Syllable onsets in Irish English

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This study is intended to present a unified discussion of a number of phenomena which are different in Irish English (hereafter IrE) and Received Pronunciation (hereafter RP) as described in Gimson (1980:89ff.). It is also designed to show that these phenomena are in fact related to each other, not only due to their position in syllable nuclei but also on the level of phonological abstractness.

The first phenomenon concerns the sequence which developed from Middle English /iu/ and /eu/. In both of these diphthongs the first element developed into a voiced palatal continuant losing its vocalic character, and yielding finally the sequence /ju:/ (Dobson 1968:705ff., Welna 1978:224). The frequency of this sound in French loan-words and the fact that Middle English /u:/ had been shifted first to /au/ and later to /au/ as a result of the Great Vowel Shift seems to have led to /ju:/ standing as the pronunciation of the letter u and to be used as the English rendering of any later loan-words containing long /u:/, It also affected the pronunciation of the /u:/ sounds of loans established in Middle English, for example university with initial /u:/ (from Old French université, Onions 1966:961). The dating of the collapse of /eu/ and /iu/ can be given as mid 16th century, interpreting the orthoepic evidence of Bullokar who confirms in a rhyme that they were pronounced the same (Dobson 1968:802) and the merger was complete by the mid 17th century when it probably had developed from /iu/ to /ju:/, The importance of these considerations for the issue at hand is to establish that /ju:/ was the pronunciation of the Middle English diphthongs at the time of the most extensive Anglification of Ireland in the 17th and early 18th century (Bliss 1979: 19ff.).

The remarks below refer to present-day IrE and to the variety of it which I term urban middle class. This general designation, while without validity for many areas of IrE phonology such as the realization of stressed vowels, can be permitted here because the peculiarities of IrE described below are found in all varieties of IrE with the sole exception of contact IrE (that of the ‘Gaeltacht’ or Irish-speaking areas) and of course of Ulster which is radically different from the English of the Republic of Ireland.

In present-day IrE long /u:/ occurs after /j/. This means that RP /(-)juə/ does not exist in IrE. The reason is that IrE has maintained /r/ post-vocally in all varieties and in all positions (all vowels that occur before word-final /r/, when stressed, are also long):

(1) pure /pjʊə/ Received Pronunciation
     /pjʊːr/ Irish English

There are however certain cases where /j/ is not found in IrE where it occurs in RP. This I call yod deletion (Wells 1982:206f.), and I assume that the environment in which it occurs in is

(2) /j/ → Ø / ____ /u:/

Yod is not deleted in IrE before any other vowels contrary to its occurrence in RP (Gimson 1980:95). Furthermore, yod deletion implies that yod is not the initial segment of a word, thus one has more accurately:

\[ /j/ \rightarrow \emptyset / C_1^2 \quad /\text{u:}/ \]

The matter to be investigated concerns the nature of \( C_1^2 \) in (3) and the conditions for yod deletion to apply. To begin with consider the forms new /nu:/ and lure /lu:/. These suggest that yod deletion usually applies after /n/ and /l/ in Irish English, a suspicion that can be confirmed by examining the forms knew /nu:/ and lute /lu:/ to achieve maximal generalization one could broaden the observation into a more extensive form:

(4) Yod is deleted in a post-sonorant environment.

To test this one would have to find a case of yod deletion after /r/. But in English yod does not occur after /r/, as in rural /ˈrʊər/ (RP). Thus (4) remains unsubstantiated. Consider now the situation after stops:

\[
\begin{align*}
\text{pew} & /ˈpju:/ & \text{beauty} & /ˈbjuːti/ \\
\text{tune} & /ˈtjuːn/ & \text{dew} & /dʒuː/ \\
\text{cure} & /ˈkjuːr/ & \text{argue} & /ˈaːrgjuː/ \\
\end{align*}
\]

It would appear that /j/ is maintained after stops with assimilation after alveolars. Before dealing with this let me return to (4). If yod is retained before all stops (assimilation being a special case of retention) then the as yet unproven generalization in (4) would seem to gain in likelihood. If one adds to this the suggestion of the orthography in forms such as shrew and strew (Dobson 1968:798), that Middle English /eju/ existed after /r/ and was possibly raised to /ju/ (though not yet changed into the sequence /ju:/) then the contention in (4) would appear even firmer. In this respect RP and IrE would differ in the extent of yod deletion: in the former after /r/ only, and in the latter after all sonorants. There is however an important qualification to be made on yod deletion in IrE as in venue /ˈvenjuː/ and failure /ˈfeɪljuər/. These forms show that in post-stress position yod is not deleted in IrE. But virulent /ˈvɪrələnt/ has no yod after /r/ in either IrE or RP. There may be an articulatory explanation for this. With both /n/ and /l/ the apex of the tongue makes alveolar contact so that blade can arch upwards easily for the articulation of the /j/ as the next segment. With /r/ on the other hand the tip of the tongue is in a slightly post-alveolar position and the blade is in a convex configuration so that a following /j/ is not as easy (but by no means impossible) to articulate as after /n/ or /l/.

After fricatives IrE also has yod deletion. In RP the /ju:/ sequence seemingly occurs after all fricatives, but it is not attested after /ð/ due to the restricted lexical distribution of this sound. Consider the following set of forms:

\[
\begin{align*}
\text{few} & /fjuː/ & \text{view} & /vjuː/ & \text{RP} \\
\text{enthusiasm} & /mθjuːziəzm/ & \text{suit} & /sjuːt/ & \text{IrE} \\
\text{suit} & /sjuːt/ & \text{azure} & /əˈzuːr/ \\
\end{align*}
\]
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The situation after labio-dental fricatives is the simplest since it is the same in both varieties. But the situation after RP ambidental fricatives is different since deletion is found there. This is also so when these fricatives have their more usual realization as stops in IrE as in enthusiasm /mɪˈθuːzəzm/ after alveolar fricatives yod is freely deleted as well. In a very few instances of non-initial alveolar fricatives yod is absorbed into the preceding segment yielding an alveolo-palatal fricative with automatic voicing assimilation to the absorbing segment. None of these is peculiar to Irish English alone as can be seen from issue /ˈɪʃuː/ ~ /ˈɪzjuː/. Note that in accordance with the rule that yod is never deleted in unstressed position the form */ˈɪsuː:/ is unacceptable in Irish English although the segment preceding the deletion is alveolar.

In those cases were yod precedes a stressed syllable absorption is obligatory. Here deletion is not an alternative to absorption which can only affect alveolar segments. The outcome of absorption is always an alveolo-palatal fricative. Absorption can involve voiceless and voiced alveolar fricatives so that azure above can also show absorption as in /əˈzɜːr/. One must distinguish here between absorption and assimilation. The former refers only to those cases where the /j/ disappears entirely and the segment before which it is found alters its articulation. In effect /sjud/ → /ʃd/ and /zjud/ → /ʒd/. Assimilation refers to the situation where yod is changed into an alveolo-palatal fricative when preceded by a segment whose articulation remains unaltered. The result of assimilation must also be a permissible segment in the phonotactics of IrE. This is the case with /tʃ/ and /dʒ/ but not with /θʃ/, /tʃ/ which accounts for the absence of assimilation in the variant pronunciations of enthusiasm. It also accounts for forms like pursuit /pɜːˈsuːt/ and consume /kənˈsuːm/ which have no absorption (although /s/+ /j/ → /ʃ/ is acceptable in other instances). One can explain these realizations however by the constraint that absorption only takes place when it results in an acceptable segment sequence; this is not the case with /rʃ/ and /nʃ/ which would result if pursuit and consume underwent yod absorption.

The generalization to be drawn from the above observation would seem to be that yod deletion applies not only to the sonorants but to all coronal segments in IrE. This accounts for the exclusion of labials and velars. The term sonorant must be taken to mean coronal sonorant. The fact that /ŋjuː/ does not occur has nothing to do with the restrictions under consideration here but is due to the non-occurrence of /ŋ/ syllable initially. The existence of the sequence /m/ + /j/ in IrE in mews /mjuːz/ confirms the suspicion that the class of sonorants must be narrowed down when talking of yod deletion to the group of coronal sonorants, in effect /n/, /l/, /r/.

The application of yod deletion is however ordered after that of assimilation in the derivation of surface forms and sibilants can never be deleted. This then gives the following correct derivations:

(7)  a  /tjuːn/  
     /tʃuːn/  
     –  
     (i)  by yod assimilation  
     (ii)  (deletion inapplicable)

b  /mθjuːz/  
   –  
   (i)  (assimilation inapplicable)
   /mʃuːz/  
   (ii)  by yod deletion

The question of assimilation involves the consideration of a further process, namely
syncope. This is a characteristic of strict RP an leads to the deletion of non-prominent unstressed vocalic elements such as:

\[
\begin{align*}
\text{RP} & \\
police & /\text{pli:s}/ \\
similar & /\text{simla}/ \\
holidays & /\text{hOldaiz}/
\end{align*}
\]

Now in IrE such syncope is not found and the above forms have an additional syllable. The consequence of this for yod assimilation in Irish English is that it is not found in instances where it might be expected. Consider the IrE forms tedious /'ti:dʒəs/, and idiot /'idʒət/ where the unstressed vowels are fairly prominent (in contrast to RP) and which are always retained. The hypothetical forms with assimilation are impermissible: */ti:dʒəs/, */idʒət/*. Note that this is not due to the fact that yod is always maintained in unstressed syllables for in those cases where the syllable has yod as opposed to an unstressed high front vowel assimilation always occurs as in actual /'ækʧju:l/ and educate /'edʒu:ke:t/. In (3) it was specified that the number of consonants before yod could be at most two. Clusters with yod are relatively rare and, as might be expected from the phonotactics of initial clusters in English, are most common where /s/ is the first element. In fact the occurrence of /j/ in such clusters resembles that of the class sonorants. Recall that in three term initial clusters in English the third segment must be a sonorant. This can now be extended to read, a sonorant or a glide which then includes not only /j/ but also /w/. This is in accordance with the position of sonorants and glides at the top of the sonority scale of segments (see Hooper 1976:196, 206 for such scales and comments on them):

\[
\begin{align*}
(/sp/ + /j/ & \rightarrow /spju:m/) \quad \text{spume} \\
(/st/ + /j/ & \rightarrow /stʃu:/) \quad \text{stew} \\
(/sk/ + /j/ & \rightarrow /skju:/) \quad \text{skew} \\
(/sk + /w/ & \rightarrow /skwi:z/) \quad \text{squeeze}
\end{align*}
\]

Note that in \textit{stew} assimilation occurs just as in sequences of single consonant plus yod.

If on the sonority scale of segments sonorants and glides have to be differentiated then the latter are nearer the syllable nucleus. This is seen with sonorant and glide sequences which, while rare, are found for the sonorant /m/ plus /j/ in a single attestation smews /smju:z/ and for the sonorant /l/ in alternative pronunciations (in RP but not in IrE due to yod deletion after alveolars), as in sleuth /slu:θ/ ~ /slju:θ/. The absence of a sequence /sn/j/ is an accidental lexical gap and is not due to a phonotactic prohibition in English.

The second phenomenon to be looked at here in connection with syllable onsets concerns the segments [ʍ] and [ç]. The former occurs widely in Irish English and contrasts in a number of pairs: witch [wɪtʃ] and which [wɪtʃ]; wall [we:l] and whale [ˈwe:l]. The sound represented by [ʍ] is a voiceless labiovelar fricative. Phonetically, there is no such sequence as [hw], but only a labiovelar fricative with a considerable period of voicelessness at its onset. (This is in keeping with the phonetic nature of /h/ as a period of voicelessness before a vowel, e.g. /hu:/ = [çu:].) It is essential to stress this point as so many authors use the transcription [hw] as if it were an actual phonetic
sequence. What is more they postulate a contrast between [w] and [hw] in certain varieties of English (see Bliss 1938: 11 who even criticizes Wright for not doing the same). Jones, as a very sound-substance oriented phonetician admits the dubiousness of a phonetic contrast between [w] and [hw] (1972:208). Such a contrast would only be possible if one had a syllable before [hw] in the cluster [w] as in *which* [wɪtʃ]. If the above form remains monosyllabic then labial (and velar) constriction is present before the start of exhalation. This means that what I analyse phonemically as /hw/ (and for which I offer phonemic justification) is always phonetically a single segment [w] where voiceless and labio-velar constriction coincide temporally.

It might seem however from the *witch-which* and *wait-whale* pairs that there is a phonemic distinction between /w/ and /hw/. Consider now the pair *you* [ju:] and *hue* [cju:]. At first sight this would also seem to establish the phoneme pair /j/ and /ç/ so that IrE would have, in addition to its many sets of voiced and voiceless phonemes, the two oppositions /w/ $\neq$ /w/ and /ç/ $\neq$ /j/. Now my concern here will be to show that the latter opposition (despite the contrasting pair *you* and *hue* is invalid and that the reasons for this can be shown to undermine the seemingly more substantial opposition /w/ $\neq$ /w/.

The obvious assumption to make with the forms *you* and *hue* is that the latter consists of a sequence /hju:/ . Against the argument that yod deletion has applied here and that an independent /ç/ is present one can hold that yod deletion is found after non-grave segments, i.e. after both dental, alveolar and palatal segments is unsubstantiated and in view of the arguments offered below unsubstantiable.

Despite the fricative pronunciation [ç] in IrE the restricted distribution of this segment there militates against its being raised to phonemic status. It only occurs before /u:/.

The situation with [w] is quite different. Of the fifteen vowels before which /w/ can occur in English eight also have [w] in Irish English, therefore distributional criteria cannot be used should one wish to demote [w].

Now the assumption to be made with [ç] is that it is a bimorphemic sequence consisting of /h/ and /j/, and that /j/ is not a fricative, but a semi-vowel. The latter assumption if correct would mean that the putative phoneme pair /ç/ $\neq$ /j/ would be a case of glottal fricative plus semi-vowel versus semi-vowel and not two palatal fricatives.

To substantiate the first assumption consider the phonotactics of /h/ in English. It only occurs before vowels and /j/. The arguments for /j/ as a semi-vowel are principally a matter of its place on a sonority scale. It is more natural for a segment /h/, when followed by vowels, to also be followed by semi-vowels than by fricatives which are two steps below vowels on a sonority scale such as that of Hooper (1976: 196, 206):

\[
(10) \quad \text{vowels} - \text{semi-vowels} - \text{sonorants} - \text{fricatives} - \text{stops}
\]

Furthermore assuming that semi-vowels in clusters are the elements allowed nearest to a syllable nucleus (given the increase of sonority towards the center in English) then /j/ must be regarded as a semi-vowel given such initial clusters as /spj-/ , /stj-/ , /skj-/. The analysis of the phonetic segment [ç] as consisting phonemically of /h/ and /j/ has immediate consequences for the phone [w]. Consider once again the phonotactics of /h/. If one finds initially that it only occurs before some vowels and the semi-vowel /j/ then phonological symmetry would suggest that it also occurs before the entire class of vowels and the class of semi-vowels, that is before both /j/ and /w/. Now if the phonetic
realization of /h/ plus /j/ is [ç] then that of /h/ plus /w/ is [ʍ] assuming that the biphonemic sequence is realized as a single voiceless fricative. What remains in order to make this analysis credible is to show that /w/ also belongs to the class of semi-vowels. Consider then the following facts.

First, glides can occur between sequences of two vowels from different syllables following on each other in English as in the pronunciations of seeing /siːj/ and doing /djuːŋ/ [duːwŋ]. In these cases there is complementary distribution of glides: /j/ after high front vowels, /w/ after high back vowels. The existence of /w/ in the function of a glide confirms its status as a semi-vowel.

Second, to demonstrate the relatedness of /j/ and /w/ as semi-vowels recall the diachronic development of the phonotactics of /h/. Up to early Middle English it could be followed by sonorants, semi-vowels and vowels. This was attested by the clusters /hr/, /hn/, /hl/, /hj/, /hw/ and /h/ + V. As the present-day phonotactics of /h/ has been reduced by the class of sonorants, the class of semi-vowels and vowels has remained, the former of which would now include both /j/ and /w/.

Third, while English has a voiced distinction among obstruents it does not have one among sonorants. i.e. /r/, /l/, /n/, /m/, so that for this group it has the unmarked value of the feature voice, viz. [+voice]. If one wishes to maintain that IrE has [ʍ] phonemically then this would mean that IrE while not having voiceless sonorants does not have voiceless glides, a situation which would run counter to the expectation of the language’s sound system, namely that the more one rises on the sonority scale (see (10)) towards vowels the more the feature voicelessness is marked and consequently not found.

The conclusion from these considerations is that IrE has neither /ç/ nor /ʍ/ but two semi-vowels /j/ and /w/, an unmarked voiced set, which are devoiced in the context of a preceding /h/.

Notes

1 There are parallels between IrE and American English in respect of yod deletion. American English (Wells 1982: 467ff.) usually deletes /j/ after alveolars (including stops, as opposed to IrE) but retains it if the syllable in which it occurs is unstressed (Kurath 1964: 77ff.) as it does when occurring after labials and velars (in agreement with IrE).

2 /w/ as well as /j/ are posited, at least since Bloomfield (1933:123), as forming not only the onsets of the forms under considerations here but also the off-glide of phonemically long vowels and even the release stage of the alveolo-palatal affricates of English (see Hockett 1955: 163).

3 The arguments against ‘unit phoneme’ interpretation of [ʍ] which were frequently presented by structural phonologists concerned the cluster patterning of /h/, /j/ and /w/ (see Trager and Bloch 1941: 229 for example) just as those against unitary interpretations of [ç] and [j] concerned the phonotactic combinations of /l/, /ʃ/, /d/ and /ʒ/. Later, in generative phonology, /j/ and /w/ have been linked to the high vowels /i/ and /u/ and distinguished by the sole feature [vocalic] which has a positive value for vowels and negative one for glides (Chomsky and Halle 1968: 303.). This is in fact a continuation of Bloomfield’s non-syllabic (1933: 123) a term which has now replaced the initial generative phonology feature [vocalic]).
References