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Diplomová práce

## Linking in present-day English

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#### Abstract

This thesis deals with linking and the use of glottal stop in spoken English. It examines different tendencies of Czech and native speakers in connected speech and compares them.

In the theoretical part, the key elements that affect pronunciation of words in connected speech are presented along with examples of each particular case. Each chapter also contains notes for Czech speakers related to that issue.

The practical part consists of three main sections. In the first one, exercises used in the research are presented and theoretically analyzed along with prediction of the expected pronunciation applied by each group of speakers. In the second section, three groups of speakers, who participated in the research, are described. This part also contains commentary on the process of recording. The third section contains the results of the analysis of authentic recordings acquired during the research with each exercise supplied with its own summary. The data are presented via graphs and tables for better illustration. At the end, the findings are summarized, compared and the results are evaluated.


## Anotace

Tato práce se zabývá vázáním a užíváním rázu v mluvené angličtině. Zkoumá odlišné tendence českých a rodilých mluvčích při mluveném projevu a srovnává je.
V teoretické části jsou představeny nejdůležitější prvky, které ovlivňují výslovnost slov v promluvě. Ke každému dílčímu prvku je vždy také uveden alespoň jeden příklad pro ilustraci. V každé kapitole jsou také uvedeny poznámky pro české mluvčí, jež se vztahují k danému tématu.

Praktická část se skládá ze tří hlavních částí. V první z nich jsou představena cvičení, jichž bylo užito při výzkumu. Kažđé cvičení je teoreticky analyzováno a zároveň je předpovězena očekávaná výslovnost mluvčích jednotlivých skupin. Ve druhé části jsou popsány skupiny respondentů, kteří se na výzkumu podíleli. V této části je také popsán proces získávání nahrávek. Poslední část obsahuje samotné výsledky výzkumu založené na analýze autentických nahrávek respondentů, které byly získány při výzkumu. Každé cvičení je také opatřeno vlastním shrnutím a komentářem. Data z výzkumu jsou prezentována pomocí tabulek a grafů pro lepší přehled.

Všechny výsledky jsou v závěru shrnuty, vzájemně porovnány a subjektivně ohodnoceny.

## Introduction

Since the beginning of time, people have used every possible means of communication available. Among many other options, language is by far the most effective and accurate way of communicating (not unambiguous though). To put it bluntly, it has already been demonstrated by dozens of linguists that the main function of a language is communicative. And as we use the language literally from the day we are born until we cross the Great Divide, it certainly has to be practical and efficient in terms of our effort. Another evident attribute of any language - that is used by people for communication is its naturalness. Every language has its standard (English) or even a codification (Czech, French) which governs the use of the language on the formal level. In reality, though, formal conversations are rather rare compared to the amount of informal interactions. Knowing this, when learning a foreign language, we cannot just remain within the 'formal' boundaries and we are bound to investigate the informal field in order to become a complex user of the language.

Along with the previously mentioned, people have a strong tendency to simplify the language as much as possible which results in several adjustments made by the native users of the particular language. Naturally, some of those changes are barely noticeable, some can become a real obstacle to foreign learners unless they are familiar with them. Foreign learners should expose themselves to these changes and absorb them while, naturally, being aware of their presence.

This thesis deals with one of the phenomena which is very prominent in English language, both in formal and informal conversations: linking. Without any doubt, linking is an issue for Czech speakers, not only because its presence sometimes makes it difficult to understand a carelessly speaking native speaker, but also because its absence makes the whole utterance artificial. Linking simply cannot be omitted if one is to be a proficient user of English.

Despite the fact that the main topic of this thesis is linking and glottal stop, a theoretical background of all the key aspects of words in connected speech is presented in the first part of this work, that includes assimilation, elision and linking with special attention paid to linking consonants and glottal stop. References to relevant sources are the essence of the theoretical part as well as the provided examples of each phenomenon. The research consists of three different exercises which are expected to provide frequent occurrence of linking (or rather suggest its occurrence) and is given to
a variety of speakers to avoid uniformity among speakers of the same region, social status etc. The research is conducted on both native and foreign speakers of English.

The aim of this thesis is to underline the importance of linking and other related phenomena in spoken English and to point out the fact that it is being neglected while teaching English to Czech speakers. Most of the time, the presence of linking is the source of ambiguity for Czech speakers when listening to a native speaker. However, it is also important for production where it enables fluency and authenticity of the speech. The research demonstrates the difference between the use of linking by native speakers and Czech speakers. Lastly, it is only natural that Czech speakers struggle with linking in general as it is not given the attention it requires when learning English.

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## I. THEORETICAL PART

## 1 WORDS IN CONNECTED SPEECH

In any language, words in connected speech are not pronounced separately, but are linked together. And as Roach (2009) points out, human speech is not mechanical, so it is not just a sequence of isolated sounds, but rather sounds that are 'glued' together and often blend, disappear or get replaced by a more appropriate or fitting sound. There is usually at least a minor difference between how a word is pronounced isolated, i.e. a default dictionary pronunciation, and how the pronunciation changes in connected speech. In Czech, there is a very little difference between isolated and contextual pronunciation. In English on the other hand, the difference is often huge.

When studying connected speech, we have to be aware of the fact that we are dealing with a very complex issue. In order to fully understand all the aspects of connected speech, a combination of various phenomena has to be taken into account. Single elements can be extracted and analyzed, but are also often influencing other elements of a different nature, yet fairly equal relevance to connected speech. It is, for instance, nearly impossible to explain the use of / $\mathrm{Z} / \mathrm{by}$ Czech speakers of English in words starting with a vowel without also describing the assimilation that is usually realized in the preceding word ending with a consonant, e.g. have all as ['hæf '?o:l] instead of the standard [hæv'o:l].

It is also important to say that every single speaker may pronounce every single word differently from what is basically considered a standard pronunciation even in connected speech. Various factors influence and affect the way how individual speakers express themselves, e.g. current mood, communicative situation, purpose of the communication, one's idiolect, education etc. Of course, all these possibilities are not the main subject of analysis of connected speech, but doubtlessly play a certain role in its final form.

Gilbert (2008: 6) mentiones that "Most English learners who suffer from inadequate training in listening comprehension complain that "native speakers talk too fast." What this often means is that learners are unable to process important grammatical signals, (e.g., past tense markers) or effectively process contracted speech." In fact, native speakers do not talk significantly faster, but they link, which creates an illusion of the speech flowing 'too fast' and causes that the speech becomes
unintelligible for less experienced foreign users of English. For many foreign learners, linking is something new, because it does not occur in their mother tongue. This includes Czech speakers and the sooner they learn to link, the sooner they become able to recognize it in connected speech of native speakers and understand them.

## 2 ASSIMILATION

### 2.1 Definition

Without a doubt, one of the most important phenomena in connected speech is the process of assimilation. According to Roach (2009), assimilation is likely to occur in rapid, casual speech and will not be used much in slow, careful speech. Many authors define assimilation in their own words, yet in the same fashion as the phenomenon is widely known and clear. Jones (1962: 218) gives a good definition:

> Assimilation is defined as the process of replacing a sound by another sound under the influence of a third sound which is near to it in the word or sentence. The term may also be extended to include cases where a sequence of two sounds coalesces and gives place to a single new sound different from either of the original sounds; this type of change may be termed 'coalescent assimilation'.

Jones (1962) also notes that there is a difference between assimilation and what he calls similitude. Similitude is a case where a certain subsidiary member of a phoneme occurs next to another phoneme due to greater resemblance than the primary or principal member. Cruttenden (2008: 297-299) calls this process allophonic variations and gives an overview of the four main types in English. When talking about assimilation, he uses the term phonemic variations. For instance, in the word plot the principal voiced $/ 1 /$ is replaced by an aspirated $/ \mathrm{l} /$ under the influence of the aspirated voiceless $/ \mathrm{p} h /$. According to Jones (1962), such cases are not assimilation as there was never any different pronunciation and plot has always been pronounced [' $p^{\mathrm{h}}$ lott] with no different allophone of $/ 1 /$ used in this word. See Jones (1962: 219-220) for more detailed information about similitude and its examples.

### 2.2 Types of assimilation

As was already said above, assimilation is a phonemic variation or alternation due to the influence of a neighbouring sound. It is a greater change than allophonic variation as it involves a substitution of one phoneme by another and not just an alteration of a single phoneme. There are different perspectives from which assimilation can be classified and
various authors come up with their own distinction or classification. In the following lines, I present a complex overview of assimilation and its various types.

### 2.2.1 Assimilation based on the origin

These kinds of assimilation are based on the origin and reason of their existence. The important factor is whether the assimilation occurs word-internally or in context. When it occurs word-internally, we can further take into account whether the process of assimilation has been finished, e.g. lecture as ['lektyo], or is still in progress (i.e. speakers still use both the possible pronunciations), e.g. issue as ['ıfu] or ['isju].

### 2.2.1.1 Historical

When the process has been finished, we talk about historical assimilation. It is a long process during which a word that was pronounced in a certain way becomes pronounced differently over time. Jones (1962) demonstrates historical assimilation on the word picture which is today pronounced ['pikffo], but was earlier pronounced ['piktjor]. The consonantal sequence of $/ \mathrm{t} \mathrm{j} /$ blended into a single consonant $/ \mathrm{t} /$ due to the latter requiring less aritculatory effort.

### 2.2.1.2 Contextual

The more relevant type of assimilation in connected speech is contextual. This type of assimilation is conditioned by words occurring in a certain sequence. Isolated words consist of certain phonemes which, when uttered, are realized by specific allophones. However, when those words occur in a certain context, the allophonic structure may change based on the surrounding sounds. For example, the word used is realized ['ju:zd] when isolated, but when it enters the expression used to, the pronunciation is ['ju:s $(\mathrm{t}) \mathrm{tu}$ ] or ['ju:s(t) te] in further context. In this case, the final voiced /d/ is affected by the following voiceless /t/ and becomes replaced by voiceless /t/. As that happens, the voiced /z/ also gets affected by the succeeding voiceless /t/ and is replaced by voiceless /s/.

### 2.2.2 Assimilation based on the result

The division based on the result observes what happens with the sounds that triggered the assimilation. Either one of the sounds changes into another or both sounds blend together.

### 2.2.2.1 Ordinary

Ordinary assimilation is when one of the two sounds causes the other to become replaced by another sound. The following formula used by Jones (1962: 219) is good for illustration: the sounds $A$ is replaced by the sound $B$ under the influence of the sound $C$, e.g. hot $\operatorname{dog}$ as ['hbd dbg] where /t/ is replaced by /d/ under the influence of $/ \mathrm{d} /$.

### 2.2.2.2 Coalescent

Coalescent assimilation occurs when two sounds affect each other and blend into one different sound. Jones (1962) again gives a good formula for such a case: the sounds $A$ and $C$ influence each other and coalesce into the single sound $B$, e.g. mature as [mo 'tfor] where $/ \mathrm{t} /$ and $/ \mathrm{j} /$ influence each other and coalesce into $/ \mathrm{t} /$. It should be noted that some speakers still prefer to pronounce this word [mə'tjuə]. In connected speech, coalescent assimilation can be demonstrated on the sentence I hate you often realized ['as 'hertfu:] where /t/ and /j/ under the influence of each other coalesce into /f/ across the word boundary.

### 2.2.3 Assimilation based on the direction

Vachek (1973) and many other authors distinguish between progressive and regressive assimilation. In this division, it is simply analyzed which of the sounds is the dominant one. The dominant sound then determines what happens with the other sound, either affecting what precedes or succeeds.

### 2.2.3.1 Progressive

Progressive assimilation is the case where the first sound influences the succeeding sound and triggers its substitution or alteration, e.g. win the cup as ['win nə ' $\mathrm{k}^{\mathrm{h}} \wedge \mathrm{p}$ ] where $/ \delta /$ is replaced by $/ \mathrm{n} /$ under the influence of preceding $/ \mathrm{n} /$.

### 2.2.3.2 Regressive

Regressive assimilation is the opposite case. The second sound influences the preceding sound and triggers its substitution or alteration, e.g. sit down as [sid 'daun] where /t/ is replaced by /d/ under the influence of the succeeding /d/.

### 2.2.4 Assimilation based on the type

This is a common division of assimilation. Roach (2009) uses these three types when talking about assimilation. Here it is observed what type of change occurred during the process of assimilation.

### 2.2.4.1 Place of articulation

The place of articulation changes as one of the sounds is substituted by another sound that is pronounced closer to the preceding/succeeding sound in order to make it easier for the speaker, e.g. that place as [ðæp 'phleıs] where the alveolar /t/ gets replaced by the bilabial $/ \mathrm{p} /$ under the influence of the succeeding bilabial $/ \mathrm{p} /$. Note that $/ \mathrm{t} / \mathrm{and} / \mathrm{p} /$ are both plosives in terms of the manner of articulation, therefore we speak of a different place of articulation only.

### 2.2.4.2 Manner of articulation

When one of the sounds is replaced by another sound which is pronounced in a similar way to the preceding/succeeding sound, we talk about a change in the manner of articulation, e.g. that stinks as [ðæs 'stıŋks] where the plosive /t/ is replaced by the sibilant fricative /s/ under the influence of the succeeding sibilant fricative /s/. Note that $/ \mathrm{t} /$ and $/ \mathrm{s} /$ are both alveolar consonants in terms of the place of articulation, therefore only a change in the manner of articulation.

### 2.2.4.3 Voicing

The third category is a change in voicing. Either a voiced consonant becomes voiceless under the influence of a preceding/succeeding voiceless consonant or a voiceless consonant becomes voiced under the influence of a preceding/succeeding voiced consonant, e.g. have to as ['hæf tu] (or even ['hæf to] in further context) where the voiced $/ \mathrm{v} /$ is replaced by the voiceless /f/ under the influence of a succeeding voiceless /t/. Note that /f/ and /v/ are both labiodental non-sibilant fricatives and neither
the place nor the manner of articulation changes in this case.

### 2.2.4.4 Other types

Jones (1962: 221, 227) also lists three additional types of assimilation which are, however, either rare or non-existent in English and gives examples where possible: assimilations by which a vowel is affected by another vowel, e.g. we are as ['wiə] where /i:/ is replaced by /i/ under the influence of / $\mathrm{\rho} /$; assimilations by which a vowel is modified by an adjacent consonant, e.g. go away as ['gəv v'wer] where / $/ \mathrm{s} /$ is replaced by $/ v /$ under the influence of the succeeding $/ \mathrm{w} /$ and quite possibly even the preceding /v/; assimilations affecting the soft palate which is practically non-existent in English.

### 2.3 Assimilation of the terminal consonant in Czech

In Czech language, there is a phenomenon traditionally referred to as asimilace znělosti, i.e. assimilation of voicedness. To be more precise, it will be better to call this phenomenon 'assimilation of voicedness of the terminal consonant', i.e. a consonant in the word final position succeeded by silence. Silence is naturally treated as a voiceless element and always causes regressive assimilation in Czech, e.g. hrad as ['hrat], dub as ['dup] etc.

In English, a similar phenomenon can be observed, but its magnitude can hardly be compared to Czech. As Roach (2009) says, when in the final position in a word, voiced plosives $/ \mathrm{b} /$, $/ \mathrm{d} /$ and $/ \mathrm{g} /$ tend to have very little voicing, which occurs in the compression phase. He also states that the plosion which follows the release is often weak and not audible. Basically, the difference between lenis plosives and fortis plosives is the fact that the former do not trigger what Roach (2009: 28) calls pre-fortis clipping, i.e. vowels preceding a fortis consonant tend to be significantly shorter compared to vowels followed by a lenis consonant; e.g. notice the difference in bet and bed. It should be noted that pre-fortis clipping is triggered by any fortis consonant regardless of their manner of articulation.

Based on simple analogy, Czech speakers have an unfortunate tendency to apply the assimilation of voicedness of the terminal consonant in English as well, which is caused by the lack of theoretical knowledge of English and its rules. It is important that these different tendencies from their mother tongue be pointed out to Czech speakers, so
that they can consciously practise the correct pronunciation. After all, native speakers will not distinguish much between $/ \mathrm{t} /$ and $/ \mathrm{d} /$ in the final position, but the quantity of the preceding vowel will be the factor that determines their understanding and producing lenis consonants as fortis will make it difficult for learners to adjust the quantity of the preceding vowel to the proper degree.

### 2.4 Note for Czech speakers

Assimilation across word boundaries usually occurs in rapid, casual speech and is by no means mandatory. In connected speech, one can avoid using assimilation completely and still be understood perfectly. However, doing so may result in one sounding unnatural and even meticulous. When learning English, assimilation needs to be acknowledged and understood by a foreign listener as it greatly impacts their ability to understand English in connected speech. It would be naive to expect native speakers to not assimilate when they talk as it feels only natural to them.

The other problem is improper assimilation, i.e. assimilating in cases where it is undesirable. Roach (2009: 112) uses the following example: I like that black dog [ar lark ðæt blæk dbg]. He says that it is typical of foreign learners to allow regressive assimilation change all the final fortis consonants to lenis under the influence of the succeeding lenis consonant; $/ \mathrm{k} /$ to $/ \mathrm{g} /$, $/ \mathrm{t} /$ to $/ \mathrm{d} /$ and $/ \mathrm{k} /$ to $/ \mathrm{g} /$ resulting into [aı laıg ðæd blæg dbg]. According to him, such pronunciation is a strong indication of a foreign accent.

Usually, when aware of assimilation in English pronunciation, learners eventually acquire the notion of when to assimilate by imitating the pronunciation of native speakers. Czech learners should aim to always analyze the 'unusual' or 'unknown' elements in pronunciation of a native speaker as those are often clues to better understanding of the spoken English. If the learner becomes aware of certain pronunciational differences, they can start practising them and improve their pronunciation.

## 3 ELISION

### 3.1 Definition

Elision is another phenomenon that often occurs in spoken English. Jones (1962: 230) defines it as the disappearance of a sound, Cruttenden (2008: 249) calls it a loss of vowels and consonants. Roach (2009: 113) uses the following definition:

The nature of elision may be stated quite simply: under certain circumstances sounds disappear. One might express this in more technical language by saying that in certain circumstances a phoneme may be realised as zero, or have zero realisation or be deleted. As with assimilation, elision is typical of rapid, casual speech.

According to Jones (1962), elision can be divided into two subtypes: historical and contextual. However, none of those would be applicable to cases of word-internal elision which are not established in the English standard, e.g. comfortable as [' $k^{\mathrm{h}} \Lambda \mathrm{mft}$ bal] where $/ \partial /$ is elided by many, but not all speakers. It is therefore more appropriate to distinguish word and contextual elision.

### 3.2 Word elision

Cases of word elision can be of two types as described by Cruttenden (2008), established and present colloquial. The former may also be called historical as the pronunciation with elision became standard. The term word elision is used to describe the fact that the elision occurs within the word even when the word is isolated, either in word-initial, word-internal or word-final position.

### 3.2.1 Established

The established word elision may be either vocalic or consonantal. Vocalic elisions of this type are of no particular importance to connected speech and are rather bound to the word itself, isolated or in context. For a thorough description of established vocalic elision see Cruttenden (2008: 250). On the other hand, consonantal elisions are highly relevant when it comes to connected speech, especially in the word-final position.

There is a major example in Received Pronunciation, the elision of $/ \mathrm{r} /$ in the word-final position, e.g. car, boar, dear as ['k'a:], ['bo:], ['dıə], and also when preceding another consonant, e.g. storm, farm, hurt, which is a standard pronunciation in Modern English. Needless to say that this elision does not occur in many English dialects, American English or Scottish English. Furthermore, the presence or absence of this elision determines whether the dialect is referred to as rhotic or non-rhotic.

Another significant example of historical elision is the deletion of $/ 1 /$ when preceded by a long vowel, e.g. palm, walk as ['pha:m], ['wo:k]. In careless speech, /l/ is sometimes elided even in the word-final position when preceded by $/ \mathrm{o}: /$, e.g. ball, all as ['bo:], ['o:], which is not necessarily an established elision as it is typical of the new generation of native speakers and even Cruttenden (2008: 251) mentions this case as an example of present colloquial elision. However, the situation with the elision of $/ 1 /$ is a bit more complex because the word-final /1/, and especially its dark allophone $/ \mathbf{1} /$, does not need to be completely deleted but may be realized as the close-mid back rounded vowel /o/ as in little, battle etc. For more information, see Wells's entry called Whatever happened to Received Pronunciation? ${ }^{1}$ published in 1997 in the II Jornadas de Estudios Ingleses.

These two major examples can be treated as analogous to a certain extent. Plus, their existence is of considerable relevance to connected speech because both the $/ \mathrm{r} /$ and possible / $1 /$ elisions are conditioning the occurrence of the linking /r/ and possibly $/ 1 /$ as well. More about linking /l/ in 4.3.

### 3.2.2 Present colloquial

Similarly to established, present colloquial elision can be either vocalic or consonantal. Vocalic usually concerns the omission of $/ \partial /$, which generally occurs in an unstressed syllable. This elision usually happens when the reduced syllable succeeds the one carrying the primary word stress, e.g. comfortable, wanderer, history as [' $\mathrm{k}^{\mathrm{h}} \Lambda \mathrm{mft}$ 列l], ['wondrə], ['histri]. Cruttenden (2008: 230) further describes the phonemic environment that tends to trigger the present colloquial vocalic elision.

According to Roach (2009: 114) and Cruttenden (2008: 251), the consonantal elision is mostly represented by the simplification or avoidance of consonant clusters. Cruttenden (2008) talks about the elision of /t/ and /d/ in clusters of three consonants, Roach (2009) further specifies the nature of the consonant cluster as either three

[^0]plosives or two plosives and a fricative, e.g. crypts as ['khrips].
Cruttenden (2008) also states that a whole syllable can be omitted when speaking rapidly or carelessly, especially when the /r/sound is near or ought to be used in a sequence, e.g. library, literally, government as ['larbri], ['litfli], ['g^vmənt].

### 3.2.3 Contextual

The contextual elision is the most relevant to connected speech. It occurs when the words are juxtaposed in an utterance, i.e. a certain sequence of words creates an environment that triggers the occurrence of elision which is normally not present when the words are pronounced isolated. The contextual elision may as well be called an elision across word boundaries

Again, the elided sound may be either a vowel or a consonant. It often happens that vowels are elided as a result of smoothing. Smoothing is a process where falling, closing diphthongs /eI/, /aI/, /oI/, /əv/ and /av/ are followed by / $2 /$, which in rapid speech often causes the elision of the second element of the diphthong and the first element becomes lengthened. When that happens, words like fire and slayer are pronounced ['fa:ə] and ['sle:ə], or the second element disappears with the first element not lengthened at all, thus ['faə] and ['sleə]. Such cases often occur even across the word boundaries, e.g. I enjoy it as [a ən'jo it] or die alone as [da ə'ləon]. Cruttenden (2008) further speaks about eliding $/ \partial /$ in the word-initial position when followed by a stressed syllable, e.g. go again as [gəv 'gen]; or when it precedes the linking /r/, e.g. brother and sister as [,brıðrən 'sistə].

The consonantal elision is very frequent and often occurs in two-word expressions with the first word having a plosive consonant in the word-final position and the second word starting with a consonant (often plosive as well, but not necessarily), e.g. blind man as [.blam 'mæn], take care as [.t ${ }^{\text {heI }}{ }^{\prime} \mathrm{k}^{\mathrm{h}} \mathrm{e}$ ], hard times as [.ha: 'tharmz], last night as [, la:s 'natt] etc.

Another important consonantal elision occurs in the preterite forms with the -ed suffix, thus ending with /d/ or /t/. If the final plosive is a part of an affricate + plosive or a plosive + plosive cluster, it is lost when followed by a word-initial consonant, e.g. tracked down as [.thræk 'daun], begged for mercy as [,beg fə 'm3:si]. As can be seen, the omission of plosives in such a case removes the explicit representation of the past tense, which can, however, still be safely deduced from the context.

### 3.3 Weak forms

Weak forms and eventually their contracted forms are a peculiar case. While Cruttenden (2008) treats them as a typical case of consonantal elision, Roach (2009) is hesitant in doing so saying that this elision is atypical because of its usually contracted graphical representation, something which can not be seen in other types of elision, e.g. don't, we'd, she'll, I've, he's instead of do not, we would/had, she will, I have, he is. The graphical representation suggests that these contracted forms are very well established in the language and often used by speakers, especially in colloquial speech. It is only natural that grammatical words, which carry very little semantic value, are reduced to the minimal pronunciational effort.

### 3.4 Note for Czech speakers

Using elision is by no means mandatory for Czech learners. Once again though, it is important to know of its existence and be prepared for its occurrence in spoken English. Elision is used frequently by native speakers and the tendency to omit as many sounds as possible while still maintaining intelligibility is the aim. Not understanding the process of elision may render the speech unintelligible. It is possible to learn the rules of certain sound environement triggering elision, but its occurrence and magnitude is often based on the speaker's preference and various speakers might elide differently in every single word or expression.

## 4 LINKING

### 4.1 Definition

Linking may be described as a process of connecting adjacent words which occur in an utterance. As has already been mentioned, when entering connected speech in English, the pronunciation of each word is subject to change under the influence of neighbouring sounds. Linking in particular is a device that is used to connect two words which, based on their isolated forms, create a hiatus. During this process, a linking consonant is inserted in between the two vowels in order to eliminate the hiatus and make the pronunciation of those words require less articulatory effort.

### 4.2 R-sandhi

R-sandhi (alternatively r-liaison) is arguably the most prominent means of linking and has already been given a lot of linguistic attention. Note that this phenomenon only occurs in non-rhotic dialects of English such as RP, Estuary, Norfolk, Yorkshire etc. Therefore, it is almost irrelevant in rhotic dialects ${ }^{1}$ (a wide range of American dialects, Scottish dialects, Irish dialects, several British dialects etc.). This process, in which /r/ occurs in and intervocalic position, comprises two systematically similar (synchronically), yet historically and orthographically (diachronically) different phenomena: linking /r/ and intrusive /r/ (Jones 1962: 196-197; Roach 2009: 115; Hannisdal 2006: 158; Cruttenden 2008: 305). However, the occurrence of r-sandhi is conditioned by the nature of hiatus, particularly the initial vowel. Mompeán-Gonzalez and Mompeán-Guillamón (2009: 734) give an overview of the required initial vowels:

Both phenomena have the same distribution patterns, i.e., word-internally or across word boundaries, and only after certain non-high back monophthongs such as /a:/ or $/ \mathrm{o}: /$, central monophthongs such as $/ 2,3: /$ or centring diphthongs such as /Iə, eə, шә/ (Collins and Mees 2003: 105; Lewis 1975: 37; Wells 1982: 226; Wells and Colson 1971: 94).

[^1]It should also be mentioned that monophthongs and diphthongs listed above only provide the necessary environment for r -sandhi to occur and it is always the speaker's decision that plays the main role. For example, here is what Wells says in his phonetic blog about his own intrusive /r/ usage:

I use intrusive $\mathbf{r}$ freely after $\boldsymbol{\partial}, \mathbf{a}$ : and the centring diphthongs, even word-internally, but never after $\mathbf{3}$.. So I would readily put an $\mathbf{r}$ in china and glass, Grandma again and even in semi-nonce forms such as concertinaing, magentaish; but not in thaw out, sawing, withdrawal.

He further describes that his preference probably stems from a historically different pronunciation of words containing either / $\mathrm{o}: /$ as in draw or $/ \mathrm{o} /$ as in boar. Today, the difference is unlikely between these two types, especially among the younger generation.

### 4.2.1 Linking /r/ vs. intrusive /r/

As mentioned earlier, there are two slightly different phenomena of which the r-sandhi comprises. The use of linking $/ \mathrm{r} /$ among RP speakers is very frequent and unlike the use of intrusive $/ \mathrm{r} /$ is considered formally correct. In the seventh edition of Gimson's Pronunciation of English Cruttenden (2008: 305) uses the following formulation:


#### Abstract

"The vowel endings to which an $/ \mathrm{r} /$ link maybe added are $/ \mathrm{a}:, \mathrm{o}: /$ and those single or complex vowels containing final [ə] (/ə,3:,っə,eə,və/), e.g. in far off, four aces, answer it, fur inside, near it, wear out, secure everything. Prescriptivists seek to limit the allowability of linking /r/ to those cases where there is an $/ \mathrm{r} /$ in the spelling; nevertheless many examples of linking /r/ occur where there is no $/ \mathrm{r} / \mathrm{in}$ the spelling, such /r/'s being labelled as 'intrusive'. ."


The use of intrusive $/ \mathrm{r} /$ is by many considered non-standard or inappropriate (Jones 1962: 197; Pačesová 1990: 121; Urbanová 1998: 65; Gick 1999: 19; Cruttenden 2008: 305). It is debatable if intrusive /r/ should be taught to foreign learners of English but Jones (1962: 198) quite rightly states: "It is not necessary for foreign people to learn to use intrusive $\mathbf{r}$. They should, however, know of its existence; otherwise they may sometimes fail to understand what is said to them by English people who insert it."

If the tendency to use intrusive $/ \mathrm{r} /$ is looked at from the phonological point of view, it only appears natural to use intrusive /r/ based on analogy. For example words law and lore (both transcribed ['lo:]) are homophones among RP speakers, and thus, both words provide the necessary criteria in order to trigger the possible occurrence of linking/intrusive /r/. So, even though aware of the different spelling, RP speakers would subconsciously tend to use linking/intrusive /r/ while producing both words. Gick (1999: 32) provides a table of homophonic expressions, showing that both linking and intrusive /r/ occur in the same sound environment and thus may be perceived as members of analogical paradigm. Some speakers, however, would consciously avoid pronouncing intrusive /r/ as stated by Cruttenden in Gimson's Pronunciation of English (2008: 305):


#### Abstract

"The focusing of attention on 'intrusive' /r/s as an undesirable speech habit has led to the use by some speakers of a pause or glottal stop in such cases of vowel hiatus, with the result that, in avoiding 'intrusive' /r/s, they have also abandoned other linking $/ \mathrm{r} / \mathrm{s}$ in favour of a glottal stop or a glide between the abutting vowels."


### 4.2.2 Intrusive /r/ in English dictionaries

Wells (2010) dedicated three of his blog entries to discussing the treatment of intrusive $/ \mathrm{r}$ / in major English pronunciation dictionaries. It is certainly interesting to observe the difference between all three approaches. In the Cambridge English Pronouncing Dictionary (2006), the intrusive /r/ is marked as a controversial question. Despite the fact that the intrusive $/ \mathrm{r} /$ is called a widespread phenomenon, EPD discourages foreign learners from paying attention to it and does not include it in its entries. The Oxford Dictionary of Pronunciation for Current English (2001) also states that intrusive /r/ is frequently used. ODP also admits that intrusive /r/ has been long refused and avoided by teachers, but cannot be ignored and is therefore included in the dictionary. To mark the difference between linking and intrusive $/ \mathrm{r} / \mathrm{in}$ its entries, intrusive /r/ is italicized. Lastly, Longman Pronunciation Dictionary (2008) refers to both linking and intrusive $/ \mathrm{r} /$ as optional sounds of varying importance to foreign learners. Linking /r/, regarded as highly important, is put in italics when optional and is recommended to be used. Intrusive /r/, treated as less important, is shown in raised letters $\left({ }^{(r)}\right.$ and is recommended to be ignored.

### 4.3 Linking ///

Gick (1999) mentions intrusive /l/ in his A gesture-based account of intrusive consonants in English, however, this phenomenon is typical of American English and is therefore irrelevant to British English. Nevertheless, cases of linking /l/ may be observed in British English. The final /1/ is very often elided when preceded by $/ \mathrm{o}: /$ in words such as all, small, ball, wall, but when those words enter an utterance and are followed by a word starting with a vowel, the /l/ is vocalised again as a linking element, e.g. all of them as ['o:l $\partial \mathrm{v}$ Øəm] or call again as [' $\mathrm{k}^{\mathrm{h}} \mathrm{\rho}: 1$ ə'gen]. The elision of /l/ is not mandatory and may not happen, in which case speaking of linking /l/ becomes pointless. Yet, many speakers often elide $/ 1 /$ in these words, either isolated or in connected speech, so it is possible to speak of linking /l/ when they insert it in order to terminate the hiatus. Note that this phenomenon may be perceived as analogical to linking $/ \mathrm{r} /$, as linking $/ \mathrm{r} /$ is also a product of the initial elision, which became standard.

### 4.4 Linking semivowels /w/ and /j/

Glide, as mentioned by Gimson, is another interesting phenomenon in the context of linking. There are authors suggesting or implying the existence of linking consonants other than $/ \mathrm{r} /$ which are supposed to provide an alternative realization where glide is typically expected to occur in connected speech. Volín and Drenková suggest the existence of 'transitional ${ }^{11} / \mathrm{w} /$ and $/ \mathrm{j} /$ in their pedagogical article Anglický a český ráz pred samohláskami. They believe that these 'transitional' consonants ought to help Czech students overcome both production and reception problems regarding linking in English saying: "We believe in certain connection between production and perceptive skills." (Volín, Drenková 2003: 13) We are presented with several exercises which are meant to provide material for Czech teachers of English and their lessons. While I do agree with the statement above, I disapprove of another statement from their article: "There is no need to worry about doing any harm to students by including intentionally incorrect pronunciation." Most of them use it anyway and we just give them opportunity to realize that.' Incorrect pronunciation, in my opinion, should be pointed out and corrected but never trained for any purpose.

[^2]As for the 'transitional' consonants, even the authors are hesitant about their usage and present them in brackets and in significantly smaller fonts. From this I gather that Volín and Drenková bear in mind the uncertainty of their occurrence and varying degree of prominence. The question is, now, how do we teach random prominence of 'transitional' consonants to learners who are barely aware of the process of linking in the first place? Why not just teach them to glide between the adjacent consonants rather then artificially insert a 'transitional' consonant? In my opinion, the use of these 'transitional' consonants while learning linking in English language may prove helpful at certain level (as is the intention of Volín and Drenková), however, using these consonants prominently in syllables which are not stressed appears unnatural and low prominence makes us ask why anyone would use such a complicated device (artificially inserted consonant) only as a temporary tool. I believe using 'transitional' /w/ or $/ \mathrm{j} /$ is not the desired aim on a quest to achieve the ideal pronunciation of English, not to mention that inserting $/ \mathrm{j} /$ or $/ \mathrm{w} /$ inside a diphthong glide requires greater articulatory effort, which is generally undesirable in connected speech.

However, the existence of linking $/ \mathrm{w} /$ and $/ \mathrm{j} /$ cannot be completely disregarded. While we can find no mention of linking /w/ or /j/ in Roach's English Phonetics and Phonology, the following paragraph can be found in Gimson's Pronunciation of English (2008: 306):

Linking [j, w]. In vocalic junctures where the first word ends in /i:/, /I/, /ei/, /ai/, or /oil/, a slight linking [j] may be heard between the two vowels, e.g. my arms [mar
 and [bju:ti: 'iənd]. But this is not sufficient to be equated with phonemic $/ \mathrm{j} /$; indeed there are minimal pairs which illustrate the difference between linking['] and phonemic /j/, my ears [mar 'iəəz] vs my years [mar 'jız], and I earn [aг 'iз:n] vs $I$ yearn [aг 'j3:n]. Similarly a linking [w] may be heard between a final /u:/, /əu/ and /au/ and a following vowel, e.g. window open [wində๐ 'wәopən], now and then [nav wand 'ðen], you aren't [ju: 'wa:nt]; and minimal pairs illustrating linking [w] and phonemic $/ \mathrm{w} /$ can be found, e.g. two-eyed [tu: 'ward] vs too wide [tu: 'ward]. Alternative pronunciations, more frequent in faster speech, in the case of the sequences of diphthong plus following vowel, involve the absorption of the second element of the diphthong, i.e. of the $/ \mathrm{I} /$ in the case of /er, ar, oı/ and of the $/ \mathrm{v} /$ in the case of /ə兀, aঠ/, giving renderings like annoy Arthur [əп๐ 'a:ðə], my ears [ma 'ıəz],
window open ['wində əupən] (see further under $\S 8.11$ (8) above).

In his phonetic blog, Wells (2010) labels the 'linking' ${ }^{[j, w]}$ as linking semivowels which is, by all means, appropriate. He also mentions the following: "Cruttenden is being rather naughty here in his phonetic notation. The IPA symbols [ $\left.{ }^{j}, \mathrm{w}\right]$ are properly no more than diacritics, indicating palatalization and labialization respectively. He, though, is obviously using them to denote very short, transitional, non-phonemic glides." Wells brings to our attention the fact that even if those semivowels existed in English, IPA has yet to find symbols which would represent them without ambiguity.

Wells (2010) does not completely disapprove of the existence of linking semivowels and further comments on the tendency of native speakers of RP-type accents to add an extra segment in the VV structure, i.e. two neighbouring vowels, as in the case of linking $r$ :


#### Abstract

The analogy for $m y$ would be that in isolation it is $\mathrm{CV}, \mathbf{m}$ plus ar, but in prevocalic position (my arms) it becomes CVC, m plus aı plus $\mathbf{j}$. Since English $\mathbf{j}$ by definition is a non-syllabic palatal glide, and since ar already contains a non-syllabic palatal glide, it is difficult to see what the realization of $\mathbf{j}$ might actually consist of in the supposed homosyllabic sequence marj.


As for the didactic aspect of semivowels, I am very hesitant about the existence of any 'transitional' or 'linking' semivowels. As much as the implementation of these semivowels in teaching EFL students may be discussed, their actual existence ${ }^{1}$ (at least) in RP is questionable. On the topic of their didactic value, Wells (2010) says: 'I am confirmed in my view that "linking $/ j /$ and $/ w /$ " are figments of the imagination. That does not necessarily imply that they are pedagogically valueless. I am willing to recognize that sometimes teaching something that is not strictly true may nevertheless be justified if it leads to better results than not teaching it.' If using linking semivowels is the necessary step for some students to avoid using glottal stop where it possibly could puzzle the listener, it only seems reasonable to teach them. However, I strongly

[^3]believe that students should rather be taught to link the intersyllabic VV structure by gliding and only if they consistently fail to do so, then teaching linking semivowels might be considered.

## 5 GLOTTAL STOP

### 5.1 Definition

Over time, various names were given to the phenomenon commonly referred to as the glottal stop. Jones (1962) also mentions the obsolete term glottal catch while he argues that the term glottal plosive consonant, also used by Roach (2009), is more accurate than glottal stop. Skaličková (1982) also lists the term sudden on-set. Here is the definition given by Jones (1962: 156):


#### Abstract

In forming the sound $\mathbf{?}$ the glottis is closed completely by bringing the vocal cords into contact, the air is compressed by pressure from the lungs, and then glottis is opened (by separating the vocal cords) so that the air escapes suddenly. It is neither breathed nor voiced.


In one of the more present publications, Cruttenden (2008: 178-179) gives a complex up-to-date definition in Gimson's Pronunciation of English:

In the case of the glottal plosive (stop), the obstruction to the airstream is formed by the closure of the vocal folds, thereby interrupting the passage of air into the supraglottal organs. The air pressure below the glottis is released by the sudden separation of the vocal folds. The compression stage of its articulation consists of silence, its presence being perceived auditorily by the sudden cessation of the preceding sound or by the sudden onset (often with an accompanying strong breath effort) of the following sound.

As the term glottal stop says itself, the place of articulation is glottis and the manner of articulation is stop (or alternatively plosive). In the International Phonetic Alphabet, the glottal stop is represented by the symbol < $<>$, which is similar to the question mark symbol <?> that is occasionally used instead by mistake or simply because the symbol $<\rho>$ cannot be found or used properly. Cruttenden (2008) further adds that $/ \mathrm{R} /$ is a voiceless plosive even though there exists a view that treats $/ \mathrm{Z} /$ as neither voiceless nor voiced because of the vocal cords position. See Cruttenden (2008: 179) for more detailed information on this matter.

The glottal stop is best illustrated on interjection of coughing [?shə? Ah ] or alarm/dismay [?^२əə兀].

### 5.2 Glottal stop in English

Roach (2009) states that even though the glottal stop occurs in English quite frequently, it is not necessarily important to learners of English because it usually serves as an alternative pronunciation of other plosive consonants $/ \mathrm{p}, \mathrm{t}, \mathrm{k} /$. Therefore, one does not need to actively use it in their pronunciation, but should be at least aware of its existence, especially since the alternative pronunciation tends to occur more often in colloquial speech while it still cannot be completely disregarded even in formal English.

Nevertheless, it is certainly interesting to observe the status of $/ \mathrm{Z} /$ in English phonological system:

1) $/ \mathrm{R} /$ is not an English phoneme.
2) In certain contexts, /R/ is treated as allophone of $/ \mathrm{p}, \mathrm{t}, \mathrm{k} /$ with $/ \mathrm{t} /$ being arguably the most prominent, e.g. better, cut it out.
3) $/ \mathrm{Z} /$ is a marker of emphasis in the initial position in words beginning with a vowel sound such as actually or awful.
4) $/ \mathrm{P} /$ is often in the initial position of a word beginning with a vowel sound when the speaker hesitates.
5) $/ \mathrm{Z} /$ occurs in pronunciation of isolated words beginning with a vowel sound such as every, oil, iron, apple realized as ['Rev(ə)ri], ['?oıl], ['Paıən], ['?æpə1]. However, when these words enter an utterance, $/ \mathrm{Z} /$ no longer occupies the initial position unless used to emphasize or a result of hesitation.

Urbanová (1998: 47) looks at four functions of glottal stop in connected speech while arguably inspired by Skaličková (1982: 135):

1) / $\mathrm{P} /$ may be used as a 'syllable boundary marker' as in co-operate, geometry, reaction, Skaličková also lists the word reorganize. Urbanová says that a hiatus can be separated into two sounds in careful speech. While co-operate, reaction or reorganize could possibly be pronounced with the $/ \mathrm{Z} /$ sound separating the hiatus as the initial syllable is a prefix (co-, re-), I strongly disagree with the implication that the word geometry would
be realized as [d3ı'?nmətri], at least not with the idea of a correct and suitable pronunciation because geometry consists of two combining forms geo- and -metry, neither of which can stand alone, and therefore do not give the speaker any reason to realize the $/ \mathrm{R}$ / sound in the hiatus.
2) $/ R /$ may be used as a replacement of linking/intrusive r , e.g. later on, far off, law and order, drama and music. This truly is a possible function as some native speakers still feel uncomfortable using linking r , not to mention intrusive r , which is still by many considered incorrect and improper.
3) So-called 'glottal reinforcement' of an initial stressed vowel, which is simply emphasizing the word.
4) Glottal reinforcement of a final fortis plosive with the possibility of replacing the plosive in certain cases, e.g. went, help, luck realized as ['wen?(t)], ['hel?(p)], ['1 $\mathrm{P}(\mathrm{k})]$. Today, we are likely to encounter the situation where $/ \mathrm{P} /$ functions as an allophone of $/ \mathrm{p}$, $\mathrm{t}, \mathrm{k} /$ rather than being a reinforcement, especially in colloquial speech. Urbanová (1998) says that replacing $/ \mathrm{p}, \mathrm{t}, \mathrm{k} /$ with $/ \mathrm{Z} /$ in this case is typical of Cockney, but I believe that this phenomenon is now commonly used in a wide range of British dialects and even occurs in formal speech when not consciously suppressed by the speaker. Common observation reveals that the word Britain is realized as ['briPan] by many native speakers even in formal speech.

### 5.3 Glottal stop in Czech

Similarly to English, glottal stop is not treated as a phoneme in Czech language. The existence of $/ \mathrm{P} /$ in Czech is acknowledged, but given the fact that its usage is mostly facultative, Czech linguists tend to describe its theoretical nature while they usually choose not to further talk about its occurrence. Palková (1994) for instance talks about glottal stop in her description of types of voicing. She says that glottal stop is merely a voicing instrument and while she lists / $\mathrm{R} /$ in her table of Czech consonants, she does not include it in her description of individual plosive consonants even though she admits that it can be sometimes perceived as an individual segment of a consonantal quality. Klimeš (1978) talks about glottal stop in a section called 'alteration of phones in connected speech'. He uses the following terms: ráz, hlasový předraz, tvrdý začátek hlasový or pevné nasazení. Skaličková (1982) also mentions the term hlasivková plozíva, Pačesová (1990) uses the term hlasivková okluziva, Krčmová (2006) uses the
term glotální okluze.
Volín (2012) expresses his opinion about the term ráz, calling it a bit unfortunate, but still agrees to use it as a general term. He also mentions the term laryngální okluziva while he admits that such a term is not particularly accurate in what he calls the 'Czech situation'. He says that many Czech speakers sometimes avoid using $/ R /$ completely by simply lowering the frequency of the vocal folds vibration and therefore producing a sound very similar to $/ \mathrm{R} /$. However, he believes that the most common technique is lowering the frequency to such a degree where the vocal folds begin to vibrate irregularly (trepená fonace). He further says that all of the possible cases take place in glottis which enables us to use the internationally recognized term glottalization (glotalizace).

It can be said that the glottal stop in Czech is primarily a marking signal of word boundaries in case of words where a vowel is in the initial position. /?/ is also occasionally produced word-internally when the stem begins with a vowel, especially in a careful or emphatic speech. When a Czech speaker decides to avoid using / $\mathrm{P} /$ in their speech without substituting it with a prothetic consonant, they may often experience other people having problems understanding them. It is therefore believed that the absence of $/ \mathrm{Z} /$, which usually occurs in a careless or colloquial speech, tends to lower the speech intelligibility to a varying degree. Nevertheless, a research would be required to prove this hypothesis.

### 5.3.1 Prothesis in Czech

The possibility of omitting / $\mathrm{Z} /$ in a careless or colloquial speech has already been mentioned earlier. There is, however, another element used in a careless or colloquial speech that replaces $/ R /$, which is reportedly less demanding in terms of production. That element is called a prothetic consonant. Prothesis of this type is a process of adding a consonant to the word-initial position in order to prevent the word from starting with a vowel.

The non-standard Czech is known to contain three prothetic consonants: $/ \mathrm{v}, \mathrm{h}, \mathrm{j} /$. Prothetic $/ \mathrm{v} /$ is the most common variant used mainly in the Czech part of the Czech Republic and can also occur in west or south Moravia. According to Krčmová (2006), prothetic /v/ occurs in words beginning with the vowel /o/, e.g. orel, opilý, on as [vorel], [vopili:], [von]. There are, however, words that begin with /o/ but never allow prothetic /v/ to be applied, e.g. otec, olovo. Even Volín (2012) mentiones a frequent use
of prothetic $/ \mathrm{v} /$ among his students in casual conversation. Prothetic $/ \mathrm{h} /$ only occurs in a traditional Moravian dialects, but does not necessarily precede only the vowel /o/, e.g. Olomouc, ulica, almara as ['holomo:ts], ['hulitsa], ['halmara]. Prothetic /j/ can only be found in obsolete vocabulary and is very rare, e.g. almara as [jarmara]. Interestingly enough, there is an opposite tendency to prothetic $/ \mathrm{j} /$ and that is its elision in words where initial $/ \mathrm{j} /$ is succeeded by the vowel /e/, therefore inserting $/ \mathrm{R} /$ in its place, e.g. ještě, jestli as ['ReJt'e], ['Res(t)li].

### 5.3.2 Epenthesis in Czech

Similarly to prothesis, epenthesis is a phenomenon used in non-standard Czech. It is a process of adding a sound to the interior of a word. There are two types of epenthesis, vocalic and consonantal. Interestingly, while consonantal prothesis is usually perceived and evaluated as a careless and vulgar element, consonantal epenthesis is rather viewed as a product of ignorance.

The vocalic epenthesis, though, is quite common in Czech. According to Palková (1994), it often occurs in a plural genitive of feminine nouns and is not only orthoepic, but also mandatory, e.g. taška-tašek, kostka-kostek etc. An interesting example of a vocalic epenthesis in Czech is the word osum where the vocal /u/, which got repeatedly inserted into the pronunciation of the word osm, became standard and even affected the spelling of the word, therefore both osm as ['Posm] and osum as ['Posum] are acceptable in the Czech standard only with the latter perceived by some speakers as colloquial and inappropriate in formal speech.

The consonantal epenthesis is mostly regarded as being a matter of ignorance and careless speech. It is informal, non-standard and usually not acceptable for many speakers, e.g. bizarní as ['bizardni:] or zrdcadlo as ['zrdtsadlo] with the additional /d/. It is safe to assume that speakers who use such pronunciation are most likely unaware of their error as it requires more effort than the correct pronunciation. The situation is a bit different with the word situace. Some speakers pronounce the word ['situlace] with the additional $/ 1 /$, but in this case $/ 1 /$ is inserted between two vowels $/ \mathrm{u} /$ and $/ \mathrm{a} /$ and terminates the hiatus. The combination /ua/ is not natural for Czech speakers and while it does not occur in a single syllable, it is still a word-internal element and inserting / $\mathrm{Z} /$ is out of the question here. In this case, /1/ may be treated as something similar to the English intrusive /r/, which also occurs word-internally, e.g. drawing as ['dro:rı]]. Nevertheless, this 'intrusive /1/' in Czech is still perceived as unacceptable and is not as
common as intrusive /r/ in English.

### 5.4 Glottal stop in a syllable

It should also be noted that the $/ \mathrm{Z} /$ sound is treated as a consonantal element. This may first feel redundant, but the opposite is true. Looking at the syllabic structure, it is divided into three parts ${ }^{1}$ : onset, nucleus and coda (the Czech equivalents are praetura, jádro or nukleus and koda). There is a tendency to treat onset as something optional with nucleus being the most important part of the syllable capable of existing on its own - the minimal syllabic structure would be V (vowel) and any additional component may or may not be present, e.g. CV, CVC, VC. However, if we thoroughly analyze the isolated vowel sound, we have to acknowledge the fact that there is $/ \mathrm{Z} /$ sound preceding
 that there cannot be a simple syllabic structure V , but rather a minimal CV structure in isolation. Looking at connected speech in English, words with vowels in the initial position are usually linked to the preceding word in order to gain the consonantal element for the syllabic onset and avoid the use of $/ \mathrm{P} /$. Exceptions are instances of a hiatus where the speaker chooses to glide between the adjacent vowels rather than inserting / Z / or a linking consonant, e.g. too obvious as [tu 'pbvios].

It is known that spoken English does not respect the graphical boundaries of words. When segmenting an utterance in English phonology, it is best to divide it into tone-units. These tone-units usually do not correspond with the graphical structure of the utterance making 'what we see written' redundant. Roach (2009: 129) gives a further explanation of the tone-unit and its position within intonation.

The difference between Czech and English is easily illustrated on a common children exercise. When Czech children learn about words and how they consist of syllables, they are usually using the method clapping - as they speak slowly and carefully, they clap for every single syllable. This exercise can be done for each word separately or for the whole sentence, but the structure of every 'clapped' syllable should not change regardless of whether we 'clap' the words separately or utter them in connected speech.

[^4]|  | Czech otec orá | English puddle of mud |
| :---: | :---: | :---: |
| separately | ['?o 'tec '?o 'ra:] | ['ps 'd( $)$ ) ' Pdv 'mıd] |
| connected speech | ['?o tec '?o ra:] | ['pı də ləv 'm^d] |

In this Czech example, syllables do not change and the word orá maintains $/ \mathrm{P} /$ in the initial position as a marker of a word boundary. There is no tendency to link the word orá to the preceding syllable with a consonant in its final position. In the English example, it can be observed that the weak form of the word of has a tendency to find itself an onset to which it attaches itself in connected speech. It borrows the adjacent consonant $/ 1 /$ from the preceding syllable and creates a new syllable [lov] for the realization, which is not graphically transparent in puddle of mud. This process fulfills the syllabic CV pattern and no longer requires the use of $/ \mathrm{Z} /$. There are of course different conditions in these two cases because Czech words always carry the initial stress and therefore the initial syllable cannot ${ }^{1}$ be unstressed.

Nevertheless, it is safe to assume that Czech speakers will almost always use / $\mathrm{Z} /$ in a word with a vowel in the initial position and this tendency is bound to occur even when they speak English.

### 5.5 Distribution of /?/ in Czech and English

Pačesová (1990) talks about the distribution of /२/ sound in Czech and English. She says that $/ \mathrm{R} /$ is not very common in English when compared to Czech. Her claim is definitely true from the perspective of the word (syllable) initial position. However, as was already mentioned above, / $\mathrm{Z} /$ very often substitutes /t/ in the syllable final position or even in the initial position as long as the syllable does not carry the word stress, e.g. better ['b\&2ə], later ['lerPə]. While it can be said that RP speakers would not use the $/ \mathrm{Z} /$ sound very often, it would be used by many native speakers in many southern dialects of British English. Such a use of /R/ is definitely not to be expected among Czech speakers.

Considering that the glottal stop is used for different purposes in both languages, it would be extremely difficult to come to any relevant conclusion by comparing its usage in these two languages. What can be said is the fact that the glottal stop is used as an allophone in certain cases in English, which is something that does not occur in

[^5]Czech. Furthermore, the glottal stop may occur in the syllable initial position followed by a vowel, but in such a case it loses its status as an allophone and simply serves as a marker of emphasis. In Czech, such a use of the glottal stop is very frequent, but the purpose is simply an indication of a word boundary, not emphasis. However, if we look at the standard formal speech of both languages, we can clearly see a big difference:

1) In formal English, the tendency to use the $/ \mathrm{P} /$ sound will be minimal and only in cases when the speaker wants to emphasize something.
2) In formal Czech, the tendency to use the / $\mathrm{Z} /$ sound will be high in order to maximize the intelligibility of speech.

### 5.6 Notes for Czech speakers

Most speakers of Czech are able to use /?/ without any problem while not aware of its existence without theoretical knowledge of phonetics and phonology. Therefore, the use of $/ \mathrm{P} /$ does not need to be consciously practised in their mother tongue. However, when learning English, they should become familiar with the term glottal stop and what it stands for. It is important for them to understand the different usage in Czech and English in order to avoid inappropriate habitual application of / $\mathrm{Z} /$ where it does not belong in English. According to Jones (1962), it is important for foreign speakers to avoid making mistakes by improper use of $/ \mathrm{Z} /$ as it effectively spoils the quality of their pronunciation. Volín and Drenková (2003) highlight the fact that Czech speakers should avoid using / $\mathrm{Z} /$ in words beginning with a vowel (unless emphasizing) as it will most likely confuse the listener and may cause misunderstanding. Cruttenden (2008) also says that overusing the glottal stop even before stressed syllables beginning with a vowel is a mark of a foreign accent.

## II. PRACTICAL PART

## 6 RESEARCH EXERCISES

### 6.1 Exercise 1

## Assignment <br> Talk about a random topic of interest for about 30-60 seconds.

The aim of the first exercise is to monitor speaker's natural connected speech. They are given freedom in terms of what they want to talk about and it is completely up to them which topic they choose as the semantic content is irrelevant for this thesis. The length of their speech is assigned to be at least 30 seconds but no more than 60 seconds. Bearing in mind that longer monologue is difficult when not prepared beforehand, the chosen length seems to be appropriate and provides a decent amount of instances of both linking and the glottal stop. It is safe to assume that the speech of such length will show how the speaker usually links when not consciously thinking of the formal structure. Nevertheless, certain paralingual elements such as unusual intonation or tempo may sometimes become prominent and alter the speech. Those cannot be mistaken for incorrect pronunciation and are to be expected of unprepared casual speech.

It is also possible that some of the Czech speakers will prefer rhotic pronunciation, i.e. the final /r/ sound will not be elided as is typically done in Received Pronunciation. Such pronunciation will partially affect the linking research. Therefore, the material from this exercise will allow me to recognize if the rhoticity is used by the speaker regularly. If proven so, the junctures with possible linking /r/ will not be treated as actual instances of linking $/ \mathrm{r} /$. Nevertheless, a certain degree of conscious linking among those speakers can be judged from the presence or absence of the glottal stop after the final $/ \mathrm{r} /$.

Regarding glottal stop, all the speakers are expected to use / $\mathrm{P} /$ relatively often as they will surely show some hesitation during the unprepared speech. Of all the three exercises used in the research, this one ought to provide the highest amount of / $\mathrm{P} /$ instances. This naturally means that some of the $/ \mathrm{Z} /$ will not be a product of bad
pronunciation. The amount of $/ \mathrm{Z} /$ used by each speaker in this exercise will be calculated and compared in a table. The less proficient Czech speakers are expected to use $/ \mathrm{Z} /$ more often than advanced or native speakers.

### 6.2 Exercise 2

## Assignment <br> Read the following sentences aloud.

1) I tried to draw it without success.
2) The idea of having another beer is unpleasant.
3) It's a matter of life and death.
4) I saw it, pure drama and horror I can tell you.
5) What you think is irrelevant.
6) I've done plenty of evil things in my life.
7) I saw him walking down the street.
8) I decided to follow him for a while.
9) How old is she?
10) Day after day they still are the same.

In this exercise, the respondents are given a total of ten isolated sentences. They are to read them aloud, independently on each other. Each sentence provides at least one juncture which normally triggers linking in English. The main focus is on linking in general, linking consonants and glottal stop, however, certain cases of unusual assimilation or elision may be commented on as well. In the following lines, I present a theoretical analysis of every single sentence and its key parts which are the reason why they have been chosen for the research. The analyzed junctures are underlined and assumptions about the possible pronunciation are attached in the commentary.

### 6.2.1 Theoretical analysis of the sentences

1) I tried to draw it without success.

The key part of the sentence is the juncture between words draw and $i t . / 0: /$ is succeeded by / $\mathrm{I} /$ across the word boundary. It is expected that Czech speakers with less
skills will insert / $\mathrm{Z} /$ to terminate the hiatus. More proficient speakers are likely to glide between the two vowels. Native speakers will either glide or possibly use the intrusive $/ \mathrm{r} /$ as it is quite common in a hiatus where $/ \mathrm{\rho}: /$ is the first element.

It might also be interesting to pay attention to the juncture between tried and to as it is usually pronounced ['thraI $t^{\text {h}} \partial$ ] or ['thraI $t^{\text {h }} ర$ ] with the final /d/ elided in tried. It is possible that less experienced Czech speakers might pronounce it something like ['tratt to] with assimilating the final $/ \mathrm{d} /$ in tried and also without aspiration on $/ \mathrm{t} /$.

## 2) The idea of having another beer is unpleasant.

This sentence contains many junctures that can trigger either glottal stop or linking. The first juncture between The and idea is expected to trigger the insertion of $/ \mathrm{Z} /$ among less proficient speakers which may occasionally be connected with the stress in idea placed on the first syllable. Interestingly, EPD mentions that idea is sometimes stressed on the first syllable when immediately followed by another stress that is not the case here though. Advanced Czech speakers and native speakers are expected to glide and in such a case, it is expected that the /i:/ in word The will be reduced to /i/.

The second juncture between idea and of creates a hiatus where / I / is followed by / $\partial /$. Less experienced Czech speakers will likely pronounce the word of [?of] with the insertion of /?/ while possibly even stressing the preposition. /f/ is not very common in Czech and never voiced when represented by graphical $f$. More proficient speakers of Czech are expected to avoid $/ \mathrm{Z} /$ and pronounce of [əv] without stressing the word. Native speakers are also expected to avoid $/ \mathrm{R} /$, but there is a possibility that they will insert intrusive $/ \mathrm{r} /$ as well since the diphthong /ıə/ often suggests presence of graphical $r$, e.g. dear, hear, rear etc.

Another junction between having and another is a simple matter of whether the speakers will insert / $\mathrm{Z} /$ before $/ \mathrm{\rho} /$ or not. Additionally, it is possible that some less proficient speakers will insert $/ \mathrm{k} /$ in the word-final position in having. Interestingly, the young generation of native speakers of certain British dialects may have this tendency as well. When $/ \mathrm{k} /$ is added in having, $/ \mathrm{P} /$ is bound to occur in another.

The words beer and is form a juncture where linking/r/typically occurs. Less proficient speakers are expected to insert / $/$ / in the hiatus, experienced and native speakers will most likely use the linking /r/.

The last analyzed juncture is formed by is and unpleasant. Less experienced
speakers are expected to pronounce the voiceless $/ \mathrm{s} /$ in is and insert $/ \mathrm{Z} /$ instead of linking. It may also happen that they will emphasize the word unpleasant and therefore insert / $\mathrm{Z} /$ while incorrectly stressing the first syllable. Proficient and native speakers are expected to terminate the hiatus by linking, pronouncing [ $\left.\left.\mathrm{Iz} \wedge \mathrm{n}^{\prime} \mathrm{p}^{\mathrm{h}}\right] \varepsilon z(\partial) \mathrm{nt}\right]$.

## 3) It's a matter of life and death.

In the first juncture formed by $I t^{\prime} s$ and $a, / \mathrm{Z} /$ is to be expected of less experienced speakers. Advanced and native speakers will likely link /a/ to the preceding $I t^{\prime} s$, pronouncing it ['Itse].

The second juncture between matter and of shall trigger the linking /r/ among experienced and native speakers, less proficient speakers may again pronounce of [?of].

The words life and and form the last important juncture in this sentence. It is again a matter of either linking and to the preceding word or inserting /२/. It will also be interesting to observe the pronunciation of and followed by death. Advanced and native speakers are expected to use the weak form along with the elision of final $/ \mathrm{d} /$, thus pronounce life and death ['lauf $\partial \mathrm{n}$ ' $\mathrm{d} \varepsilon \theta$ ], less proficient speakers will probably pronounce it ['larf 'ænt 'd $\varepsilon \theta$ ].

## 4) I saw it, pure drama and horror I can tell you.

In this sentence, there are three junctures with one of them being relatively different. The first juncture between saw and it creates a hiatus where $/ 0: /$ is followed by /I/. Less proficient speakers are expected to terminate the hiatus by inserting / $\mathrm{P} /$, advanced speakers will most likely glide as will some of the native speakers who may even insert the intrusive /r/.

The second juncture is formed by drama and and. Again, less experienced speakers will likely have the tendency to insert / $\mathrm{R} /$. More proficient speakers are expected to glide, native speakers will either glide or use the intrusive $/ \mathrm{r} /$.

The last juncture created by horror and $I$ is a bit different as $I$ is a part of the parenthetic expression I can tell you. If it were not the case, the linking/r/ would be expected to occur. In this case, all speakers are most likely going to insert /?/ before $I$, which is only understandable based on the semantic properties of the sentence.
5) What you think is irrelevant.

The syntactic structure may play a role in the first juncture formed by think and
is. What you think is a subject of the whole sentence and therefore speakers, especially advanced or native, may choose to insert / $\mathrm{Z} /$ before is along with a short pause. This is, however, optional and by no means obligatory. More proficient and native speakers are expected to link is to the preceding think, less experienced speakers will likely use / $\mathrm{Z} /$ before is.

In the second juncture between is and irrelevant, there is a combination two important elements, assimilation and linking. First, proficient and native speakers shall pronounce is [Iz] and not [Is] with the latter making linking nearly impossible. When pronounced [Is], it is almost certain that / $\mathrm{Z} / \mathrm{will}$ follow, which is expected of less proficient speakers. Advanced and native speakers are likely to pronounce is irrelevant [ Iz I'reləv(ə)nt].

It might also be interesting to observe the juncture between What and you. In colloquial speech, coalescent assimilation will usually occur among native speakers, thus pronounced [woffu]. However, if the speaker decides to emphasize the word you, assimilation is unlikely to take place. Additionally, assimilation will be avoided in careful or slow speech.
6) I've done plenty of evil things in my life.

The first analyzed juncture is formed by words plenty and of. The hiatus where /i/ is the first element sometimes suggests occurrence of the linking semivowel /j/ so the
 expected of advanced and native speakers would be a simple glide between $/ \mathrm{i} /$ and $/ \partial /$. Less proficient speakers will likely terminate the hiatus by inserting / $\mathrm{R} /$, pronouncing the word of [Pof].

The second juncture is between of and evil. As mentioned above, less experienced speakers will probably pronounce the final voiceless /f/ in of and put / $\mathrm{Z} /$ before evil. Advanced and native speakers are expected to link [əv 'i:v(ə)l].

## 7) I saw him walking down the street.

The juncture between saw and him is a potentially peculiar one. Regardless of their proficiency, Czech speakers are expected to pronounce it normally ['so: hım]. Occasionally, an advanced Czech speaker may drop /h/ and use the weak form ['so: im]. Native speakers are expected to apply the h-dropping. Doing so, it may also happen that some of them will insert intrusive /r/ and pronounce ['so:r im]. It should also be noted
that intrusive $/ \mathrm{r}$ / in this case is not common.

## 8) I decided to follow him for a while.

The juncture formed by for and $a$ is a common one. Therefore, it is expected that advanced and native speakers shall both insert linking /r/. Yet, it may still happen among the less experienced speakers that they will put $/ \mathrm{R} /$ before $a$.

A hiatus may also occur between follow and him if the speaker decides to drop /h/ in him. In such a case, the speaker will most likely glide ['foləu Im].

## 9) How old is she?

The first juncture formed by How and old is a sequence of the two diphthong /av/ and /av/. Since the first diphthong ends with a rounded element, a linking semivowel /w/ may occur, thus How old as [hav 'wəold]. Less proficient speakers are expected to insert /२/ before old. Moreover, old will most likely be pronounced [ould]. Advanced and native speakers are expected to glide.

The words old and is form the second analyzed juncture. It is simply a matter of linking the words together or terminating the hiatus by inserting $/ \mathrm{R} /$, the former expected of proficient and natives speakers, the latter of the less experienced ones.

Eventually, the juncture between is and she may be interesting to observe. Native speakers are expected to apply coalescent assimilation pronouncing it [i $\left.\int \mathrm{fi}\right]$ or even [I $\int$ Ji]. The same pronunciation may be expected among at least some of the advanced speakers. Less proficient speakers will most likely not assimilate and pronounce [is Ji:].
10) Day after day they still are the same.

The first juncture formed by day and after provides a hiatus. /ei/ is followed by /a:/ which creates an opportunity for the occurrence of the linking semivowel /j/. As was already pointed out in theoretical part, its actual existence is debatable, but if the $/ \mathrm{j} /$ sound is prominent in the pronunciation of certain speakers, it may as well be included. Less proficient speakers will likely insert / $\mathrm{Z} /$ and pronounce it ['deI $\mathrm{Pa}: \mathrm{ft}$ ]. Advanced and native speakers are expected to link, either via gliding ['deI a:fto] or a linking semivowel ['deI ${ }^{\mathrm{j}} \mathrm{a}: \mathrm{ft}$ ]. Note that the difference between gliding and the linking semivowel is often indistinguishable for the listener.

The second juncture between still and are simply concerns linking. Less experienced speakers are expected to insert /?/ before are ['strl '?a:], advanced and
natives speakers will likely link are to the preceding word ['strl a:] or even ['strl a]. A proper weak form of are [ə] in this sentence is not expected to occur, but cannot be completely disregarded.

### 6.3 Exercise 3

## Assignment

Read aloud the following excerpt from The Little Prince by Antoine de Saint-Exupéry. You can first read it quietly to yourself.
"All men have the stars," he answered, "but they are not the same things for different people. For some, who are travellers, the stars are guides. For others they are no more than little lights in the sky. For others, who are scholars, they are problems. For my businessman they were wealth. But all these stars are silent. You, you alone, will have the stars as no one else has them."
taken from: http://www.arvindguptatovs.com/arvindgupta/littleprince.pdf

This exercise was chosen to show how speakers pronounce words in connected speech after preparation. They are given time to read the text quietly first so that they can get familiar with it. The text is also fairly simple in terms of both grammar and vocabulary. The aim of this exercise is to get the idea of how much the speakers link when absolutely prepared.

It may also be interesting to compare tendencies of Czech speakers and native speakers. At the higher level of English, Czech speakers are expected to link consistently as it is usually understood as a sign of one's proficiency in the language. The tendency will be to sound similar to native speakers and their everyday language. That, however, does not necessarily mean formal and clear English. Native speakers, on the other hand, might try to sound as clear as possible and even avoid linking in certain cases to achieve precision.

The text is fairly easy and does not contain difficult words or expressions. The syntactic structures are also not complicated and should not provide an obstacle for even the less proficient speakers. Several expressions are repeated which may be used to observe consistency of a certain phenomenon in the user's pronunciation, e.g. linking $/ \mathrm{r} /$.

### 6.3.1 Theoretical analysis of the text

1) All men have the stars, he answered, but they are not the same things for different people.

The juncture between he and answered creates a hiatus where /i/ is followed by /a:/ (British English) or possibly /æ/ (American English). Less proficient speakers are likely to terminate the hiatus by inserting $/ \mathrm{Z} /$, use the strong form of he and also incorrectly apply the assimilation of final /d/, thus pronouncing ['hi: 'Pa:nsat]. Advanced and native speakers are expected to link by gliding and properly use the weak form of he [hi]. Since the first element of the hiatus is /i/, linking speakers may also insert the linking semivowel /j/ and pronounce [hi 'ja:nsad].

The second juncture is formed by they and are. /ei/ is succeeded by /a/ or even $/ \partial /$ based on the degree of reduction the speaker applies. Less experienced speakers are likely to insert / $\mathrm{Z} /$ before are and use its strong form [?a:]. Advanced and native speakers are expected to glide or use the linking semivowel /j/ which occurs frequently after a rising closing diphthongs such as /eı/, /aı/ or /aı/.
2) For some, who are travellers, the stars are guides.

In the first juncture between who and are, /u/ is followed by $/ \mathrm{a} /$. Less experienced speakers are expected to insert $/ \mathrm{Z} /$ and not apply the weak form of both who and are pronouncing ['hu: 'Pa:]. Advanced and native speakers will likely use weak forms of both words and pronounce [hu a] or they may as well insert a linking semivowel /w/ [hu wa].

The second juncture formed by stars and are is a matter of linking. $/ \mathrm{z} /$ is succeeded by $/ \mathrm{a} /$, which is expected to be linked to the preceding word. Advanced and native speakers will likely link and pronounce ['sta:z ə]. Less proficient speakers are expected to put $/ \mathcal{Z}$ before are and use its strong form and also apply the assimilation of final /z/ pronouncing ['sta:s '?a:]
3) For others they are no more than little lights in the sky.

The juncture between for and others is an interesting one. Normally, such cases call for the linking $/ \mathrm{r} /$, but given its position in this sentence, it does not necessarily be
 Proficient speakers are likely to either link or also insert /?/ before others. Less
proficient speakers are expected to put / $\mathrm{Z} /$ before others, use a strong form of for and assimilate the final /z/ [fo: ? $\wedge$ ðәs]. The assimilation of final $/ \mathrm{z} /$ into $/ \mathrm{s} /$ is likely to occur among advanced Czech speakers as well.
4) Butall these stars are silent.

The juncture formed by But and all is included because it potentially may trigger linking. However, none of the speakers are actually expected to link in this case. The sentence starts with a conjunction and the structure of the sentence calls for emphasis on the word all, thus inserting / $\mathrm{Z} /$. The expected pronunciation of all the speakers regardless of their proficiency is [bət '?o:l], less experienced speakers will probably use the strong form of But pronouncing [bst ' $\mathrm{P}: 1 \mathrm{l}$ ].
5) You, you alone, will have the stars as no one else has them.

The words you and alone form a hiatus where $/ \mathrm{u} /$ is succeeded by $/ \mathrm{\rho} /$. Less proficient speakers are likely to put / $\mathrm{Z} /$ before alone. Advanced and native speakers are expected to glide [ju ə'ləon].

The second juncture formed by stars and as where $/ \mathrm{z} /$ is followed by $/ \mathrm{a} /$. Advanced and native speakers are expected to link ['sta:z $\partial z$ ]. Less experienced speakers are expected to use the strong form of as and insert / / / before the word while also assimilating the final $/ \mathrm{z} /$ in both words pronouncing ['sta:s 'Pæs]. The final assimilation may also occur among the advanced Czech speakers.

The juncture between one and else is a frequent one as the expression no one else is widely known and used even among the less experienced speakers. All the speakers regardless of their proficiency are expected to link and pronounce [wan $\varepsilon 1 \mathrm{ls}$ ].

As was mentioned in the beginning, some of the junctures in the text repeat and therefore the sentences containing only those are not included in the analysis once the junctures had already been analyzed in another sentence.

## 7 GROUPS OF RESPONDENTS

Three main groups have been created based on the proficiency of all participating respondents. According to CEFR ${ }^{1}$, Czech speakers of A2-C1 level have participated in the research. Speakers of A1 level have not been examined because I believe that the phenomena tested in this research would not have occurred in their speech. Additionally, their ability to express themselves would have been strongly impaired by their lack of grammar and vocabulary knowledge. Speakers of C2 level have not participated in the research either despite the fact that some of the participating respondents were approaching Mastery. I believe C2 level to be a complex proficiency which none of the speakers has shown and when asked about their level of English, not a single speaker has described their level as C 2 after getting familiar with the $\mathrm{A} 1-\mathrm{C} 2$ reference levels. Most of them have also admitted that speaking was the weakest of their language skills ${ }^{2}$.

All of the respondents have claimed that they wanted to learn English willingly and become as proficient as possible for them. I have decided not to include people who did not have high aspiration regarding English as this thesis is focused on the differences between Czech speakers who want to master the language (namely its pronunciation), and native speakers.

I shall also point out that rhoticity was dominant among all the Czech respondents regardless of their level of English. Unfortunately, only two of the Czech speakers had the regular non-rhotic pronunciation and both of them had the C 1 level. Two other respondents, one of C 1 and one of B 2 level, had inconsistent pronunciation in terms of rhoticity, i.e. they elided final $/ \mathbf{r} /$ in certain words but failed to do so consistently, especially in words with which they were not familiar.

### 7.1 Group of Czech speakers of A2-B1 level

This group consists of twelve respondents of A2-B1 level. Eight of the speakers are within the age of 14 to 21 , the remaining four are $25,32,45$ and 49 . The first subgroup of eight respondents is composed of high school, grammar school and fresh university students who either want to English further at the university or already do so. The second subgroup of the remaining four respondents have decided to learn English by

[^6]attending courses and self-study. Based on their words, all the twelve respondents study English actively and wish to become better at it.

It is important to say that the A2-B1 level applies to the speaking ability because some of the speakers probably have a better level in other skills. However, this thesis focuses on speaking phenomena and thus all the other skills are of less importance. The A2 and B1 levels have been put together in the group as a result of their ability to express themselves (as revealed in Exercise 1). They had troubles producing a grammatically correct connected speech, they were using rather simple vocabulary, hesitated a lot and their speech was overall very segmented which sometimes hindered it from being perfectly intelligible.

In the theoretical analysis of the exercises, this group is referred to as the 'less experienced' or 'less proficient' Czech speakers.

### 7.2 Group of Czech speakers of B2-C1 level

The second group consists of eight Czech speakers and includes the more proficient ones. The age of respondents in this group ranges from 21 to 32 . Majority of them has reportedly studied English at the university, some of them are still students with English being one of their main subjects.

Again, the B2-C1 level assesses their speaking skill while their other skills were often higher. These speakers had almost no issues expressing themselves in connected speech. Most of their mistakes were not grammatical or lexical but rather pronunciational, i.e. incorrect stress placement, unnatural intonation, occasional incorrect vocal quality etc. Their speech was usually easily comprehensible and fluent.

In the theoretical analysis of the exercises, speakers of this group are referred to as 'advanced', 'proficient', 'more proficient' or 'more experienced'.

### 7.3 Reference group of native speakers

The group of native speakers serves as a reference group and consists of people in the age of 20-40. Their pronunciation, no matter how diverse, functions as something that the Czech speakers should often be aiming for. As much as it can sometimes be nonstandard, it is nevertheless natural. It is safe to assume that in most cases, the native speakers would know the correct standard pronunciation, but their dialect or sense of
informality have altered their final output.
In this group, five of the speakers are from the Southern England and are either speakers of RP or under its heavy influence. In order to provide comparison with a nonCzech and non-native element, the sixth speaker is originally from Austria, but she has lived in Southend-on-Sea for 10 years now.

## 8 THE PROCESS OF GATHERING DATA

Each respondent was given the assignments along with instructions on how to proceed. The speech was always recorded during their first reproduction. The gathered material was then analyzed for each respondent separately and the results were put into tables and graphs presented in the results section.

It was relatively easy to determine whether the speakers produced $/ \mathrm{P} /$ or not. Presence or absence of linking or intrusive /r/ was also very clear, but the linking semivowels $/ \mathrm{w} /$ and $/ \mathrm{j} /$ posed the real challenge. As was already mentioned in the theoretical part, Wells (2010) questions the possibility of these semivowels being detected on a spectrogram, namely the difference between their presence and absence. Unless the speaker produces them prominently enough so that they become $/ \mathrm{j} / \mathrm{or} / \mathrm{w} /$, it is sometimes almost impossible to say whether there is a linking semivowel or just a glide resembling those. I am firmly convinced that in everyday conversation such a difference is indistinguishable by human ear. Only after listening to the recording multiple times, I was able to make a decision, but there were still cases where I could not certainly say either 'the linking semivowel occurred' or ' the linking semivowel did not occur'.

I also feel that some of the speakers occasionally made a mistake simply because they found themselves under pressure due to being recorded. People do not usually get recorded while they speak and such a condition naturally affects their output. It is safe to assume that all the speakers wanted to pronounce the best way possible.

The assumption or expectation I have expressed regarding the different tendency to link among Czech and native speaker proved to be true in most cases. Especially the advanced Czech speakers tried to link wherever they felt appropriate, the less proficient usually just linked in common expressions. Native speakers, on the other hand, sometimes did not link where they supposedly would in colloquial speech because they presumably focused on precise pronunciation. When asked about this phenomenon, they either did not realize they had done so or replied that they had tried to make their speech easily intelligible.

Another important thing I would like to mention here is the fact that many of the speakers asked me to not make their recordings public, especially the less proficient speakers. That is the main reason why the original recordings are not a part of the thesis
as providing only some of them would not serve the purpose. Additionally, a number was assigned to each speaker in their group as some of them wanted to remain anonymous and it was also easier in terms of space.

As for the equipment used for the research, the respondents were recorded on a computer microphone and the files were then stored in the computer. I have analyzed the files by listening to each of them multiple times. The sound of each recording was very clear without any disruptive noise or distortion which made the analysis fairly easy and I believe the results to be accurate enough for this thesis. I have also considered using more advanced software for the analysis of the linking semivowels, but decided not to as this thesis does not focus mainly on proving the existence of the linking semivowels and I feel that the human ear is the most important 'device' for human speech reception and analysis anyway.

## 9 RESULTS

### 9.1 Exercise 1

In the graphs below, the amount of $/ \mathrm{Z} /$ produced by each speaker during their 3060 seconds monologue is displayed. / $\mathrm{Z} /$ that was a result of hesitation or occurred in the word-initial position when preceded by silence (beginning of a sentence or after a logical pause) is not included in the graphs. To make the data relevant for comparison, the listed amount of $/ \mathrm{P} /$ only applies to uses where the speaker decided to insert $/ \mathrm{P} /$ when linking was viable or wanted to emphasize a certain word.

It is also important to mention that each speaker talked about their own topic of interest and used their own active vocabulary, which could somehow affect the amount of words beginning with a vowel. Furthermore, many speakers in the A2-B1 group did not use the indefinite article when it would be appropriate, and thus avoided many junctures where $/ \mathrm{Z} /$ would possibly occur if the indefinite article were realized.

### 9.1.1 A2-B1 results

■ Glottal stop


Graph 1-Exercise 1: results of A2-B1 group

### 9.1.2 B2-C1 results



Graph 2 - Exercise 1: results of B2-C1 group

### 9.1.3 Native speakers results

Glottal stop


Graph 3-Exercise 1: results of native speakers

### 9.1.4 Summary

From the data listed above, the interference of the mother tongue was undeniably present among Czech speakers of various proficiency. While the more proficient speakers had a tendency to use / $\mathrm{Z} /$ slightly less often, the difference was only minor when compared to the amount of / $\mathrm{Z} /$ used by native speakers. It is interesting to observe
that even the Austrian respondent had a tendency to use / $\mathrm{i} /$ more often that native speakers which only suggests that there is a certain interference of her mother tongue as well. Especially peculiar was her expression in an hour pronounced [?'in ?'en ?'avə] which sounded extremely disruptive.

The graph below compares the average use of $/ \mathrm{Z} /$ by each group of respondents. The Austrian respondent is not included in the group of native speakers for this graph to avoid altering the figures.


Graph 4-arithemtic mean of /?/ use

As can be seen, the numbers differ greatly. Native speakers seldom used / $\mathrm{Z} /$ in a word starting with a vowel and it was usually a marker of emphasis. The overall amount of $/ \mathrm{Z} /$ used by all the speakers was relatively high which was mainly due to the word $I$ and and occurring frequently in each monologue. Especially Czech speakers had a tendency to use these words very often and almost always inserted / $\mathrm{Z} /$ before them. The unlikely conclusion is that the respondents wanted to emphasize a lot of words. The more likely conclusion is that they subconsciously applied the Czech pattern and used / $\mathrm{Z} /$ to mark word boundaries.

This exercise also revealed an unfortunate fact, which was nevertheless expected. As was already mentioned before, only two of all the Czech speakers had a consistent non-rhotic pronunciation, another two Czech speakers alternated between non-rhotic and rhotic and the rest was exclusively rhotic. All the native speakers had a non-rhotic pronunciation.

As for the linking $/ \mathrm{r} /$, it was very rare and only occurred among the native speakers. The total amount of linking /r/ used in this exercise was 3 , with 2 of those used by a single speaker. Intrusive /r/ occurred only once and it was again the same native speakers who used the linking /r/ twice. The linking semivowels $/ \mathrm{w} / \mathrm{and} / \mathrm{j} /$ did not occur in a single monologue. Based on the results, the linking consonants were used sporadically even by the native respondents which leads to the conclusion that they are generally not very common in connected speech and some of the native speakers might be avoiding them altogether, even in cases where they would be viable. However, it would be naive to draw general conclusions from monologue of only five native speakers.

### 9.2 Exercise 2

Below, each of the key junctures is graphically marked in the sentences. When there are two signs, only one of them can by realized.

GI tried to draw $\left({ }^{\mathrm{R}}\right){ }^{\text {Git without success. }}$

GItt's $^{\mathbf{G}} \mathrm{a}_{\text {matter }}{ }^{\mathbf{R}} \mathbf{G}_{\text {of }}$ life ${ }^{\boldsymbol{G}}$ and death.

What you think Gis $_{\text {Girrelevant. }}$.
GI've done plenty ${ }^{\mathbf{G J}}{ }_{\text {of }} \boldsymbol{G}_{\text {evil }}$ things ${ }^{\boldsymbol{G}}{ }_{\text {in }}$ my life.
GI saw( ${ }^{(R)}$ ) him walking down the street.
GI decided to follow him for ${ }^{R} \mathrm{G}_{\mathrm{a}}$ while.
How ${ }^{\mathbf{G w}}{ }_{\text {old }} \mathrm{G}_{\text {is }}$ she?
Day ${ }^{G J}$ after day they still ${ }^{G}$ are the same.

## Legend

- $\quad /$ / in the word-initial position after the absolute pause - obligatory

G / / / in the word-initial position
$R \quad$ linking $/ r /$
( ${ }^{\mathrm{R}}$ ) intrusive /r/
w linking semivowel/w/
נ linking semivowel /j/

A total of 28 possible instances of glottal stop with 6 of them obligatory.
A total of 3 possible instances of linking $/ \mathrm{r} /$.
A total of 4 possible instances of intrusive $/ \mathrm{r} /$.
A total of 1 possible instance of linking semivowel /w/.
A total of 2 possible instances of linking semivowel $/ \mathrm{j} /$.

In the following tables containing results, $/ \mathrm{P} /$ occurring in the word-initial position after the absolute pause is not included as it is considered obligatory and was used by all the respondents.

### 9.2.1 A2-B1 results

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| draw it | G | G | G | $\checkmark$ | G | $\checkmark$ | G | G | $\checkmark$ | G | $\checkmark$ | G |
| The idea | G | G | G | G | G | G | G | G | G | G | G | G |
| idea of | G | G | G | G | G | G | G | G | G | G | G | G |
| having another | G | G | G | G | G | G | G | G | G | G | G | G |
| beer is | G | G | G | G | G | G | G | G | G | G | G | G |
| is unpleasant | G | G | G | G | G | G | G | G | G | G | G | G |
| It's a | G | G | G | G | G | G | G | G | G | G | G | G |
| matter of | G | G | G | G | G | G | G | G | G | G | $\checkmark$ | G |
| life and | G | G | G | $\checkmark$ | G | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | G | $\checkmark$ | G |
| saw it | G | G | G | $\checkmark$ | G | G | G | G | $\checkmark$ | G | $\checkmark$ | G |
| drama and | G | G | G | G | G | G | G | G | G | G | G | G |
| horror I | G | G | G | G | G | G | G | G | G | G | G | G |
| think is | G | G | G | G | G | G | G | G | G | G | G | G |
| is irrelevant | G | G | G | G | G | G | G | G | G | G | G | G |
| plenty of | G | G | G | G | G | J | G | G | G | G | - | G |
| of evil | G | G | G | G | G | G | G | G | G | G | G | G |
| things in | G | G | G | G | G | G | G | G | G | G | G | G |
| saw him | X | X | X | X | X | X | X | X | X | X | X | X |
| for a | $\checkmark$ | G | G | $\checkmark$ | G | G | G | G | $\checkmark$ | G | $\checkmark$ | G |
| How old | G | G | G | G | G | G | G | G | G | G | G | G |
| old is | G | G | G | G | G | G | G | G | G | G | G | G |
| Day after | J | G | G | G | G | J | G | G | G | G | $\checkmark$ | G |
| still are | G | G | G | G | G | G | G | G | G | G | G | G |

Table $1-A 2-B 1 ; G=$ glottal stop, $R=$ linking $|r|,(R)=$ intrusive $|r|, J=$ the linking semivowel $|j|, v=$ linking, $X=$ no word-initial vocalic element

### 9.2.2 B2-C1 results

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| draw it | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | G | G | $\checkmark$ | - |
| The idea | $\checkmark$ | G | G | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | G |
| idea of | G | $\checkmark$ | G | G | G | G | - | G |
| having another | G | G | G | G | G | G | $\checkmark$ | G |
| beer is | G | G | G | G | G | G | G | G |
| is unpleasant | G | $\checkmark$ | G | $\checkmark$ | G | G | $\checkmark$ | G |
| It's a | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | G |
| matter of | $\checkmark$ | $\sim$ | G | $\checkmark$ | $\checkmark$ | $\checkmark$ | R | G |
| life and | $\checkmark$ | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | G | $\checkmark$ | $\checkmark$ |
| saw it | G | $\checkmark$ | G | $\checkmark$ | G | G | $\checkmark$ | G |
| drama and | G | G | G | G | G | G | G | G |
| horror I | G | G | G | G | G | G | G | G |
| think is | G | $\checkmark$ | G | G | G | G | $\checkmark$ | G |
| is irrelevant | G | G | G | G | G | G | $\checkmark$ | G |
| plenty of | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | G | G | $\checkmark$ | G |
| of evil | G | G | G | G | G | G | G | G |
| things in | G | G | G | G | G | G | G | G |
| saw him | X | X | X | X | X | X | X | X |
| for a | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | $\checkmark$ | $\checkmark$ | R | G |
| How old | G | $\checkmark$ | G | $\checkmark$ | G | G | $\checkmark$ | G |
| old is | G | $\checkmark$ | G | G | G | G | $\checkmark$ | G |
| Day after | $\checkmark$ | J | G | $\checkmark$ | J | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| still are | G | G | G | G | G | G | G | G |

Table 2-B2-C1; $G=$ glottal stop, $R=$ linking $|r|,(R)=$ intrusive $\mid r /, J=$ the linking semivowel (j), $\nu=$ linking, $X=$ no word-initial vocalic element

### 9.2.3 Native speakers results

|  | 1 | 2 | 3 | 4 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| draw it | (R) | $\checkmark$ | $\checkmark$ | (R) | $\checkmark$ | $\checkmark$ |
| The idea | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | G |
| idea of | G | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| having another | $\checkmark$ | G | $\checkmark$ | G | $\checkmark$ | $\checkmark$ |
| beer is | G | R | R | R | G | R |
| is unpleasant | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | G |
| It's a | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| matter of | R | R | R | R | R | R |
| life and | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| saw it | (R) | $\checkmark$ | $\checkmark$ | (R) | $\checkmark$ | $\checkmark$ |
| drama and | G | $\checkmark$ | $\checkmark$ | (R) | G | $\checkmark$ |
| horror I | R | $\checkmark$ | $\checkmark$ | R | R | G |
| think is | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| is irrelevant | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | G |
| plenty of | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| of evil | $\checkmark$ | $\checkmark$ | G | G | $\checkmark$ | G |
| things in | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| saw him | X | X | X | X | X | X |
| for a | R | R | R | R | R | R |
| How old | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | G |
| old is | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Day after | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| still are | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Table 3 - native speakers; $G=$ glottal stop, $R=$ linking $/ r /,(R)=$ intrusive $\mid r /, J=$ the linking semivowel $/ \mathrm{j}$, , " = linking, $X=$ no word-initial vocalic element

### 9.2.4 Summary

This exercise proved to be the most interesting by far. On the imaginary scale of preparedness, it would be less spontaneous than the first exercise but significantly less prepared when compared to the third. Also, this exercise provided interesting junctures that did not occur in any of the other two exercises. It could be said that speakers were forced into using expressions which they would possibly avoid when speaking freely. This fact allowed me to actually test some of the elements that would not normally occur in their speech, but most of the expressions, or even sentences, were not unnatural or overly artificial because that would only harm the authenticity of the respondents' speech.

As expected, the glottal stop occurred frequently among the A2-B1 respondents. The B2-C1 speakers linked occasionally but most speakers of that group still decided to insert $/ \mathrm{Z} /$ instead of linking in more than half of the cases. Native speakers, on the other hand, rarely used / $\mathrm{R} /$. Especially interesting was the occurrence of final $/ \mathrm{k} /$ in having which was already mentioned in the theoretical analysis. Two native speakers of various dialects both pronounced [hævink २ə'nøðə]. Note that the change of $/ \Lambda /$ into $/ \mathrm{p} /$ is common in southern British dialects.

In the graphs below, the use of $/ 2 /$ is expressed as a percentage for each group.


Graph 5-/Z/ used by A2-B1


> glottal stop
> linking

Graph 6-/?/ used by B2-C1

$\square$ glottal stop
linking

Graph 7-/?/ used by native speakers

The graphs reveal that there is a tendency among the Czech speakers to link more directly proportional to their proficiency. While the less proficient Czech speakers linked only in $12 \%$ of the possible cases, the native speakers did not link in only $12 \%$ of the possible cases. The second graph shows a positive sign of linking slowly developing with better proficiency, but looking at the gap between the second and the third graph,
the percentage is still far from ideal.
The linking / $\mathrm{r} /$ can be discussed only in the case of native speakers and two B2C1 speakers as the rest used the rhotic or hybrid pronunciation. All native speakers and the speaker No. 7 of the B2-C1 group used the linking /r/ in for $a$ and matter of, four of the native speakers also used it in beer is. The speaker No. 3 of the B2-C1 group had a non-rhotic pronunciation but did not use linking /r/. For the two groups of Czech speakers, usually only the linking symbol occurs in junctures where either linking /r/ or /?/ was expected to occur, which is caused by the rhotic pronunciation. As /r/ cannot be regarded as linking in such a case, absence of $/ \mathrm{R} /$ in these junctures is simply recognized as linking. The intrusive $/ \mathrm{r} /$ was used by two native speakers in both draw it and saw it, the speaker No. 4 of this group also used it in drama and. As expected, no intrusive /r/ occurred among Czech speakers.

The linking semivowel /w/ did not occur in any speech, /j/ was used by speakers No. 1 and No. 6 of the A2-B1 group and No. 2 and the No. 5 of B2-C1 group in the juncture Day after. The speaker No. 6 of A2-B1 group was the only one to use /j/ in plenty of.

### 9.3 Exercise 3

Below, each of the key junctures is graphically marked in the sentences. When there are two signs, only one of them can by realized by the speaker.
"GAll men have the stars," he GJanswered, "but they GJare not the same things for different people. For some, who ${ }^{\mathbf{G W}}$ are travellers, the stars ${ }^{\boldsymbol{G}}$ are guides. For ${ }^{\mathbf{R}}{ }^{\mathbf{G}}$ others they

 you Galone, will have the stars ${ }^{\text {Gas no one }}$ Gelse has them."

```
Legend
G}\quad/?/\mathrm{ in the word-initial position after the absolute pause - obligatory
G / / / in the word-initial position
R linking/r/
w linking semivowel/w/
s linking semivowel /j/
```

A total of 15 possible instances of glottal stop with 1 of them obligatory.
A total of 2 possible instances of linking $/ \mathrm{r} /$.
A total of 2 possible instance of linking semivowel $/ \mathrm{w} /$.
A total of 4 possible instances of linking semivowel $/ \mathrm{j} /$.

### 9.3.1 A2-B1 results

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| he answered | G | G | G | G | G | G | G | G | G | G | G | G |
| they are | $J$ | G | G | G | G | $J$ | G | G | G | G | $\checkmark$ | G |
| who are | G | $\checkmark$ | G | G | $\checkmark$ | G | G | G | G | G | $\checkmark$ | G |
| stars are | G | G | G | G | G | G | G | G | G | G | G | G |
| for others | G | G | G | G | G | G | G | G | G | G | G | G |
| they are | J | $\checkmark$ | G | $\checkmark$ | $\checkmark$ | G | G | G | G | G | $\checkmark$ | G |
| for others | G | G | G | G | G | G | G | G | G | G | G | G |
| who are | G | $\checkmark$ | G | G | G | $\checkmark$ | G | G | $\checkmark$ | G | $\checkmark$ | G |
| they are | G | G | G | G | G | J | G | G | G | G | $\checkmark$ | G |
| But all | G | G | G | G | G | G | G | G | G | G | G | G |
| stars are | G | G | G | G | G | G | G | G | G | G | G | G |
| you alone | G | G | G | G | G | G | G | G | G | G | G | G |
| stars as | G | G | G | G | G | G | G | G | G | G | G | G |
| one else | G | $\checkmark$ | G | $\checkmark$ | G | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | G | $\checkmark$ | G |

Table 4-A2-B1; $G=$ glottal stop, $R=$ linking $/ r /,(R)=$ intrusive $/ r /, J=$ the linking semivowel $\mathrm{j} /$, $\cdot \sim$ linking, $X=$ no word-initial vocalic element

### 9.3.2 B2-C1 results

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| he answered | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | $\checkmark$ |
| they are | $\checkmark$ | J | G | $\checkmark$ | J | G | $\checkmark$ | $\checkmark$ |
| who are | G | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | G |
| stars are | G | $\checkmark$ | G | $\checkmark$ | G | G | G | G |
| for others | G | $\checkmark$ | G | G | $\checkmark$ | G | G | G |
| they are | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | J | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| for others | G | $\checkmark$ | G | G | G | G | G | G |
| who are | G | $\checkmark$ | $\checkmark$ | $\checkmark$ | G | G | $\checkmark$ | G |
| they are | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | $J$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| But all | G | G | G | G | G | G | G | G |
| stars are | G | $\checkmark$ | G | G | G | G | - | G |
| you alone | G | $\checkmark$ | G | G | G | G | $\sim$ | G |
| stars as | G | G | G | G | G | G | $\checkmark$ | G |
| one else | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | G | $\checkmark$ | $\checkmark$ |

Table 5-B2-C1; $G=$ glottal stop, $R=$ linking $|r|,(R)=$ intrusive $|r|, J=$ the linking semivowel ( $),{ }^{\circ}=$ linking, $X=$ no word-initial vocalic element

### 9.3.3 Native speakers results

|  | 1 | 2 | 3 | 4 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| he answered | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | G |
| they are | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| who are | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| stars are | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| for others | G | R | G | R | G | G |
| they are | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| for others | G | R | G | R | G | G |
| who are | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| they are | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| But all | G | G | G | G | $\checkmark$ | G |
| stars are | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| you alone | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | G |
| stars as | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| one else | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Table 6 - native speakers; $G=$ glottal stop, $R=$ linking $/ r /,(R)=$ intrusive $\mid r /, J=$ the linking semivowel $/ \mathrm{j} /, \cdot=$ linking, $X=$ no
word-initial vocalic element

### 9.3.4 Summary

I am confident about the fact that the text in this exercise was a very easy one. According to even the less experienced Czech respondents, the vocabulary was easily understandable and the syntactic structure was not difficult. Additionally, many of the expressions such as they are or who are repeated which was a perfect opportunity to see how consistent the speakers were when linking. Also, all of the examined junctures consisted of basic words and did not cause any issues for the speakers in terms of pronunciation.

The amount of junctures where a linking consonant or a semivowel could occur was not particularly high, but some of those were still realized. Linking /r/ was used by two native speakers in both cases of For others. Rest of the native speakers pronounced this expression [fə '?øðəz] under the influence of their regional dialects, only two of them pronounced the standard $/ \Lambda /$ in the word-initial position in others. Interestingly, the speaker No. 5 of the B2-C1 group used linking in the first case of For others (not the linking /r/ as his English was rhotic), but inserted /?/ in the second [for '? $\mathrm{\imath}$ ¢əərz]. The linking semivowels did not occur once among the native speakers, but the linking semivowel /j/ occurred among two advanced Czech speakers and two less proficient. However, only the speaker No. 5 of the B2-C1 used it consistently in all three instances of they are. The remaining three, as can be seen in the tables, always applied the linking semivowel /j/ in the first case but did not do so in at least one of the other cases. This
fluctuation can be attributed to the fact that its existence is questionable and one has to make the $/ \mathrm{j} /$ sound very prominent in order to give us a reason to consider it anything more than just a typical glide from /eI/ to / $\partial /$ or eventually $/ \mathrm{a} /$. The linking semivowel $/ \mathrm{w} /$ did not occur.

It is no surprise that the Czech speakers generally used $/ R /$ more often even in the prepared reproduction. The graph below shows the average amount of $/ \mathrm{P} /$ used by each group of respondents. The Austrian respondent is again omitted.


Graph 8-the amount of $/ 8 /$ used by each group

Each of the native speakers used $/$ / / twice at maximum, usually in the expressions But all and already mentioned For others. The advanced Czech speakers used $/ \mathrm{Z} /$ in about half of the possible cases and linked in the other. The less experienced Czech speakers rarely avoided $/ \mathrm{R} /$ and used it in most of the possible cases.

## Summary

The aim of this thesis was to prove that there is a major difference between Czech speakers and native speakers in connected speech in English. Rather than giving a complex overview of how Czech speakers of various levels of proficiency link and use the glottal stop, the thesis focused on displaying their general tendencies in comparison to native speakers.

Some of my expectations expressed in the theoretical analysis of the sentences in each exercise proved to be realistic, some did not. I have to admit that I was sometimes surprised by the pronunciation of native speakers as I expected them to 'follow the rules' but they simply did not.

Looking back, I also realize that the amount of speakers is far from sufficient for any complex description of the overall state, but again, the real purpose of this thesis was to compare tendencies rather than provide an extensive corpus based on recordings of hundreds of Czech speakers. I believe that the three exercises of different nature provided enough material to get a complex overview of how each speakers links when either improvising or when they prepare the speech beforehand.

From my perspective, the results were negatively surprising. It was expected that the less proficient Czech speakers would rarely link as they still focused on grammatical or lexical accuracy. While I do not agree with the widely used approach among Czech teachers of English where pronunciation is less important than vocabulary and grammar, I still understand the 'product' of such approach. But I expected the results of the more proficient group of Czech speakers far closer to the results of the native speakers than they turned out to be. The research showed that even the more experienced Czech speakers still fail to link in many of the cases where it would be appropriate and use the glottal stop instead which significantly harms their spoken English.

## Resumé

Tato diplomová práce s názvem Linking in present-day English se zabývá vázáním v současné angličtině. Za cíl si klade především ukázat menší míru vázání u Českých mluvčích angličtiny ve srovnání s rodilými mluvčími. Absence vázání následně způsobuje přemíru užívání rázu, který má však v angličtině primárně jinou funkci než v češtině.

Teoretická část je zaměřena na popis nejdůležitějších jevů, které se objevují v mluveném projevu rodilých mluvčích angličtiny. Postupně jsou popsány jevy ovlivňující výslovnost slov, která vstupují do větného kontextu, se speciální pozorností věnovanou vázání a rázu. U každého jevu je uvedeno srovnání s výskytem a užíváním daného jevu v češtině a jsou vyzdviženy zásadní rozdíly mezi oběma jazyky. V každé dílčí části jsou také zahrnuty poznatky určené českým mluvčím.

V praktické části jsou představena tři výzkumná cvičení rozdílného charakteru, z nichž každé se liší mírou připravenosti a obtížnosti. Každé z těchto cvičení je teoreticky analyzováno a jsou vytyčeny důvody, proč bylo cvičení zahrnuto, a očekávání s ním spojené. U druhého a třetího cvičení zaměřených na reprodukci psaného textu jsou analyzovány jednotlivé hranice slov, které jsou klíčovými pro samotné zkoumání. Dále jsou préedstaveny skupiny mluvčích, kteří se na výzkumu podíleli. Celkový počet respondentů je 26 , z čehož 5 mluvčích je rodilých, 1 mluvčí je Rakušanka žijící již 10 let v Anglii. Zbylých 20 respondentů jsou Češi různé pokročilosti od A 2 až po $\mathrm{C} 1 . \mathrm{V}$ další části je popsán proces pořizování nahrávek a přání mluvčích, které se týkalo anonymity a další reprodukce zvukového materiálu. Následně jsou prezentovány výsledky analyzovaných nahrávek, data jsou zobrazena pomocí tabulek a grafů pro lepší přehlednost a orientaci. Každé cvičení je opatřeno dílčím shrnutím a komentářem výsledků.

V závěru práce se autor vyjadřuje k celkovým výsledkům a hodnotí zjištění vyplývající z výzkumu.

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## APPENDICES

Appendix 1: English Consonants
Appendix 2: English Vowels
Appendix 3: English Diphthongs

## ENGLISH CONSONANTS

|  | MANNER |  | VOICING | PLACE |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Bilabial | Labiodental | Interdental | Alveolar | Palatal | Velar | Glotal |
| $\left\lvert\, \begin{gathered} \stackrel{\rightharpoonup}{0} \\ \mathbf{D} \\ \vdots \\ \vdots \\ 0 \\ 0 \\ 0 \end{gathered}\right.$ | Stop |  |  | Voiceless | P |  |  | t |  | k | ? |
|  |  |  | Voiced | b |  |  | d |  | g |  |
|  | Fricative |  | Voiceless |  | f | $\theta$ | S | $\int$ |  | h |
|  |  |  | Voiced |  | V | ð | Z | 3 |  |  |
|  | Affricate |  | Voiceless |  |  |  |  | t |  |  |
|  |  |  | Voiced |  |  |  |  | ds |  |  |
|  |  |  | Voiced | m |  |  | n |  | D |  |
|  | $\begin{aligned} & \text { 을 } \\ & \text { 믈 } \end{aligned}$ | Lateral | Voiced |  |  |  | 1 |  |  |  |
|  |  | Rhotic | Voiced |  |  |  |  | r (ل) |  |  |
|  | Glide |  | Voiced | W |  |  |  | j | (w) |  |

source: https://www.msu.edu/course/asc/232/Charts/ConsonantChartFilledIn.html

## ENGLISH VOWELS


source: http://upload.wikimedia.org/wikipedia/commons/6/60/English_vowel_chart.png

## ENGLISH DIPHTHONGS


source: http://commons.wikimedia.org/wiki/File:RP_English_diphthongs_chart.svg


[^0]:    1 This document is accessible online at http://www.phon.ucl.ac.uk/home/wells/rphappened.htm.

[^1]:    1 In rhotic dialects, phoneme $/ \mathrm{r} /$ is pronounced in the syllable-final position which means that there is no hiatus and thus no linking device needs to be applied. However, there are still occasions where intrusive $/ \mathrm{r} /$ might be inserted, e.g. Hannah and James, pariah in the town.

[^2]:    1 The term 'transitional' is my own translation of the term 'přechodové' used by Volín and Drenková.

[^3]:    1 Regarding the existence of linking semivowels among native speakers, Wells (2010) reacts to Cruttenden's formulation: 'I suppose he is right in saying that these not-quite-segments may sometimes be "heard", since experience shows that some naïve transcribers are convinced that they exist. (...) the supposed " $[j$ " in my arms merely represents the point of maximum upward excursus of the tongue body as it moves from [a] through [I] towards [a]. How could one possibly detect the presence vs. absence of this entity on a spectrogram?

[^4]:    1 Cruttenden (2008: 49) divides a syllable into onset and rhyme with the latter being comprised of peak and coda.

[^5]:    1 Exceptions are expressions with a preposition where the preposition carries the word stress and leaves the initial syllable of the succeeding word unstressed, e.g. na zámku as ['na za:mku].

[^6]:    1 Common European Framework of Reference for Languages: Learning, Teaching, Assessment .
    2 The four language skills are listening, speaking, reading and writing.

