The acquisition of Irish English phonology

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Abstract. The set of phonological features which are specific to (Southern) Irish English are examined in the speech of three children of varying ages to see how they manifest themselves at various stages of acquisition. As far as possible the Irish features are separated from general aspects of English phonology. These features are mainly consonantal and include dental stops, the fricativization of alveolar stops, syllable-final /r/ and the voiceless labio-velar approximant [ʍ]. A number of phonological processes are also investigated and an attempt is made to place the aspects of the acquisition of Irish English phonology within the framework of more general regularities of acquisition as a whole.

Introduction

The present article is concerned with the acquisition of features of Irish English phonology by a group of children of differing ages. By 'Irish English' is meant here the English of the Republic of Ireland. Thus the various features of Northern Irish English (see Barry, 1982, Harris, 1984 for overviews) are not of concern here. For the present article the unqualified term 'Irish English' will be used. It is, however, appropriate to mention here at the outset the sociolinguistic situation of the family and their surroundings to be clear about what variety of Southern Irish English the children were exposed to and hence what variety they are moving towards in their acquisition of phonology.

The variety the children are acquiring can with reasonable justification be described as standard Southern Irish English. At the time of the recordings made they had been living in the capital Dublin. Their parents are of mixed urban origin, the father coming from Limerick city and the mother from Waterford city both having studied in Cork before they moved to Dublin where the father is a medical doctor. Neither of the parents shows any of the features of the lower class speech of their hometowns nor of the cities they studied in or are now working in. The position with the children is somewhat different. The eldest (born 1.77) shows certain features of colloquial Dublin due to her contacts in school and with her peers in the neighbourhood in which they live. Certain vocalic features such the fronting of /au/ to [eə] as in [peund] for pound are evident as well as disyllabification of long vowels as in [mijən] for mean. These features are scarcely noticeable with the next youngest (born 4.79) and not at all with the smallest (born 12.81) as he has not been exposed to language outside of the home. Additionally as the respects in which popular Dublin differs from standard Southern Irish English chiefly concern the vocalic area, features such as those just mentioned are irrelevant for the present investigation which is concerned with the consonantal area of Southern Irish English phonology.
The group of children and the investigation

Three children were examined for the present article. The children were Jane aged 7.9 years, Frank aged 5.6 years and Robert aged 2.10 years. The investigation was punctual rather than longitudinal but as the age distribution of the children provided a convenient span it was possible to see the advance in phonological acquisition by observing the children as a group. Although Jane at 7.9 years is quite advanced acquisitionally, for the details of consonantal articulation which are of particular interest here her data was still valuable.

From an acquisitional point of view the position of all three children was approximately equal. All are of normal intelligence with no speech impairments and engage in lively if not heated verbal exchanges among themselves so that no child evinces a paucity of data compared with the others. While the eldest at times refused to play with her smaller brothers this was more than compensated for by her willingness to talk directly with her mother and the present author.

In order to collect data a series of tape recordings over a number of weeks were made of the children playing among themselves as well as some in which the present author questioned the children, above all the youngest, for certain forms or, by indicating certain objects, tried to find what phonological form the youngest had for the objects' names. The readiness of the two boys, Robert and Frank, to tell anecdotes about things they had done or experiences they had provided a ready source of phonological forms which did not crop up in their exchanges with each other. Parallel to the recordings the present author made a collection of notes above all to insure that he obtained tokens of certain forms from the children which would serve as phonological evidence for the state of their acquisition of Irish English phonology.

Specifically Irish and more general features

When evaluating the recorded data of the three children the present author strived to separate those features which are specific to Irish English from those which are common to most varieties of English. This procedure takes for granted that one can decide what is Irish and what is not in the speech of a given child. This is fortunately not as difficult as it might at first seem. Let me begin with the speech of the children's environment.

The accent of the parents is standard within the context of the Republic of Ireland. It is close to that represented for example in the Irish media, i.e. a variety of middle-class Dublin English which has attained supraregional status throughout the Republic. Note that there is quite a degree of implicit consensus concerning the accent in the Republic which is treated as standard. Once one excludes features of rural dialects and those of lower-class urban varieties, above all of the Dublin lower-class, then one is left with a variety which is remarkably uniform in its phonological component. It is not influenced by English phonological norms; Received Pronunciation is regarded in (the Republic of) Ireland as a variety of a certain class of English person and not as an accent to be emulated by the Irish. Furthermore the radically different varieties of Northern Irish English (those found in the State of Northern Ireland and the counties of the Republic such as Donegal and Monaghan which are adjacent to it) are kept entirely distinct and never imitated by the Southern Irish for reasons which are fairly obvious from a political point of view.

Compared with Southern British English the accent the children are exposed to shows deviations in the following respects:

1) Fricativization of alveolar stops. In the position after a vowel and before a vowel or a pause alveolar stops are fricativized (n.b. not affricated) as long as the syllable is not the immediately pre-stress syllable (see Hickey, 1984a).
2) **Fortition of dental fricatives.** The two English ambidental fricatives /θ/ and /ð/ are generally realised as dental stops in Southern Irish English with an optional realization as fricatives in a post-stress position. Note that this results in a contrast between dental and alveolar stop in initial position as in the pair thinker # tinker.

3) **Syllable-final /r/**. Irish English has, like so many peripheral dialects of English, syllable-final /r/ which in all cases derives from /r/ in this position in Early Modern English before its loss in Received Pronunciation and other non-rhotic varieties of English.

4) **The opposition [ʍ] # [w].** A further conservative aspect of Irish English is the phonetic contrast in voice among labio-velar approximants. Although there is no voiceless labio-velar approximant phonemically in Irish English (see Hickey, 1984b for relevant arguments for this position) the phonetic opposition [ʍ] # [w] is important, cf. pairs like witch # which.

There are a number of other features of minor significance in Irish English which will be commented on below at the appropriate place. Additionally vocalic features are mentioned inasmuch as they are peculiar to Irish English. Although the present discussion concerns itself with the standard variety of Southern Irish English passing references will be made to those phenomena which occur both at some stage of the acquisition of the standard and normally in sub-standard varieties of Southern Irish English.

## 1 Phonological items

The use of the term 'item' here is deliberate as I wish at this stage to avoid a classification of sound segments into phonemes and allophones, systematic and non-systematic units or whatever. This is necessary as will hopefully become clear in section 1.1.1. below. The examination starts with observing single phonological items, describing them phonetically and allocating them to target items in adult language. After this the question of phonotactics is taken up where a consideration of the position of a sound in a word is illuminating.

### 1.1 Coronal obstruents

The area of coronal obstruents is the most complex in Southern Irish English. It consists of 6 types of segments which are further distinguished by voice giving 12 sounds which are four more in number than in Received Pronunciation. In the latter variety these sounds are the following:

(1) (i) ambidental fricatives /θ/ : /ð/
(ii) alveolar stops /t/ : /d/
(iii) alveolar fricatives /s/ : /z/
(iv) alveolo-palatal fricatives /ʃ/ : /ʒ/
(v) alveolo-palatal affricates /tʃ/ : /dʒ/
In Southern Irish English the situation is complicated by the fortition of the fricatives in (i). This means that there is a systematic distinction between dental and alveolar stop articulations.

(2)  
   a thank [tæŋk]  
   b tank [tæŋk]

The next complication is due to the allophony of /t/ and /d/. These stops only have a stop realization when they are in one of the following positions.

(3)  
   (i) word-initial  
   (ii) immediately before a stressed vowel  
   (iii) immediately before a non-vocalic segment  
   (iv) immediately after a non-vocalic segment

Compare the realizations in (4) which illustrate these positions; note also that (i) - (iv) can of course occur together, e.g. /t/ or /d/ can be both word-initial and immediately before a stressed vowel.

(4)  
   a titanic [tai'tæŋk]  
   b tea [ti:]  
   c lightning [lait'ınj]  
   d bent [bənt]

In all other positions alveolar stops are realized as alveolar fricatives. According to a transcription introduced in Hickey (1984a: 235) I indicate an alveolar fricative by placing a subscript caret below the relevant voiced or voiceless stop, i.e. [t] or [d]. Instances of these fricatives are shown in (5).

(5)  
   a but [bət]  
   b butter [ˈbʌtər]  
   c educate [ˈedʒu ke:t]  
   d wood [wʊd]

It is essential to stress here that [t] and [d] are apical fricatives. They are kept firmly apart from the corresponding laminal-fricatives /s/ and /z/ and from the alveolo-palatal fricatives /ʃ/ and /ʒ/. The sets of forms in (6) are not homophones.

(6)  
   a puss [pʌs]  
   b putt [pʌt]  
   c put [pʊt]  
   d push [pʊʃ]

The distinction between the final sounds in (6a+b) is between an apical and a laminal articulation and that between (6c+d) is between an apical and a broad- grooved fricative with a much longer constriction between the tongue and the upper passive articulator.
stretching from the alveolar ridge back towards the palate with the latter. In addition, the lip-rounding characteristic of /ʃ/ is totally lacking with [tʃ].

The realization of /s/ and /z/ and of /ʃ/ and /ʒ/ is not any different from that in Southern British English. The affricates are equally similar, though their acquisition shows stages which are phonologically interesting (see remarks below).

### 1.1.1 Dental stops and fricatives

The dental fricatives /θ/ and /ð/ are rare in Southern Irish English and only occur as an optional variant of /t/ and /d/ in word-medial or word-final position.

(7) a python [paitən] ~ [paitən]
   b breathe [briːd] ~ [briːð]

It is not unlikely that the occurrence of /θ/ and /ð/ in adult speech in Southern Irish English is due to outside influence as there is a high degree of exposure of the Southern Irish to other accents of English above all through American and English television and radio. At any rate the sounds can be regarded as phonologically marginal. The two dental phonemes in Southern Irish English are definitely /t/ and /d/. In keeping with this there was not a single occurrence of /θ/ or /ð/ in the speech of any of the children. For this reason (ambi-) dental fricatives will be disregarded in the remainder of this article.

Given that points of articulation are acquired from front to back, i.e. labials before velars (Drachman, 1980:131), one would expect that dental stops would appear very early. This is however not the case. The distinction between dental and alveolar stops is neutralized at the beginning and the neutralization is always from a dental to an alveolar point of articulation. Consider the following forms from the younger two children.

(8) a top Robert [tɔp] Frank [tɔp]
   b think " [tɪŋk]

In fact dental stops would seem to occur very late in the acquisition of phonology. The eldest child at 7.9 years of age was just beginning to distinguish dental and alveolar stops. The distinction appears with Jane only in initial position; medially and finally she still only has alveolar stops.

(9) a this [ðɪs]
   b thanks [tæŋks]
   c mother [ˈmʌðər]
   d path [pæθ]

An explanation for this might be that two points of articulation which lie close to each other are not distinguished until much later (here: after 7 years for dental and alveolar stops). But this is clearly not the case. Note the following forms, stemming from Robert:

(10) a chips [tʃiːps]
   b Germany [dʒəməni]
These forms along with those in (8a+b) show that the youngest child already distinguished between alveolar and palatal stop articulations. Granted the stops in (10a+b) have a different source that those in (8a+b): they are the child's approximation to affricates in adult speech. As one might expect Robert also has a palatal [s\textsuperscript{j}] for /ʃ/.

\[(11)\]
\begin{align*}
\text{a} & \quad \text{fish} \quad [\text{frs}\textsuperscript{j}] \\
\text{b} & \quad \text{shoe} \quad [\text{s}\textsuperscript{j}u:] 
\end{align*}

Whatever the target sound is for which the palatals are used, phonetically the fact is undeniable that the youngest of the children can distinguish between an alveolar and a palatal articulation whereas only the eldest can distinguish between a dental and an alveolar articulation, and this only partially (see (9a-d)).

### 1.1.2 The fricativization of alveolar stops

The acquisition of alveolar stops is normally one of the less problematic areas of phonology inasmuch as coronal segments are acquired early and, apart from such phenomena as stopping, present a relatively stable picture quite quickly. In Irish English phonology the matter is somewhat more complicated than one might expect. Given the allophony of /t/ and /d/ in Southern Irish English the question arises: at what stage and in what form do the fricative allophones of /t/ and /d/ occur?

The first point to be noted is that the fricativization of /t/ and /d/ turns up quite early, although only Jane had the corresponding fricatives in every phonotactic position in which they occur in adult Southern Irish English. Let me start with Robert, however.

In initial position where one would expect alveolar stops he has them; intervocalically after a stressed vowel he does not have alveolar fricatives however but a glottal stop.

\[(12)\]
\begin{align*}
\text{a} & \quad \text{tap} \quad [\text{tæp}] \\
\text{b} & \quad \text{butter} \quad [\text{ˈbʌtə}] \\
\text{c} & \quad \text{lotto} \quad [\text{ˈlotə}] 
\end{align*}

This glottal stop does not indicate the abrupt arrest of the vowel articulation as it does in the adult speech of varieties of English with [ʔ] but the gradual cessation of phonation between two vowels.

In final position Robert has alveolar stops. His articulation of individual words is always accompanied by a preparatory stutter with the syllable rhyme of the word uttered very much lengthened. The vowels are thus phonetically long irrespective of phonemic affiliation, see (12a-c), and a syllable-final consonant is always geminate with a very weak release. When this consonant is also an alveolar stop then there is slight affrication. The affricate portion of the articulation is apical, i.e. it foreshadows the [t\textsuperscript{]} of adult speech.

\[(13)\]
\begin{align*}
\text{a} & \quad \text{but} \quad [...\text{bʌ:t\textsuperscript{]}]} \\
\text{b} & \quad \text{put} \quad [...\text{pʊt\textsuperscript{]}]} 
\end{align*}

The position with Frank is different. He still has gemination of consonants in the codas of
monosyllables. His distribution of [t] and [d] is much closer to that of adults. He has fricativized alveolar stops in the positions matching the required input for the fricativization rule which is clearly an advance on Robert. This was particularly clear when both were vying to tell the same story and when Robert repeated what Frank said, the latter being faster than him. Consider the following forms:

(14) a  pilot  Frank  [pailət]  
     b  Robert  [paiːət]  

It is clear from the forms in (13) and (14) that the apico-alveolar fricatives develop out of the affrication of syllable-final alveolar stops which are in a post-stress vocalic environment.

Frank's distribution of apico-alveolar fricatives is not however identical with that of adult speech. In the latter the fricative rule applies after a vowel and before a pause even if a word follows immediately providing this begins with a vowel and or a glide. With Frank however a following glide blocks fricativization.

(15) a  white yacht  [wait#joːt]  
     b  short walk  [ʃɔːt#wɔːk]  

A number of further blockages of the fricative rule are caused by assimilations which he has. While Robert has [w] for /r/ continuously Frank has /r/ in a syllable onset as long as this is the second element of a cluster. But as he also shows assimilation of labials to a following sonorant in a syllable onset alveolars occur which also block fricativization of a final alveolar of a preceding word.

(16) a  light brown  [lait#draun]  
     b  red bricks  [rɛd#drɪks]  

Frank's distribution of coronal obstruents is interesting from a further point of view. Given that all the children had, and still have, a neutralization of dental articulations to alveolar ones (e.g. /t/ → [t]) then the question arises: are there any differences between the allophones of [t] from /t/ and underlying /t/? Note first of all that in adult speech the fortified stops /t/ and /d/ do not have fricative allophones in syllable-final position, one which induces the fricativization of alveolar stops. The occasional realizations [θ] and [ð] of /t/ and /d/ remarked on above are not the counterparts to the [t] and [d] allophones of /t/ and /d/ as they can be entirely missing in the speech of a speaker whereas alveolar fricativization is an obligatory feature in Southern Irish English.

What one finds with Frank is that he treats all alveolar stops as instances of the same underlying segments. This is clear from forms such as the following:

(17) a  worth it  [wɔːt]  
     b  mouth  [maʊt]  

If he regarded the final consonant in worth and mouth as not deriving from /t/, i.e. as representing underlying /t/ then the realizations should have been [wɔːt] and [maʊt] respectively which they clearly were not.
The reason for this must be perceptual. The child treats /t/ as /t/ in the appropriate post-vocalic, word-final position. And this although he heard [mauʃ] from the adults around him. This means that the child overrides the acoustic evidence for /t/, treats it as /t/ and lenites it allophonically. It is interesting to note that attunement theory (Ingram, 1989:95ff.) would seem to be supported here as the child refuses to accept dental stops, changing adult dentals to alveolars on a phonemic level. This would seem to confirm the primacy of alveolar over dental articulations.

Turning to the eldest Jane there is reason to believe that although she only distinguishes dental and alveolar realizations sporadically in syllable-initial position (the position of maximal contrast in a word) there is evidence that she always distinguishes between dental and alveolar stops underlingly. Consider the following forms:

\begin{tabular}{ll}
19 & a other [ʌdəɪ] \\
   & b bath [bɑːt] \\
   & c with [wɪt]
\end{tabular}

These forms and those in (9c+d) show that she derives the [t] or [d] in these forms from underlying /t/ and /d/ as the former consonants match the input required for the alveolar fricativization rule which Jane masters like an adult but which she has not applied here or in analogous cases. The acquisition of dental and alveolar stops would then seem to show three main stages as indicated by the children in ascending order of age.

\begin{tabular}{ll}
20 & a absolute neutralization of dental and alveolar articulations \\
   & b neutralization of place of articulation but allophonic \\
   & distinction of manner of articulation \\
   & c distinction of place and manner of articulation
\end{tabular}

The acquisition of these coronal obstruents is quite independent from that of the fricatives /s/, /z/ and /ʃ/, /ʒ/. The two alveolar fricatives already appear effortlessly with Robert but the broad-grooved fricatives /ʃ/ and /ʒ/ are represented by /sɻ/ and /zɻ/ with both Robert and Frank. The lip-rounding typical of adult realizations of /ʃ/ and /ʒ/ is only present with Jane.

### 1.2 Sonorants and glides

The set of sonorants in Southern Irish English is phonemically the same as in Southern British English, namely the liquids /l/ and /r/ and the nasals /n/, /m/ and /n/. The glides are also the same, viz. /j/, /w/ and /h/. The distribution is however different from that of Southern British English. For example /r/ is found in all positions in Southern Irish English in which it is etymologically justified and, significantly, in no other positions, i.e. linking and intrusive /r/ do not occur in Southern Irish English (or in Northern Irish English for that matter).

\begin{tabular}{ll}
21 & a car [kɑːɹ] \\
   & b card [kɑːd]
\end{tabular}
c  far away  [faːɹ əweː]
d  idea  [aidiə]

In (21c) the /r/ is present because the word far has final /r/ in Southern Irish English anyway and not because it is followed by a vowel-initial word. Note also that the low central long vowel phoneme of Southern Irish English /aː/ as in glass /ɡlaːs/ has a retracted articulation [aː] in the position before /r/.

Another point should be made in connection with vowel realization before /r/. In non-standard varieties of Southern Irish English a distinction is made between short vowels before tautosyllabic /r/ as in the following forms:

(22) a  girl  [ɡəl(ə)l]  ([ɡəl])
    b  burn  [bərn(ə)n]  ([bərn])

This distinction is commonly regarded as a feature of Irish English in general. However it is definitely not present in the standard which always has a rhotacized schwa as the realization of sequences stemming from former /ər/, /ər/ or /ər/ ( /ər/ ), see the forms in parentheses in (23a+b). Inkeeping with this none of the children shows a distinction among short vowels before a tautosyllabic /r/.

The /l/ phoneme of Southern Irish English has only alveolar realizations. In fact the only place in Ireland where a velarized [ɬ] occurs is in areas which are in contact with Irish and which have a velarized [ɬ] as a direct interference from the latter language (Hickey, 1986a).

(23) a  leap  [liːp]
    b  feel  [fiːl]

While on a systematic level there is no difference between Southern British English and Southern Irish English with regard to the set of glides phonetically certain differences occur. These are due to the systematic phonotactics of Southern Irish English. As a conservative feature Southern Irish English has the initial phonemic sequences /hw/ and /hj/. Instances of the former all derive from such sequences in the history of English and correspond to the orthographical sequence wh.

(24) a  wheat  /hwiːt/ ← [wiːt]
    b  whale  /hweːl/ ← [weːl]

Apparently because of the realization rule whereby /h/ and a following glide are pronounced as a single phonetic segment, i.e. the voiceless version of the glide in question, see (24a+b), the phonemic sequence /hj/ has the realization [ɬ] in Southern Irish English.

(25) a  huge  /hjuːdʒ/ ← [ɔːdʒ]
    b  human  /hjuːmən/ ← [ɔːmən]

The phonotactic difference between /h/ in Southern British English and Southern Irish
English is that the latter has /h/ intervocically after a stressed vowel. This position is however only found in personal and place names.

(26)  

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<tbody>
<tr>
<td>a</td>
<td>behave [biˈhev]</td>
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<tr>
<td>b</td>
<td>Fahy [ˈfæhi]</td>
</tr>
<tr>
<td>c</td>
<td>Cahill [ˈkæhol]</td>
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1.2.1 Syllable-final /r/

The acquisition of /r/ on the part of the children shows the type of regularity one would expect. Robert has no /r/ but [w] with attendant assimilation of stops when these cluster with /r/.

(27)  

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<tr>
<td>a</td>
<td>present [pwe*zən]</td>
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<tr>
<td>b</td>
<td>grass [bwæ:s]</td>
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Word-internally Robert also has [w] for /r/ while finally he has no /r/. Thus the various r-coloured vowels of Irish English appear with Robert as the equivalent non-rhotacized vowels.

(28)  

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<tr>
<td>a</td>
<td>very [beːwi]</td>
</tr>
<tr>
<td>b</td>
<td>around [ə´waʊn]</td>
</tr>
<tr>
<td>c</td>
<td>car [kaː]</td>
</tr>
<tr>
<td>d</td>
<td>thirty [tæ´ti]</td>
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The retraction of /aː/ which occurs before /r/ is missing with Robert. Frank on the other hand has a quite developed set of realizations for /r/. Initially he has no more substitutions of /r/ by [w]; in syllable-final positions he has weakly rhotacized vowels where these correspond to the r-coloured vowels of adult speech. Occasionally when /r/ is in an intervocalic position and before a stressed vowel he still has [w] for /r/. Where he has /r/ after /aː/ the vowel shows the retraction typical of adult speech.

(29)  

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<tbody>
<tr>
<td>a</td>
<td>...has a ring [´sæz ø wiŋ]</td>
</tr>
<tr>
<td>b</td>
<td>around [ə´wuːnd]</td>
</tr>
<tr>
<td>c</td>
<td>short party [ʃɔt pɔr.ti]</td>
</tr>
</tbody>
</table>

As the acquisition of /r/ by Jane is complete it is not of interest here. With both Jane and Frank the /r/ which they acquired or are in the process of acquiring is the post-alveolar frictionless continuant of Southern Irish English with a significant degree of velarization, i.e. [ɾ].

1.2.2 Glide substitution and /l/

As might be expected Robert at 2.9 years has glide substitution for liquids. This is obvious from [w] for /r/. In the case of /l/ he also shows glide substitution as seen in
What is interesting from the point of view of Southern British English is that he never has [u] (as in Southern British English, see Smith, 1973:15) as a realization of /l/.

If glide substitution is a rule by which a segment which is [+sonorant], [-nasal] and [-vocalic] is changed to [+sonorant], [-nasal], [+vocalic] and [-syllabic] then the non-occurrence of [u] has a natural explanation: the /l/ of Southern Irish English is weakened to a glide without a change in its value for the feature [back]. As /l/ in Southern Irish English is always [-back] (i.e. alveolar) then the glide realization of it at an early stage of acquisition is always [j], i.e. a non-back glide.

1.2.3 The voiceless labio-velar approximant

It would appear to be that there are stages in the acquisition of consonants (Jakobson, 1968), e.g. that stops are acquired before fricatives and the latter before affricates. Given the early appearance of voiceless stops one might expect of a language variety with both [w] and [ɯ] that the voiceless segment would turn up before, or at the very least parallel with, the voiced one. In Southern Irish English this is quite definitely not the case. Consider the following forms from the three children.

Robert's phonological system is the least developed on the surface. He has the phonetic segment [w] as the realization of both /w/ and /hw/ as well as [w] from glide substitution of course (see (27) and (28) above). The [j] which he shows in (31d) is incidentally the same phonetically as the [j] which he has deriving from underlying /j/ as in:

Frank's system is superficially more regular as it contains fewer substitution rules (compare the final consonants in (31b+d) in Robert's and Frank's realizations). But for [ɯ] he still shows [w]. Only Jane's system corresponds to that of adult speech.

From this state of affairs one can draw certain conclusions. Firstly Robert has two rules, one which specifies that all phonemic glides be voiced and a second which changes all phonemic liquids into phonetic glides and deletes final /r/. Frank has the first of these rules but has lost glide substitution for underlying liquids. Although he is exposed to adult speech with [ɯ] in words like what he still regularly produces [w]. In view of the acquisitional preponderance of voiceless over voiced consonants (see the discussion in Ingram, 1989:190ff.) why should he devoice [w]?
The only acceptable answer to the above question must appeal to some notion of markedness to explain why voicelessness should antedate voice in the acquisition of labio-velars. Now although the notion of markedness is one of the most disputed in phonological theory one can use it to a limited extent without hopefully running the risk of making unguarded statements. Thus voicelessness with obstruents and voice with glides and vowels can be seen as unmarked at least in the sense of the statistical distribution of these features with the segments mentioned across various languages. If one now interprets [w] and [ʍ] phonologically as being vowel-like but of course non-syllabic then one can arrive at an explanation for the acquisition of [ʍ] after [w], albeit within the framework of a set of assumptions about markedness (Goodluck, 1991 :20) not shared by all phonologists.

Vowels and glides can now be grouped together to give a class of vocoids, the values [+syllabic] for vowels and [-syllabic] for glides serving to distinguish them where necessary. One can give an order of acquisition for vocoids in which three types are arranged in a chronological order relevant to each other. The relationship of the second type to the first in (33) below has been established independently already (Jakobson, 1968):

(33) a Oral voiced vocoids are acquired first  
    b Nasal vocoids are only acquired after oral vocoids  
    c Voiceless vocoids are only acquired after voiced vocoids (a+b)

With the interpretation of [w] as a non-syllabic vocoid the acquisition of [w] before [i] would be explainable by reference to the chronological priority of (i) over (iii).

The above explanation of the ordered acquisition of [w] and [ʍ] is of consequence for a further segment in the inventory of Southern Irish English, /h/. This sound appears very early in initial position. Robert has word-initial /h/ although medially he has the same kind of weak glottal stop (see (12) above) which characterizes his realization of intervocalic /t/.

(34) a his  [hɪ:s]  
    b house  [hau:s]  
    c behind  [bi?ai:n]

As opposed to this Frank has /h/ medially in words like (34c). Jane's realizations of /h/ are adult-like.

If /h/ is interpreted as a voiceless glide then the realizations in (34a-c) require an explanation. It is true that there are reasons for regarding /h/ as a glide. Firstly it is phonetically a voiceless vowel with an oral tract configuration for the following vowel; secondly the phonotactics of /h/ places it firmly in the group of glides: it only occurs pre-vocalically in English and can only be preceded by a pause (i.e. when word-initial) or by an unstressed vowel (see (34c)). However the early acquisition of /h/ long before [ʍ] (word-initially with Robert; initially and medially with Frank) points to its consonantal character. The distribution in (34a-c) suggests that acquisitionally /h/ is to interpreted as an obstruent like /t/, for example.
1.3 A note on phonological processes

The acquisition of phonology is characterized at different stages by various phonological processes such as substitution, assimilation, etc. Most of these processes are transient, such as the gemination of word-final obstruents which Robert has obligatorily but Frank only sporadically. There are a few phonological processes which characterize adult Southern Irish English and which are not found in Southern British English. Two of these are metathesis and epenthesis. Metathesis involves a short unstressed vowel and /r/ giving for example pronunciations like [mədrən] for modern. Epenthesis manifests itself in the intrusion of a schwa in so-called heavy word-final clusters consisting of two sonorants (Hickey, 1986b) resulting in pronunciations like [fɪlm] for film.

Acquisitionally these processes are not revealing. In the case of metathesis the children simply learn the pronunciation [mədrən]. Very much later, above all with the acquisition of writing skills, they will realize that there is a pronunciation [mədə(ɪ)n] outside of Ireland. The same is true of epenthesis. Words like [fɪlm] do not have an alternative phonological form [fɪlm] for the children so that they are not necessarily aware of the epenthesis.

There is however one phonological process which is characteristic of an acquisitional stage with children learning English in general and of Southern Irish English adult speech in particular. This is final devoicing. One of the tenets of natural phonology is that the voice # voiceless distinction in word-final position in English is one which children acquire ‘unnaturally’ in English, all obstruents being voiceless in the early stages of phonological acquisition (Stampe, 1973). This devoicing of the voiced obstruents of adult speech is noticeable with Robert and also with Frank, though with fricatives (/v/ and /z/) the latter already has a voice distinction, albeit tentative. There is one environment however in which none of the children (including Jane) has a distinction for voice: in a post-sonorant word-final position.

(35) a  built  [bɪlt]
b  hand  [hænt]
c  Raymond  [rəˈmɔnt]

In colloquial varieties of Southern Irish English the voice # voiceless distinction never develops in this position. There are parallels to the lack of this distinction in the history of Irish English and in Irish also which account for its presisting in adult Southern Irish English.

2 Concluding remarks

In conclusion one can say that the acquisition of Irish English phonology provides some insights into how children acquire distinctions in place of articulation (dental versus alveolar) and in what order voiced and voiceless segments are acquired in the area of glides. Furthermore Irish English is interesting is demonstrating an allophony of consonants common to mainland British English, which is quite different from the remainder of varieties in these islands. This applies to the fricativization of alveolar stops under certain phonotactic conditions and the general fortition of ambi-dental fricatives.
References


