

The Stress

Objectives: By the end of this lesson, learners will be able to distinguish between the notion of stress-timed languages, where stressed syllables are produced with a degree of muscular effort, and at approximately regular intervals, and unstressed syllables shortened to fit this rhythm, compared to syllable-timed languages where each syllable takes almost the same period of time.

The notion of stress in phonetics can be considered from two perspectives: production and perception. The first point delineates the extent of muscular effort exerted by the speaker during the production of a stressed syllable than what is used for unstressed syllables. The second point refers to characteristics which makes a given listener perceives a syllable more prominent than the other syllables (Wells, 2006, 2008; Yule, 1996).

22.1. Definition of Stress

Gimson (1980) proposes this comprehensive definition to stress:

A sound or a syllable which is stressed is one upon which there is expended in the articulation relatively great breath effort and muscular energy; in voiced sounds, greater amplitude of vibration of the vocal cords, together with the reinforcing resonance of the supra-glottal cavities, results in physical terms in relatively great intensity of the sound or syllable, such intensity being perceived by the listener as greater loudness associated with the sound of the syllable. Thus, the greater energy which the speaker feels is concentrated on the first syllable of answer may be manifested for the listener as greater loudness (p. 222).

22.2. What makes a syllable more prominent than the other syllables?

Phoneticians identify four factors that lead to syllable prominence. These include loudness, length, pitch, and quality. Loudness corresponds "to some degree with the acoustic features of **intensity** or **power** (measured in decibels (dB)), which in the study of speech is based on the size of the vibrations of the vocal folds, as a result of variations in air pressure"

(Crystal,

2008, p. 290). Duration or length describes the length of time that a speaker takes during the articulation of a syllable. However, 'pitch' is related to the frequency of vibration of the vocal cords, and "the attribute of auditory sensation in terms of which a sound may be ordered on a scale from „low“ to „high“" (p.253), (rising or falling pitch). The fourth feature considers vowel

quality. A syllable is said to prominent if it includes a vowel sound that is different in quality

from the other adjacent vowel sounds. We can, for instance, mention the vowels that are usually included in weak syllables (i, ʊ, ɪ, ə). Roach (2000) points out that these features (loudness, length, pitch, and quality) "are not equally important; the stronger effect is produced by pitch, and length is also a powerful factor. Loudness and quality have much less effect" (p.95).

22.3. Levels of Stress

Echoing the point of view the American structuralist tradition, Crystal (2008), distinguish four degrees of stress from strongest to weakest: primary, secondary, tertiary, and weak. "These contrasts are, however, demonstrable only on words in isolation, as in the compound *elevator operator*" (455).

22.4. Stress Placement

The decision of stress placement requires responding to the following questions:

- a) Whether the word is morphologically simple/ complex/ compound/ containing one or more affixes.
- b) In what grammatical category does the word fall (verb/ adjective/adverb/noun).
- c) The number of syllables in the word.
- d) The phonological structure of those words (Roach, 1980, p.97).

22.5. Two-syllable Words

- **Verbs:** if the second segment of the verb contains a strong syllable; then the second syllable takes the stress: arrive ə'raɪv / attract ə'trækt / annoy ə'nɔɪ. But if the second syllable is weak, or it ends in short /i/ or /əʊ/ sound, the first syllable will be stressed: open 'əʊpən / 'enter entə / 'envy /envi/ follow /'fɒləʊ/

- **Adjectives:** We can apply the same rule of verbs to adjectives: if the second segment contains a strong syllable, then, it will take the stress: divine dɪ'vaɪn / correct kə'rekt/ alive ə'lɑɪv/. Conversely, if the first segment contains a strong syllable or a syllabic consonant, it takes the stress: lovely 'lʌvli/ even i:vən/

Words such as honest /'hɒnɪst/ and perfect /'pɜ:fekt/ /'pɜ:fɪkt/, though the second

segment is composed of strong syllables the first syllable is stressed.

- **Nouns:** If the second syllable contains a short vowel, a syllabic consonant, or it ends in /əʊ/, the first syllable will be stressed: honey /'hʌni/ /'baby/ /'beɪbi/ product /'prɒdʌkt/ cradle 'krædəl 'krædl. If the second syllable contains a long vowel, or a diphthong, it takes the stress: design /dɪ'zaɪn/ approach /ə'prəʊtʃ/.

Table 13: Adjectives and Adverbs behaving like verbs

| Words | As nouns/adjectives | As Verbs |
|----------|---------------------|------------|
| abstract | <u>'æbstrækt</u> | æb'strækt |
| conduct | <u>'kɒndʌkt</u> | kən'dʌkt |
| contrast | <u>'kɒntrɑːst</u> | kən'trɑːst |
| desert | <u>'dezət</u> | dɪ'zɜːt |
| escort | <u>'eskɔːt</u> | ɪs'kɔːt |
| export | <u>'eksɒt</u> | ɪks'pɔːt |
| import | <u>'ɪmpɔːt</u> | ɪm'pɔːt |
| insult | <u>'ɪnsʌlt</u> | ɪn'sʌlt |
| object | <u>'ɒbdʒɪkt</u> | əb'dʒekt |
| perfect | <u>'pɜːfɪkt</u> | pə'fekt |
| permit | <u>'pɜːmɪt</u> | pə'mɪt |
| present | <u>'preznt</u> | pri'zent |
| produce | <u>'prɒdjuːs</u> | prə'djuːs |
| protest | <u>'prəʊtest</u> | prə'test |
| rebel | <u>'rebl</u> | ɪr'bel |
| record | <u>'rekɔːd</u> | ɪr'kɔːd |
| subject | <u>'sʌbdʒɪkt</u> | səb'dʒekt |

Gimson, 1980, p. 111

Table 14 : Nouns/ Adjectives behaving like Verbs

| Words | Nouns/ Adjectives | Verbs |
|----------|-------------------|------------|
| absent | 'æbsənt | æb'sent |
| accent | 'æksənt | ək'sent |
| combine | 'kɒmbaɪn | kəm'baɪn |
| compress | 'kɒmpres | kəm'pres |
| concert | 'kɒnsə(:)t | kən'sɜːt |
| consort | 'kɒnsɔːt | kən'sɔːt |
| convict | 'kɒnvɪkt | kən'vɪkt |
| digest | 'daɪdʒest | dɪ'dʒest |
| frequent | 'friːkwənt | friː'kwent |
| proceeds | 'prəʊsiːdz | prə'siːdz |
| progress | 'prəʊgrəs | prə'gres |
| project | 'prɒdʒekt | prə'dʒekt |
| refuse | 'refjuːs | ˌriː'fjuːz |
| segment | 'segmənt | seg'ment |
| survey | 'sɜːveɪ | sɜː'veɪ |
| minute | 'mɪnɪt | maɪ'njuːt |

Roach, 2000, p. 111

22.6. Three-Syllable words

22.6.1. Verbs:

- If the final syllable is strong, then, it will take the stress: resurrect rezə'rʌkt entertain entə'teɪn recommend ,rekə'mend
- If the second Syllable is strong, and the first and last syllables are weak, the penultimate syllable will be stressed: determine dɪ'tɜːmɪn encounter ɪŋ'kaʊntə
- If the second and last syllable is weak, the stress will be placed on the first syllable: Parody 'pærədi (99)

22.6.2. **Nouns:** Concerning nouns, if they end in the sound /əʊ/, or the final syllable happens to

be weak, the stress falls on the second syllable if it is strong. If both the second and final syllables are weak, the stress will be placed on the first syllable:

Tomato təma:təʊ dɪza:stɪn

officer 'ɒfɪsə canopy 'kænəpi bulletin 'bʊlɪtɪn

22.7. Practice: Classify the following words into

Celebrate Abdicate Revenge Imagine Medicine Officer Canopy Intimate Sacrifice Abandon
Surrender Minister Arrange Bulletin Acknowledge Estimate Deliver Concentrate Remedy
Continue Monitor Amnesty Animate Dissolve Arrogate Aggravate Revolve Expedite
Compromise Permeate Astonish Examine

'selɪbreɪt 'æbdɪkeɪt rɪ'vendʒ ɪ'mædʒɪn 'mædsɪn 'ɒfɪsə 'kænəpi 'ɪntɪmɪt 'ɪntɪmeɪt 'sækrɪfaɪs
ə'bændənsə'rendə 'mɪnɪstər ə'reɪndʒ 'bʊlɪtɪn ək'nɒlɪdʒ 'estɪmɪt 'estɪmeɪt dɪ'lɪvə 'kɒnsəntreɪt
'remɪdi kən'tɪnju(:) 'mɒnɪtər 'æmnɪstɪ 'ænɪmɪt 'ænɪmeɪt dɪ'zɒlv 'ærəʊgeɪt 'ægrəveɪt rɪ'vɒlv
'ekspɪdaɪt 'kɒmprəmaɪz 'pɜːmɪeɪt əs'tɒnɪʃ ɪg'zæmɪn

Table 15: Three-syllables Nouns/Adjectives/ Verbs

| Words | Nouns/ Adjectives | Verbs |
|-------------|---|--------------------------|
| Alternate | ɔ:l'tɜ:nɪt ə'l'tɜ:nɪt | 'ɔ:ltənert |
| associate | ə'səʊʃət siət ʃiət | ə'səʊʃiərt ə'səʊsiərt |
| attribute | 'ætrɪbjʊ:t | ə'tribju:t |
| envelope | 'envələʊp 'enveləp | ,m'veləp |
| reprimand | 'reprɪmɑ:nd | reprɪ'mɑ:nd |
| interchange | ,'ɪntə ʃʃeɪndʒ | ,ɪntə ʃʃeɪndʒ |
| complement | 'kɒmplɪmənt | kɒmplɪ'ment |
| supplement | 'sʌplɪmənt | sʌplɪ'ment 'sʌpliment |
| estimate | 'estɪmət | 'estɪmərt |
| intimate | 'ɪntɪmət | 'ɪntɪmərt |
| moderate | 'mɒdərət | 'mɒdərert |
| prophecy | 'prɒfəsi | 'prɒfɪsaɪ |
| separate | 'sepəreɪt | 'sepəreɪt |
| invalid | 'ɪnvəlɪd (sick) m'velɪd (void) | ,ɪnvə'li:d |

22.8. Stress in Complex Words

Objective: To show learners the relationship between suffixes and stress shift

22.8.1. The Primary Stress on the Suffix

Words that use the suffix ade, ee, ese, eer, que, ette, or oon have the primary stress actually placed on the suffix. This applies to words of all syllable lengths.

Examples:

ade: ,ləmə'neɪd, ,eskə'leɪd kru:'seɪd, ,ɛsplə'neɪd

ee: ,gærən'ti: əpɔ:m'ti: ,mɔ:ɡə'dʒi: ,ædre'si:

eer: ,pʌpɪ'tiə ,ɛndʒɪ'nɪə ,maʊntɪ'nɪə ,vɒlən'tiə

ese: ,saɪə'mi:z , ,dʒæpə'ni:z ,pɔ:tʃʊ'gi:z ,dʒɜ:nə'li:z

ette: kə'set, kɔ:'vet, ,nɒvə'let ,sɪɡə'ret

que: ju:'ni:k fr'zi:k tɛk'ni:k

oon: bə'lu:n, 'ɑ:ftə'nu:n, kɑ:'tu:n

22.8.2. Suffixes that do not affect the stress

-able: ə'ɡriəbl bɪ'li:vəbl ə'dɔ: ə'dɔ:rəbl ɪk'saɪtəbl, 'pɔ:təbl, prɪ'ventəbl

Except: 'demənstreɪt dɪ'mɒstrəbl, əd'msaɪə(r) 'ædmrəbl

-age: pɑ:s 'pæsɪdʒ 'peɪtrən 'pætrənɪdʒ 'pɪlɡrɪm 'pɪlɡrɪmɪdʒ

-al: rɪ:'fju:z rɪ'fju:zəl 'ɛθɪks 'ɛθɪkəl bæk'tɪəriəl, θɪ'ætrɪkəl, 'nætʃrəl

-en: 'dɑ:k 'dɑ:kən ə'weɪkən, 'fɑ:sn, 'streɪθən

-ful: 'wʌndəfʊl 'helpfʊl, 'θæŋkfʊl, 'ʃiəfʊl

-ing: 'vɪzɪt 'vɪzɪtɪŋ 'bɛdɪŋ, 'frɒstɪŋ, 'ruːfɪŋ

-ish: 'dɛvɪl 'dɛvɪʃ 'drægən 'drægənɪʃ 'eɪpɪʃ, 'bruːtɪʃ, 'ʃaɪldɪʃ

However, when the segment ish is a part of the verb, or adjective, the stress falls on the

syllable preceding 'ish' dɪ'mɪnɪʃ dɪ'mɒlɪʃ ə'kɒmplɪʃ ɪs'tæblɪʃ

-like: 'bɜːdlɑːk 'ʃaɪldlɑːk, 'həʊmlɑːk, 'laɪflɑːk

-less: 'keələs 'fiələs, 'hɛlplɪs, 'həʊmləs

-ly: 'æŋgrɪli 'bædli, kə'reɪdʒəsli, 'hæpɪli 'sləʊli

-ment: 'muːvmənt, 'pleɪsmənt, 'ʃɪpmənt dɪ'veləpmənt

-ness: 'kaɪndnɪs, 'hæpɪnɪs 'gʊdnəs 'ʃaɪnəs, 'sædnɪs 'wiːknɪs

-ous: 'deɪndʒrəs 'hæzədəs, 'hjuːmərəs, 'wʌndrəs

-fy: 'æmplɪfaɪ, 'fɔːlsɪfaɪ, 'tɛrɪfaɪ 'nəʊtɪfaɪ 'kɒdɪfaɪ

-wise: 'laɪkwaɪz 'ʌðəwaɪz 'klɒkwaɪz 'kɒntrərɪwaɪz

-y: 'breɪni, 'fruːti, 'fʌni 'reɪni 'snəʊi 'wɪndi

22.8.3. Suffixes that influence Stress in the Stem: (The stress falls on the last syllable of the stem).

-eous: ,ædvən'teɪdʒəs kə'reɪdʒəs ,ɪnstən'teɪnjəs aʊt'reɪdʒəs ,sɪməl'teɪnjəs

-graphy: fə'tɒgrəfi kə'tɒgrəfi kə'lɪgrəfi ,əʊʃjə'nɒgrəfi tə'pɒgrəfi

-ial: æm,bæsə'dɔːrɪəl ,sɜːkəm'stænʃəl kə'ləʊkwɪəl kə'ləʊnjəl ,kɒntrə'vɜːʃəl

-ic: ,ækə'demɪk ,ækrəʊ'mætɪk ,ærəʊ'mætɪk ,ægrəʊ'nɒmɪk hɪs'tɒrɪk ɪg'zɒtɪk fə'nætɪk

-ion: ə,briːvɪ'eɪʃ(ə)n ə,bɒmɪ'neɪʃ(ə)n ,æbrəʊ'geɪʃ(ə)n ,kænsə'leɪʃən ,dædɪ'keɪʃən

-ious: æm'bɪʃəs dɪ'lɪʃəs rɪ'beljəs rɪ'lɪdʒəs ,sjuːpə'stɪʃəs nəʊ'tɔːrɪəs vɪk'tɔːrɪəs

-ity: əd,mɪsə'bɪlɪti ə,fɛktə'bɪlɪti ə'fɪnɪti ,keɪpə'bɪlɪti kə'pæsɪti kæp'tɪvɪti sɪ'vɪlɪti

-ive: ə'bɔːtɪv ə'kjuːmjuːlətɪv ə'dæptɪv ə'grɛsɪv dɪs'trʌktɪv 'ɛdʒu(:)kətɪv ɛks'pɒzɪtɪv

Roach explains (2000) explains that "when the suffixes '-ance', '-ant', and '-ary' are attached to a single-syllable stem, the stress is almost always placed on the stem. When the stem has more than one syllable, the stress is on one syllable of the stem" (p.107). This implies

that we need to consider the rule relevant to syllable structure: the strong syllable in the word will take the stress.

- 'vɛndʒəns ək'septəns ə'kɔːdəns ə'kweɪntəns ə'prɛərəns ə'sɪstəns ə'tɛndəns dɪ'faɪəns

- dɪ'faɪənt 'ærəʊgənt dɪ'sendənt 'æplɪkənt 'plɛznt rɪ'læktənt sɪg'nɪfɪkənt
- bʌdʒɪtəri 'bɜːsəri 'kɔːʃnəri sɛn'tiːnəri ,kɒmplɪ'mɛntəri kən'kriːʃnəri ,rɛvə'luːʃnəri

22.9. Stress in Compound Words

Unlike complex words, compound words can be analyzed separately; both words can exist as two separate units. Compound words are written in different ways: some are written as

one word, eg., sunshine, toothpaste; others are separated only by a space (as separate words) bus Stop; and others are separated by a hyphen tea-cup.

22.9.1. The Stress on the First Constituent

22.9.1.1. Noun+Noun

taxi-driver school-bag silk-worm pencil-case

'tæksɪ,draɪvə 'sku:l-bæg 'sɪlk-wɜːm 'pɛnsɪlkeɪs

seafood typewriter suitcase iceland footfall

'siːfuːd 'taɪp,raɪtə 'ʃjuːtkeɪs 'aɪslənd 'fʊtɔːl

22.9.1.2. Adjective+ Noun

Black-board, Green-house, Round-table, Black-smith, White-house

'blæk-bɔːd, 'ɡriːn-haʊs, 'raʊnd'teɪbl, 'blæk-smɪθ, 'waɪt-haʊs

22.9.2. The Primary Stress on the Second Constituent

22.9.2.1. Adjectival first element + ed morpheme Second Element

bad-tempered heavy-handed bare-footed long-haired open-minded

bæd'tempəd hevi'hændɪd beə'fʊtɪd lɒŋ'heəd əʊpən-'maɪndɪd

BUT: ə 'bæd tempəd mænn ə 'beə fʊtɪd begə

22.9.2.2. Number+ Noun

Second-class four wheeler five-finger ten-minute

sɛkənd-'klɑːs fɔː-'wiːlə 'faɪv-'fɪŋgə tɛn-'mɪnɪt

22.9.2.3. A phrasal verb (V + 'Prep/or 'Adv) takes stress on the Prep/or Adv.

Sit 'down, Fly a'way, Stand 'up, Climb 'up, Run a'way, Go 'into

sɪt 'daʊn, flaɪ ə'weɪ, stænd 'ʌp, klaɪm 'ʌp, rʌn ə'weɪ, gəʊ 'ɪntuː

22.9.4. Compound Words Functioning as Adverbs

Head-first South-East down-town

hed-'fɜːst 'saʊθ'iːst daʊn-'taʊn

22.9.5. Compound Words having an adverbial First element, and functioning as "verbs"

downsize, upgrade illtreat downgrade

daʊn'saɪz, ʌp'greɪd 'ɪl'tri:t 'daʊn'greɪd

22.9.6. Practice: Place the primary stress on the right syllable

Objective: To measure the extent to which learners can place the stress according to lesson 22.

sunset - climatic -magnet - unpleasant - marketing – reflexive - to import -

identifyadvantageous

- semicircle – person – magnetic – tea-cup productive – combination –

punishment – a record - individual – encounter - rebels - audacity – personality – distinguish

–

escapee - primary – secondary – Japanese - mountaineer –tranquility comfortable -

launderette

– refusal - picturesque photography – importance – military bad-tempered – a

contracthorribly

– careless – carelessness – wonderful – evacuee -