## Chapter Four: The Parameters According to which Consonants are Classified

For the sake of making possible and exhaustive the description, classification and differentiation amongst consonant sounds, phoneticians typically use a set of four criteria. The following paragraphs will look at each in turn.

### 4.1. The Airstream Mechanism

Itrefers to how the air is used in the production of speech sounds. More specifically, in the production of consonants, is the air sucked inwards (that is, into the lungs), or forced outwards (that is, by and out of the lungs)? Secondly, is the air used for consonant production lung-generated or does it come out of different sources? (Laver: 1994)

Taking the first question first, if the air is forced outwards, then the resultant consonant is labelled **eggressive**. All usual English consonants fall neatly into this category: all English consonants are eggressive. On the other hand, if the air involved in the production of consonants is sucked inwards, then the resultant speech sound is labelled **ingressive**. Two salient examples of ingressives in English are the sounds we produce to signal irritation and the sound produced to encourage horses to go faster.

To recapitulate then, all English sounds recurring in common parlance are eggressives: only a minute proportion of consonants are ingressive. The latter are, none the less, not considered phonemes owing to the fact that they entertain no contrastive weight whatsoever.

To the second question now; if the generator of the air used in the production of a given consonant are the lungs, then the resulting consonant is said to be **pulmonic**. By contrast, if lungs are not in charge of the needed air, then the resulting sound is **non-pulmonic**. All normal English consonant phonemes fall neatly into the former category. Blending the answers of our two questions together would lead us to conclude that all normal English consonant phonemes are eggressive, pulmonic sounds. It is noteworthy that if we are to use this criterion only, we would not be able by any means to differentiate the big number of consonants the English sound inventory possesses in abundance. Our discussion will now be devoted to the second criterion, namely the place of articulation.

### 4.2. Place of Articulation

As we have alluded earlier on, if the air speech mechanism were the only criterion deployed, our descriptive, classificatory framework would fall short of portraying the many differences amongst consonants. This second criterion is then invoked by phoneticians to contribute to a more detailed account on the properties of consonants.

It means at which place in the speech chain and by which organs consonants are produced. We said earlier when considering the speech chain that forany speech sound to be made, two or more organs have to come into contact. As there are many organs of speech which can be brought into contact with one another for speech generation, we can identify many places of articulation. Note that the place of articulation derives its name from the very organs involved in the articulation procedure proper.Some of the names, however, are not English ones, they are Greek names.

**4.2.1. Bilabials**: a bilabial sound, as the name might lead you to conjecture, is made by pressing the upper and the lower lips together. **Bi** means involving two things, herein the two lips; and **labium** is the Latin name for lips. English has a number of bilabials. They occur at the beginnings of the following words: **papa**, **mama**, **bull**, **wool**. They are written in phonemic symbols as follows: /p/, /m/, / b/ and /w/. Bilabials are a set of sounds which, due to their being easy to produce, are amongst the very first sounds babies irrespective of the languages that they are exposed to produce or attempt to. English youngish kids, for instance, use the sound at the beginning of **wet** (the /w/ sound) instead of the /r/ sound in words, such as **rabbit**, **very**, because the making of /w/ gives rise to no articulatory difficulty, while it is truly troublesome for a two-year old to get its organs to produce the /r/ sound.

**4.2.2. Labiodentals**: they are produced thanks to the bringing together of the upper front teeth and the lower lip. The English tongue possesses two labiodentals, /f/ and /v/. They figure, by way of example, at the beginnings of the words **five**, **van**, etcetera.

**4.2.3. Dentals**: a dental sound is produced thanks to the firm contact the tip of the tongue makes against the upper and lower front teeth simultaneously. English uses two dental sounds, /T/ and /D/.They occur, for example, in words such as **thy** and **this**.

Some phoneticians argue that the usage of the term dental is a bit imprecise; they suggest and use as an alternative, more precise term:**inter-dental**. Inter-dental truly signifies that the teeth, upper and lower, are not the only organs involved in the production of these two sounds. Indeed, the two sets of teeth are not capable of producing any speech sounds without the backing of the tip of

the tongue. Inter-dentals are quite unlike bilabials in their being terribly difficult to produce not only for children but even for grown-ups. In a number of dialects in the British Isles the /f/ and /v/ are used instead of /T/ and /D/. This substitution results in neutralising the difference between, for example, **three** and **free** because they would simple pronounce the two words **free**. In the dialect spoken in New-York, the word *this* is pronounce *dis*. This phenomenon of substituting the /f/ for /T/ and likewise the /v/ for /D/ is not exclusive to the English language *per se*; in some dialects spoken in Algeria, notably those of Skikda and Constantine, the selfsame rule applies. A very good example readily springs to mind, the Arabic word for three (transliterated *thalathaten*) is pronounced *talatateen*; in all the demonstrative pronouns whether they be singular or plural, such as *hatha (this)*, the /d/ sound is invariably used instead of the /T/.

**4.2.4. Alveolars**: an alveolar consonant is produced when the tip of the tongue comes in partial or full contact with the alveolar ridge (the tooth ridge). Unlike the other types of articulation discussed so far, the number of alveolar consonants English uses is fairly large. I will look at each one individually below. Please note that the targeted sound, the alveolar one, is bolded for ease of assimilation:

The /d/ sound as figuring in the following example words: **d**onkey, a**dd**itive, abroa**d**, sa**d**;

The /t/ sound as figuring in the following the words; **t**u**t**or, a**tt**ire, wha**t**;

The /n/ sound as figuring in: **n**ormality, a**nn**ul, so**n**;

The /s/ sound figuring in words such as, **s**ister, a**s**leep, bu**s**; and

The /z/ sound figuring in words, such as **z**ealous, ba**z**ooka, **v**ase.

**4.2.5. Alveolar-palatals or palato-alveolars**: it designates a category of sounds which is produced not only through the bringing together of two organs. Rather, for the production of palato-alveolar consonants, four organs are deployed. Put more clearly, the tip of the tongue articulates against the tooth ridge, at the very same time the front of the tongue moves towards the hard palate. The English sound inventory encompasses merely two such sounds: /Í/ and /dZ/. The first one figures at the beginning and end of **church**; the second one at the beginning and end of **judge**.

**4.2.6. Palatals**: it refers to a set of consonants in the production of which the front of the tongue articulates against the hard palate. The only sound produced by this type of contact is the one beginning words such as **y**awn, **y**ucky, **u**niversity, etc, the /j/ sound.

**4.2.7. Velars:** a velar sound is produced thanks to the contact that takes place between the back of the tongue and the soft palate (the velum). Existing in the store of English consonants are three such sounds:

The first one, the /g/, is produced in words, such as: **g**allop, **g**uitar, etc;

The second, the /N/,one is found in words, such as ha**ng**, fi**ng**er, etc; and

The third one, the /k/,figures in words, such as **k**ing, a**k**in, bar**k**, etc.

**4.2.8. Glottals:** this category includes sounds that are generated at the level of the glottis. To jog your memory up, the glottis refers to the opening between the vocal folds. A glottal sound is made when the vocal folds articulate against one another either lightly or tightly. The English language uses two glottal sounds:

The /h/ sound figures at the beginning and in the middle of **h**aste and a**h**ead; and

The second one, the /?/ is the sound pronounced by some people in London (called cockneys) in words such as **that and what**, instead of the usual /t/ sound. Unlike all the other sounds looked at so far, this one is not a phoneme in its own right because it does not serve to bring about differences between words if it is used instead of another sound.(Revisit the sections on phoneme and allophonic variants). The word **it** would remain a personal pronoun and function as such whether the last sound is the /t/ or the glottal stop, as this second glottal came to be labelled in the phonetics literature.