Introduction

Lectures of the first semester revolved virtually entirely round one broad topic: segmental phonetics. Some topics within the general framework of segmental phonology were touched on, however.

The entirety of the lectures of this second semester will take you through an array of issues, some of them controversial, within the general framework of suprasegmental phonetics and phonology. The first lecture will look at the syllable, its definition and its three types. The second one will look at a notion which is both truly intriguing and infinitely baffling to most English learners irrespective of their maternal language: English stress. We will a priori look at the various defining hallmarks of stress. That is, what is it that renders a given syllable stressed? Afterwards, discussions will shift into the very core of this notion: the accentual pattern of English words. We will consider stress placement in simple words, in complex words and ultimately compound words.

Another hugely important feature of English connected speech inextricably linked to English stress will be dwelt upon thereafter: weak and strong forms. The following lecture will look at yet other aspects of English connected speech. I will start by looking at the various types of elision. Then I will move on onto assimilation. I will consider this process from a number of perspectives, each perspective serving the indispensable role of deepening your understanding of such a process. This rubric will mark the end of the last unit and of the handbook as a whole.

Unit One: The Syllable

Languages of the world do not typically deploy sounds in isolation. To be able to communicate effectively in a wide spectrum of contexts and for a wide range of purposes, homo-sapiens blend the sounds their languages possess into an intricate and highly sophisticated number of varying units. Of the smallest units and admittedly intrinsic ones is the syllable.

What Defines a Syllable

The first thing to be born in mind is that the syllable is one of the phonological units sounds can get into. It could be made up of two components: a vowel and a consonant. However, these components are not of equal weight in the syllable, namely, vowels are obligatory for the identity of the syllable, whilst consonants are optional. This denotes that it is possible that we can find a syllable where there is solely a vowel present, but the reverse is by no means so. The English

language possesses a number of words where there is only the vowel without no consonant to its left or to its right, such as *I, eye, ear, our, hour, heir, air, oh*, etc.

There are three crucial labels that you got to know at this juncture of the lecture: the onset, the peak and the coda. These terms are used to refer to each of the constituents of syllables.

The Onset

It refers to the consonant or set of consonants that precede the vowel in an English syllable. This, however, does not entail that all English vowels have onsets: the rule we talked about earlier on always holds true (consonants are optional). Hence, the first consonant or cluster of consonants figuring before vowels are all called 'onsets': **h**im, **t**reat, **br**eed, **spr**ing (all the onsets appear in boldface). Notice that in the first word, there is only one consonant, in the second two consonants and in the third three.

Do we have English words where the onset incorporates four or five consonants? The answer is a categorical no. The English language does not allow more than three consonants to precede vowels: three is the maximal number. We used the word 'cluster' above without any qualification. A cluster of consonants simply means two or more consonants in a row.

The account on English onsets would be utterly incomplete, if we were to leave the discussion at this level of progression immaturity. That English onsets can incorporate up to three consonants does not denote that any string of consonants irrespective of its combinatory properties is legal. English phonotactics makes use of only a limited sequence of consonants to form onsets. We will discuss below but a number of the plausible sequences consonants might get into:

One-consonant onsets: almost all consonants can occupy this phonological environment with the exception of / **N** / and of a bit lesser extent / **Z** / because we do not have any words where the voiced, velar nasal is the onset and words where / **Z** / takes word-initial positions are rare(Roach 2009).

Two-consonant onsets: here we might have a big number of possible combinations, and I am in no way trying to cover them all here. Only a few instances are mentioned. We can have onsets with one of the following sounds at the end: /w/, /j/, /l/, /r/, as in: quarter, huge, ply and brail respectively. Other plausible combinations have the /s/ sound followed by one of the English voiceless plosives, as /st/ in sting; /sp/ in /spy/ and /sk/ in ski.

Three consonant onsets: this phonotactics pattern seems to be possible to be exhaustively accounted for here as combinations, at least those figuring in commonly used lexemes, are few. The first consonant in such sequences is the /s/, the second is one of the English voiceless plosives /p/, /t/ and /k/ and the third is one of the English liquids, namely /l/, /j/, /w/and /r/. Here are examples: splash, spray, stupid, squander.

The Peak

It unequivocally refers to the vowels. They are called either the peak, the nucleus or the centre of syllables. The word peak implies that vowels are the sounds for the production of which speakers exert greater amounts of energy. Nucleus and centre are both synonymous. They are called the nucleus of syllables owing to the fact that their absence parallels the absence of the syllable per se. Peak is thereby the label given by phoneticians, whilst both nucleus and centre are phonological naming. All English vowels whether they be monophthongs, diphthongs or triphthongs can fulfill this central role.

The Coda

It refers to the consonant or cluster of consonants that follows vowels in English syllables. They are alternatively called the 'termination'. The termination is truly far more indicative of their position then is coda. English codas are likely to be longer sound strings than onsets, as English allows the consecutive occurrence of up to four consonants after vowels. Here again, not all sequences are acceptable. Precisely like onsets, codas do not permit all combinations of consonants.

One consonant codas: almost all consonants can take this position. There are four ones, however, that never feature in a such an environment: /h/, /j/, /r/ and /w/. Here are a couple of examples about the other consonants: it, irk, heap, bid, bib, lag, kiss, buzz, fish, rouge, laugh, love, hearth, him, hen, hang, bull.

Two-consonant codas: quite a large number of sequences are possible for this cluster. Here are examples: limp, link, lisp, complex, almost, walks, worms, wolf, ails.

Three-consonant codas: it is noteworthy that this cluster does not have a high density of occurrence in the English lexemes. In the same vein, for reasons mainly bearing on ease of articulation such strings of consonants are bound to be reduced via the deletion of one of the constituents and in some exceptionally scarce words two consonants are left out. The third element in such sequences is one the following /t/ /s/ /z/ and / **T** /. The middle one can be /p/ /k/ /f/, whilst the first can be /l /n/ /m/. Here are examples: links, limps, hangs.

Four-consonant clusters: this cluster is virtually identical to the first one. The fourth element is indeed one of the third elements in the above pattern, all the rest are replicable here.

Unit Two: English Stress

One of the components of the English sound system that second language acquirers, Algerians constitute no exception, ought to have their fair share of exposure to their underlying rules is 'English stress'. In this second heading, we will look at some of the defining features of stress, viz, what makes syllables stressed along with a number of handy rules about some of regularity perceived in the accentual pattern of the Germanic tongue.

Definition of Stress

First off, stress is a feature of syllables. Individual sounds are never assigned stress to. It can be defined from two perspectives: the speaker's perspective and the listener's one.

Stress from the Speakers' Perspective: from the producer's vantage point, that is, what speakers do when stressed syllables are being produced, in the production of stressed syllables, speakers use a greater amount of breath energy and muscular efforts. There is much greater articulatory tension invoked in the production of stressed syllables than the unstressed ones.

In a nutshell, we can legitimately say that it is the presence or absence of force of articulation that renders some syllables stressed and others unstressed.

Stress from the Listeners' perspective: from the listeners' perspective, namely, what goes on when stressed syllables have reached the listener's ear and ultimately their brain, stressed syllables are easier to hear than their unstressed counterparts. Hence, for the listener, all what is easier to hear is stressed and all what is difficult is naturally unstressed.

Now that we have defined what stress is, we will proceed into looking at the traits that stressed syllables inherently have, because English possesses stressed and unstressed syllables and each category bears a number of properties that make it dissimilar to the other. There are, in fact, four main parameters by virtue of which unstressed and stressed syllables could be told part.

Roach (2009) argues that for a syllable to be perceived as stressed a number of factors, as it were, enter the equation, namely quality, quantity, loudness, and pitch. He points out that this is not easy to make, but thanks to experimental studies this can be carried out by means of very sophisticated tools.

Loudness: most people sense that stressed syllables are louder than their unstressed counterparts. This is the reason why loudness is deemed one of the components of stress. In a sequence of identical syllables (e.g. bA;bA;bA;), if one syllable is made louder than the others, it will be heard as stressed. However, loudness alone is not enough to impart prominence to syllables.

Length: another factor contributing to the prominence of stressed syllables is length. If one syllable is longer than its adjoining syllable(s), then, it will be perceived as stressed.

Pitch: pitch is, likewise, regarded as a very important factor in setting stressed and unstressed syllable apart. It would not be easy to grasp this discussion if we were to carry on our account without defining pitch. Pitch is closely connected with the vibration of the vocal folds: the more the vibration of the vocal folds, the higher is the pitch, the less the vibration of the vocal folds, the lower is the pitch. It is 'essentially a perceptual characteristic of speech.' (Roach, 2009: 74)

If one syllable in a string of speech is produced with a pitch level dissimilar to that of the adjacent ones, it is perceived as prominent. For example, if in a sequence of three syllables, two are said with level pitch and the third is said with a high pitch, then the high-pitched syllable is bound to stand out in its adjoining environment.

Quality: another factor which contributes in making syllables stressed is quality. A syllable that contains a monophthong that is different in quality from its adjacent vowels is likely to gain prominence. For example, the second syllable in *aside* is more prominent than the first syllable because the nucleus of this syllable is a diphthong; the nucleus of the first syllable is the mid-central vowel, schwa; a vowel that never occurs in stressed syllables.

Roach (2009) contends that the aforementioned factors generally work in tandem and combine to make syllables prominent. Nevertheless, syllables may sometimes be made prominent by virtue of only one or two of them. Otherwise stated, scientific studies have uncovered that the former factors are not always of equal importance.

Placement of Stress

It is not difficult to account for the defining features of stressed syllables; what is genuinely tough and mind-boggling is to decide which syllable in a string of syllables bears stress. Gimson (1970) argues that English stress is, weirdly enough, both fixed and free. What does this apparently faulty statement mean?

Stress is fixed in the sense that if a given syllable in a stretch of syllables making up a word receives stress, then stress will not go on other syllables, it will invariably be assigned to that very

syllable. By way of example, the first syllable in *lovely and* the second in *alarm* are invariably stressed and stress will never fall on the second syllable in the former or the first in the latter.

Secondly, **stress is free** in the sense that any syllable out of the range of syllables making up a word could receive stress. In English, the first, second, third, fourth syllable, etc can receive stress. Consider the following (the stressed syllables appear in boldface): **fa**ther, al**low**, enter**tain**, product**i**vity, mountai**neer**.

Stress in other languages does not behave as in English. In French, for instance, it is the last syllable that is stressed, in Polish, it is the penultimate one (the syllable before the last) and in Czech, it is the first syllable. As regards the teachability of stress, Roach (2009) seems to hold that it is no easy task. He looks at a number of rules pertaining to stress placement. Nonetheless, he maintains that these rules are highly inadequate and are, at times, misleading particularly if one thinks they are applicable to all English words. He argues that stress should be treated as a property of individual words. He pens: 'practically the rules have exceptions and readers may find that the rules are so complex that it would be easier to go back to the idea of learning the stress for each word individually.'(76) However, it is important to consider here that there is a principle with respect to stress the validity of which has not been questioned by phoneticians. It is the strong syllables which receive stress not the weak ones. Due to space constraints, we will confine ourselves to a relatively cursory account of this and refer the reader to Roach (2009). He devotes a whole illuminating chapter (64-72) to this notion. A weak syllable, to begin with, is a syllable the peak of which is one of the following sounds.

The Nuclei of Unstressable Syllables

1. The mid-central unrounded vowel, schwa: it is at times referred to as the neutral vowel as most vowels change to it when unstressed.
2. The close-front unrounded vowel: it lies in the general area of the short and long /i/ in the cardinal vowel quadrilateral.
3. The close-back rounded vowel: it lies in the general area of the short and long /u/.
4. Syllabic consonants.

A strong syllable, by contrast, is a syllable the peak of which is none of these sounds.

Levels of Stress

The first thing that springs to mind when this heading is seen is that: there are two levels, namely, stressed and unstressed syllables. Phoneticians would claim otherwise, however. In some practices, mainly British, there are three levels of stress:

Primary stress: syllables produced with primary stress are stronger and far more salient than all the other syllables embedded in the word in question, for instance, in 'understand', the last syllable is said to carry primary stress on account of its being stronger than the first and the last.

Secondary stress: syllables generated with this level of stress are less strong, hence less salient than the first category, hence their name. Taking the same word (understand), the first syllable bears secondary stress.

Unstress: this is the term allocated to the weakest level of stress. In the production of such syllables, speakers use the least amount of energy. Such syllables can equally correctly be labeled 'weak syllables'. The middle syllable in understand is utterly unstressed.

Types of Stress

The discussion above might have induced you to infer that stress is a single-faceted phenomenon. This is just untrue. There are two types for stress: lexical stress and sentence stress.

Lexical Stress

Refers to stress assigned to syllables featuring in individual words. In words, such as, pa**the**tic, a**bide**, devo**tee**, all the bolded syllables bear lexical stress. One important hallmark of this category of stress is that it is typically immovable (fixed), as discussed above. Under some conditions, very rare indeed, stress might shift into a different syllable. There is an equally prevalent label in the stress literature to designate this type of stress: word stress.

Sentence Stress

It refers to the extra amount of energy a given syllable or a set of syllables is allotted in connected speech at a level above that of the word. This type of stress is also alternatively labeled 'nuclear stress or contrastive stress'. Some other scholars prefer a totally different name for this type of stress: 'utterance stress'. An utterance, they claim, is a better and more appropriate label to use because it is the utterance which is the unit of speech not the sentence. Indeed, an utterance is a unit of speech marked by two pauses, one before the production and the other signaling completion. The utterance, being a spoken language unit, does not invariably abide for its formation on the syntactical and lexical norms the sentence abides by.

The one most important factor that makes speakers choose one syllable over another in a stretch of syllables is 'clarity of meaning'. The discussion seems to be crying out for examples. The italicised words in each of the following sentences bear sentence stress:

Tom is holding the book.

I gave the letter to **her**.

I saw her mother at the **railway station**.

Before analyzing the sentences, it is worthy of mention that the syllables that bear sentence stress are those which already possess, as it were, lexical stress. Put in clearer wordings, sentence stress assignment is fully dependent on the accentual patterns of individual words. Hence, if we want to allocate stress to the word **charming** in a given stretch of discourse, what we ought to do is articulate the first syllable more emphatically; it is illicit to shift the focus forward. This rule of thumb is exceptionless.

The word 'Tom' in the first sentence has been stressed by the speaker probably because his/her interlocutor(s) thought they said when hearing this sentence uttered the first time, 'Oh, I see, Ted is holding the book.' In other words, that word has been stressed as a corrective device to what the listener has misheard. The same obtains in the second and in the third. That is, the second means, 'I gave the book to her, not to him or to them or indeed to any other individual or group of individuals the addressee might have erroneously visualized.' The third means that, 'I did not see her mother at the bus station. It was at the railway station where I saw her mother.

Rules of Stress Placement

Now that we have talked about the different levels of stress, we come to addressing the all too intriguing issue of stress assignment. Put differently, according to what principles can non-native learners procure some understanding about how to stress the words that they use and accordingly understand more readily native speakers. Admittedly, stress assignment is not as easy to grasp as are the various properties of the individual sounds. As is pointed out earlier on, some phoneticians have settled to the daunting claim that there is no better or, worse, other way of coming to full grips with stress placement than learning where stress falls in a given word at the very same time that particular word's graphological, syntactical, semantic, pragmatic properties are being internalized. That is, stress-placement-learning should be treated as an integral, inseparable part of

the learning of that word proper, because, at the end of the day, the accentual pattern of the word is an intrinsic constituent of the word's very identity (as will be shown in the upcoming discussions) and the rules on offer are much more likely to induce learners to making errors than eradicate some learning hindrances. We are content, however, that teaching learners a number of rules that truly underpin native speakers' stress assignment would be more helpful than telling them outright that English stress is a phenomenon that would wreck their minds uselessly because you would never come to terms with its ABCs.

Prior to embarking on any such rules, then, it is prudent that you wade through them armed with the following two bits of insight:

1. These rules are indubitably going to be a big asset in that they will tell you a great deal about the accentual pattern underpinning principles of a wide range of lexical items enjoying notable frequency in the English language.
2. If you depend blindly on solely these rules assuming that they are applicable to all the English words or even to a large cohort of frequently-occurring words, then, you will potentially end up generating quite a few words or sentences having idiosyncratic, un-English stress patterns, which would, accordingly, engender a defacing alteration to the words identity as such.

The first inevitable step to take should be finding accurate statements about each of the following features for the word in question:

The Morphological Make-up of the Word

This means that you should look at whether the word is simple, complex or compound because this might be an asset in deciding which syllable to assign stress to.

Simple word is a word that is made up of only one morpheme: it contains no affixes be they prefixes or suffixes. A simple word, hence, cannot be broken down into two or more morphemes, such as offend, category, library, animal.

Complex word is a word that is made up of more than one morphological unit. They are alternatively called 'affix words'. An affix word contains minimally the root attached to one suffix or prefix, such as effective, daunting, dreadful, infantile, brimful, etc.

Compound word is made up of two words each of which can exist in total independence of the other while retaining lexical significance. Constituents of compound words can be joined by a hyphen as hyper-sensitive, by space as, hot dog or else blended together to form one unified whole, as in blackbird, greenhouse.

The Grammatical Category of the Word

Knowing the grammatical class of the word will help you, as explained below, to decide on firmer grounds which syllable to stress. Nouns, verbs and adjectives may have differing stress patterns.

The Number of Syllables of the Word

Here again, the number of syllables may give further light into how to go about picking the right syllable. Stress-wise, two-syllable words may behave differently to three-syllable words, which, in turn, may behave differently to four-syllable words and so on.

The Phonological Make-up of the Syllables Making up the Word

It designates, as the name implies, what are the vowels and the consonants the word contains. Earlier on, we said that some vowels are never stressed because they are weak. Additionally, there are some vowels which are a likelier site for stress than others.

Now that we have sketched out these four hints which have proven to offer substantial clues to foreigners in settling for the right syllable to stress, hence, accumulating a more refined phonological interlanguage, we will turn our attention in what follows into stress placement in simple words.
