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BACHELOR THESIS

Yod coalescence in the speech of native and non-native English speakers

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I hereby declare that this bachelor thesis called Yod coalescence in the speech of native and non-native English speakers is my own work and that I used only the sources listed on the Works cited page.

Prague, 15 April 2016

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## **ANNOTATION**

The aim of this bachelor thesis is to analyze the speech of native and upper-intermediate non-native English speakers with the focus on yod coalescence. The theoretical part will provide a brief description of the main processes occurring in connected speech and a profounder examination of yod coalescence. In the practical part, recordings of non-native speakers, particularly Czech and Austrian respondents, will be analysed and compared to the speech of native speakers extracted from TED Talks and TV series.

## **KEYWORDS**

assibilisation, yod coalescence, connected speech, syllable boundary, native and non-native English accents

## **ANOTACE**

Cílem této bakalářské práce je zmapovat výskyt procesu souvislé řeči zvaného asibilace v mluveném projevu rodilých a pokročilých nerodilých mluvčích anglického jazyka. Teoretická část poskytne stručný popis jevů vyskytujících se v souvislé řeči a hlubší charakteristiku výše zmíněné asibilace. V praktické části budou analyzovány nahrávky nerodilých mluvčích formou poslechu, zejména českých a rakouských studentů, a následně budou srovnány s úryvky mluvených projevů rodilých mluvčích získaných z TED přednášek a televizních seriálů.

## **KLÍČOVÁ SLOVA**

asibilace, souvislá řeč, slabičná hranice, rodilé a nerodilé akcenty

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## 1. Introduction

Communication has always been a part of our lives and has traditionally served to convey different messages and meanings. People can communicate in various ways, be it spoken or written forms. Spoken communication has changed over the centuries in part due to technological development which has made it more accessible. These days, spoken conversation can be held via mobile phones or diverse communicational programs such as Skype. Not only have the possibilities been changing but also the way people speak is constantly transforming. New words emerge and various accents spread. Often such innovations cause changes also on the level of pronunciation. These pronunciation changes are dealt with in the area of linguistics which is called phonetics and phonology. Generally, it is easy to identify a word in its isolated form, however once it occurs in a stream of continuous speech, its pronunciation may change due to several aspects. Connected speech is a normal state of spoken communication that consists of more than a single word. In an informal setting, it may be very fast so as to save a speaker's time, energy and possibly conveys more meaning within a shorter time period.

The focus of this bachelor thesis lies in investigating a particular phenomenon of connected speech which is characteristic rather of informal English. It has been gradually becoming a part of everyday speech and, according to some authors such as Hannisdal (124) or Cruttenden (81), it has the potential to be considered a regular phenomenon of Received Pronunciation (RP) hereinafter referred to as General British (GB), which is nowadays more suitable as Cruttenden explains in the eighth edition of *Gimson's pronunciation of English* published in 2014 (4). This phenomenon is known under at least four different names: palatalisation, coalescent assimilation, assibilation or yod coalescence, the last being used predominantly throughout this thesis in spite of the fact that all terms may be employed interchangeably.

The work aims at mapping the occurrence of yod coalescence, how frequently and in what contexts this phenomenon occurs in the speech of native and upper-intermediate non-native speakers. The theoretical part briefly describes the principal aspects of connected speech. Special attention is paid to various forms and features of yod coalescence. The practical part follows with an analysis of the speech of native and non-native English speakers. For



experimental purposes, a dialogue was created and several participants, Austrian and Czech students, were recorded reading it aloud. Due to the inherently small population of native English speakers in the countries where the research was carried out, alternative sources of authentic English of rather informal character were analysed, namely TV series and TED Talks. The thesis also includes a short reflection on teaching aspects of yod coalescence.

## **2. Theoretical part**

### **2.1. Connected speech**

When people speak naturally, they do not utter single words but usually speak in sentences, which is referred to as connected speech. Connected speech may be seen as “an utterance consisting of more than one word” (Cruttenden 273). A more profound definition reveals that “continuous connected speech consists of a flow of sounds which are modified by a system of simplifications through which phonemes are connected, grouped and modified” (Underhill 58). In general, connected speech can be observed in any normal state of spoken communication. In speech, sounds cease to be single units and on the contrary they are joined together as the speech flows, usually in order to save energy, time, and to convey as much meaning as possible within a short amount of time. There are certain phenomena that can be spotted only in connected speech. These particular characteristics of connected speech include rhythm, assimilation, elision, linking, and juncture.

The awareness of changes that can happen in connected speech is essential in learning English as a second (ESL) or foreign (EFL) language (Yule 187). All people speak their mother tongue, which is referred to as the first language (L1). However, with the arrival of globalization, the number of people learning other world languages such as English has surged. Such language is entitled the second language (L2) (Saville-Troike 1). As Rod Ellis suggests “‘second’ can refer to any language that is learned subsequent to the mother tongue. Thus it can refer to the learning of a third or fourth language” (3). There is a slight difference in the meanings of a second language and a foreign language. It is commonly understood that a second language is often used “in the surrounding community” (Yule 187) as for official or education purposes, whereas a foreign language is not necessarily needed and is acquired optionally (Saville-Troike 4).

There are a number of reasons why students of the English language often do not understand native speakers. The processes of connected speech are some of them. The words that ESL/EFL students learn from dictionaries undergo changes in connected speech and students may therefore encounter several problems in recognizing them when listening

to native speakers. What is usually even more problematic is rapid colloquial speech which according to Underhill is “faster and less careful delivery” which “will contain a greater degree of simplification” (59). Considering production skills, incorporating aspects of connected speech may help non-native speakers sound more natural and help them improve their communication with native speakers. The processes of connected speech vary in importance for ESL/EFL learning, therefore it is vital to also consider how each of them should be taught. A single chapter takes a look at how different textbooks designed for teaching general English at secondary schools work with the process of yod coalescence.

## **2.2. Processes of connected speech**

There are several phenomena which are classified as processes of connected speech, namely vowel reduction, assimilation, elision, liaison and juncture. All these cause some changes within words or across word boundaries. Besides, prosody plays an important role in connected speech and one of the prosodic features, rhythm, is examined more closely. In the following chapters, the individual processes of connected speech are briefly characterized along with a short methodological comment on their importance in ESL/EFL learning.

### **2.2.1. Rhythm**

Rhythm in general can be seen as “some noticeable event happening at regular intervals of time” (Roach, English Phonetics 107). In speech, rhythm refers to a regular alteration of stressed and unstressed syllables. There is a division between two types of stress, stress-timed rhythm and syllable-timed rhythm. Unlike Czech which is inclined to syllable-timed rhythm, English has stress-timed rhythm. It “implies that stressed syllables will tend to occur at relatively regular intervals whether they are separated by unstressed syllables or not” (Roach, English Phonetics 107). A listener gets the impression “that the times from each stressed syllable to the next will tend to be the same, irrespective of the number of intervening unstressed syllables” (Roach, English Phonetics 107). In other words, in stress-timed rhythm stressed syllables are longer and louder while unstressed syllables are shorter

and reduced. Concerning the characteristics of syllable-timed rhythm, “all syllables, whether stressed or unstressed, tend to occur at regular time intervals” and the time between stresses is more variable (Roach, English Phonetics 107). Moreover, vowel reduction in unstressed syllables is unlikely in syllable-timed rhythm. To achieve regularity in everyday speech one can apply certain remedial strategies such as compressing the unstressed syllables, playing with word order, or dropping the intermediate stress.

In unstressed syllables, vowel reduction takes place resulting in vowels being “shorter and less clear”. As a consequence of this process, several grammatical (functional) words have more than one pronunciation, generally the strong form and the weak form (Underhill 63). The grammatical words which are closely related to the phenomenon that this thesis is dealing with are the personal pronoun *you* or the possessive determiner *your*. When in an unstressed position, the pronoun *you* undergoes vowel reduction and its pronunciation is either /jʊ/ or even shorter with schwa /jə/. Similarly, the weak form of *your* is /jə/, alternatively /jər/

### 2.2.2. Assimilation

In connected speech, words occur in close proximity to other words and they usually influence one another. The process when one sound “changes its quality due to the influence of a neighboring sound” in order to become similar or even identical is called assimilation (Underhill 60). It affects consonants. In general, assimilation can be either regressive when the second sound influences the preceding one or, on the other hand, progressive when the first sound influences the following one. Another distinction of assimilation goes hand in hand with the basic division of consonants into three categories according to the differences in place, manner of articulation and voicing.

- i) Assimilation of place occurs only regressively with alveolar consonants /t/, /d/, /n/, /s/, /z/ being affected by other consonants. More specifically /t/, /d/, /n/ become bilabial before /p/, /b/, /m/ as in *good boy* or *in bed* where the pronunciation changes from /'gʊd'bɔɪ/ and /ɪn'bed/ to /'gʊb'bɔɪ/ and /ɪm'bed/ (Underhill 60). These three consonants can also become velar before /k, g/ in expressions such as *that cat* or *good girl*. The velar consonants will influence the preceding ones so that it sounds as /'ðæk'kæt/ and /'gʊg'gɜ:l/. The last pair of voiceless-voiced phonemes /s/ and /z/ is likely to

become palatoalveolar when the phonemes /ʃ/ or /ʒ/ and /j/ follow as in *this shop* /'ðɪʃ 'ʃɒp/ or *this year* /'ðɪʃ'jɪə/ .

- ii) Assimilation of manner can be noticed only in the most rapid colloquial speech. Unlike assimilation of place, it can be both regressive and progressive. However, according to Roach, “the tendency is again for regressive assimilation and the change in manner is most likely to be towards an “easier” consonant - one which makes less obstruction to the airflow” (English Phonetics 111). Therefore examples of regressive assimilation of manner, from Roach’s *English Phonetics and Phonology*, where a final plosive becomes a fricative or nasal are *that side* changing into /ðæs'saɪd/ and *good night* changing into /'gʊn'nɑɪt/. A progressive assimilation of manner can occur when the phoneme /ð/ follows a word ending with a plosive or nasal as in *in the* → /ɪn nə/.
- iii) Finally, even assimilation of voice can occur, again as progressive or regressive. Progressive assimilation of voice most relates to grammatical endings of the third person singular, plural and possessive case. In words where the preceding consonant is fortis (voiceless), the ending will be pronounced as /s/ and if the preceding consonant is lenis (voiced), it will change to voiced /z/. It can be illustrated with examples such as *likes* /laɪks/, *loves* /lʌvz/, *cats* /kæts/ and *dogs* /dɒgz/, or *Pam’s* /pæmz/ (Roach, English Phonetics 113). Moreover, the ending will be pronounced as /ɪz/, as in *buses* /'bʌsɪz/, after /s/, /z/, /ʃ/, /ʒ/, /tʃ/, /dʒ/ (Volín 55). Similarly, “the verbal ending ‘-ed’ signaling “past tense and past participles” undergoes the same changes as in *locked* /lɒkt/, *loved* /lʌvd/, *cried* /kraɪd/ plus it “is pronounced as /ɪd/ after /t/, /d/”, e.g. *waited* /'weɪtɪd/ (Volín 57). Unlike progressive assimilation, regressive assimilation can be found across word boundaries. However, voicing is never passed between lexical units. Another important rule is that only voicelessness is passed, which is often problematical for foreign learners of English. Roach takes into consideration the following example: *I like that black dog*. Foreign learners tend to “allow regressive assimilation of voicing to change the final /k/ of *like* to /g/, the final /t/ of *that* to /d/ and the final /k/ of *black* to /g/, giving /aɪ 'laɪg ðæd 'blæg 'dɒg/. This creates a strong impression of a foreign accent” (English Phonetics 112). Some usual expressions with assimilation of voicing are *of course*, where /əv 'kɔ:s/ changes into /əf 'kɔ:s/, *have to*

changes from /'hæv tʊ/ into /'hæf tʊ/, with *Kate* /wɪð 'kert/ results in /wɪθ 'kert/.

Lastly, there is a specific type of assimilation, which is usually described separately since it differs from other types of assimilation. Unlike the general process of assimilation whereby sounds undergo some alterations but none of these sounds disappear, in this type of assimilation two sounds coalesce, in other words combine, to form only one different sound. This process is called yod coalescence but is also known under other names such as coalescent assimilation, assibilation or palatalisation. A profound insight into this phenomenon is provided later (see chapter 2.3).

Assimilation should be acquired by ESL/EFL learners on both levels, perception and production, since not using it at all may result in them sounding “finicky, over-precise, too careful” (Underhill 61). Progressive assimilation of voice is crucial in terms of production even for beginners while regressive assimilation of place and manner are relevant rather for perception. Czech students usually encounter problems with final /z/ and /d/ that often become devoiced and consequently they perceive them as voiceless /s/ and /t/. However, the students should realize that the main difference between devoiced and voiceless consonants is in the length of the preceding vowel (Volín 55). In general, teachers should point out the impossibility of applying rules from students’ mother tongue and especially emphasize the unacceptability of passing voicedness across word boundaries.

### **2.2.3. Elision**

Elision can be very easily explained as a disappearance of a sound under certain circumstances. It is the process of omitting a sound which still exists in careful speech. In other words, a particular phoneme is realized as zero. However, if a word undergoes the process of elision, it needs to remain intelligible. Historically speaking, elision can also be found in words such as *know*, *castle*, *psyche* etc. where by standard pronunciation some sounds are omitted. Elision in connected speech may occur in various environments. Complex consonant clusters, containing two or three plosives and a fricative, are simplified by dropping the middle plosive. Therefore *authentic texts* are pronounced as /teks/. Weak vowels after /p/, /t/, /k/ usually disappear and are substituted by “the aspiration of the initial plosives” as in /p'tɛɪtəʊ/, /t'mɑ:təʊ/ (Roach, English Phonetics 114). The most common type of elision is omission of /t/ and /d/ when they appear “between two other

consonants” (Underhill 61). Pronunciation of expressions such as *next please* or *sandwich* results in /'neks'pli:z/, /'sænwtʃ/. In negative forms /t/ is likely to disappear as well: *Doesn't she know?* /'dʌzn ʃi'nəʊ/. Structural words before consonants appear in their weak forms: *Tom and me* /'tɒm ən'mi:/, *a cup of tea* /ə'kʌp ə'ti:/. Lastly, after /ɔ:/ the sound /l/ usually disappears as in *always* /'ɔ:weɪz/.

When teaching elision, the focus should be placed mostly on perception even though some types of elision may also significantly help ESL/EFL learners with their fluency. They need to be aware of the fact that native speakers of English are likely to omit certain sounds when talking to each other but they do not necessarily need to apply elision in their speech (Roach, English Phonetics 127).

#### 2.2.4. Liaison

As it has already been said, in connected speech words cease to be separate units, their pronunciation differs from the dictionary-given one, and they are joined together to help the natural flow of speech. This process is called liaison or linking. “Poorly linked speech is typically rather jerky, perhaps staccato, and the resulting lack of flow makes it more difficult for the speaker to take advantage of the stress system and so for the listener to focus on the content of the message” (Underhill 65). Linking can be of several kinds, consonant-to-vowel, vowel-to-vowel and consonant-to-consonant. To practice the first type of linking, pseudo-resyllabification, which refers to syllable boundary shift, can be used to link words together (Volín 64). A transcription of such resyllabification might look as follows, where full stops mark the syllables: *that orange* /ðæt.'ɒr.ɪndʒ/ /ðæ.'tɒr.ɪndʒ/.

The main purpose of linking vowels is to avoid the clash of two vowels. Vowel-to-vowel linking can be further divided according to the linking element which is used. In non-rhotic accents if the sound /r/, which is not pronounced in a final position, occurs in the written form, then it can actually be pronounced to link two words together as in *far away* /'fɑ:rə'weɪ/ (Roach, English Phonetics 115). Hence the name linking /r/. Unlike linking /r/, intrusive /r/ does not occur in the spelling of a word and is only inserted between a word ending in /ɔ:/, /ɑ:/ or /ə/ and another word beginning with a vowel, for instance *law and order* /'lɔ:(r)ən'ɔ:də/ (Volín 65). Sounds /ʊ/, /u:/ and /ʊ/ in a diphthong are pronounced with lip rounding, which is convenient for inserting the labio-velar approximant /w/ as in

*you are* /'ju:(w)ᵘa:/ (Underhill 67). The last option is to use intrusive /j/ which comes easily after words ending in /i:/, /ɪ/, /eɪ/, /aɪ/, or /ɔɪ/. An example might be *he is* /'hi:(j)ᵘɪz/ (Volín 66).

Teaching linking to students is especially important for production since it is the main tool for maintaining fluency. The rules may be simplified and abridged for the very beginners. Linda Lane emphasizes the main three rules that students should follow: joining a consonant to a following vowel; in consonant-to-consonant linking, pronouncing the final consonant shortly and saying the following consonant immediately; for linking the same consonants, pronouncing them only once (57). A special attention to linking should be paid by Czech speakers, who have a tendency to overuse “glottal stop – a voiceless non-phonemic speechsound created by brief closure of glottis”. They “insert this speechsound before words beginning with a vowel”, which results in the unnatural discontinuity of Czech English (Volín 63).

#### **2.2.5. Juncture**

Even though juncture does not belong to any of the categories described above, it is closely related to connected speech. The term refers to “the relationship between one sound and the sounds that immediately precede and follow it” (Roach, English phonetics, 115). In connected speech, words are surrounded by other words and influence one another. The sounds are usually altered and joined together, which sometimes makes a speech less transparent for ESL/EFL learners. However, “some phonetic features may be retained which mark word or morpheme boundaries” (Cruttenden 307). Various phonetic cues may help with recognizing the word boundaries. The expression *I scream* is likely to sound the same as *ice cream* for non-native speakers. Nevertheless, when having a closer look at the constituent sounds, one should notice that they differ. The initial diphthong is long in the first case as opposed to its reduction in the second case where it is affected by pre-fortis shortening, a process where “certain vowel followed by a fortis consonant is shorter than it would be if it were followed by a lenis consonant or no consonant at all” (Volín 70). The /s/ sound is much more prominent and /r/ becomes a bit devoiced in the first case whereas in the second case /r/ is devoiced (Cruttenden 307). Another example might be *my turn* /'maɪ 'tɜ:n/ and *might earn* /'maɪt 'ɜ:n/, where the main difference is made by the full aspiration



of the /t/ sound in its initial position. Furthermore, the diphthong /aɪ/ is again shorter in the second example due to pre-fortis shortening. However, apart from these junctural cues, there are other more significant cues, such as context, that enable us to identify words and word boundaries. As a matter of fact, juncture cues may not be as prominent in connected speech and therefore rather “difficult for a listener to perceive” (Cruttenden 308).

### 2.3. Yod coalescence

There are several terms that can be used to mark the phenomenon that this thesis is concerned with. As already stated, the term that is being used throughout this paper is yod coalescence which consists of two individual parts, yod and coalescence. These two words might not be known to everyone. “The sound /j/ can be conveniently referred to by the Hebrew name, yod” (Ashby 14). Coalescence signifies merging or fusing together. Generally speaking, it is a process of simplification where two sounds standing next to each other coalesce in order to create only one distinct sound.

According to Roach’s *English Phonetics and Phonology*, where he uses the term coalescence or coalescent assimilation, it is regarded as a type of progressive assimilation, where “a final /t/, /d/ and an initial /j/ following often combine to form /tʃ/, /dʒ/” (111). Consequently, for instance *did you* and *don’t you* are pronounced as /dɪdʒʊ/ and /dɒntʃʊ/.

The definition given by Cruttenden also works with the term coalescence. However, apart from the sounds /t/ and /d/, it includes alveolars /s/ and /z/, that can also undergo the change. The author emphasizes the higher frequency and completeness of coalescence of /t/ or /d/ with /j/ “especially in question tags” where these consonants often occur in close proximity (302).

Another classification is provided by Hannisdal and Celce-Murcia et al. They all categorize yod coalescence as “a type of reciprocal assimilation” (Celce-Murcia et al. 162) and recognize a quite different designation, which is palatalisation. In another publication, Roach explains that the articulation of the first sound is “shifted nearer to (or actually on to) the centre of the hard palate” (Roach, *Introducing* 76), hence palatalisation. Linda Shockey uses this term in her book as well though she argues that the term palatalisation is

“infelicitous because (1) rarely does a sound resulting from this process become truly palatal...and (2) /j/ is already palatal and in fact can change to something less palatal” (45). This term is also preferred by Dauer (214). Besides, Hannisdal classifies it as “a subcategory of place assimilation, whereby an alveolar consonant coalesces with a following palatal /j/ to produce a palate-alveolar sound” (120).

The same process is called final dental palatalisation (FDP) in Rotenberg’s *The syntax of phonology*. It is described as “the familiar rule which takes any word-final dental and palatalizes it, evidently optionally, if yod immediately follows” (179). Unlike other authors, Rotenberg distinguishes the process of a disappearance of the /j/ sound, y-deletion, and divides these two rules (180). The reason the author gives is that y-deletion “is an independent event” that “occurs even if the palatal preceding the weakened yod was never a dental” (179), e.g. *misjudge you* /mɪsˈdʒʌdʒʊ/ or *touch you* /ˈtʌtʃʊ/.

In terms of the y-deletion, Tench clarifies that this happens when the second word starting with yod is unstressed, which is mostly “when the following word is *you* or *your*” (92). However, if the second word is stressed, “as, for example, in emphasis or contrast”, it is only the assimilation process that takes place and “the /j/ is retained” (93) as in /ˈdɪdʒ ˈjuː/.

To clearly illustrate the new pronunciation that is a result of yod coalescence, Dauer uses rhymes as a good example. After applying the rule, “miss you rhymes with issue; sees your sounds the same as seizure; ate your rhymes with nature; made you sounds the same as major” (214). The transcription of these expressions results in /mɪʃuː-/ɪʃuː/, /siːzə-/siːzə/, /eɪtʃə-/neɪtʃə/ and /meɪdʒə-/meɪdʒə/.

From the aforementioned definitions, it is clear that various authors use different terms which nevertheless all point out to the same process, that is yod coalescence. The process where final alveolars /t/, /d/, /s/ and /z/ coalesce with the following /j/ sound, merge together and create completely new sounds /tʃ/, /dʒ/, /ʃ/ or /ʒ/ as illustrated in table 1 below. Some authors such as Roach do not include the /s/ and /z/ sounds in the description since this type of yod coalescence is not as frequent as the cases with /t/ and /d/. Some of them focus chiefly on yod coalescence across word boundaries. This thesis however describes and examines all possible cases of yod coalescence, which are divided by Hannisdal into three categories (120):

- i) yod coalescence across word boundaries
- ii) yod coalescence occurring word-internally before an unstressed vowel
- iii) yod coalescence occurring word-internally before a stressed vowel

/t/	+	/j/	—>	/tʃ/
/d/	+	/j/	—>	/dʒ/
/s/	+	/j/	—>	/ʃ/
/z/	+	/j/	—>	/ʒ/

Table 1

Four consonants that can undergo yod coalescence

As an aspect of connected speech, yod coalescence has been gradually expanding throughout the worldwide use of English. Nevertheless, there are varieties of English, where certain words and expressions tend to be pronounced with yod coalescence more than in other varieties (see chapter 2.3.3.).

### 2.3.1. Yod coalescence across word boundaries

The most typical occurrence of yod coalescence is across word boundaries and is often found in “fast speech” (Dauer 214). It can take place between two grammatical words or between a grammatical and a lexical as in the example of *this year*. Most frequently it occurs in questions that contain modal verbs such as *could*, *should*, *would* or some of the forms of the auxiliary verb *do*, either in present or past, in connection with the personal pronoun *you*. Shockey further says that “this process is largely conditioned by words such as *you*, *your*, *yet* and by a few other common words such as *year* and *usual*” (45). Some examples might be:

<i>Could you help me?</i>	/ˈkʊdʒʊ(ə) ˈhelp mi/
<i>Would you like to go shopping?</i>	/ˈwʊdʒʊ(ə) ˈlaɪk tə ˈgəʊ ˈʃɒpɪŋ/
<i>Didn't you visit Prague this Christmas?</i>	/ˈdɪdn̩tʃʊ(ə) ˈvɪzɪt ˈpraːg ðɪs ˈkrɪsməs/
<i>Don't you agree with me?</i>	/ˈdəʊntʃʊ(ə) ə ˈgriː wɪð ˈmi/

It should be noted that in examples where /t/ occurs finally there is one more possibility of

their pronunciation. As Tench describes, “a new tendency has developed and that is to articulate final /t/ as a glottal stop [ʔ]” (91). Not only does this apply to yod coalescence across word boundaries but also to assimilation in general. The use of glottal stop subsequently “eliminates any possibility of assimilation” (91). Therefore the following pronunciations are possible:

*I bet you can.*

/aɪ 'bet jʊ kən/      /aɪ 'betʃʊ kən/      /aɪ 'beʔ jʊ kən/

*I'll let you know.*

/aɪl 'let jʊ 'nəʊ/      /aɪl 'letʃʊ 'nəʊ/      /aɪl 'leʔ jʊ 'nəʊ/

*right use*

/'raɪt 'ju:s/      /'raɪtʃu:s/      /'raɪʔ 'ju:s/

Focusing on the other two sounds, /s/ and /z/, the most common expressions using yod coalescence are for instance:

*this year*      /'ðɪʃɪə/

*as you like it*      /'æʒʊ(ə) 'laɪk ɪt/

*bless you*      /'bleʃʊ(ə)/

### 2.3.2. Yod coalescence within words

Yod coalescence can be noticeable even within words no matter where the sounds that are influenced by this process stand. In some words such as *pressure*, *action*, *pleasure*, *abrasion*, “these pronunciations have become conventional” (Shockey 45). In other words, the pronunciation can largely differ since there are usually two pronunciation possibilities that can be followed and a third one that lies somewhere in between. Firstly, it is the original and the most approved pronunciation, where these combinations of sounds are pronounced as /tjʊ/ and /djʊ/, alternatively /tju:/ and /dju:/. Secondly, it is so called yod dropping, a process where the middle /j/ sound is completely omitted, which results in words such as *Tuesday*, *tuna* being pronounced as /tu:zdeɪ/ and /tu:nə/. The last possibility is yod coalescence. The following tables, which are divided according to the previous

division of yod coalescence, clearly illustrate the differences.

	yod dropping	regular pronunciation	yod coalescence
<i>situation</i>	/,sɪtʊ'eɪʃən/	/,sɪtʃʊ'eɪʃən/	/,sɪtʃʊ'eɪʃən/
<i>education</i>	/edʊ'keɪʃən/	/edʃʊ'keɪʃən/	/edʒʊ'keɪʃən/

Table 2

Yod coalescence occurring word-internally before an unstressed vowel

	yod dropping	regular pronunciation	yod coalescence
<i>tuna</i>	/tu:nə/	/tju:nə/	/tʃu:nə/
<i>Tuesday</i>	/tu:zdeɪ/	/tju:zdeɪ/	/tʃu:zdeɪ/
<i>duty</i>	/du:tɪ/	/dju:tɪ/	/dʒu:tɪ/
<i>during</i>	/du:rɪŋ/	/dʒʊərɪŋ/	/dʒu:rɪŋ/

Table 3

Yod coalescence occurring word-internally before a stressed vowel

Of course, one might perceive some of these examples as extreme but there are cases when even those are likely to be heard. This is the result of English enormous expansion (Jenkins 2) and therefore its being constantly modified.

### 2.3.3. Yod coalescence in accents of English

Yod coalescence has its origin and is a preferred pronunciation in different accents of English. As Cruttenden claims, this process “has led historically to earlier /t/, /d/, /s/, /z/ + /j/ giving /tʃ/, /dʒ/, /ʃ/, /ʒ/ medially in a word (*nature, grandeur, mission, vision*)” (302). Yod coalescence before unstressed vowels has spread into General American, hence words such as *situate, education*, which are pronounced with /tj/ in General British, contain the affricates /tʃ/, /dʒ/ (Wells 248). Unlike England, where such pronunciation has not met with great approval, “American dictionaries prescribe it unhesitatingly” (Wells 248).

In terms of yod coalescence before stressed vowels, the process of later yod dropping resulted in omitting the /j/ sound in GenAm in words such as *tune, student, duke* (Wells

247). Not only has yod dropping been characteristic of GenAm but it has also been occurring in the dialect of London working class, Cockney, which has spread in the “innermost suburbs of East London” (Wells 301). GB again prefers the pronunciation with yod. However, a change towards yod coalescence has been noticed in popular London speech (Wells 330). Some previous researches have been carried out and as Wells claims “Beaken reports that the typical pronunciation of words such as *tune*, *due* is now /tʃu:n, dʒu:/. The only variants are the elegant alternatives /tj-, dj-/”(331). Nevertheless, yod coalescence has remained “somewhat stigmatized” and some extreme cases of improper pronunciation have occurred as a result of “hypercorrection in would-be elegant speech, with the use of /tj/, /dj/ in place of /tʃ/, /dʒ/ in words such as *chew*, *June*” (331).

Yod coalescence and other aspects of connected speech may prevail in some accents and there are always several factors that influence their occurrence. As stated in the book *Teaching Pronunciation*, “as with linking, the amount of assimilation that occurs in native-speaker speech will depend on a number of variables, such as the formality of the situation, the rate of speech and the style of the speaker” (Celce-Murcia et al. 162).

## **2.4. Current research on yod coalescence**

The major current research which is concerned with yod coalescence was done by Bente Rebecca Hannisdal from the University of Bergen in 2006, who focused on the significant changes in the speech of British television newsreaders, one of these changes being yod coalescence. Her study is titled *Variability and change in Received Pronunciation* with a subtitle *A study of six phonological variables in the speech of television newsreaders*. The main purpose of the study was to explore the changes that English has been subject to and to provide an insight into the direction where current GB is heading (Hannisdal 1).

In terms of yod coalescence, the study focused solely on word-internal yod coalescence in stressed syllables as in *tune* or *duty* since, as explained in the previous chapter, this type of yod coalescence has not been yet established within GB. While analysing the speech of 30 British newsreaders from three different channels, the number of 617 words with potential yod coalescence was identified and about 20 tokens per speaker. In total, yod coalescence

occurred in 46.4% of the words, which, taking into consideration “the status of stressed yod coalescence in RP and the formality of the speech situation” suggested “that yod coalescence has penetrated the boundaries of RP” (Hannisdal 210). The high figure of coalesced variants was partly caused by the prevalence of the word *during* which “was pronounced with an affricate in 83% of the cases (Hannisdal 213). Eliminating it, the overall figure would drop to 32.3%, which is “still a fairly high score, and leaves no doubt that yod coalescence in stressed syllables is becoming established in RP speech” (Hannisdal 213).

Hannisdal also tried to find out whether there was any correlation between using yod coalescence and social factors such as gender and the formality of channels. Male speakers were expected to use the coalesced forms to a higher degree since, as detected in previous sociolinguistics studies, “females use more high-status or standard variants, and fewer low-status forms, than males do” (Hannisdal 55). However, the numbers were almost equal resulting in 48.9% for men and 45.9% for women. The assumption of yod coalescence being used with the highest frequency among the news presenters of the most informal channel had also not been confirmed, which indicated that the phenomena “is not restricted to casual style” (Hannisdal 217).

Another research on yod coalescence was done by Ulrike Altendorf in 2003 who investigated the speech of British female students from London, Colchester and Canterbury, who spoke Estuary English or near-GB accents. Altendorf focused again on yod coalescence and yod dropping after /t, d/ in stressed syllables. Unfortunately, the author of this thesis did not have the whole publication at her disposal, therefore further analysis of the research could not be provided. Nevertheless, as Hannisdal reflects on Altendorf’s study, the girls used “yod coalescence in less than 10% of the cases” (217) and the conclusion drawn from this study was that “while yod dropping ‘seems to remain a London working-class variant’ yod coalescence ‘seems to be spreading socially into higher social classes and perhaps also into other parts of the southeast’” (Hannisdal 122).

At the 9th International Conference on Native and Non-native Accents of English in Łódź, which took place in December 2015, a Polish graduate Kamil Kaźmierski from Adam Mickiewicz University in Poznań presented his research on “Coalescent assimilation

across word-boundaries in American English and in Polish English” (Adamczyk 18). The following information about the research was drawn from *The Book of Abstracts*. In his study, Kamil Kaźmierski focuses on a particular type of yod coalescence or, as he calls it, coalescent assimilation and that is coalescence of /t/ or /d/ with /j/ across word boundaries. The author feels the need to investigate thoroughly the application of yod coalescence depending on the level of “lexico-grammar” (19) which is described in various textbooks rather vaguely. The main goal of the research is to scrutinize the occurrence of yod coalescence in American English while analysing “two corpora of spoken American English” and then compare it with its occurrence in Polish English. The author believes that the observations from the research could provide a better and more accurate basis for “the acquisition of these patterns” than “extant textbook accounts” (19).

## **2.5. Teaching yod coalescence**

As students of the English language come for the first time to an English speaking country, they are usually struck by the character of the language spoken by native speakers. “There are many factors which contribute to understanding a foreign language” (Shockey 119). According to Linda Shockey, the processes of connected speech, which do influence understanding of English to a great extent, have not been dealt with enough in textbooks and “especially if taught by non-native speakers of English, students are unlikely to have had significant contact with naturally reduced speech” (119). Being aware of such aspects makes it much easier for ESL/EFL learners to understand spoken English, which sometimes might be rather demanding due to the frequent use of rapid colloquial speech by native speakers. On the other hand, when taking production abilities into account, using various aspects of connected speech while fluently speaking is a sign of an advanced English learner. The more the speaker’s speech contains these aspects, the more the speaker sounds naturally. Therefore, it is relevant to also consider the methodological point of view of yod coalescence.

When teaching aspects of connected speech in general, it is appropriate to start focusing on perception using various recordings and drawing students’ attention to the variation in pronunciation. In Linda Lane’s *Tips for Teaching Pronunciation*, yod coalescence or



palatalisation, as used throughout the textbook, belongs to so-called fast-speech blends that “result from the very close joining of final and beginning sounds in adjacent sounds” (Lane 57). Lane emphasizes the importance of teaching perception rather than production, which is not really necessary since “like fast-speech reductions of function words, blends are associated with high levels of fluency and accuracy (i.e., with native English). Less proficient students may sound less clear if they use these blends than they would if they had used the unblended form” (58). However, if some students acquire fast-speech reductions and do use them properly, there is no reason to discourage them from using it (Lane 82). The appropriate level of students’ English when starting teaching yod coalescence as an aspect of connected speech should be somewhere between intermediate and advanced (Lane 84). While listening to various recordings, students may be asked to rewrite the expressions with the standard spelling. They might also be asked to repeat the expressions with reduced forms. Lane uses an interesting way of transcribing blends which is not a real phonetic transcription but it does seem logical and easily intelligible for students who are not well acquainted with the traditional transcription or who have not encountered it yet. Consequently the transcribed forms are for instance *thisheer* (*this year*), *lascheer* (*last year*), *letchew/letcha* (*let you*), *didja* (*did you*) (57).

Another publication, *Teaching Pronunciation* by Celce-Murcia et al., designed as a reference book for teachers of English, points out some of the subcategories of connected speech and suggests them for teaching since they occur more frequently. The subcategories are consonant-to-vowel linking, vowel-to-vowel linking, consonant assimilation and palatalisation. Palatalisation, according to the authors, includes all previously mentioned types of coalescence where “final alveolar consonants such as /s/, /z/ and /t/, /d/ or final alveolar consonants sequences such as /ts/, /dz/ are followed by initial palatal /y/” (Celce-Murcia et al. 162). When teaching these aspects, it is advisable to relate them to a specific “teaching point, for example phrasal verbs, imperatives, giving advice” idioms and proverbs (Celce-Murcia et al. 165). Using worksheets and handouts with examples and various exercises facilitates the work of a teacher as well as of a student. As suggested in the book, there are various activities to be used during the lessons such as controlled practice, which involves students reading a dialogue and marking possible linking and

assimilation and then reading it out loud with a partner. Another activity especially fitting for practicing yod coalescence is communicative practice since “palatalization, which occurs frequently in combination of verbs with *you* or *your*; lends itself naturally to an advice-giving or suggestion-making activity, which could include sentences cues such as: *Why don't you...?*, *Would you like to...?*, *Could you possibly...?*” (Celce-Murcia et al. 172).

### **3. Practical part**

The practical part of this thesis aims at mapping the occurrence of yod coalescence in the speech of native and upper-intermediate non-native speakers. It attempts to answer the following research question:

To what extent do the native and upper-intermediate non-native speakers use yod coalescence in their speech?

Furthermore, it tries to shed light on which type is the most frequent and in what linguistic environment respondents coalesce most. Based on the findings about yod coalescence from the theoretical part, the following hypothesis was formulated:

Both groups of respondents will employ yod coalescence including the alveolar plosives /t/ and /d/ between two grammatical words to a larger extent than the other types.

The designed research consisted of two phases. Firstly, the data from upper-intermediate non-native users of English were collected in the Czech Republic and Austria where the author spent one semester as an Erasmus student. Secondly, the native sample was selected including speakers, TED Talks presenters and TV series characters, from the United Kingdom and the United States of America.

TED stands for Technology, Entertainment, and Design and its first conference was held in 1984 when these three branches converged (“Our organization”). Today, there are TED Talks along with independent TEDx events organized all over the world as well as they are available online on [ted.com](http://ted.com). The speakers can present basically any ideas from any field which are, as the motto of TED says, worth spreading.

#### **3.1. Method**

As the research consisted of two phases, the methods for the analysis of the speech of native and non-native speakers differed. The following chapters describe individual stages of both methods.

### **3.1.1. Test preparation**

For the purpose of recording non-native speakers, a dialogue between two people was created. When designing it, several criteria were taken into consideration. First of all, it was essential to design the dialogue as a casual conversation between two friends in order to make the respondents speak as naturally and freely as possible since yod coalescence is most likely to appear under such circumstances. Secondly, close attention was paid to lexical distribution of the words and expressions with possible yod coalescence so as to ensure approximately the same number and variety of tokens in the parts of both speakers. In total, the part of the speaker X contains 18 tokens while the part of the speaker Y contains 19 tokens. The distribution of different types of yod coalescence is demonstrated in table 4 below. Besides, the dialogue is divided into two different situations, which made it easier to employ all of the target words.

	<b>Speaker X=18 tokens</b>	<b>Speaker Y=19 tokens</b>
<b>/dʒ/ across word boundaries</b>	<i>did you</i>	<i>did you</i>
	<i>could you</i>	<i>would you</i>
	<i>behind you</i>	<i>told you</i>
	<i>did you</i>	<i>told you</i>
<b>/tʃ/ across word boundaries</b>	<i>meet you</i>	<i>sent you</i>
	<i>lent you</i>	<i>let you</i>
	<i>last year</i>	<i>don't you worry</i>
	<i>invite you</i>	<i>brought you</i>
	<i>that you</i>	<i>let you</i>
		<i>bet you</i>
<b>/dʒ/ within words</b>	<i>during</i>	<i>education</i>
	<i>duty</i>	
<b>/tʃ/ within words</b>	<i>Tuesday</i>	<i>student</i>
	<i>tuner</i>	<i>institution</i>
	<i>gratitude</i>	<i>Tuesday</i>
	<i>Tuesday</i>	<i>tube</i>
	<i>situation</i>	<i>tuna</i>
<b>/ʒ/ across word boundaries</b>	<i>as you know</i>	<i>as you like</i>
		<i>was your</i>
<b>/f/ across word boundaries</b>	<i>this year</i>	<i>this year</i>

Table 4

The words and word expressions to be found in the dialogue (see Appendix 1)

As table 4 shows, some of the words or expressions occurred in the parts of both speakers. These expressions were *did you* which occurred 3 times, *told you* (2), *let you* (2), *this year* (2) and the word *Tuesday* (3). Since the dialogue was recorded 10 times with Austrian respondents as well as with Czech respondents, the total number of the occurrence of all the expressions and words for the individual analyses was multiplied by 10. Consequently, there could have been 30 instances of *did you*, 20 instances of *told you*, 10 instances of *education* and so on.

### 3.1.2. Respondents

For the first part of the research, twenty respondents from Austria as well as twenty participants from the Czech Republic were recorded. To enable a further analysis of the results, the respondents were also asked to fill in a short questionnaire. The questions were aiming at finding out more about the respondents' age, field of study, level of English, their endeavors in acquiring the British or American English accent and further background information concerning the study of the English language.

Except for three participants out of twenty, the Austrian respondents were all students at the University of Vienna, fifteen of them studying at the Department of English and two of them studying Law. Those other three participants were gathered due to the acquaintance with other respondents and they had already finished their studies or did not study at all. The respondents were aged between 18 to 30 years and there were only two male speakers. The group consisted of only Austrians who all spoke Austrian German as their mother tongue. According to the questionnaire, there were more than half of the students, thirteen exactly, who preferred British English and seven students who tried to acquire American pronunciation. In terms of the level of English, there were five students with B2+, three with C1, eleven claiming C1+, and one student whose English was at the C2 level. Almost three quarters of the students, 14 specifically, marked watching movies and TV series as the leisure time activity that they did most in order to improve their English.

The group of the Czech respondents consisted of twenty students, fifteen again studying the English language and five of them studying Law, Psychology, Literature, and History. The youngest respondent was 20 years old and the oldest one 27 years old. In terms of gender, the group was more diverse since it incorporated eight male respondents. Unlike the Austrian students, the Czech students preferred American English to British English in a ratio of 12:8. The level of English varied between B2 (one speaker), B2+ (one speaker), C1 (thirteen speakers) and C1+, which is adopted by five speakers. The speakers chose again watching movies, TV series and listening to the radio as the most practiced activity for the purpose of improving their English. Two of them even literally stated that their British accent was influenced by American pronunciation, which surrounded them to a great extent.

As far as the second part of the research is concerned, the speech of eight native speakers who took part in TED Talks was analysed. The respondents were chosen according to their nationality, which resulted in four American and four British speakers. The analysed sample of the British speakers consisted of two men and two women whereas in the sample of the American speakers, there was only one man and three women. The analysis of the TV series was not that thorough, nevertheless two episodes were examined, one from the American series and one from the British series.

### **3.1.3. Procedure**

The process of the research consisted of two steps, firstly gathering the data and its subsequent analysis. Since the recorded material was a dialogue, it was necessary to get two people together. Usually the people in the pair knew each other but in some cases they did not. At the beginning, each pair were given the same instructions in English:

*I would like you to read the following dialogue. You are going to be the speaker X and you are the speaker Y. Bear in mind that the conversation is between two friends so the tone should be friendly and relaxed. Please read both sections of the dialogue now for yourself. You will then read it aloud with your partner. When reading it aloud try to be as natural as possible.*

Afterwards, the actual dialogues were recorded while using a mobile phone with an inbuilt recording device of high quality. To ensure the quietness of the environment, the recording sessions usually took place on the premises of both universities mostly in a student lounge, in a classroom or in quiet corridors. After collecting the desired amount of data, all the recordings were transferred to a computer and converted to the MP3 format. Some of them needed to be edited, which was done by the audio editing programme Audacity. Afterwards, the analysis took place.

Since yod coalescence is a conspicuous phenomenon of spoken English and in most cases can be distinguished quite easily, the method applied for its examination was the auditory analysis. The author listened repeatedly to the recordings and identified the target feature. Even though the method is simple and does not require the use of a special phonetic programme, it does have some shortcomings, which need to be taken into consideration.

The auditory analysis is rather subjective as it relies solely on the perceptive abilities of the researcher. To lessen the effects of subjectivity, the entire recordings were listened to several times plus the programme Audacity easily allowed multiple replay of the particular parts. Moreover, when a problematic word or an expression was encountered the researcher asked her colleague for help with the classification.

The tokens for the analysis were divided into four different categories according to the degree of coalescence: zero coalescence which is regular pronunciation with yod, full yod coalescence, yod dropping, and ambiguous cases. The last category was established in order to classify the items that did not fit any of the three clearly defined categories. It covers the examples that showed either very weak coalescence where /t/ and /j/ or /d/ and /ʒ/ were not that closely tied together and were pronounced rather separately, or cases where the /j/ sound was retained even though the preceding plosive was palatalized but these two sounds did not coalesce together, this could be classified as simple assimilation of place of articulation.

As for the native speakers, the method for the analysis of TED Talks was almost the same. First of all, with the aid of a transcript, which is provided by TED for every talk, a list of all the words with possible yod coalescence was made. Afterwards the same procedure was used for classifying the target words except for the establishment of the fourth category of ambiguous cases which was not necessary. The analysis of the TV series was different due to its demanding character. Therefore the main purpose of the analysis was to focus on the lexical distribution of yod coalescence without giving any exact numbers and to describe the environment in which it occurs. From each series an episode was being watched.



### 3.2. Results I - non-native speakers

As mentioned above, the dialogue contained 18 tokens of yod coalescence in the speech of a speaker X and 19 tokens in the speech of a speaker Y, which made it 37 tokens in one dialogue. All in all, the twenty dialogues resulted in 740 tokens to be analyzed. However, there were three cases where the students slightly changed the speech and dropped the expression that could have been coalesced. Those cases were in the sentence *Is there anything that you don't eat*, which was pronounced by two students only as *Is there anything you don't eat*, and in the sentence *Don't you worry*, where the important pronoun for yod coalescence, *you*, was omitted by one student. Therefore the real number of tokens was 737.

#### 3.2.1. Austrian respondents

The number of tokens in the speech of the Austrian respondents was 367. The analysis shows that the actual use of yod coalescence is pretty low, resulting only in 37 tokens, which makes it 10,08%. Even the phenomenon of yod dropping occurred slightly more often with its 41 tokens or 11,17%. The regular pronunciation with traditional yod was found in 74,93%, which is 275 cases. There were 14 cases that were rather difficult to clearly classify, often showing the retention of the /j/ sound as explained above. Those cases covered only 3,82% (see fig. 1).

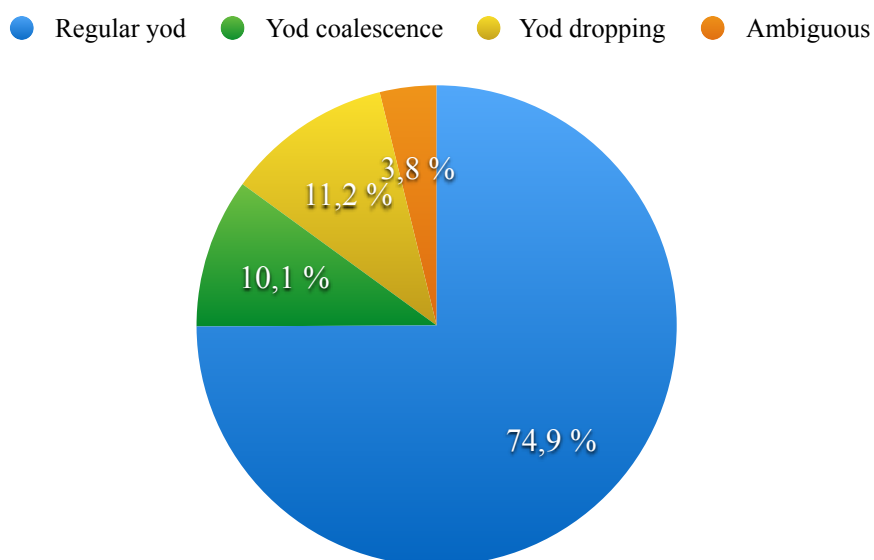


Fig. 1. The percentage of the four individual categories in the speech of the Austrian respondents

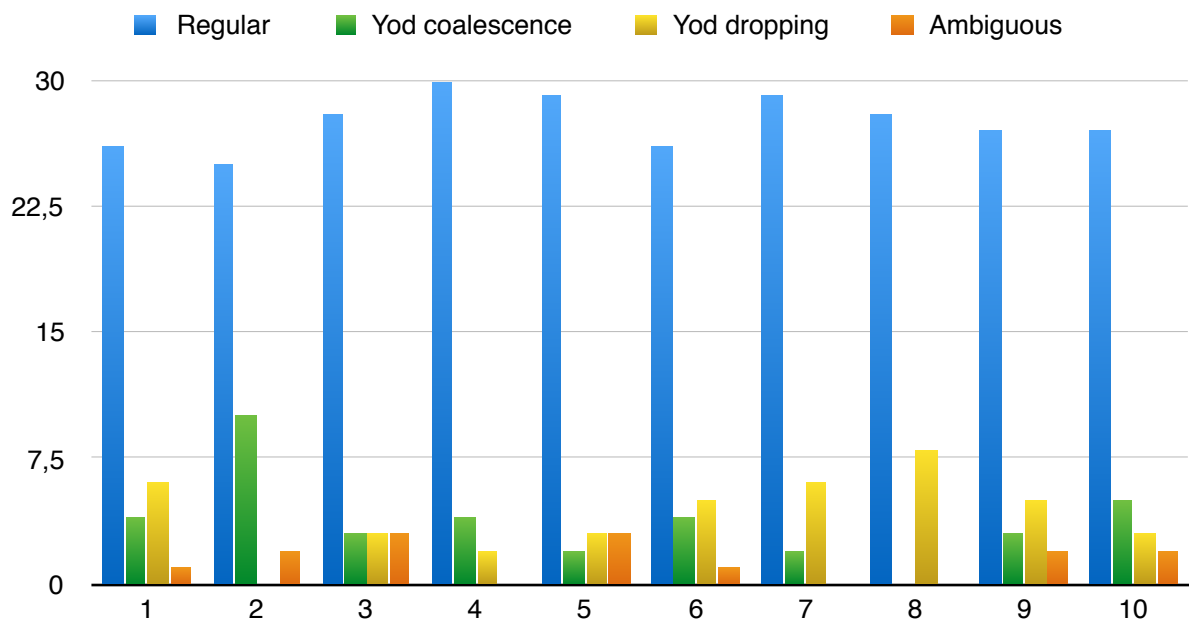


Fig. 2. The numeral representation of the individual categories in the speech of 10 Austrian pairs

Fig. 2 illustrates the connection between the individual categories and to what extent the pairs, numbered from 1 to 10, used them. There is no distinction made between the two people in the pair.

### Lexical distribution of yod coalescence

As illustrated earlier, in the dialogue all the types of yod coalescence were equally incorporated. The Austrian students evince the tendency towards yod coalescence across word boundaries mostly in the following expressions: *did you* (7), *would you* (4), *don't you worry* (6). Yod coalescence before a stressed vowel can be found only twice, once in *during* as well as once in *Tuesday*. In the two words, *tuna* and *tube*, where the shift in pronunciation towards /tʃu:nə/ and /tʃu:b/ has been spotted in London speech, the Austrian students show a huge preference to the versions of American yod dropping regardless of their desired accent. Out of 10 cases, the word *tuna* was pronounced with yod dropping 8 times and the word *tube* 5 times as well as the words *institution* and *student*. Quite surprisingly, yod coalescence between /s/, /z/ and /j/ did not appear in any case. The only approximation towards it was an example where a student with the American accent pronounced *this year* as /'ðɪʃjɪr/ retaining the /j/ sound, which is classified as an ambiguous case.

Type of yod coalescence	Possible occurrence	Real occurrence
/dʒ/ across word boundaries	80	15
/tʃ/ across word boundaries	107	14
/dʒ/ within words	30	2
/tʃ/ within words	100	6
/ʒ/ across word boundaries	30	0
/ʃ/ across word boundaries	20	0

Table 5

The frequency of the types of yod coalescence in the speech of the Austrian respondents

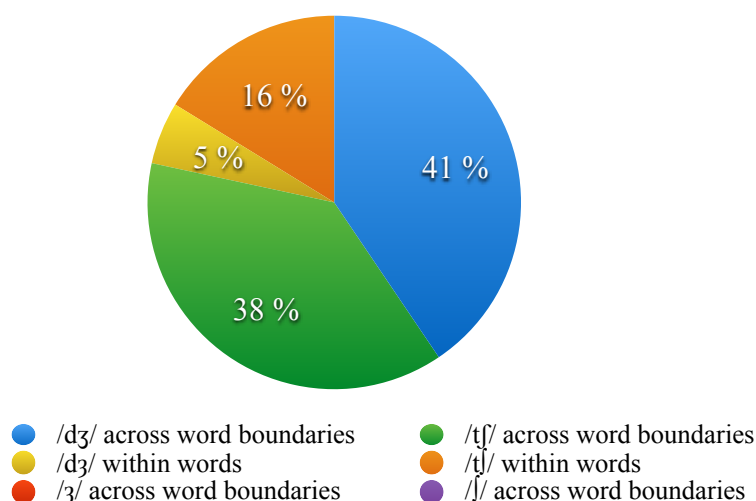


Fig. 3. The percentage of the types of yod coalescence in the speech of the Austrian respondents

Fig. 3 illustrates the proportion of the real occurrence of the individual types of yod coalescence to the total number of coalesced tokens (37). Both table 5 and fig. 3 show zero yod coalescence including /s/ and /z/.

### Further analysis

The next analysis looked at two variables, accent preference and language level. As mentioned above in the section about the respondents, there were 13 participants who preferred British English and 7 who inclined to American English. The prevalence of British English is in contradiction with the rather high use of yod dropping which is not characteristic of the British accent. However, there are several factors that can be behind its common use. Some features of Cockney such as glottalization has been spreading into

General British as explained in the article “The Cockneyfication of RP” by J.C.Wells. Since yod dropping is typical not only of American English but also of Cockney it might be expanding as well. Another reason for the use of yod dropping might be the influence of American English. As stated by the respondents, watching movies and TV series is very popular and since the American movie industry is prominent, there is no wonder that students unconsciously acquire some of the features of American pronunciation such as yod dropping. Considering the relationship of the use of yod coalescence to a preferred accent, the students with the British accent used coalesced forms in 28 out of all 37 instances with the average of 2,2 tokens per speaker, while the average of coalesced tokens per speaker with the American accent dropped to 1,3.

It seems as though the level of English did not have a real effect on the use of yod coalescence (see table 6), the highest average of coalesced tokens per speaker was in the speech of B2+ speakers.

Level of English (number of speakers)	Total number of coalesced tokens	Average per speaker
B2+ (5)	12	2,4
C1 (3)	5	1,7
C1+ (11)	18	1,6
C2 (1)	2	2

Table 6

The use of yod coalescence in relationship to the language level of the Austrian respondents

### 3.2.2. Czech respondents

None of the Czech students altered the dialogue, therefore the number of tokens here was 370. Yod coalescence was detected in more than double the cases of the Austrian students, resulting in 86 tokens or 23,24%. Yod dropping was on the contrary lower with only 24 tokens, 6,49%. In 242 cases the students paid attention to the careful pronunciation of yod, which was again a bit less than the 275 tokens that were found in the speech of the Austrian students. The proportion of ambiguous cases was one percent higher than in the previous analysis, making it 4,86%.

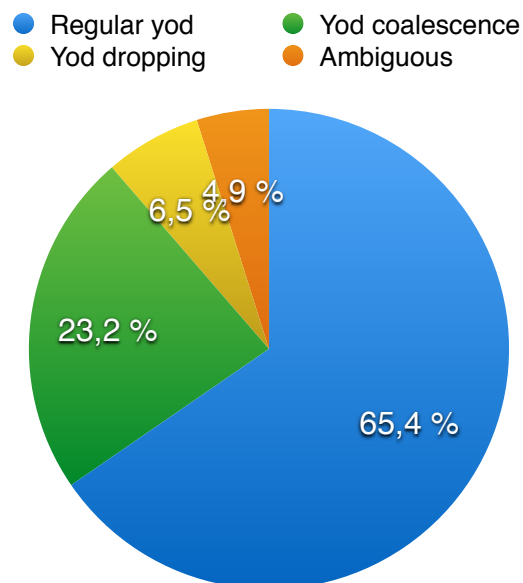


Fig. 4. The percentage of the four individual categories in the speech of the Czech respondents

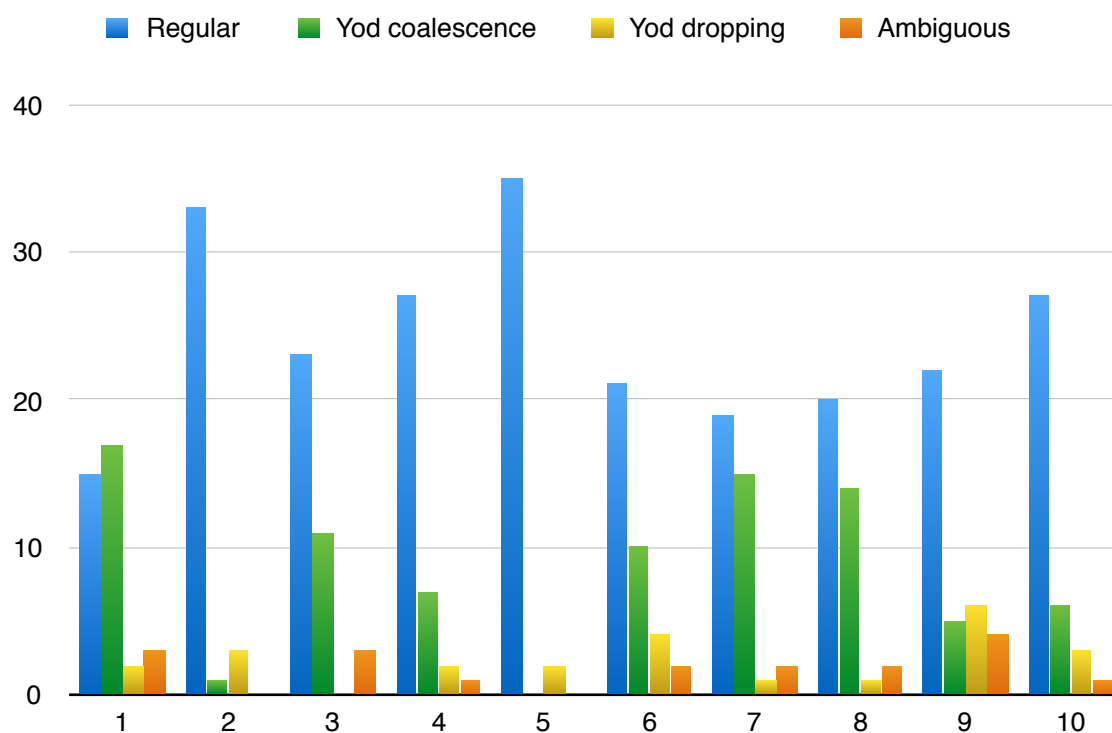


Fig. 5. The numeral representation of the individual categories in the speech of 10 Czech pairs

### Lexical distribution of yod coalescence

As well as among the Austrian students, the use of yod coalescence is the highest across word boundaries, particularly in word connections such as *don't you worry* (9), *did you* (9), *let you* (7), *would you* (6). Once more, there was no evidence of coalesced forms with /s/, /z/+j/. Within words, yod coalescence appeared twice in *Tuesday* and once in *tube*, which are examples of yod coalescence before a stressed vowel. The rest of such instances occurred only before an unstressed vowel in *education* and *situation*, both being pronounced with yod coalescence in their part of the dialogue by 5 speakers out of 10. Forms with yod dropping were common in *during* (6), *tuna* (4), *education* (3) and *situation* (3) as well.

Type of yod coalescence	Possible occurrence	Real occurrence
/dʒ/ across word boundaries	80	29
/tʃ/ across word boundaries	110	44
/dʒ/ within words	30	5
/tʃ/ within words	100	8
/ʒ/ across word boundaries	30	0
/ʃ/ across word boundaries	20	0

Table 7

The frequency of the types of yod coalescence in the speech of the Czech respondents

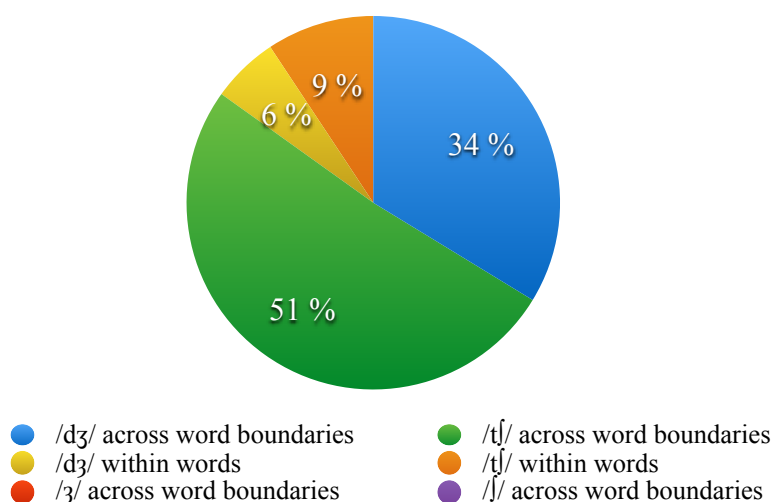


Fig. 6. The percentage of the types of yod coalescence in the speech of the Czech respondents

### Further analysis

Considering the accent preference and the language level, the American accent outnumbered the British accent. This tendency is not, however, confirmed by the data as the rate of yod dropping is rather low. Nevertheless its distribution among the speakers is in accordance with the characteristic features of the two accents since the respondents who preferred the American accent had 5 times higher rate of yod dropping (20) than the respondents who preferred the British accent (4). The average use of yod coalescence per speaker was 4,7 for the speakers preferring the American accent and 3,8 for the speakers with the British accent.

Comparing the level of English and the use of yod coalescence, the figures are as the table 8. below illustrates. It is to be noted that since B2 and B2+ levels had each only one representative, the figures are not as objective. Nevertheless the difference between C1 and C1+ level is in accordance with the assumption that the more a speaker is fluent in English the more aspects of connected speech are to be found in his or her speech.

Level of English (number of speakers)	Total number of coalesced tokens	Average per speaker
B2 (1)	4	4
B2+ (1)	9	9
C1 (13)	49	3,8
C1+ (5)	24	4,8

Table 8

The use of yod coalescence in relationship to the language level of the Czech respondents

### 3.3. Results II - native speakers

Due to the insufficient number of native speakers for conducting the same face-to-face dialogue which was used in the first part, a different method for data collection was employed. The speech of native speakers is represented by TED Talks presenters and characters of two TV series, one British and one American.

#### 3.3.1. TED Talks

The number of potential occurrence of yod coalescence was 156 in total, 46 within the speech of four British speakers and 110 within the speech of four American speakers. The presented topics concerned spam emails, democracy, the AIDS disease, reading books, body language, the mysteries of the Sistine Chapel, and psychology. As fig. 7 shows, the use of yod coalescence in the speeches of two British speakers, speaker 2 and 3, was considerably high. It is difficult to explain this tendency. One possible explanation for the high use of yod coalescence by speaker 2 might be that the total number of potential occurrence of yod coalescence was only 8 and the coalesced forms occurred 6 times.

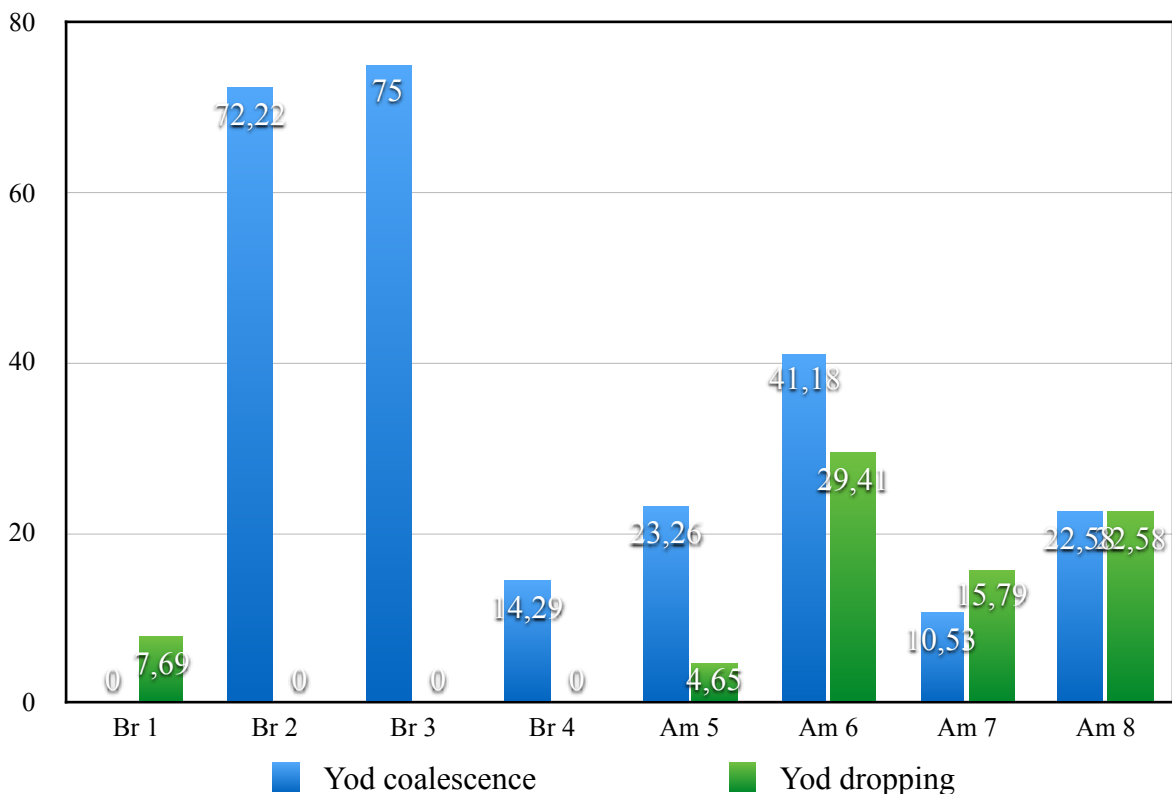


Fig. 7. The percentage of yod coalescence and yod dropping in the speech of the TED Talks presenters



In total, yod coalescence was used in 46 instances out of 156, which is 29,49%. The British speakers employed this phenomenon in 20 cases out of 46, while the American speakers pronounced it in 26 cases out of 110. These figures expressed as a percentage are 43,48% and 23,64%, which shows that the use of yod coalescence prevails in the speech of the British presenters, however, the two speakers need to be taken into consideration. Focusing on yod dropping, it can be seen from fig. 7 that yod dropping is exclusively predominant in the speech of the American speakers since there was only one instance of yod dropping in the speech of the British speakers and 17 instances in the speech of the American speakers.

### **Lexical distribution of yod coalescence**

On the level of lexical distribution, there was no possibility of ensuring the proper proportion between different types of yod coalescence. Nevertheless, there were several words and expressions that occurred in more than one speech and therefore allowed a small comparison to be drawn. The highest frequency of coalesced forms occurred in words where yod coalescence preceded an unstressed vowel. The words *educate*, and its forms such as *education*, *educated*, *educational*, appeared 4 times in the speech of British speakers and twice in the speech of American speakers and it was pronounced with palatalized /dʒ/ every single time as well as the word *situation* pronounced with palatalized /tʃ/, which appeared with the same overall frequency – 6 times. There was also an instance with palatalized /ʃ/ in the middle of the word *issue*, pronounced in that way by speakers 3 and 7. The words with yod coalescence before a stressed vowel were found in the speech of British speaker 2 who pronounced in that manner *dubious* and even *Dubai*. Other words were *during*, which occurred once with /dʒ/ (out of 3 instances) in the speech of British speaker 4 and twice the /j/ sound was dropped by American speakers, and *opportunity* where yod was once coalesced with /t/, once dropped and twice pronounced regularly. Otherwise all of the following words were in all cases (except for *student*) pronounced with the pattern of yod dropping: *dude*, *student*, *produce*, *Tuesday*. In terms of yod coalescence applied across word boundaries, there were the usual expressions with the pronoun *you* and its forms such as *did you*, *that you*, *and you*. However, there were also several instances of yod coalescence across word boundaries between /s/, /z/ and /j/, which did not occur in the speech of non-native speakers, as in *allows you*, *tells you*, *means you*.

### 3.3.2. TV series

The popularity of TV series has skyrocketed since the beginning of the 21st century and they are being watched by all generations all over the world. Due to this trend, TV series play an important role in ESL/EFL learning. When answering the questionnaire, all of the students stated that watching movies and television series is one of the two things they do most to improve or to keep their level of English. Two different TV series were chosen for the analysis. Firstly, *The Walking Dead* as a representative of American TV series and secondly, *Sherlock Holmes* representing British series. Both TV series were first aired in the same year 2010.

In the episode of *The Walking Dead*, yod coalescence was easily noticed across word boundaries in most of the cases where the pronoun *you* followed a word with a final plosive. The only exception was when an emphasis was put on the pronoun or when the words were isolated in order to emphasize the whole utterance. In such cases, careful pronunciation of yod was applied with a clear distinction of the two sounds that may yield to coalescence. The usual instances of yod coalescence included *don't you, but you, would you, got you* etc and also not that frequent evidence with /z/+j/ in *sometimes you*.

The story of *Sherlock Holmes* series is set in London, where the use of yod coalescence is becoming common as described in a former chapter. The most prominent examples that could have been found in the first episode were again cases of yod coalescence across word boundaries with the pronoun *you*: *don't you, did you, would you, get yourself, bet you, want you*. However, all of these were pronounced by a single character who is clearly a Cockney speaker since there were other features of Cockney that could have been spotted in his speech such as *bottle* with the use of glottal stop. There were a high number of questions and phrases with *you*, nevertheless almost all of them were pronounced regularly by all the other characters.

All in all, yod coalescence seems to prevail in the American TV series, *The Walking Dead*, where its use across word boundaries is more frequent and it is not a specific feature of only one character.

### 3.4. Discussion

In terms of non-native speakers, the figures gained from the recordings reveal that yod coalescence was used in 10% among the Austrian respondents and in 23% among the Czech respondents. When combining the two samples of students together, the numbers are as follows: from the total number of 737 tokens where yod coalescence could have been applied, only 123 tokens did actually undergo this process, which makes it 16,7%. These numbers show that the degree of yod coalescence in the speech of non-native speakers is relatively low. Even though the respondents have general awareness of this process, it is not a frequent phenomenon in their speech.

Having a closer look at the results suggests that the application of yod coalescence is highly individual and in some cases may be used by a speaker in all its possible instances whereas in other cases it may not be used at all even though the level of English remains the same. This assertion applies to non-native speakers as well as to native speakers. The results may also be influenced by the character of the dialogue since it could have had some effects on the speakers as it was ready-made and did not allow any spontaneous speech production. It should also be noted that the auditory analysis does not give as accurate results as the instrumental analysis. In some cases, the decision as to which category an uttered word belongs is intricate and some errors are possible to be made.

As far as the category of ambiguous cases is concerned, there were 18 instances of them among the Czech students and 14 among the Austrian students. The range of such cases was higher in Czech speech, where they occurred in 11 different instances, whereas in Austrian speech they appeared in 6 particular expressions. Nevertheless, all of them appeared exclusively across word boundaries. The most common expression among both groups of students that is identified as an ambiguous case is the elliptical question *Did you?* Students are apparently not accustomed to pronouncing it rapidly as /dɪdʒʊ/ or /dɪdʒə/ and rather retain the /j/ sound resulting in /dɪdʒjʊ/ or even longer /dɪdʒju:/. Other expressions that occurred frequently in both groups are *let you*, *told you*, and *did you* in a traditional yes-no question, where again the /j/ sound can be clearly distinguished.

There are some pronunciation errors of the same type that can be spotted in the speech of Czech students. What causes problems to Czech students is the retention of final-voicing of

obstruents since in the Czech language “word-finally, all voiced obstruents lose their voicing” (Dvořák). Therefore, it was possible to hear the voiceless palatalized /tʃ/ instead of the correct voiced /dʒ/ several times as in *did you*, *told you* and *behind you*. Another error occurred due to improper pronunciation of the past tense of the verb *send*, which resulted in *sent you* being pronounced as /sendʒjʊ/. However, the error where final /d/ becomes voiceless was not restricted only to Czech students but it occasionally occurred in the speech of the Austrian students as again in *did you* and *told you*. Besides *let you* is once mispronounced with /dʒ/.

As far as the analysis of native speakers and more specifically the analysis of TedTalks are concerned, the results are largely influenced by the individual speakers, the way they spoke and their attitude towards the speech they were giving. It is evident that some speakers were rather laid-back during their speech trying to make it as casual as possible, while the others approached their topic rather seriously, which resulted in differences on the level of formality. And as it was mentioned above, the frequency of the use of yod coalescence is closely related to the formality of one’s speech. Therefore some of the speakers may have not used yod coalescence in the place where they would normally use it in casual speech. Nevertheless, it was impossible to draw some specific conclusions since there was no regularity in the use of yod coalescence depending on the level of formality.

## 4. Conclusion

The principal purpose of this thesis was to investigate the phenomenon called yod coalescence that occurs in connected speech and more readily in rapid colloquial speech. The theoretical part scrutinized other aspects of connected speech as well but their thorough characterization was beyond the extent of this thesis. Yod coalescence was described in detail including the three main linguistic environments in which it can occur. It can influence sounds across word boundaries and within words, either before stressed or unstressed vowels. Yod coalescence across word boundaries is typical of rapid speech where sequences of words are compressed and less attention is paid to their pronunciation. Within words, yod coalescence before unstressed vowels has become quite common and is regarded as standard pronunciation in some words, e.g. *situation*, *education*. On the contrary, yod coalescence before stressed vowels is still a somewhat fresh feature in English but begins to occur more frequently in particular areas, as in London.

The practical part generally aimed at mapping and outlining the use of yod coalescence in the speech of native and non-native speakers. In terms of non-native speakers, the conducted research analyzing Czech and Austrian productions showed that the use of yod coalescence prevailed in the speech of the Czech respondents. Nevertheless, its application turned out to be rather low since it occurred only in 23% of phrases with possible yod coalescence. The figure of coalesced forms in the speech of the Austrian respondents was 10%, which was even less than the number of forms with yod dropping. Taking into consideration all the respondents and all the cases where there was a tendency towards either full yod coalescence or only partial assimilation of /t/, /d/, /s/, /z/ towards /tʃ/, /dʒ/, /ʃ/, /ʒ/ while retaining the /j/ sound, the figure is 155 cases out of 737 tokens, which is 21%. Therefore, it is evident that the forms with regular pronunciation with separate alveolars and yod are still preferred to yod coalescence. In general, native speakers showed slightly higher use of yod coalescence. The overall percentage of yod coalescence employed in the speech of TED Talks presenters was 29,49%. Nonetheless, the findings also point out the fact that the use of yod coalescence is individual as the two speakers evinced a significantly higher use of yod coalescence which reached 70% in both cases.

The hypothesis which assumed that both groups of respondents would employ yod

coalescence including the alveolar plosives /t/ and /d/ between two grammatical words to a larger extent than the other types was confirmed as far as non-native speakers are concerned since they did not employ the other type of yod coalescence including /s/ and /z/ between two grammatical words at all. By contrast, The TED Talks presenters show a tendency towards the use of yod coalescence including /s/ and /z/ to almost the same extent as the use of yod coalescence including /t/ and /d/. Nevertheless, it is still true that yod coalescence including /t/ and /d/ across word boundaries is more frequent as there are more sequences of words with alveolar plosives and a palatal approximant.

As far as pedagogical implications are concerned, ESL/EFL learners need to be aware of all the changes that can occur in connected speech. The importance of acquisition of these aspects varies, some of them are important for both production as well as perception abilities and some of them do not necessarily need to be present in speech of English learners. Pronunciation experts agree that yod coalescence plays a crucial role mainly in the area of perception. Not applying yod coalescence does not affect the intelligibility of learners' speech. Perception abilities, on the contrary, are important for smooth comprehension of spoken English even in its most rapid and colloquial forms. Teaching yod coalescence may be done by various listening activities and drawing students' attention to words and expressions which undergo the change.

Since, since the topic of yod coalescence has not been studied to the same extent as other spheres of phonetics there is still a lot about this topic to inspect. It is therefore convenient herein to suggest some modifications that could be made in the case of a future research focusing on this phenomenon. First of all, in order to gain authentic recordings, the dialogue held with non-native students should be at least partly spontaneous to give the students some space for self-expression though it would be rather demanding and the researcher would have to guide the respondents through the dialogue in a subtle manner. Consequently, it would also make the comparison harder. Secondly, the improvements should also be made in the analysis of native English speakers. The research should be done in the same way with real native speakers. These alterations would indubitably provide authentic and more comparable findings.

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## **6. Appendix**

Appendix 1 – The dialogue

Appendix 2 – The questionnaire

X: Hey! How are you?

Y: Hi, I'm fine, thanks. **Did you** get the email I **sent you**?

X: Yeah I did, I thought I would answer you **during Tuesday** but I forgot.

Y: Never mind. **Would you** like to grab a coffee now?

X: Oh, Im sorry, I have an optional class. **Meet you** later?

Y: You are such a diligent **student**. **As you** like. I'll **let you** know where I am.

X: Great. **Did you** bring me the **tuner** I **lent you**?

Y: I **told you** I left it in the musical **institution**.

X: It's your **duty** to give it back to me as soon as possible!

Y: Alright, **don't you** worry.

X: **Could you** bring it tomorrow?

Y: I think so.

X: Ok, see you later.

Y: Bye.

---

X: Hey, right **behind you**.

Y: How **was your** class? I **brought you** a cup of coffee.

X: Thanks! I can't express my **gratitude** it's over.

Y: At least you're doing something for your **education**.

X: Anyway, **as you** know, It's my birthday next week and as well as **last year** I'd like to **invite you** over for dinner.

Y: When exactly? I hope I can make it **this year**.

X: **On Tuesday**.

Y: **Tuesday** seems fine. I wouldn't **let you** down.

X: You'd better come **this year**! Is there anything **that you** don't eat? So I know what to cook.

Y: I **told you** a week ago I don't like **tuna** fish and mushrooms.

X: Oh, **did you**? Let's see if I can handle the **situation**.

Y: I **bet you** can.

X: Anyway I've got to go.

Y: Are you taking the tube?

X: Yes, I am.

Y: Me too. Okay, lets go.

Name:

Role in the dialogue:            X        vs.        Y

Age:

Gender:

L1 (specify if Austrian German):

Field of study:

Level of English:    A1    A2    B1    B2    B2+    C1    C1+    C2

How long have you been studying English in total?

How often do you speak English? (hours per week)

How often do you come into contact with native speakers? (hours per week)

Do you try to acquire British or American English?

How much time have you spent in an English speaking country? Please specify.

What do you do most frequently to improve your English in your free time? Tick two possibilities.

private English lessons	
language school	
watching movies, tv series	
reading English books	
listening to the radio	

others \_\_\_\_\_