

The Role of Semi-Vowels

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1- Introduction:

The important purpose of the paper is to explain how semi-vowels are looked at according to their position and function (role) within words, and their effect on the following sounds when they are initial, and on the preceding ones when they are middle in words. They have been called (semi-vowels) by many writers, but they can also be given the modern term "approximates". Also are called "glide".

The most important thing to remember about these phonemes is that they are phonetically like vowels but phonologically like consonants. From the phonetic point of view the articulation of [j] is practically the same as that of a front close vowel such as /i:/, but is very short. In the same way [w] is closely similar to /u:/.

Despite the fact that semi-vowels are, in phonetic terms, generally vocalic, they are treated within the consonant class, mainly because their function is consonantal rather than vowel like, i.e. they have a marginal rather than a central situation in syllable, /j/ and /w/ occur initially or in an initial cluster preceding a syllabic sound .

2- The Definition of Semi-Vowels:

Semi-vowels are defined as independent vowel-glides in which the speech-organs start by forming a close or fairly close vowel and immediately move to another vowel of greater prominence, the initial vowel-position is not held on for any appreciable time. It is the rapid gliding nature of these sounds, combined with the use of rather weak force of exhalation, that renders them consonantal. In English there exist two semivowels; they are represented phonetically by the letter w and j. (Johns, 1936: 191).

A semi-vowel is a kind of approximant consisting of a monosyllabic vowel occurring at the beginning or end of a syllable. When at the beginning of a syllable, it usually consists of a rapid glide from a high vowel position to that of the following vowel. The semi-vowels [w], [j], which are like nonsyllabic versions of the English high vowels [i] and [u] respectively. In other languages there are the three high vowels [I, u, y]. in some of these languages {e.g. French} there is also a semi-vowels corresponding to the high front rounded vowel [y]. The symbol for this sound is [y], an inverted letter h. (Ladefoged, 1975:209).

3- The Features of Semi-vowels:

3-1 Articulatory and Distributional Features:

A semi-vowel is produced a rapid vocalic glide on to a syllabic sound of greater steady duration. In English the semi-vowels /j/ and /w/ glide from positions of approximately /i:/ (with spread or neutral lips) and /u:/ (with rounded lips) respectively, e.g. in (year), (west), Oswald [Dzwtd], Spaniel [spanjt]. The actual point at which the essential vocalic glide begins depends on the nature of the following sound, e.g. the glide of /j/ to /i:/ in (yeast) has a closer beginning than that of /j/ to /o/ in (yacht), and the starting point of /w/ before /u:/ in (woo) is closer than that of /o/ in (what). When /j/ is followed by a back close vowel as in (you) or /w/ by a front close vowel as in (we), the starting points need not be as close as in (yeast) and (woo), since in the first cases the glide is essentially of a front to back (or vice versa) direction, rather than a movement of close to more open, as in the latter cases. In English, however, it is never necessary for the starting point of /j/ + /i:/ or /w/ + /u:/ to be so close that it falls within the fricative region beyond the vowel area, since English /i:/ and /u:/

are both sufficiently relaxed for a perceptible non-fricative glide to be made from closer position with the vowel area.

The /j/ and /w/ has a consonantal function which is emphasized by the fact that the articles have their pre-consonantal form when followed by /j/ and /w/, i.e (the yard), (a yacht), (the west), with / / or / / rather than with / i/ or / n/ (Gimson, 1980: 211).

3-2 Acoustic Features:

Since /j/ and /w/ are vocalic glides (except in the case of the fricative allophones mentioned above), they may be expected to have acoustic features similar to those of vowels, i.e. a characteristic two or three formant structure similar to that of /i:/ or /u:/. In fact, as for vowels, two formants are sufficient for good recognition. Compared with (r , l), the steady state of the semi-vowels is very short, e.g. of the order of 30 msecs .

4- The Formation and Articulation of /w/:

In pronouncing [w] the speech-organs start in position for a variety of /u/ and immediately leave this for some other vowel position. The starting point varies slightly with different speakers and according to the vowel following, but for the purposes of practical teaching it may be considered to be a variety of /u/ with the lips pursed up to about the same degree as for the English long /u/. The position of this starting point may therefore be described as follows. The lips are closely rounded; there is considerable raising of the back of the tongue in the direction of the soft palate; the soft palate is in its raised position; the vocal cords are made to vibrate so that voice is heard.

On the other hand, if [w] is pronounced emphatically before any vowel the lip-rounding may be closer than that of /u:/.

The [w] is that consonantal sound of the letter (w), it is used when (w) occurs at the beginning of a syllable (except in the group (wr), in which the (w) is silent) or is preceded by a consonant, e.g. wait /weit/, away /wei/, twelve /twelv/. [u] is generally pronounced in this way when preceded by (q), e.g. quite, Kuwait, and often when preceded by (g) in unstressed syllables, e.g. language /laŋgwɪdʒ/.

The sound [w] causes, difficulty to many foreigners, especially to Germans. They generally replace it by a different kind of bi-labial fricative, namely one in which the lips are kept flat instead of being rounded and pushed forward, and in which the tongue is in a neutral position instead of being raised at the back.

The breathed constant corresponding to [w] (phonetic symbol [M]) is used by many English speakers in words spelt with (wh). Thus (What), (which) are often pronounced /Mɔt/, /Mit/. This pronunciation with a variant (hw) which is difficult to distinguish from it, is regularly used in Scotland, Ireland, and the North of England. In the South the more usual pronunciation of these words is /wɔt/, /wit/, etc, though the use of (M) or (hw) is taught in many schools.

The [M], being a breathed sound, is a fricative constant and not a semi-vowel. The friction is always clearly audible, (semi-vowels have no audible friction), [M] may be defined shortly as a breathed labio-velar fricative consonant (Johns, 1936: 192-193).

The English (w) presents few difficulties of Africans, many of them have a similar sound in their own languages. African students need not attempt to say either [M] or [hw]. Most [R.P.] speakers use an ordinary [w] in words like what, which and when, and thus make no distinction in their speech between (which) and (witch), and

between (while) and (wile), and (what) and (watt) and so on. Moreover, many Africans, when they attempt to say [hw], are apt to make the [h] element much too marked or even to say [kw], which sound quite wrong.

A letter (w) is silent before (r), as in (write) (wring) and (wrist) and sometimes after (s), as in (answer), (sword). It is also usually silent in the endings -wich and -wick in place names, as in (Harwick) [harid₃] and Benvick [berik]. The combinations (wh) is nearly always pronounced [hw]. Important exceptions are (who, whom, whose, whole, whoop, whore), where (wh) stands for [h] (Christophersen, 1956: 128-130).

The vocalic allophones of RP /w/ are articulated by the tongue assuming the position for a back half-close to close vowel (depending upon the degree of openness of the following sound) and moving away immediately to the position of the following sound; the lips are rounded when followed by /u:/, u/ or / :/ than when preceding a more open or front vowel, e.g. woo, wood, war, with; in those cases where /w/ precedes /u:/, the lip-rounding for /w/ is closer and more energetic than that associated with /u:/, the soft palate is raised and the vocal folds vibrate; but when /w/ follows a fortis consonant, some devoicing take place: when /w/ follows accented /t, k/, the devoicing is complete. In this latter case, it is the bilabial friction rather than the glide which identifies the phoneme; such words as (swoop, swoon), are distinguished from (soup), (soon), not only by the stronger lip action associated with /w/ but also by its partially devoiced friction.

Consonants preceding /w/, socially initially in an accented syllable, will be lip-rounded in anticipation of /w/, e.g. (twist, queen, swing, language, conquest), e.g. in (onward, blind weed, front wheel, this one) (Gimson, 1980: 215).

5- The formation and Articulation of /j/:

In pronouncing the normal English [Q] the speech organs start at or near the position for the English 'short' [I] and immediately leave this for some other vowel of greater prominence. It is the glide away from [i] that constitutes the consonant [j]. The starting point of the front of the tongue is raised rather high in the direction of the hard palate; the lips are spread; the soft palate is in its raised position; the vocal cords are made to vibrate, so that voice is heard. The formation of [j] may be expressed shortly by defining the sound as an unrounded palatal semi-vowels.

The actual sound used in particular words depends to some extent on the nature of the following vowel. The starting-point of [j] is always closer than the following vowel. Thus it is very close indeed before /i:/ as in yield /ji:ld/, but much less close before such sound as /a/ or / /, as in yard /ja:d, yacht /j t/. In such a case as (four yards) /f : ja:dz/ the [j] hardly rises above the position of English vowel No. 3 (e). It is thus possible to distinguish several subsidiary members of the English [j] phoneme. The distinctions, however, are unimportant, and may be ignored in the practical teaching of English (Jones, 1936: a (94)).

5-1 Palatal Fricative /j/:

The volcanic allophones of RP /j/ are articulated by the tongue assuming the position for a front half-close to close vowel (depending on the degree of openness of the following sound. The lips are generally neutral or spread, but may anticipate the lip-rounding of the following vowel in such cases as (you, yawn, etc), when /j/ follows a fortis, consonant, devoicing takes place; especially when /j/ follows accented /p,t,k,h/, the devoicing is complete, with the result that a

fortis voiceless palatal fricative [ç] is pronounced, (in these cases it is the friction rather than the glide which identifies the phoneme).

When /j/ is the final element of accented clusters, only /u:/ or /u/ may follow /j/ (pew, cure); in unaccented clusters, /j/ may be followed by /u:/, uə/ or /ə/ (argue, opulent, tenure, senior). The sequence /h/ + /j/ as in (hue) /hju:/ may coalesce into [Q], such a realization entails oppositions between /j/ , /h/, and [ç], raising the possibility of phonemic status for [ç] - you, who, hue. The number of words offering the sequence /h/ + /j/ > [Q] is, however, restricted (Hugh, hew, hue, human, humour, etc), and alternative pronunciations with /h/ + /j/ or /h/ + [Q] (on the patterns of /p, t, k / + /j/) are possible. [Q] is, therefore, more conveniently treated as a realization of /h/ + /j/ (Gimson, 1980: 212).

Like /w/, this sound is normally voiced, but in some circumstances we have either a voiceless variant (phonetic symbol [ç] or one preceded by an (h). this occurs in words with the spelling (hu), as in (human), which may be pronounced either as [hju:m ə n/ or as (Qu:m ə n]. At the beginning of a word [j] is most often written (y) as in (yard), (yew) and (yoke), and in the middle of a word it is most often (i) as in (odious, tedious, behaviour), but sometimes (e), as in (hideous). In a great many cases, however, where the sound occurs before [u:], [u] or [uə], it has no separate representation in spelling. Thus, the (u) in (tune) stands for [ju:], as so does the spelling (ue) in (argue). I regular the (u) stands for [ju], and in (pure) and (during) the spelling ur (e) represents [juə].

In a few cases there is vacillation, and both forms, with and without [j], and acceptable. This vacillation is particularly noticeable after an [l] without a proceeding consonant, as in (luminous, revolution and absolute) (Christophersen, 1956: 131).

The [j] tends to have an effect on a preceding (s or z), causing them to change to (ʃ and) or sounds resembling these. Thus, many people pronounce (this year, (is your box ready?) as /i jð:/, /i₃ j: b ks r di/. Sometimes variant pronunciation of words have arisen from a coalescence of (sj) into (S) and (zj) into (ʒ). For instance /isju:/ (issue) has alternative pronunciation (I) /ij u:/ and (I) /is ju:/. There is a tendency to replace (tj) and (dj) by /tj / and /dj/ in many words. Many people for instance pronounce (tube) (RP) /tju:b/ (Jones, 1969; 117).

6- Some Practical Aspects of [w] and [j]:

The commonest allophone of /j/ is a relatively front close unrounded vocoid. In /j s/ the front of tongue glides from a close to a nearly half- open position. Similarly., the commonest allophone of /w/ is a relatively back close rounded vocoid. In (what) /w o t/ the back of the tongue glides from a close to a nearly open position, while the lips move from close-rounded to open-rounded. In /w t/ the tongue glides from having the back highest, from close to nearly half-open; the lips move from close-rounded to spread.

We have seen that /j/ and /w/ are typically vocoid-like vowels. So the question arises, what is special about them that makes us separate them from vowels and put them in a distinct category called "semi-vowels"?

It is a matter of their place in the STRUCTURE of the syllable. An English syllable has the structural formula:

$$C_0^3VC_0^4$$

i.e. from zero to three initial consonants, followed by a vowel (monophthong or diphthong), followed by zero to four final consonants.

To avoid complications, let us consider just words of one syllable, with the structure CV, i.e. one consonant plus one vowel. Examples are:

Key /ki/

Saw/s /

Now /nau/

If we take monosyllabic words of this type containing /j/ or /w/, we find that the /j/ or /w/ can only come in the C place, never in the V place.

You /ju/

We /wi/

Year/j₃ / or /jið/

We cannot have words of the type */bj/. */kw/ etc. In other words, semi-vowels BEHAVE As consonants, even though articulatorily they are like vowels (vocaloid). We say that consonants, including semi-vowels, have MARGINAL syllable function, whereas vowels have central syllabic function (on the basis of CVC syllables) (Wells, 1971L 100-101).

The vowel [i] is a typical approximant, and the same is true of [u]. The semi-vowels are similar approximant, except that they are ultra-short.

If one takes in a deep breath, and then starts saying a very prolonged vowel, starting as a prolonged [a] (like the vowel in calm), then suddenly changing to a prolonged [i] (like the (ee) of see), then changing back to a prolonged [a], thus; [aaaaaiiiiaaaaa]. He then can

produces this sequence several times, then starts systematically shortening the [i], thus: [aaaaaiiiiiaaaa]

[aaaaaiiiiiaaaa]

[aaaaaiiiiiaaaa]

[aaaaaiiaaaa]

[aaaaaiaaa]

[aaaaajaa]

As he arrives at the last sequence, with a very short [i], he will observe that the [i] no longer sounds like a real vowel, but has turned into something that sounds like English (y) (IPA[i]).

This demonstrates that the semivowel [j] is, in effect, an ultra-short [i].

The same experiment with [u] can be earned out, and it finally turns into the semi-vowel [w].

[aaaaa uuuuu aaa]

[aaaaa uu aaa]

[aaaaa uu aaa]

[aaaaa u aaa]

[aaaaa w aaa]

This experiment shows how a semivowel is as the same as an approximant vowel, except that is momentary. As soon as one prolongs the approximate structure of [j] or [w], it turns back into a vowel. Vowels are maintainable sounds. Semivowels are momentary. Another way of describing the difference is to say that speech organs are going into position, a (hold) when those organs remain in position for an appreciable time, and a (release) or (off-glide) when the articulates move away from ^x the position they took up during the 'hold'. A semi-vowel, on the other hand, has only one or two phases, it completely lacks the (hold) phase. As initial semivowel, like (y) [i] in

(yes) has no audible approach, no hold, but only a rapid release, or off glide from the [i] position. A medial semivowel, like the [w] in (away), has an approach (on-glide) followed immediately by a release (off-glide) with no intervening hold. The articulators go from a neutral or relaxed position into the position for [w], which they immediately leave again (Catford, 1994: 71-72).

Biography

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