. lost
- j. duck
- k. debt
- l. dude
- m. kite
- n. past


## Provide the necessary secondary features

- a. [top]
-b. [pælətəl]
- c. [sperfol]
- d. [plænətəri]
- e. [sistemik]
of. [sarkarətrist]
- g. [militəri]
-h. [splæfin]
-i. [əlar]
-j. [peinfol]
ok. [spkit]
- l. [SISkəv]

Transcribe phonetically and apply the accurate stress pattern

* pharmacology
* arithmetic
* historical
- systematic
* physiology
- history
* mathematics
- waterfall
- africanist
* literature
- destroyer
* skyscraper
- dormitory
- communism
- planetary
* legendary
- catholic
* thermodynamics
- languages
- econometrics

Provide the written form

#  

 ai 'so: hə maiself $n$ ai wəz 'səv əs'thoniftllai ḑ^st 'lukt streit intə hə 'aızṇ 'wentəweill][ff 'æfrıkṇ 'kh^ttəəz a: dəz'phaizd bai 'æfrıkn 'phi:pł ðəm'sعłvz|ðとi Wił not bi'seifga:didllðə wit bi 'dsepədaizdII]
[ðә wə siks 'membəz in ðə 'khbmiti ðæt 'intəvju:d millai wəz səu 'skદədllðદn ðI 'əunli mæn ə'm^ŋ ðદm 'smaiłdən æskt mi tə 'riæksllai 'tukə 'di:p breӨ|ən 'fełt m^tf betə
'a:ftəwədzll]

## Transcribe phonetically

* If you wanna have a good life, you should respect your parents.
* He put the luggage into the bus.

Before you start writing, check your name and registration number.
It was cold and raining cats and dogs! We couldn't leave because we had no umbrella.

