

Yod in London

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Kwon, Ha Rim. 2006. **Yod in London.** *SNU Working Papers in English Linguistics and Language* 5, 1-11. The purpose of this paper is to account for the reason of the different realizations of yod in the /Cju/ sequences in three social accents in London- RP, Popular London and Cockney-within the framework of Optimality Theory (Prince & Smolensky 1993). The three social accents show [tj~tʃ t] alternation in the /Cju/ sequences with coronal consonants. Since studies on the yod in the accents in London are rare, some studies on the pronunciation of /j/ in other accents of English will also be reviewed. Through a constraint-based analysis of the [tj~tʃ t] alternation, I will argue that the studies on you in other accents of English cannot account for the yod phenomena in London, and suggest an alternative explanation from the history of yod in English. The complex [tj~tʃ t] alternation in the three major social accents in London can be accounted for by the interaction of the markedness constraint *COMPLEX, the faithfulness constraint UNIFORMITY, and its copycat constraint IDENT[F]. (Seoul National University)

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1. Introduction

The dialectal condition in London is quite complex. Middle-class speakers typically use RP, and working-class use Cockney. As an accent, Cockney constitutes the basilectal end of the London accent continuum, while RP the other end. And another subvariety, Popular London, is along the continuum stretching from Cockney to RP. Popular London, also as a kind of working-class accent, shares the general characteristics of Cockney, but slightly closer to RP. These three are the major social accents in London, but never geographic ones.¹⁾

1) In London are some other minor subvarieties as well, which will not be dealt with in this paper.

This paper compares the pronunciations of yod in /Cju/ sequences of the three accents in London. The pronunciation of yod is a controversial issue not only in the three accents in London but also in other accents of English. In /Cju/ sequences, **yod** can be deleted, realized, or coalesced with a preceding consonant, according to the preceding consonant. And this decision becomes slightly different in various accents of English. In other words, the choice that /j/ retains or drops after which consonants depends on the difference of accent.

The purpose of this paper is to show the different realizations of /j/ in the /Cju/ sequences in the three social accents in London, and to analyze the reason of the alternation. Since studies on the yod phenomena in London is rare, I will review some studies on the pronunciation of /j/ in other accents of English. In doing so, I will argue that the studies done for other accents cannot account for the yod phenomena in London, and find an alternative explanation from the history of yod in English. Finally, I will provide an account for the different realization of /j/ in the three social accents in London within the framework of Optimality Theory (Prince & Smolensky 1993).

2 Data

The pronunciation of /j/ in /Cju/ sequence is differently realized in the three accents in London. On the one hand, RP, as a standard accent, shows its conservativeness by retaining /j/ in most environment. On the other hand, Cockney does not have /j/ in most environment. And in Popular London, the rate of /j/ realization is about the middle of those two accents. The details of different realization are as follows:

(1) The realization of /j/ in London's three social dialects

environment	RP	Popular London	Cockney
/[+palatal]__/ /r__/ /[+cons] l__/		/j/ → ø	
/t, d, n__/	[tj, dj, nj]	[tʃ dʒ n]	[t, d, n]
/s, z, Θ l__/	[sj~s, zj~z, Θ Θ lj~l]	[ʃ ʒ Θ l]	[s, z, Θ l]
elsewhere		/j/ retains	

As you can see from the table, the most problematic case in this /j/ variation is the case when /j/ is preceded by coronal sounds /t, d, n, s, z, Θ l/. A noticeable point is that [tj~tʃ t] alternation is a social one in London. While RP has a yod after an alveolar stop, Cockney traditionally drops it. Simple [t] instead of [tj] has been regarded as the Cockney norm, though always of course alongside the approved RP-type variants with [tj]. But in the environment after /t, d, s, z/, there seems to have occurred a switch speech towards yod coalescence in Popular London. According to Beaken's (1971) survey of primary school children in the East End, typical pronunciation of words such as *tune, due* is [tʃʊ- dʒʊ-]. As a result, the coronal+/j/ sequences show three-way alternations in London according to the social status of its speakers.

However, this alternation is not always social in other accents of English. For example in GenAm, the distribution of [tj~tʃ t] is rather determined by the phonological environment. GenAm has plain /u/ without yod in the environment of following /t, d, n, s, z, Θ l/, only in syllables which have primary or secondary stress. In the case of syllables with no stress at all, GenAm shows a tendency towards the same yod coalescence as Popular London. As a result, the [tʃ t] pronunciation which is regarded as vulgar in London speech is not vulgar at all in GenAm. Since the yod phenomena in London depends not on phonetic but on social factors, the studies focused on the pronunciations of yod in various phonetic environments cannot account for the yod phenomena in London. The yod phenomena in London have the uniqueness in the distributional pattern which is regulated with the social factors, and

thus need a different approach.

3. A rule-based analysis: [j]-insertion

As briefly mentioned above, studies on the /j/ in London accents are extremely rare. Thus I will review the studies on the pronunciation of /j/ in other accents of English and see if they can be used to explain the yod phenomena in London.

To explain the idiosyncratic characteristics of /Cju/ sequences, Halle and Mohanan (1985) view /Cju/ sequences as not being present underlyingly. Rather they maintain that such sequences are derived through a rule of [j]-insertion. The rule is as follows:

$$(2) \quad \begin{array}{c} \text{[j]-insertion} \\ \emptyset \rightarrow \gamma / \langle +\text{cor} \rangle_a \quad _ \quad i \quad \text{Condition : if } a \text{ then } b \\ \qquad \qquad \qquad \langle -\text{stress} \rangle_b \end{array}$$

This rule, however, is not suitable at all to account for the yod phenomena in London for two reasons. Firstly, as mentioned above, the rule of [j]-insertion cannot be applied to the yod phenomena in London, since the yod phenomena are not affected by the presence of stress. A far more serious reason is that the [j]-insertion rule cannot predict the correct consequence even in the accents where the presence of yod is determined by the presence of stress such as GenAm. In other words, the rule in (2) can never distinguish the words with inherent /j/ from those without it. See (3) for example.

(3)	The pronunciations of yod after consonants in GenAm
(a)	coronal: do [du:] due [dju:]
(b)	labial: poor [puə] pure [pjua]
(c)	velar: coo [ku:] cue [kjua]

The word pairs in (3) show that the [j]-insertion rule cannot apply

across words. The insertion rule cannot reflect the lexical difference at all, and thus cannot predict the different pronunciation in *poor* vs. *pure* or *coo* vs. *cue* as well even in GenAm.

4. The history of yod

In order to understand the yod phenomena in London properly, the history of yod should be taken into consideration. That is because yod in the /Cju/ sequences is deleted in many accents of English as a result of a number of historical processes. In this section, I will briefly review the history of yod itself and the /Cju/ sequence for the purpose of accounting for the yod phenomena in London.

At first, the stressed /u/ should be understood, since it is frequently preceded by /j/. When this is the case, the sequence /ju/ has the traditional name 'long U'. And there are still the words with no preceding /j/ before /u/. Wells (1982) have the clear distinction in those two classes of GOOSE vowel, in his term. He distinguishes the words exemplifying the GOOSE vowel with historically no preceding yod (4a) from those which had or still have a preceding yod (4b):

- (4) GOOSE (a) loop, move, tomb, group...
(b) mute, flu, deuce, few, fruit, view, beauty... 2)

The words in (4a) and (4b) are historically very distinctive. The words in (4a) are derived via the Great Vowel Shift from Middle English /o:/, while those in (4b) from the falling diphthong [ɪ̄]. At the end of the 17th century, the words with the falling diphthong [ɪ̄] became phonetically identical with the /ju:/ of *youth*. This development brought into existence a large number of new /Cju/ sequences, and became the subject of yod phenomena. This distinction is the key to the problem presented with (3) above. In (3), the first words in the doublets, *do*, *poor* and *coo*, belong to (4a), while the second words, *due*, *pure* and *cue* to (4b). The words with historically inherited yod show

2) These examples are randomly selected from Wells (1982: 148-149).

apparently different behaviors from those without it.

Then, shortly after the **full** establishment of /Cju/ sequences, the yod began to be deleted in certain environments. This process is called Early Yod Dropping. The environments of early yod dropping are after palato-alveolars and palatals, as in *chew*, *juice*, *yew*; after /r/, as in *rude*, *crew*; and after /Cl/, as in *blue*, *flew*. Early Yod Dropping may be represented by the rule in (5).

$$(5) j \rightarrow \emptyset / \left\{ \begin{array}{l} [+palatal] \\ /r/ \\ [+cons]+/l/ \end{array} \right\} —$$

The cause of early yod dropping is not known, but we can estimate that Obligatory Contour Principle³⁾ may have played an important role on the words with palatal + /j/. And at that time, very similar processes to early yod dropping also took place in the onset clusters of English. For example, in the words *like* know, *gnaw*, or wrong, the first member of the onset dropped during the same period. Thus we can say that there could have been a kind of onset simplification that affected on the /j/ in /rj, Clj/ clusters, /k, g/ in /kn, gn/, and /w/ in /wr/ at that time.

Later, early yod dropping environments were extended to include the coronals in some less conservative accents. This is called Later Yod Dropping. In the accents with later yod dropping, [j] retains after labials and velars, but not after the coronals. As a result of this process, the pronunciation of [j] became different from accent to accent. In the conservative kinds of accents, which has not gone through later yod dropping, the [j] retains after coronals. However, [j] is deleted after coronals in the more liberal kinds of accents which went through later yod dropping.

So far reviewing the history of yod and /Cju/ sequence, we can say that the yod phenomena in London is not the one individual

3) Obligatory Contour Principle (McCarthy 1986)
Adjacent autosegments are prohibited at the same tier.

process. Rather it is the combined result of several distinctive processes. This historic implication should also be taken into account in explaining the yod phenomena in London.

5. A constraint-based analysis

In this section, I will provide an analysis for the yod phenomena in London with its three major social accents within the framework of Optimality Theory. Since the yod phenomena is the result of several independent processes as mentioned above, each process needs its own analysis. This paper, however, will concentrate only on the case of coronal + /j/ which is related to the later yod dropping. The relevant data are restated in (6).

(6)	input	RP	Popular London	Cockney
/tj, dj, nj/				
[+cor], [-cont] + /j/	[tj, dj, nj]	[tʃ dʒ n]	[t, d, n]	
/sj, zj, Θ lj/	[sj~s, zj~z, Θ Θ lj~l]	[ʃ ʒ Θ l]	[s, z, Θ l]	
[+cor], [+cont] + /j/				

As you can see in (6), the [+cor] consonants preceding /j/ can be divided into two classes, [+cont] vs. [-cont], and they behave differently. In order to account for this different behavior the constraints in (7) will be used.

- (7) UNIFORMITY⁴⁾: No element of output has multiple correspondents in input.
- MAX^{seg}: Every input segment has a corresponding output segment.
- OCP[cor, +cont]: No adjacent [cor, +cont] segments.
- *COMPLEX: No onset clusters are allowed.

Among the above constraints, the behavior of the constraint

4) McCarthy and Prince (1995: 371)

UNIFORMITY attracts attention. The faithfulness constraint UNIFORMITY is at the highest ranking in the system of RP, since it is the standard, thus most conservative accent. The constraint UNIFORMITY guarantees that the optimal output should be similar to its phoneme. And the similarity between the input and the output is one of the characteristics of the standard accent. In RP, the UNIFORMITY constraint plays **that** role. However, in the non-standard accents like Cockney, this constraint is so low in the ranking that it cannot influence the output. Rather, in the **non-standard** accents, another constraint, the markedness constraint *COMPLEX, is the most dominant.

On the other hand, in Popular London, an additional constraint plays a role. As mentioned in the introduction part, Popular London is an accent that was born by some of the Cockney speakers who wanted to mimic RP. Those speakers who tried to mimic the standard **accent** failed to **promote** UNIFORMITY, which is the most dominant in RP, and used a copycat constraint IDENT[F] as an alternative to the constraint UNIFORMITY.

- (8) IDENT[F]: An input feature is preserved in the output.

Now with the above constraints in (7) and (8), I will propose the constraint **rankings** in the three major accents of London. By the relative ranking of UNIFORMITY and *COMPLEX, the [tj~tʃ t] alternation can be explained. And the IDENT[F], which is an alternative of UNIFORMITY, is the most dominant constraint in the system of Popular London.

- (9) RP: UNIFORMITY \gg DCP[cor, +cont], MAX^{seg} \gg *COMPLEX
 Cockney: 'COMPLEX \gg DCP[cor, +cont], MAX^{seg} \gg UNIFORMITY
 Popular London: IDENT[F] \gg *COMPLEX \gg DCP[cor, +cont],
 MAX^{seg} \gg UNIFORMITY

Given the constraint ranking in (9), the optimal output of each system can be derived.

(10) RP: UNIFORMITY \gg OCP [cor, +cont], MAX^{seg} \gg *COMPLEX

/tj/	UNIFORM	OCP	MAX ^{seg}	~COMPLEX
[t]		!	*!	
[tj]				*
[tʃ]	*!		•	
/sj/	UNIFORM	OCP	MAX ^{seg}	'COMPLEX
[s]		!	*!	
[sʃ]		*!	!	*
[ʃ]	*!	!	•	

(11) Popular London: IDENT[F] \gg ;COMPLEX \gg OCP[cor, +cont], MAX^{seg} \gg JNIFORMITY

/tj/	IDENT[F]	*COMPLEX	OCP MAX ^{seg}	UNIFORM
[t]	*!		! *	
[tj]		*!		
[tʃ]			! *	*
/sj/	IDENT[F]	*COMPLEX	OCP MAX ^{seg}	UNIFORM
[s]	*!		! *	
[sʃ]		*!	*	
[ʃ]			! •	*

(12) Cockney: *COMPLEX \gg OCP[cor, +cont], MAX^{seg} \gg JNIFORMITY

/tj/	*COMPLEX	OCP	MAX ^{seg}	UNIFORM
[t]			*	
[tj]	*!			
[tʃ]			*	*!
/sj/	*COMPLEX	OCP	MAX ^{seg}	UNIFORM
[s]			*	
[sʃ]	*!	*		
[ʃ]			*	*!

In sum, the complex yod phenomena in the three major social accents in London can be accounted for by the interaction of the markedness constraint *COMPLEX, the faithfulness constraint UNIFORMITY, and its copycat constraint IDENT[F]. With the three constraints ranked differently in each accent, the optimal outputs in each accent can be properly selected.

6. Concluding remarks

So far, I have shown that how the yod phenomena in London can be handled within the framework of Optimality Theory. I have shown the different realizations of /j/ in the /Cju/ sequences in the three social accents in London and accounted for what caused the alternation. In doing so, I have argued that the studies done for other accents of English, such as GenAm, cannot be applied to the yod phenomena in London, since it shows social alternation rather than a phonetic one. Therefore I proposed an alternative explanation from the history of yod in English. By doing so, I have provided an account for the different realization of /j/ in the three major social accents in London with the markedness constraint *COMPLEX, the faithfulness constraint UNIFORMITY, and its copycat constraint in Popular London, IDENT[F]. By the interaction of these constraints, the yod phenomena in London can be analyzed without problems.

However, what I have dealt with in this paper is only partial. Although I offered a successful explanation for the part of yod phenomena related to the later yod dropping, I only provided a very rough guess for the part related to the early yod dropping. Still the early yod dropping cannot be neglected to provide a full and perfect explanation for the yod phenomena. Therefore, I should say that this calls for further studies on this subject.

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