Yod Variation in Australian English
A Sociolinguistic Investigation

Ruholla Kazemi
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Abstract
In various post-consonantal environments, the palatal glide /j/ has been subject to variation and change since the late 17th century. Retention, coalescence, and deletion of the glide respectively account for various pronunciations of the word due [dju:], [dʒu:], and [du:] in different dialects of English. Research in this area has often focused on internal motivations. However, the external motivations that regulate the practice of glide variants in the speech of different segments of communities have been a relatively recent area of investigation. Among other dialects, Australian English is one of the major varieties that has not been formally assessed in this area. Hence, the aim of this thesis has been to investigate possible associations between the glide variants and their emergence in the speech of 48 speakers of Australian English. The audio data for this study were 12 tokens pronounced by the speakers in wordlist, sentences, and a story, and were extracted from the AusTalk Corpus (Burnham, Cox et al., 2011). The results for separate analysis of social variables seem to indicate that the spread of different glide variants in the speech of speakers are mainly conditioned by age. The combination of the social variables shows that glide retention is most frequent in the speech of higher educated old individuals. By contrast, glide deletion seems to be almost non-existent in their speech while more frequent in the pronunciations of the young. Overall, glide coalescence is the most present and has the strongest stylistic consistency in the speech of individuals. Further details and possible reasons behind these observations are discussed in the work that follows.

Keywords
Palatal glide, yod dropping, yod deletion, glide deletion, yod coalescence, yod palatalization, glide palatalization, yod retention, yod variation, glide variants.
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1. Introduction

The sounds /j/ and /w/ are the only two glides in the inventory of English phonemes. According to Hickey (2014) the palatal glide /j/, also known as yod, is phonologically classified between a vowel and consonant due to its little friction and high degree of sonority. Crystal (2008) states that the glides serve as both consonants and vowels depending on the point of view; phonologically they can be considered consonants for their role in syllables. Phonetically, however, these sounds lack the friction usually involved in the production of consonants, which makes them vowel-like in character. As a result, such sounds are alternatively called ‘semivowels’ or ‘semi-consonants’. This borderline nature of the yod could perhaps account for the lack of its exclusive research in light of the gradual variations it has created through the past centuries. The deletion of yod in pronunciation is an instance of such an effect. According to Wells (1982) the deletion of yod often happens (1) after sonorants, especially /l/ and /n/, as in lute /lʌt/ and news /nuːz/ respectively, and (2) after alveolar stops as in tune /tʌn/, student /stjuːdənt/, due /duː/ respectively in forms of American English. This change, also known as “yod-dropping”, has arguably been a change in progress since the late 17th and early 18th century (Wells, 1982), and it has affected all varieties of English to different extents (Burridge, 2014; Clarke, 2006). A second instance of yod variation is palatalization. According to Yavas (2011), the alveolar obstruents of English become palatoalveolar when followed by the palatal glide /j/, and since there are no palato-alveolar stops in English, the result is an affricate. Words such as tune and due being pronounced [tʃuːn] and [dʒuː] respectively are examples of palatalization, also referred to as coalescence.

The study of yod deletion received growing attention following the investigation of this feature in East Anglia, where the speakers were observed to drop the yod in all phonotactic environments (Trudgill, 1974). This feature has been researched in American English (Clifton, 1959; Pitts, 1986), Canadian English (Chambers, 1998; Clarke, 2006), Fiji English (Tent, 2001), and to a small extent in New Zealand English (Allan & Starks, 1995). Australian English, however, is among the major varieties of English in which yod variations have not been “formally assessed” in any investigation (Cox 2015, personal communication). The only study that marginally acknowledges these variations in Australian English was conducted several decades ago by Horvath (1985), in which yod-dropping was suggested to be “change in progress” and in competition with palatalization. Hence, the aim of this thesis is to conduct a multi-variable sociolinguistic study to investigate yod variation in a sample of Australian English speakers. The investigation focuses on whether there is any association between the manifestation of these variations and the sex, age, and educational level of speakers.

2. Theoretical Background

Yod variations have been acknowledged only marginally in general longitudinal studies of sound change, and it is, therefore, important to review the context in which these phenomena emerged first. Hickey (2014) identifies three classes of
glide changes in English: insertion, weakening, and loss in initial position. Glide insertion is the addition of a palatal glide after velars and before /a/, which is well attested in English in the north of Ireland (e.g. car [kjær] and gap [gjæp]) (Hickey, 2014). Krapp (1925, 208; in Montgomery, 2001, p. 131) explains this as a survived feature of pronunciation that was more widespread and “highly commended as an elegant accomplishment in speech” in southern and eastern counties of England. The conventional prestige attached to this phenomenon seems to have travelled within world Englishes through historical connections. For instance, Holm (in Burchfiled, 1994, p. 370) points out that the “substrate influence appears to have reinforced the retention of archaic or regional British /kj/ and /gj/ before front vowels in Caribbean, as in cabbage [kjaebadʒ] and garden [gjaːrdn]”. Glide weakening describes the reduction of the second element of a diphthong, for example as in South American English pronunciation five [faːv] or colloquial white South African English [faːzn] for fine (Hickey, 2014). Finally, the loss of initial glide in words such as year, yeast, yesterday, woman, and wool has also been observed in, for instance, southwestern counties of England (Wakelin, 1988, p. 75).

In modern literature, yod dropping and yod palatalization are the two major, yet broad, terms employed to signify the nature of variations concerning the palatal glide /j/. Some of the categories may not be easily distinguished through auditory perception. For instance, the token news may become subject to glide weakening; however, researchers have a tendency to classify it in a retention or deletion category based on the friction surfacing in the acoustic analysis.

Table 1. Instances of yod variation

<table>
<thead>
<tr>
<th></th>
<th>(1) Retention</th>
<th>(2) Deletion</th>
<th>(3) Palatalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>student</td>
<td>[stjuːdent]</td>
<td>[stuːdent]</td>
<td>-</td>
</tr>
<tr>
<td>news</td>
<td>[njuːz]</td>
<td>[nuːz]</td>
<td>-</td>
</tr>
<tr>
<td>due</td>
<td>[djuː]</td>
<td>[duː]</td>
<td>[dʒuː]</td>
</tr>
<tr>
<td>tune</td>
<td>[tjuːn]</td>
<td>[tuːn]</td>
<td>[tʃuːn]</td>
</tr>
<tr>
<td>assume</td>
<td>[əsjuːm]</td>
<td>[əsuːm]</td>
<td>[əʃuːm]</td>
</tr>
</tbody>
</table>

Wells (1982) identified three classes of yod dropping, which Glain (2012) summarizes as: (1) Early Yod Dropping, (2) Later Yod Dropping, and (3) the Generalized Yod Dropping. The first category emerged at the beginning of the 18th Century in London, where the yod was subject to deletion in cases where it was preceded by palatals, /l/, or consonant clusters ending in /l/ as in chew, rude, blue respectively (Wells, 1982). In the second category, considered an ‘American innovation’, yod was elided after coronal consonants, particularly palatals and /t, d, n, s, z, r, l/, but retained after labials, velars, and /f, v/ (Glain, 2012). And finally, the third category of yod dropping was a shibboleth of East Anglian English, where the speakers neglected the yod in all post-consonantal environments.
Yod dropping and palatalization have often been in competition in English studies of sound change. Yavas (2011) explains that the alveolar stops /t, d/ and fricatives /s, z/ may undergo palatalization and turn into [tʃ, dʒ] and [ʃ, ʒ] respectively when occurring before the palatal glide /j/ (see Table 1). This can happen within words (e.g. tune [tʃu:n]) or between words in connected speech (e.g. [mıʃu:] miss you). The reason for this is that the alveolar obstruents of English supposedly move to a palato-alveolar position in cases where the following token starts with a yod, and since there are no palato-alveolar stops in English, the replacements are affricates for /t, d/ – i.e. [tʃ, dʒ] (Yavaş, 2011). As mentioned earlier, the broadness of these terms can pose a theoretical and practical challenge depending on the quality and extent to which this palatalization takes place. When the yod and its preceding consonant fully merge into one inseparable sound, the phenomenon is generally known as assimilation. This assimilation, however, can be either “progressive” or “reciprocal” (Carr, 2009, p. 17). The former accounts for the assume [əʃu:m] pronunciation, where the [s] becomes a palato-alveolar [ʃ] under the influence of the proceeding yod, but the resulting assimilation does not change the fricative characteristic of [s]. However, in reciprocal assimilation, known as coalescence, the stop characteristic of /t/ and /d/ changes to affricative [tʃ] and [dʒ] respectively. The shift of pronunciation from picture /pıktu:r/ and structure /strʌktu:r/ to /pıktʃər/ and /strʌktʃər/ respectively are instances of yod coalescence, which are presently the standard norms.

2.1 Previous Research on Yod Variations

Dobson (1968, p. 709) argues in length that the Middle English [ɪu:] and [eu:] – having been subject to disagreements, among others, due to spelling conventions – gradually developed to [ju:] at the late sixteenth century. Drawing on Jones’s comments on the quality of early 20th century /ju:/ in Outline of English Phonetics (1922), Dobson (1968) explains that towards the end of the seventeenth century, a tendency evolved towards “fronting” of the sound [u:] in [ju:] combinations “due to the assimilatory influence of the [j]”, and this fronting was reflected in Cockney English and Australian English (p. 709-12). Later, Dobson (1968) states, combinative changes resulted in the disappearance of the [j] “for greater ease of pronunciation” in [ju:] instances such as in chute and lute in general, and duke and tune specifically in American English (p. 712).

In a similar account, Glain (2012) suggests that the “economy principle” or the principle of least effort motivates yod dropping and palatalization whereby the speakers seek oral simplification of utterances (p. 15). He associates the phenomena with the erosion of languages over time and believes that this is central to the concept of language change (Glain, 2012). Nevertheless, it seems reasonable to assume that these variations would not have survived and possibly transferred into other dialects in absence of social practice. Hence, the following sections review some of the previous research in the area of yod variation in different dialects.

2.1.1 East Anglia

Research in the area of yod dropping in English dialects perhaps received most
attention with regard to the communities of East Anglia – a region consisting of the counties of Norfolk and Suffolk, as well as parts of Essex and Cambridgeshire. Among others, Ellis (1889) observed yod dropping in all phonotactic environments in the speech of the working class in Norfolk and Suffolk. Kökeritz (1932) reported the deletion of the palatal glide /j/ in ‘news’, ‘few’, ‘duke’, ‘beautiful’, ‘cute’, and ‘tune’. Trudgill (1974) identified total homophony between pairs of words such as dew and do, hugh and who, mute and moot, and cute and coot in Northern East Anglian county of Norwich, and pointed out that yod dropping was most practiced in the casual speech of the lower working class and least among the middle class. A recent study (Spurling, 2003) of the East Anglian town of Ipswich reassessed that compared to the older generation, the younger generations – with no marked difference between genders – prefer to retain /j/ in words, and palatalization was more associated with the males. In addition, Spurling (2003) concluded that Ipswich is gradually undergoing the process of dialect attrition and predicted that the traditional features such as yod dropping will no longer be present in the dialect of Ipswich in the future.

2.1.2 American English

Clifton (1959) claims that the monophthogization of the [ju] – from Middle English [iu] – was more prevalent in the United States than in England, and points out his observation that yod was retained: (1) word-initially (union, utility, eulogy), (2) when preceded by bilabials (beauty, music) or labio-dentals (view, few), (3) after aspirate [h] (hugh, huge) and [k] (cute). However, he states that yod retention sounded “artificial” after /l/ and /r/ in the United States (Clifton, 1959, p. 190). Drawing on stereotypical views that associated west Texas with General American English as opposed to the East Texas being representative of Southern American English at the time, Clifton investigated to what extent yod retention prevailed in east Texas. The conclusion was an equal spread of yod retention and dropping practiced by the informants (Clifton, 1959).

Prestige aspects attached to yod variations in speech seem to have served a central role within different groups and regions. Pitts (1986) observed yod deletion in North and North Midland, Pennsylvania, Northeastern Virginia, New Jersey, New York in words such as new, due, Tuesday. In case of Metropolitan New York, South and South Midland, however, she points out Kurath and McDavid’s (1961, p. 174) view who attributed yod retention to “cultured speakers”. Furthermore, according to Pitts (1986), the Southern U.S. looked up to the Northern trends, hence considering the Northern U.S. yod dropping as prestigious, while the Northern U.S. media projected the retention of yod to be the prestigious variant based on the external British norms. Referring to this observation as an example of dual prestige, Pitts (1986) postulates that both yod deletion and retention were indicators of prestige in speech, albeit each prevailing in groups showing affinity to different causes. Hence, she concluded that “glidelessness” was valued among women, local Southern broadcasters, and blacks – “all of whom face[d] linguistic discrimination in the media” at the time – as opposed to glide retention, which was commended in the speech of “the better-established white non-Southern male announcers” (Pitts, 1986, p. 137).
2.1.3 Canadian English

The practice of yod deletion and retention observed in Canadian English has been mainly viewed as a reflection of speakers’ ideologies. Bringing to attention the complex role of language in the construction of Canadian identity, Clarke (2006, pp. 227-8) points out the 19th century contribution of British influence on Canadian language and culture, and the consequent emergence of “superiority associated with all things British”. According to Clarke (2006) the view that “British linguistic features indexed notions of elegance” in Canadian English resulted in the retention of the palatal glide in the speech of those identifying with the British culture (p. 227). This view, though, was conflicted by the classification of General Canadian English as a dialect of American English, which was further compounded by the influence of Americanism infiltrated through shared geographical borders (Clarke, 2006).

Chambers (1998) considered yod deletion to be the Canadian norm that encoded overt prestige. Clarke (2006), however, attributes Chamber’s notion to younger Canadians, and argues that for many others it is the retention of yod that carries overt prestige. Based on these conflicting notions, Clarke’s (2006) own investigation of the palatal glide in Canadian English concludes that the deletion and retention of yod are no longer viewed as carrying, respectively, American versus British affiliation. She rather suggests that both variants “hold different appeal for different segments of the population, and both are simultaneously viewed as prestige targets within one and the same broadly defined speech community” (Clarke, 2006, p. 226).

2.2 Australian English

From the studies presented in earlier sections, the role of prestige in the retention or deletion of yod in speech is clear. Therefore, in order to explore yod variations more clearly in Australian English, a brief overview of the dialect seems necessary. After its arrival to Australia in 1778, English was divided into sociolects “implicitly correlated with social class” (Billington, 2011, p. 276). Mitchell and Delbridge (1965) categorize these sociolects into three types on a broadness spectrum: Broad, General and Cultivated. Cox (2006) explains that Cultivated is associated with “femininity, affectation, snobishness and affinity with Britain” (p. 13), and Horvath (2008) maintains that it indexes the most overt prestige and bears most resemblance to British English Received Pronunciation (p. 89). At the opposite end of the spectrum, the Broad accent has been associated with “connotations of masculinity, lack of culture and ockerism” and traditionally deemed “the most stigmatized” (Cox, 2006, p. 4), “most distinctive” variety (Delbridge, 1999, p. 264), which carries “the least prestige (Horvath, 2008, p. 90). General Australian, estimated to be spoken by 80% of the population, falls between these two extremes on the spectrum (Cox, 2006, p. 4).

With respect to yod variants in Australia, Ellis (1889) identified emergence of palatalization, however, in very rare instances and without marked currency in any particular region. Nevertheless, the only investigation of yod variants in Australian English was later carried out by Horvath (1985), who found evidence
of yod coalescence and pointed out that the phenomenon is more likely to occur in stressed syllables. She reported yod coalescence to be more common among young people and men (Horvath, 1985).

3. Methodology

In order to investigate yod variations in Australian English, I made use of the BigASC (Big Australian Speech Corpus) also known as the AusTalk (Burnham, Cox et al., 2011). This audio-visual corpus is a collaborative project between 11 Australian institutions following a two-fold aim: “1) providing a standardized infrastructure for audio-visual (AV) recordings and 2) producing a large AV corpus of Australian English (AusE)” (Burnham, Cox et al., 2014). The participating institutions started the project in 2011, and an online platform for the recorded data was made available to researchers in 2012; meanwhile the recording of speakers continued until late December 2014. The finished corpus includes 3000 hours of audio-visual recordings corresponding to the speech of a 1000 speakers of Australian English from 15 different locations across the country aiming to represent regional and social diversity as well as linguistic variation of Australian English.

![Figure 1. Distribution of participants’ educational qualifications in the AusTalk (Burnham, Cox et al., 2011)](image)

The recorded participants have all completed their primary and secondary education in Australia, but have not been necessarily born in the country. The motivation behind the aforementioned criterion has been to exclude “foreign accented English” while ensuring the inclusion of a “range of different speakers from various cultural backgrounds” (Burnham, Cox et al., 2014). The statistics provided within the corpus clearly indicate details such as the distribution of sex, age, and educational level of the participants in addition to the total number of speakers recorded in different locations. The gender ratio has a spread of 43.8 percent male to 56.2 female.
3.1 Materials

The database has an anonymized profile assigned to each speaker, which includes his or her audio recordings accompanied by detailed demographic information such as age, sex, birth location, cultural heritage, socio-economic status, and educational qualifications of the participants and their parents. The institutions have recorded every speaker on three separate occasions in order to represent a range of scripted and spontaneous speech samples in different situations at various times. Hence, each speaker’s profile includes three sessions of data corresponding to each recording occasion, and each of the three sessions has various ‘components’ (see Table 2).

Table 2. Components of Audio Recordings in the AusTalk (Burnham, Cox et al., 2011)

<table>
<thead>
<tr>
<th>Components</th>
<th>Session</th>
<th>Time (mins)</th>
<th>Time per speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read speech</td>
<td></td>
<td></td>
<td>53 mins</td>
</tr>
<tr>
<td>Words (322 x 3)</td>
<td>S1, S2, S3</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Digit strings (12 x 2)</td>
<td>S1, S2</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Sentences (39 x 1)</td>
<td>S2</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Read story</td>
<td>S1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Spontaneous speech</td>
<td></td>
<td></td>
<td>80 mins</td>
</tr>
<tr>
<td>Yes/No answers (x 5)</td>
<td>S1, S2, S3</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Re-told story</td>
<td>S1</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Interview</td>
<td>S2</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Map Task (x 2)</td>
<td>S3</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Conversation</td>
<td>S3</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL (average)</td>
<td></td>
<td></td>
<td>133 mins</td>
</tr>
</tbody>
</table>

To keep this research manageable, I decided to extract audio data from the speech recordings of ‘Read’ components (i.e. words, digit strings, sentences, and the story Arthur the Rat). The ‘Spontaneous’ speech recordings would have been
more stylistically natural. However, since the corpus did not include transcriptions of the spontaneous speech recordings, listening to the audio files to identify relevant tokens would have required extensive time, exceeding the limits of this research. The yod-containing words identified in the three ‘read’ components amounted to 12 tokens in total including 6 tokens in the wordlist: *dew, due, new, tuna, tune, tuner*; 2 tokens in the random sentences: “I’ll thrash out a draft and lodge those new proposals before the next mass meeting”, and “This new glove and shoe display attracts more customers than ever!”; and 4 tokens in the story: *dew, due, during, new.*

### 3.2 Representative Sample

Despite being Australian English speakers, many participants in the corpus were not originally from Australia. Hence, the first step was to apply certain constraints to make sure the sample would properly represent Australian English (without foreign accent). In this case, the criteria were: the speaker and his/her parents must be born in Australia and also be L1 English speakers. Applying these constraints narrowed down the number of individuals from a total 1000 to 395. From this portion, the initial sample could be majorly obtained in two ways: (1) choosing the individuals regardless of their birthplace, residential history, and current regional orientation within the country; or (2) restricting the sample of speakers to one state based on the place of residence reported in their socio-demographic information. Previous researchers of sound change in Australian English (cf. Bernard, 1970; Cox and Palethorpe, 1998; Butcher, 2006; Billington, 2011) have often restricted their sample collection to only one state – usually New South Wales or Victoria – backing up their choice to do so by relying on the notion of ‘uniformity of Australian English across the continent’.

Each of the two approaches entailed advantages and disadvantages. The choice to restrict the sample to one territory would offer a more narrowed-down perspective; however, two issues would stand out in that case. Firstly, limiting the choice of sample to participants residing within one state, for instance New South Wales, was not possible due to lack of enough participants to fill in the cells stratified by the social variables central to this study. Secondly, this research represents a new attempt after decades to investigate the possible yod variations in Australian English, and limiting the sample to individuals residing in a particular territory would only represent possible manifestations of yod variants in the speech of people in that particular area. According to Cox (personal communication, 2015), yod changes have not been “formally assessed” in Australian English and therefore no “regional patterning” has been identified previously. Hence, it seemed more reasonable to choose the sample of speakers regardless of their regional orientation in Australia. In case the research would indicate fruitful perspectives, the next step would be to investigate any regional patterning of yod variants in a separate study.

### 3.3 Sample Size and Stratification

Antilla (2004, p. 206) reminds us that phonological variation is assessed through “sociolinguistic examination of variants conditioned by external factors such as
sex, age, style, register and social class”. With regard to the aims of this study, the 395 individuals that were qualified to represent Australian English dialect (based on the constraints mentioned earlier) were grouped according to their age, sex, and education. The sex variable would naturally consist of two groups (i.e. male and female). In the same fashion, two groups of <30 and 50+ (with a 20-year interval in between) were assigned to the age variable in order to reflect possible pronunciation variations that could be attributed to the young and old generation. And finally, two groups of secondary and tertiary educational level were decided to represent emerging variations that could be supposedly associated with pronunciations of individuals from different social classes. In other words, the education variable was taken as a marker of social class. The division of individuals into the mentioned groups decreased their previous number from 395 to 308. The proportion occupying each group within the social variables are presented in Table 3.

Table 3. Number of individuals after applying representativeness constraints

<table>
<thead>
<tr>
<th></th>
<th>Male (n=125)</th>
<th>Female (n=183)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30</td>
<td>50+</td>
<td>&lt;30</td>
</tr>
<tr>
<td>(n=63)</td>
<td>(n=62)</td>
<td>(n=102)</td>
</tr>
<tr>
<td>S (25)</td>
<td>T (38)</td>
<td>S (10)</td>
</tr>
<tr>
<td></td>
<td>S (10)</td>
<td>T (52)</td>
</tr>
</tbody>
</table>

As with many studies of this type, there are practical challenges as well as time limits. Occasionally, the audio recordings corresponding to the individuals in Table 3 were either recorded defectively or not entirely uploaded to the online platform of the corpus. Hence, from the number of individuals whose recordings were actually available in the corpus, a final sample consisting of 48 were selected. This selection was done by help of a Random Stratified Sampling technique. These 48 subjects were stratified as shown in Table 4.

Table 4. Final stratified sample

<table>
<thead>
<tr>
<th></th>
<th>Male (n= 24)</th>
<th>Female (n= 24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30</td>
<td>50+</td>
<td>&lt;30</td>
</tr>
<tr>
<td>(n=12)</td>
<td>(n=12)</td>
<td>(n=12)</td>
</tr>
<tr>
<td>6 S</td>
<td>6 T</td>
<td>6 S</td>
</tr>
<tr>
<td>6 S</td>
<td>6 T</td>
<td>6 T</td>
</tr>
</tbody>
</table>

3.4 Auditory and Acoustic Analysis

Once the audio recordings of the materials (i.e. the 12 identified yod tokens) corresponding to the 48 subjects were downloaded from the online platform, a careful attempt was made to identify surfacing categories of yod variation by listening to the data. During this stage, four categories of variation were identified: deletion, coalescence, palatalization, and retention. Deletion refers to the total absence of /j/ in pronunciation while retention to the clear presence of it. Coalescence represents situations in which /t/ or /d/ totally merge with the proceeding /j/ and the resulting sound is [tʃ] or [dʒ] respectively in auditory perception. In Palatalization, however, the /t/ or /d/ do not completely merge with
/j/; hence, the resulting sound is a palatalized /t/ or /d/ followed by a weak /ʲ/. Indeed, this type of differentiation between coalescence and palatalization has been observed in previous research. Hickey (1984, p. 3) distinguishes the two by degree of assimilation: the former involves ‘complete absorption’ while the latter implicates ‘partial absorption’.

**Table 5. Preliminary Categorization of Yod Variants**

<table>
<thead>
<tr>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
<th>Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deletion</td>
<td>Coalescence</td>
<td>Palatalization</td>
<td>Retention</td>
</tr>
<tr>
<td><em>due</em></td>
<td>[dju:]</td>
<td>[dʒu:]</td>
<td>[dʒʲu:]</td>
</tr>
<tr>
<td><em>tune</em></td>
<td>[tuːn]</td>
<td>[tʃuːn]</td>
<td>[tʃʲuːn]</td>
</tr>
</tbody>
</table>

While it may be phonologically valid to observe this sort of distinction, there is at present no accurate mechanism to provide reliable acoustic evidence corresponding to it. Additionally, this narrowed categorization did not seem to yield any significant interpretation in the results. Therefore, it was decided to merge the two categories of assimilation (i.e. coalescence and palatalization). The advantage of this approach is the greater flexibility it creates for a broader categorization of the yod variants, which in turn increases reliability of judgment and analysis. This is particularly important in statistical terms as well because more narrowed categories would normally require larger sample sizes to indicate any sufficiently emerging themes.

Based on the mentioned categories, auditory identification of yod variants in the subjects’ pronunciations was not too complex. However, when the auditory analysis of a pronunciation seemed challenging, the audio file was analyzed acoustically in Praat (Boersma & Weenink, 2009). In so doing, spectrograms of pronounced items were examined with special attention paid to acoustic qualities such as intensity, friction, and aspiration in order to distinguish yod variants. Once the analysis of the entire data was finalized, the procedure was re-visited three times with months of interval in between to check the reliability of the results. Finally, an intrajudge reliability test was randomly carried out, which confirmed that the results are consistent with previous analyses.

**4. Results**

The preliminary results must be treated with some degree of caution in order to avoid misleading assessments. A simplistic view of the proportion of yod variants reported for each token under each social variable (age, sex, educational level) may mislead to insinuations that can exclusively show the possible impact of a social variable in isolation. However, the simultaneous effect of other factors contributing to the results should not be overlooked. Such factors in this sociolinguistic study include stylistics (i.e. overall variance between the word list, sentences, and the story).
Table 6. Number of individuals demonstrating yod variants within each social variable

<table>
<thead>
<tr>
<th></th>
<th>Age (n=48)</th>
<th>Gender (n=48)</th>
<th>Education (n=48)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;30</td>
<td>50+</td>
<td>Male</td>
</tr>
<tr>
<td>dew (WL)</td>
<td>13</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>due (WL)</td>
<td>6</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>new (WL)</td>
<td>12</td>
<td>-12</td>
<td>4</td>
</tr>
<tr>
<td>tuna (WL)</td>
<td>3</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>tune (WL)</td>
<td>3</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>new (Sent. 1)</td>
<td>5</td>
<td>-19</td>
<td>1</td>
</tr>
<tr>
<td>new (Sent. 2)</td>
<td>4</td>
<td>-20</td>
<td>1</td>
</tr>
<tr>
<td>dew (Story)</td>
<td>1</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>due (Story)</td>
<td>0</td>
<td>22</td>
<td>2</td>
</tr>
<tr>
<td>during (Story)</td>
<td>0</td>
<td>23</td>
<td>1</td>
</tr>
<tr>
<td>new (Story)</td>
<td>7</td>
<td>-17</td>
<td>-24</td>
</tr>
<tr>
<td>SUM</td>
<td>57</td>
<td>153</td>
<td>73</td>
</tr>
</tbody>
</table>

4.1 Effects of Social Variables on Yod Variations

As can be seen in Table 6, the age variable seems to reflect the highest social conditioning of the yod variants. A chi-square test on the results confirmed the large statistical significance that translates into the strong association between the age variable and the yod variants ($\chi^2 = 82.89$, $df = 2$, $p = 0.00001$). By comparing the two age groups, it can be inferred that deletion is more practiced by the younger age group. The more interesting notion though is that where the deletion has not occurred, the younger group seems to have a much higher tendency to practice coalescence than retention. This is slightly contrary to the results in the older group, which is somewhat conservative towards deletion, nonetheless inclined to producing more instances of retention than coalescence. Another way of interpreting the said fact is simply acknowledging the sharp difference between the two groups in reference to the retention category.

![Figure 3. Manifestations of yod variants in the young and old groups](image)
The comparison of the male and female groups in Figure 4 points to almost similar spread of the yod variants across the factors within the gender variable. Testing the statistical significance of the results also rejects any association between the yod variants and biological sex of the subjects ($\chi^2 = 0.708$, df = 2, $p = 0.701$). Among the three types of variation, it is evident that coalescence dominates the other two possibilities in terms of occurrence, which was the same case in the age group. In addition, it can be noticed that where deletion has not occurred, coalescence is slightly more present in the female group compared to the male one, while retention appears to be the contrary. Whether this very slight difference could reliably justify any assumptions or generalizations would probably require much larger samples statistically. Nevertheless, this will be further attended to in the discussion.

![Bar Chart](image)

**Figure 4. Mean percentage of yod variations in the male vs. female groups**

The two categories of educational level (secondary and tertiary) in isolation appear to have similar spreads of yod variants, and the marginal difference fails to reflect any significant effect of educational qualification on yod conditioning ($\chi^2 = 3.47$, df = 2, $p = 0.17$). Nevertheless, Figure 4 shows the overall number of frequencies for coalescence to be once again higher than the other two variants within the two groups. It should be noted though that instances of coalescence in the group with secondary educational level is higher than the other group, while the frequency of retention appears to be vice versa.
4.2 Effects of Stylistics on Yod Variations

The overall average frequency of the yod variants and their social conditioning derived from the results were illustrated earlier. However, a scrutiny of the ratio of occurrences across the three styles (word list, sentences, and the story) can raise a number of interesting notions.

Table 7. Percentages of individuals practicing yod variants across the styles

<table>
<thead>
<tr>
<th>Age (n=48)</th>
<th>Gender (n=48)</th>
<th>Education (n=48)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30</td>
<td>50+</td>
<td>Male</td>
</tr>
<tr>
<td>Deletion</td>
<td>Coalescence</td>
<td>Retention</td>
</tr>
<tr>
<td>TOTAL (WL)</td>
<td>28%</td>
<td>63%</td>
</tr>
<tr>
<td>TOTAL (Sent)</td>
<td>19%</td>
<td>81%</td>
</tr>
<tr>
<td>TOTAL (Story)</td>
<td>8%</td>
<td>70%</td>
</tr>
</tbody>
</table>

First, two notions should be considered in reference to the frequencies given for the sentence style: (a) there were only 2 words containing yod in the sentence style (i.e. the token *new* in both cases), compared to the 6 tokens in the WL and 4 tokens in the Story; (b) the coalescence category does not apply to these two tokens (i.e. *new*). Hence, the boxes corresponding to coalescence for sentence style have been left blank in the tables of results. This also means that these non-applicable tokens for coalescence in the sentence style statistically creates more spread on the flanking boxes (i.e. deletion and retention) since they can be only analyzed in terms of deletion or retention.
Drawing on the percentages presented in Table 7, there seems to be a consistently descending trend in the number of occurrences (from WL down to the Story) in the deletion category in all groups within the three social variables. Apparently, the opposite can be discerned in the coalescence category – in which the average frequencies ascend. To some extent, this ascending manner also applies to the retention category (except for the sentence style). For instance, the frequency of yod deletion in the <30 group decreases from 28% in the WL to 19% in the sentences and 8% in the Story. Within the same group, the retention increases from 9% in the WL to 22% in the story. A similar trend consistently governs the frequencies across all groups.

4.3 Mixed-Variable Results

In Table 6, the effects of each social variable in isolation on yod variations were presented. An alternative way of approaching the results is to look at the yod variation frequencies when all three social variables are combined.

As can be seen in Table 8, the sum of totals indicates that the highest numbers of individuals deleting the yod belong to the <30 group. In the male <30 group there is almost no difference between those who have secondary or tertiary educational qualification (14 and 15 respectively), and the same can be noticed in the female counterpart (13 and 15). The 50+ group appears to be the most resistant towards deleting yod compared to the <30; however, a slightly controversial difference can be seen in the male and female groups. The sum of 50+ male individuals with secondary education is slightly lower than those with tertiary education (1 and 3 respectively). The results for the 50+ female individuals with secondary education though show a higher sum (i.e. 6) compared to the tertiary education stratum. Nevertheless, based on the results it can be certainly assessed that yod deletion is most ubiquitous in the <30 group regardless of sex or educational level.

**Table 8. Mixed variable results (combinatory effects of social variables)**
In the case of coalescence, the <30 females overall seem to dominate the manifestation of this yod variant, and those with secondary education in this group practice yod coalescence slightly more than the ones with tertiary education (48 to 42 respectively). In contrast, the 50+ female group shows a substantially lower practice of this feature. Finally, coalescence is least common among the individuals in the 50+ male group with tertiary education; the significantly higher instances of coalescence among the individuals with secondary education in this group is an interesting matter for further scrutiny.

The most striking category of yod retention is associated with the male individuals in the 50+ group with tertiary education. This group had the lowest ratio of deletion and coalescence compared to the others. However, the practice of yod retention among the subjects in this group is considerably higher than both males and females in the <30 groups and also exceeds that of females at both secondary and tertiary educational level in the same age span, which appears to rank second highest in the category of retention. On the other hand, the lowest level of yod retention occurs in the females of <30 age group irrespective of educational level.

Table 9. Percentages of all individuals’ level of yod variants for each token

<table>
<thead>
<tr>
<th>STYLE</th>
<th>Tokens</th>
<th>Deletion</th>
<th>Coalescence</th>
<th>Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word list</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>new</td>
<td>29</td>
<td>40</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>due</td>
<td>15</td>
<td>56</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>new</td>
<td>33</td>
<td></td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>tune</td>
<td>8</td>
<td>73</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>tune</td>
<td>8</td>
<td>73</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>tuner</td>
<td>8</td>
<td>75</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Sentences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>new</td>
<td>13</td>
<td></td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>new</td>
<td>10</td>
<td></td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Story</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>new</td>
<td>15</td>
<td></td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>dur</td>
<td>0</td>
<td>79</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>during</td>
<td>0</td>
<td>82</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>new</td>
<td>0</td>
<td></td>
<td>85</td>
<td></td>
</tr>
</tbody>
</table>

Finally, we can combine the number of all individuals’ manifestation of yod variants for each item across the three styles regardless of the social variables. This becomes possible by adding the actual number of subjects (see Table 8) corresponding to each yod variation category regardless of sex, age, and educational level. Doing so reveals to what extent each specific token is affected by different yod variants among the 48 Australian individuals in the whole sample. Furthermore, this enables us to compare the consistency of affection in each yod variation category across the three styles. For instance, 14 individuals in total delete the yod in *due* in the word list compared to only 1 person deleting the yod for the same token in the story.
The percentages in the word list denote that the tokens *new* and *dew* respectively have been subject to the highest yod deletion by the individuals; however, the deletion effect on these tokens seems to have decreased by almost half in the sentences and story. The tokens most affected by yod coalescence are the *tuna/tune/tuner* tri-set and *due* respectively in the word list and *during* and *due* in the story. Of note is the increased portion of individuals coalescing the yod for the token *due* in the story. Finally, the token *new* has peaked in the retention category followed by *dew* and *due* (with insignificant difference between the two) in the word list. The same tokens consistently retained the yod in the sentences and story as well. A wider variance of retention between the *dew* and *due* items can be noticed in the story style though.

When comparing the most frequently occurring items within each category, it is interesting to point out the range of variance between the same tokens across different styles. As Table 8 indicates, the token *new* is consistently characterized by high yod retention in the word list, sentence and story styles; however, the same word is considerably more prone to yod deletion in the word list than in the sentence and story style. This noticeable variance remains to be discussed in the following chapter.

5. Discussion

In the following sections, the results will be discussed by addressing the aims of this paper. Chronologically, coalescence appeared in Australian English following the traditional retention as noted by Horvath (1985), who reported coalescence to be a change in progress three decades ago. In fact, the results in this study confirm that coalescence is the highest occurring of the three possible variants reflected in each of the social variables. Yod deletion on the other hand, seems to be the most recent introduced feature. Nevertheless, retention, coalescence, and deletion are respectively assumed to have appeared in that chronological order in Australian English. Indeed, this can be inferred from the results presented earlier. Hence, we assume that the direction of yod variation and change departs from the British RP-oriented retention and ends in the loss of yod (deletion).

5.1 Apparent Time Change

The chi-square calculations on the results show that the age of individuals plays the most statistically significant role in their practice of all three yod variants in the analyzed data. The number of individuals demonstrating yod deletion amounts to 20% in the younger group as opposed to only 4% in the older group. In a similar account, coalescence is reflected in the speech of 82% of the young group members compared to the 54% in their old counterparts. With regard to yod retention, however, it is the older generation who peaks the manifestation of yod-ful tokens (see Figure 3). If we assume that yod coalescence and deletion have been relatively recent phenomena following the ‘traditional RP-oriented yod retention’ in Australian English (Horvath, 2008), then it is not surprising to have the current results. It is well known that young speakers are in the forefront of innovation and adoption of linguistic variation and change (Chambers, 1995; Eckert, 2000; Labov, 1994). Billington (2011) maintains that “adolescents are
typically innovators and also inclined to adopt new pronunciation variables that they are exposed to as their networks expand” (pp. 276-7).

Under the assumption that the two age groups in this research are representative of two different generations of Australian English speakers, a notion of linguistic change can be discerned in the context of apparent time hypothesis (Chambers and Trudgill, 1980, p. 165). This principle maintains that “people of different ages can be taken as representative of different times. The speech of the young differs quite considerably from that of the old, not only in physical terms but also in pronunciation of the dialect” (Spurling, 2003). A simplified account of the hypothesis holds:

“that the speech of, say, 40 year olds today directly reflects the speech of 20 year olds twenty years ago and is thus comparable for diffusion research to the speech of 20 year olds today. Discrepancies in the speech of 40 year olds and 20 year olds are attributable to the progress of a linguistic innovation in the twenty years that separate the two groups. A variant being introduced by linguistic change will occur much more frequently in the speech of younger people, [as in Figure 6]. However, a variant being lost will conform to the pattern in [Figure 7], with many more occurrences in older informants.”


Figure 6. Pattern of Apparent Time change (1) (McMahon, 2012, p. 242)

Figure 7. Pattern of Apparent Time change (2) (McMahon, 2012, p. 242)
Considering the twenty-year interval between the <30 and 50+ age groups in this study, both patterns of apparent time change in figure 6 and 7 can be clearly observed in the results (see Figure 3). The former pattern is echoed in the case of yod deletion and coalescence while the latter is evident in yod retention. Hence, the findings in this study seem to clearly indicate a change in progress in the cases of yod deletion and coalescence pioneered by the <30 Australian individuals. The findings generally agree with those obtained in two similar studies conducted previously. Horvath (1985) reports that coalescence is more frequent among young adults in Australian English. Elsewhere in Australasian dialectology, Tent (2010) carried out a study in Fiji English, examining the same social variables (age, sex, and education) as those in the present study. Tent (2010) concludes: "yod deletion is higher the younger the age group" (p. 187). As for yod retention, the fact that it is practiced by 25% of the individuals in the young group compared to the 60% in the old one could also indicate a move away from this feature traditionally associated with Cultivated Australian English (originally rooted in RP).

The isolated role of the age variable on distribution of yod variants had a clear emergence. The results for different sex and education groups, however, seemed to show very similar distribution of yod variants. In fact, the chi-square analysis fails to confirm any statistically significant effect that would attribute a yod variant to either male or female. The same lack of effect could be observed with regard to the educational level of the speakers. However, the effects of individuals’ sex and educational level combined with the age variable seem to gain strength in cross-tabulated multivariable results (see Table 8). Therefore, I avoid making further comments on the sex and education variables in isolation and proceed to discussing their combined impact.

5.2 External Influence and Prestige Norms

A summary of the results for combined social variables in Table 9 shows that the highest percentages of retention are reflected in the speech of 50+ males and females with tertiary education (74% and 65% respectively). The same groups seem to practice the least yod deletion (0% and 1%) and coalescence (22% and 33%) compared to other groups. Presupposing that retention and deletion are linguistically two opposite extremes on the continuum of yod variation with coalescence falling in between, the said observation raises a number of questions. First, what possible factors implicate the highly ubiquitous retention and least evident deletion and coalescence in the tokens pronounced by the old males and females compared to others in the sample? Second, what could account for the marked effect of tertiary education in these groups? A possible explanation for this could lie in the historical trends and prestige that has been traditionally attached to the British RP standards during the formation of Australian English sociolects. Horvath (1985) claims that yod retention is a feature of the RP diffused in Australian English by speakers of the Cultivated accent. Cox (2006) explains that Cultivated sociolect of Australian English is characterized with “snobbishness and affinity with Britain” (p. 13), and Horvath (2008) maintains that it indexes the most overt prestige based on the
resemblance to British English *Received Pronunciation* (p. 89). Taking into account the notion that social accents represent “the cultural and educational background of the speakers” (Crystal, 2008, p. 3), it seems reasonable to observe the highest percentages of prestige-encoded yod retention in speech of the higher educated individuals in this study. In fact, the inclusion of education variable in this investigation was motivated by its function as a marker of social class.

Table 9. Lowest and highest manifestations of yod variants

<table>
<thead>
<tr>
<th></th>
<th>lowest</th>
<th>highest</th>
</tr>
</thead>
<tbody>
<tr>
<td>retention</td>
<td>&lt;30 female tertiary (21%)</td>
<td>50+ male tertiary (74%)</td>
</tr>
<tr>
<td></td>
<td>&lt;30 female secondary (24%)</td>
<td>50+ female tertiary (65%)</td>
</tr>
<tr>
<td>coalescence</td>
<td>50+ male tertiary (22%)</td>
<td>&lt;30 female secondary (67%)</td>
</tr>
<tr>
<td></td>
<td>50+ female tertiary (33%)</td>
<td>&lt;30 female tertiary (58%)</td>
</tr>
<tr>
<td>deletion</td>
<td>50+ male tertiary (0%)</td>
<td>&lt;30</td>
</tr>
<tr>
<td></td>
<td>50+ female tertiary (1%)</td>
<td></td>
</tr>
</tbody>
</table>

If we accept the connection between RP-oriented yod retention particularly projected through Cultivated Australian English and the desire of higher educated individuals in the speech community to identify with its entailed prestige, one could argue why this feature is particularly more resonant in the speech of the older generation. According to Crystal (2008) “RP no longer has the prestigious social position it once held. In the eyes of many (especially of the younger generations), regionally marked forms of accent are more desirable” (p. 404). Indeed, this notion can be inferred from the following comments in case of Australian English:

“In the post-World War II era, Australia began a gradual cultural shift away from Britain. The external standard of British English began to lose power; with the result that fewer social advantages were to be gained by speaking with a British-like accent. This sociocultural change had a significant impact on the number of speakers using the Cultivated variety” Cox (2006, p. 13).

The sociocultural shift that Cox refers to has been reflected in several studies of phonological change in Australian English (e.g. Bauer, 1979; Matthews, 1981; Fricker, 2004). More recently, Bradley (2008) conducted a sociolinguistic survey investigating possible regional differences in Australian English. To cite one example, he reports that the word *dance* is pronounced with the TRAP vowel in Sydney, and the variant pronunciation with the PALM vowel is regarded as “British” and “affected”, which he claims Sydney speakers “inaccurately” attribute to what they consider “posh Melburnians” (Bradley, 2008, p. 113). Bradley proposes that “many Australians have quite strong negative feelings about PALM [vowel] in these words, which also reflects an increasing departure from the
former “RP-as-superposed-prestige-norm situation” (2008, p. 113). According to Labov (2001) accent is a powerful symbol of identity. Perhaps, Australians’ appeal to have an autonomous linguistic identity following the post-World War II era led to “young speakers avoiding the extremities in favor of General [sociolect], which has an Australian flavor without some of the less desirable characteristics that had come to be associated with Broad and Cultivated” (Cox, 2006, p. 13; Horvath, 2008, p. 90).

Of interest is a discussion generated in Clarke (2006) focusing on yod retention and deletion in Canadian English, which bears relevance to the present investigation in that Canada and Australia both belong to the Commonwealth of Nations, previously ruled by the British Empire and linguistically affected by RP prestige norms. She recites that yod retention “has often been interpreted as emblematic of a distinct Anglo-Canadian linguistic identity” (Pringle, 1985; Woods, 1999; as cited in Clarke, 2006, p. 226) as opposed to yod deletion which has been viewed as “a salient marker of North American speech” (Bayard et al. 2001, p. 30; in Clarke 2006, p. 226). She points out that British linguistic features have traditionally projected “elegance and erudition” heard in the speech of the “cultural elite” and cites a number of research studies (e.g. Orkin, 1970; Pringle, 1985; Owens and Baker, 1984) attesting to the “overt prestige” and “correctness” traditionally ascribed to the glided pronunciations (i.e. retention) as opposed to the glideless variant (i.e. deletion) (Clarke, 2006, pp. 230-1).

These notions can help explain a number of observations in this study. Firstly, the highest percentages of yod retention in the speech of the old generation with higher education (i.e. 50+ males and females with tertiary qualifications) could be due to the overt prestige conservatively attached to British RP norms in the past. Secondly, based on the Labovain view that “women lead in both the acquisition of new prestige patterns and the elimination of stigmatized forms” (Labov, 1990, p. 213), the lowest percentages of the yod retention in the speech of the <30 females in the mixed-variable results could be interpreted as a reflection of the new generation’s determination to avoid the “affected” and “British” norms that have become stigmatized. Additionally, the post-World War II socio-cultural shift could have paved the way for the emergence of new linguistic innovations such as yod coalescence and deletion. This could explain the highest percentages of yod deletion and coalescence reflected in the speech of the <30 groups. That the reverse trend (i.e. the lowest instances of deletion and coalescence) occurs in the speech of 50+ groups lends support to these variations being relatively recent linguistic innovations. However, it should be noted that despite the 50+ generation with tertiary qualifications practicing the least coalescence and deletion, yet the former variant is practiced by more individuals (22% in males and 33% in females) compared to the latter (i.e. 0% and 1%). Reading between the lines, the almost non-existent instances of yod deletion in the speech of old generation with higher education could also mean they disfavor this variant and regard it as less prestigious compared to retention — which is the most present variant in their speech. Possible reasons for this could lie in the fact that yod deletion was initially a feature of working class London and considered
stigmatized (Wells, 1982, p. 331). Nevertheless, the said notion is consistent with Tent’s investigation of yod deletion in Fiji English, which concludes that “the higher the level of education attained, the lower the ratio of yod deletion” (2010, p. 187).

So far, possible reasons and explanations motivating the highest and lowest occurrences of yod retention and deletion in the results were discussed. However, yod coalescence seems to show a more complex condition. Thirty years ago, Horvath (1985) observed yod coalescence in the speech of young people, men, and working class in Australia, and reported the feature to be disfavored and stigmatized in the eyes of middle class Australians. Once again, keeping in mind the historical influence of British norms in the formation of Australian English, it may be insightful to briefly look at the emergence of yod coalescence in the motherland. A few years before Horvath (1985), Wells (1982) reported that in “an unusually abrupt switch”, the stigmatized yod coalescence displaced the “typically East Anglian” yod deletion in working-class London speech (p. 331). In Wells’ (1982) and Horvath’s (1985) observations, yod deletion and coalescence were considered less prestigious characteristics associated with working class speech, hence, presumably not aspired to by higher educated members of the upper socio-economic groups. Indeed, adopting this view lends further support to the almost non-existent yod deletion and lower instances of coalescence in the 50+ males and females with higher education in the results (see Table 8).

On the other hand, though, the fact that the highest percentages of such said-to-be-stigmatized yod coalescence are resonated in the speech of the <30 females in the mixed-variable results seems somewhat contrary to expectations. Evidence based on plentiful social dialect studies suggests that women use more standard and prestige pronunciation than males do (e.g. Abu-Haidar, 1989; Bayard, 1987; Chambers, 1992; Eckert, 1989; Holmes, 1997; Labov, 1990; Milroy, 1980; Trudgill, 1975). Two possible explanations could account for this unexpected observation. First, one can speculate that based on the previously mentioned socio-cultural shift in post-World War II Australia (Cox, 2006, p. 13), a change could have occurred in the socio-symbolic values attributed to the previously stigmatized yod coalescence in the speech of the working class. This view may explain why the older generation in the data (i.e. 50+ males and females) generally manifests substantially fewer instances of yod coalescence compared to the young generation in the study. More importantly, however, the said view may account for the discrepancies surfacing between secondary and tertiary education in the 50+ groups. In other words, the slightly higher percentages of yod coalescence in the 50+ males and females with secondary education (compared to the same counterparts with tertiary qualifications) could be due to working-class covert prestige that yod coalescence encoded in the past. Milroy and Milroy (1985; in Spurling, 2003) state that while women are often found to adopt features initially and this leads linguistic change by introducing prestige forms, men typically seem to lead changes that introduce or revitalize vernacular forms. Thus, if we accept the assumption that the initially stigmatized...
yod coalescence was a feature of working-class vernacular speech in Australia, the higher percentage of this feature among the 50+ males with lower education (see Table 8) can be attributed to the old covert prestige that it carried in the speech of people with lower socio-economic status. The fact that the 50+ males with secondary education produce higher instances of coalescence in the word list style (i.e. more consciously) could contribute to the idea of covert prestige.

A second explanation for the unexpected highest percentages of the so-called stigmatized yod coalescence in the speech of the <30 females in the mixed-variable results could be that this feature has been an autonomous innovation in Australian English. This is very probable especially considering the more well-known and ubiquitous presence of yod coalescence in the Australian variety of English (Hovarth, 2008, p. 101; Trudgill and Hannah, 2008, p. 24). Indeed, Britain (2007, p. 106) proposes that the appearance of yod coalescence in contemporary Australian English is “probably an independent (and totally unsurprising) innovation”. To that end, yod coalescence in Australian English could be a change from below. According to Labov (1994, p. 79) local identity is the primary motivation for a change from below, but it is not driven by social factors and involves systematic changes that first appear in the vernacular. Additionally, Labov (1990, p. 215) point out that in change from below young women are most often the innovators. In fact, Burridge (2004, p. 1092) confirms a strong link between coalescence and female speech in contemporary Australian English. Hence, the highest percentages of yod coalescence in the speech of the <30 females in the mixed-variable results appear to be consistent with the notion of yod coalescence being a recent innovation, and the Labovian view adds further support to the higher frequencies of this feature in the speech of young women in this study.

5.3 Stylistics

Discussing stylistic variation of the results obtained in this study must be treated with caution since any possible interpretations cannot exceed levels of contemplation in terms of validity. This is due to the fact that the analyzed tokens in the data were all produced in reading style (i.e. word list, random sentences, and passage reading). Hence, more advanced and sophisticated models of stylistic variation (e.g. Audience Design, Speaker Design, Communication Accommodation) that usually involve speech samples in various modes and channels with attention paid to intra –or inter speaker themes may not be applicable here. Notwithstanding, a brief discussion based on the more conventional Attention Paid to Speech model (Labov, 1972) may not be unhelpful. In Labov’s (1984, p. 29) view "styles may be ordered along a single dimension, measured by the amount of attention paid to speech", and the most natural style emerges in the most casual situations, in which the speaker pays least self-monitored attention to their speech.

As mentioned earlier, the highest percentages of yod deletion – with regard to the isolated impact of age variable – occur among the individuals in the <30 group (see Table 6). However, a closer examination of styles in this group shows a descending manifestation from 28% in the word list to 8% in the story. The same
group shows the opposite tendency in the case of yod retention. In other words, according to the Labovian model, the more self-conscious attention these young individuals pay to their speech (i.e. in the word list), the more yod-less pronunciation they produce. On the contrary, the less attention they pay (i.e. in the story), the higher the propensity of yod-ful pronunciations becomes. In a similar fashion, the results from the combination of social variables (see Table 8) also show a descending trend in the proportion of individuals deleting the yod in the word list compared to the story reading. This is evident in nearly all stratified groups. This raises a question as to why more consciously self-monitored speech among young individuals promotes more yod deletion.

Based on the results discussed earlier in context of apparent time hypothesis, if we accept the assumption that yod deletion is a recently introduced innovation and a change in progress in Australia, one possible explanation would be in relation to outside effects. Keeping in mind the growing prestige associated with American accents in English speaking countries (Bayard et al. 2001, p. 30), and considering the globally known salience of yod deletion in North American speech, one can speculate whether the more conscious yod dropping among the younger individuals could be an American fashion in youth speech. In fact, as detailed in Burridge and Kortmann (2004, p. 570), the increasing influence of Americanism in Australian English has been the subject of much commentary. Nevertheless, support for this view comes from Cox (2015; personal communication) who confirms the practice of yod dropping among young Australian English speakers – though “infrequently” and in words such as “New York” and “New Year”. Furthermore, the fact that, compared to other mixed-variable groups, the <30 females with secondary education show less stylistic variance (22% in the WL and 13% in the story; i.e. 9% difference between the two styles) in yod deletion, seems to indicate a more consistent presence of yod-less pronunciations in their speech. Once again, if it is true that – based on the previously noted evidence – yod deletion is a new innovation, then the fact that it is more stylistically consistent in the speech of young women (i.e. <30 females with secondary education) is indeed consistent with the “leading role of young females in adopting linguistic innovations” (Spurling, 2003).

The results pertaining to the isolated role of sex and education – separately – seem to indicate fairly consistent variance between the word list and story tokens with regard to yod deletion (see Tables 6 and 8). Surprisingly though, in the mixed-variable results the younger groups (i.e. <30 males and females) manifest less yod retention in the word list tokens and more in the story. Put another way, it seems that, in the supposedly more self-monitored speech, the younger groups wish to avoid yod retention while they fail to do so as often when they are less aware of it (i.e. story reading). If this is true, it strengthens the interpretation discussed earlier in reference to the socio-cultural shift in post-World War II Australia (Cox, 2006, p. 13), hence, indicating that young Australians in the analyzed data wish to turn away from negatively viewed British norms, in this case yod retention.
Finally, the proportion of individuals practicing coalescence in the word list matches most closely with the corresponding proportions in the passage reading style across all social variables in isolation or in combination. Adding to this the previously noted results that show yod coalescence to be much more frequent – compared to deletion and retention – across the three investigated social variable, we can confidently suggest that yod coalescence is probably the most common and consistent yod variant in the speech of majority in this study. The only group falling short of this generalization is the 50+ males with tertiary education, who demonstrate a low 19% coalescence in the word list compared to 38% in the passage reading. This can possibly imply an apparently conscious effort by these old men to avoid yod coalescence in more careful speech. In line with the previously discussed, two possible explanations come to mind. First, in light of the earlier implications that yod coalescence is probably a few-decade-old phenomenon in Australian English, it should not be surprising to see a low percentage in the word list since sociolinguistic research regards old men to be most resistant to change (Spurling 2003). Second possibility, not necessarily in contrast to the first, is that there might be an underlying ideological reason behind these higher educated old men to avoid yod coalescence when they are more conscious of it. This ideological reason could be the initial stigma that, according to Horvath (1985), was attached to this feature at the time due to its currency in the speech of the working class and its consequent disapproval in the eyes of middle class Australians.

Finally, one of the interesting themes emerging from the results is the effect of spelling on the yod variants. This effect has the most consistent presence in the word list. A careful examination of the yod tokens transcribed by -ew spelling (i.e. *dew* and *new*) compared to those by -u (*due*, *tuna*, *tune*, and *tuner*) indicates that the former spelling seems to promote yod-less pronunciations. As illustrated in Table 8, the words *dew* and *new* seem to be more susceptible to yod deletion compared to the -u spelled tokens across the groups within all three social variables. The same finding has been reported in Tent (2010) regarding the effect of spelling on yod deletion and retention in Fiji English. Moreover, it is interesting to point out the opposite impact of the mentioned spelling patterns in the case of coalescence category. In other words, coalesced pronunciations of yod seem to be motivated substantially more in -u spelled items, and this effect appears to be further boosted when the yod is preceded by an unvoiced /t/ as in *tuna*, *tune*, and *tuner* as opposed to the other case where yod follows /d/ (i.e. *due*). In fact, Horvath (1985) has also suggested the importance of voicing on yod coalescence. Surprisingly, no other previous or successive research seems to have focused on the possible effect of voicing.

Under the assumption that yod deletion and retention are – linguistically – two opposite extremes, the token *new* may appear to be a somewhat controversial case. Despite the effect of -ew spelling to presumably increase the propensity of yod deletion, the word *new* also has the highest frequency of retention in all styles within all groups of social variables. Burridge (2004) clarifies: “Following /n/ there is the sort of lexical variation that is expected of a change in progress; for
example, the yod typically disappears in *nude* but tends to be retained in *news*” (p. 1094). The potential effect of -ew spelling in giving rise to yod deletion should be investigated in the context of phonotactic environment and stress. In other words, whether a certain phoneme preceding the yod – e.g. /t/, /d/, or /n/ in this case – can have an increasing or decreasing effect on its deletion, retention or coalescence of yod could be an interesting venue to explore. Such an investigation, though, should be carried out in a separate study that aims to find possible internal motivations giving rise to different yod variants in Australian English. Since the central focus of the present study has been on social variables, further discussion would be out of scope, not to mention the other reasons such as the limited number of tokens available to this study. However, the significance of having mentioned the apparent effect of spelling on different pronunciations of yod lies in my original intention to point out a methodological issue. Since the yod items analyzed in this study had been presented in written form to the participants with the purpose of making audio recordings of their reading style for the AusTalk Corpus, the individuals’ visual access to the spellings of yod tokens could have had a distorting effect on any assessments that could be extended to their naturally spoken output. It remains unclear to what extent the results could have been different if the yod tokens were extracted from interviews or spontaneous speech samples.

6. Conclusion

The present socio-phonetic research aimed to investigate possible associations between external effects conditioning the manifestation of yod deletion, coalescence, and retention in a socially stratified sample of Australian English speech. Based on the auditory and acoustic analysis of the stratified data, an attempt was made to find links between out-standing occurrences of each linguistic variable that emerged with regard to the age, sex, and educational level of speakers. In light of the findings discussed earlier, a number of conclusions can be drawn. Among the separately analyzed social variables, the age of speakers appeared to be the most statistically significant factor in the conditioning of yod variants. Drawing on this social factor, the patterns of Apparent Time Hypothesis suggested that yod deletion and coalescence seem to be changes in progress initiated among the young generation. The combination of social variables indicates more specifically that young women are the leading drivers of these changes in progress. This is consistent with the wealth of previous sociolinguistic research marking the dominant role of (young) women in linguistic variation and change. Yod retention was most reflected in the speech of the older generation. The results for the combination of social variables also showed a much stronger presence of yod in the speech of higher educated old men and women. Nevertheless, yod coalescence had the strongest presence of all other variants within separated and combined analysis of social variables, and seemed to be the most stylistically consistent feature across all groups.

With respect to the “multi-dimensional character of sociolinguistic variation” (Milroy and Gordon 2008, p. 158), the extent to which these conclusions could reflect the realities of the bigger speech community remains unclear. However,
pointing out limitations can offer opportunities for future research that could enhance the reliability of observations. Unfortunately, the transcriptions of participants' interviews and spontaneous speech samples were not available in the AusTalk corpus, and this limited the stylistic variety to a word list, random sentences, and a story reading. Furthermore, the corpus in total included a dozen lexical items bearing relevance to this study. Hence, it remains to be seen whether more tokens representing yod in more diverse phonotactic environments would yield similar conclusions as those in the present study. Nevertheless, it is regrettable that no formal assessment of yod variants in Australian English has been made except for marginal comments (e.g. Horvath, 1985). It is hoped that this investigation would contribute to further research in the future.
References


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