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**Identifikace slabých a silných forem u
gramatických slov v různých typech textů
a mluvených projevů v závislosti na
kontextu a situaci**

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**Weak and strong forms in English
depending on the context and situation**

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Prohlašuji, že jsem práci vypracovala samostatně s použitím uvedené literatury a zdrojů informací.

V Plzni dne 1. května 2018

.....
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ABSTRACT

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The present work is aimed at correct usage of weak forms in spontaneous speech of Czech students of English as a foreign language at tertiary education level. The goal was to describe the most frequent kinds of incorrect usage of reduced forms and stress misplacement, and offer possible solutions to remedy the situation. The theoretical part is focused on the topic of reduction phenomena in English, especially if more frequent or different from Czech. The two languages were also compared as for type and quality of stress. Samples of spontaneous speech were analysed for kinds and frequency of reductions and correctness of stress placement. It was supposed that the reductions in the samples would occur less frequently, especially in grammatical words, and it was found to be true for all samples. Also the supposed stress interference of the Czech type of stress was found in all speakers, including the tendency to misplace stress leftward (on the first syllable). Based on the findings, it was suggested to introduce the reduced forms into teaching as soon as possible, preferably in primary education.

Keywords: reduction phenomena in English, deletion, stress, stress placement, language types, EFL, phonetics, phonology, vowels, acoustics, formants.

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NOTATIONS AND CONVENTIONS

In phonetic/phonological transcriptions, the conventions of the International Phonetic Alphabet (IPA) are followed, in accordance with the principles set out in the Handbook of the International Phonetic Association (1999) and/or Phonetic Symbol Guide by Pullum and Ladusaw (1986).

[...]	allophonic, phonetic or narrow transcription (e.g. [p ^h ɔːt])
/.../	phonemic or broad transcription (e.g. /pɔːt/)
<...>	graphemes (e.g. <port>)
C	any consonant
V	any vowel
>	goes to, becomes, is realized as
<	comes from
AE	Australian English
EFL	English as a foreign language
GA	General American English
IPA	International Phonetic Alphabet
ModE	Modern English
NZE	New Zealand English
OE	Old English
RP	Received Pronunciation

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1 Introduction

The present bachelor thesis is focused on weak forms in English, and it proceeds from definition of what weak forms are to an analysis of weak forms used by several Czech students of English in recorded spontaneous speech. The aim of the work is to find whether the usage of weak forms in Czech students differs, in which respects, and whether some recommendations to teachers can be offered.

It is a well-known fact that in English, weak forms and reductions are much more common than in Czech. In fact, vowel reduction may be considered a characteristic feature of English and many Czech students of English literally struggle with it. The reasons may include an unconscious unwillingness or apparent uselessness to learn more than one audible variant of a word. Also, the Czech learners of English tend to apply the rules of articulation and perception models of their native language to English and they very often they fail to perceive the variations in pronunciation to which the native speakers of English are sensitive. Undoubtedly, the system of reducing sounds in English has certain logic and should be studied in the class. However, without daily exposure to English, to reach such a goal may not be easy. Certain awareness of the issue and guidance of the teacher may be of great help.

Reduction phenomena in spontaneous speech are commented in the first part of the present work. Attention is paid to both phonetics and phonology, to sound production, to issues that are associated with defining of what a reduction is, how is this topic approached by current phonological theories and by which methods weak forms can be measured. The second part analyses three samples of spontaneous speech, recorded and annotated. Since correct reductions are generally expected to be connected to correct stress placement, recordings of several students of English were scrutinized in order to see how frequent were mistakes in reduction in connection to incorrect stress placement. Also, the kind of mistakes the Czech learners of English tend to make was noticed. In the closing part, the results are discussed and possible improvements are suggested.

2 Theoretical background

Reduction is usually understood as a flaw in proper articulation or a slovenly pronunciation. However, both phonetics (which is interested in production, perception and transmission of sounds) and phonology (which is interested in sound rules) approach the theme of reduction.

2.1 Topic of reduction

While reduction in English is a well-known phenomenon, it is rather rarely seen as a research topic in linguistic literature. The reason is obvious - reduction is understood as a reduced, improper and even sloppy variant of a “proper” speech form and therefore difficult to systematize and analyse. Warner (2011) comments that “phoneticians have often paid hardly more attention to reduced speech, considering it too uncontrolled to give good results. Ladefoged (2003) suggests avoiding connected speech such as storytelling when documenting a language, and advises sticking to word lists in controlled frame sentences”. (Warner, 2011, p. 1867)

However, reduced speech is much more common than proper speech and, as a normal and usual way of communicating information, it cannot be disregarded as linguistically peripheral. Warner further notes that “neither phonetic nor phonological theories were built to handle reduced speech, so reduced speech raises large theoretical questions.” (Warner, 2011, p. 1867). And a couple of pages later he mentions that “A search of the Journal of the Acoustical Society of America's database, going back to 1929, does show early studies of conversational speech, although often for engineering purposes, e.g. earplug effectiveness (Kryter 1946)”. (Warner, 2011, p. 1870).

This is an important remark, and it is well possible, with the recent development in technology which enables to work with vast number of data (especially Deep Neural Networks), that the topic of reduction will be studied more in near future than ever before. Also, acoustics, neurology and computational linguistics, with respect to their present development, can stir more interest in reduced speech in future.

Another field that employs reduced variants of speech sounds, coarticulation and many other imperfections in the speech chain is Automatic Speech Recognition (ASR). For instance, YouTube videos use it to recognise the uttered words and transcribe them in Automatic captions. Speech recognition is the interdisciplinary sub-field of computational linguistics and in the case of Google's YouTube, neural nets are employed, accompanied by Hidden Markov Models to allow for higher accuracy. Neural nets are computational systems that try to mimic learning processes and learning process works best if they have enormous supply of data available. It can be easily seen that ASR for English, in cases the video is of medium or higher quality, the captions are quite accurate. For English videos with a lot of background noise, music etc., the accuracy declines, and low accuracy is also present if automatic captions are produced for languages with less data available.

2.1.1 Phonetics and reduction

As for reduction, there are three basic phonetic approaches from which the topic of reduction can be addressed and studied: "what sounds the speaker produces (acoustics of reduction), how the speaker produces them (reductions and changes in articulations), and how the speech is perceived." (Warner, 2011, p. 1867)

In this work, attention will be paid to the acoustic reductions, because they are measurable, and answer, in many respects, to articulatory reductions. The matter of deciphering the spoken sound by a hearer, or perception, is also very important, especially in the foreign language classroom. The correct (both conscious and subconscious) recognition of the sounds is vital not only in the process of acquisition of a native-like accent, but also detection of sounds in whispered utterances or a talk in noisy surroundings.

Probably, the interest for reduction phenomena comes from German linguistics. Richter (1930) gives an early example. One of the earliest important works on reduction in English is Dalby (1986), who focused on how often schwas were deleted in American English television talk-show speech compared against the fast speech task in the lab.

If one looks at the recent studies of reduced speech, he/she may see a significant rise in number. Among some of the most interesting studies are those by Greenberg (1999) and Shattuck-Hufnagel and Veilleux (2007). Both studies focus on the

percentage of reduced elements in spontaneous speech. Greenberg finds 12.5 percent of deleted elements in spontaneous speech (and considers this percentage high). On the contrary, a later study of Shattuck-Hufnagel and Veilleux finds 14 percent of deleted acoustic elements in spontaneous speech (and considers this percentage low).

The approaches to evaluation of findings in these two studies raise several questions, for example, at what point a full sound becomes a reduced sound (especially a vowel sound), or what is the most suitable method of measurement (at how many points the speech wave should be measured, how the co-articulation should be evaluated in the measurements etc.).

2.1.2 Phonology and reduction

Phonology builds up on phonetics and generalizes the language system on the basis of data obtained from phonetics. While it tries to explain and systemize the known data, it cannot progress without them and, sometimes, it even must adapt itself to newly available findings. Consequently, reduction was researched more in phonetics than in phonology.

Crystal (2008, p. 406) defines reduction in phonology as “referring to a vowel which can be analysed as a centralized variant of a vowel in a related form” or as referring “to a process of simplification which affects certain types of sound sequence. The most important category is consonant-cluster reduction (e.g. clock becoming /gɒk/), which is common in early child language.”

The problematic attitude of phonology to reductions stems from certain historical views (e.g. tongue constriction theory, see p. 8). For example “Johnson (2004) discusses how Chomsky and Halle's focus on competence rather than performance removed speech reduction from the field of data to be analyzed.” (Warner, 2011, p. 1870) Warner notes that the European phonology (and he emphasizes Stampe's Natural Phonology), in contrast to American phonologic tradition, gave more attention to reduction (e.g. Dressler, 1975). Shockey in the *Sound Patterns of Spoken English* (2003) discusses various phonological theories, including Natural Phonology, and their attitudes to reduction.

2.2 Articulatory phonetics

Articulatory phonetics describes the movement of the tongue, lips, jaw, and other speech organs (the articulators) in speech sound production. Consonants and vowels are two traditional classes of speech sounds, however, the delineation between them can be quite obscure both in terms of their pronunciation and behaviour.

Vowels can stand by themselves, in isolation. If grouped with consonants, they form syllables. They are also able to form diphthongs and triphthongs (if combined with each other or with glides). Also, their duration can be a distinctive feature¹. Phonetically, a vowel is a sound “lacking any closure or narrowing sufficient to produce audible friction. Phonologically, it is a unit which functions at the centre of syllables”. Crystal (2008, p. 514)

On the contrary, a consonant is defined as not pronounceable without an accompanying sound. The word “consonant” literally means “with-(a)-sound” and it implies that such a sound cannot stand by itself and needs another sound (a vocoid²) to be both pronounceable and to create a syllable.

Some consonants sometimes behave as vowels (can form syllable nuclei), and therefore, they are called syllabic consonants. Examples of syllabic consonants are liquids /r/, /l/ and nasal [n, ŋ] (both in English and Czech) or [ɹ, ɻ] in American English. Syllabic consonants belong among consonants on the basis of phonological rules, not on the basis of articulatory features (see Crystal, 2008, p. 104).

Semivowels (also called non-syllabic vocoids) are consonants similar to vowels phonetically, but they never function as nuclei of syllables. Similarly to other consonants, they function as syllable boundaries. There are two semivowels in English, /j/ and /w/ as in “yes” and “west” respectively.

¹ In non-linear phonology, however, length/duration feature may not be ascribed to a specific sound segment, but rather to the whole syllable.

² Vocoids are vowels, glides and syllabic sonorants. As Crystal (2008, p. 514) it is a “term invented by the American phonetician Kenneth Pike”.

2.2.1 Articulation of vowels

Vowels differ from consonants mainly in absence of distinctive features in voicing, manner and place of articulation (with respect to any passive articulators). The movement of the articulators can alter the resonant properties of the vocal tract and change the formant structure of speech sounds.

Formants are amplitude peaks in the frequency spectrum of the sound. Formants can be seen in a spectrogram as dark bands and are marked as F (see Fig. 3.3. and 3.4). Formants are marked as F and numbered in succession from 0 Hz up. The first four formants are the most important in vowels: F0 (for prosody and intonations), F1 (low/high; inversely related to vowel height - high F1 means a low vowel (low tongue body), low F1 means a high vowel (high tongue body), F2 (front/back; high F2 means a front vowel, low F2 means a back vowel) and F3 (important for comparisons since F3 shows fewer distortions than F1 for most vowels. F3 is also used for distinction between rounded and unrounded vowels (see Crystal, 2008, p. 196)). From these, F1 and F2 are the formants measured most frequently. F3 and F4 formant analyses are also used in measurements for singing voice. From formant values, the place of articulation of vowels can be inferred.

2.2.2 Voice

All vowels are normally voiced, unless pronounced in a non-standard way, such as in whisper ('whispered vowels') or in fast speech. Jaeger (1978) compared 30 languages and confirmed a strong tendency for high vowels to be devoiced and found no counter-examples of devoicing in low vowels. Both vowels and consonants can be devoiced, including environments where vowel devoicing should be phonologically impossible.

Greenberg (1969) published a study that found that the English voiceless vowels were all close or close mid and never open. Also, he found no voiceless vowel more open than the central vowel schwa. Many studies (aiming both at English and other languages) mention the strong influence of surrounding voiceless consonants (or a preceding consonant and following pause) on devoicing of a vowel. Vowels in unstressed syllables are more likely to be devoiced and certain word stress patterns

(syllable sequences) can also play role. Devoiced vowels also are likely to be shorter than voiced short unstressed vowels and of lower average intensity (i.e. less loud) than their voiced counterparts. Devoicing is a gradual process, and a vowel can be only partially devoiced³.

Devoicing in vowels brings to mind a legitimate question whether this usually assimilatory process can be a sign of reduction. Many studies confirm it, for example Mariko Kondo (1994) states in her study that “vowel devoicing is the final state of vowel weakening processes”.

2.2.3 Vowel space

Vowels are exclusively produced with no to partial obstruction of the vocal tract while some consonants (stops) can be produced with full obstruction of the vocal tract. Vowels differ among themselves solely in the position of the tongue. The tongue moves vertically and horizontally within the oral cavity. Vowels are therefore described in two dimensions: height and backness. Besides, two additional properties are important: roundness and laxness.

In traditional phonetics, vowels were classified according to organs approached by the tongue (for instance, in case the tongue moved towards velum during the articulation of a vowel, the given vowel was denoted as “velar”). See Fig. 2.1. This view is also called the constriction theory of vowel production and it can still be found in comparative linguistics or in reprints of famous works such as in ‘The Outline’ of Daniel Jones (1979 [1918]). This concept was not fully abandoned until deep in the twentieth century (see also Fig. 2.8. for Jones’ earliest vowel scheme of vowel gradation treatment).

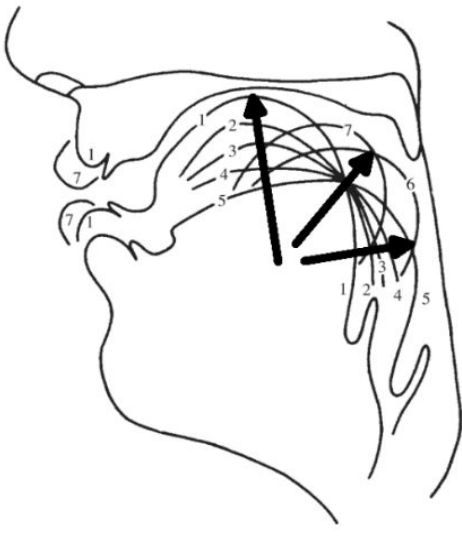
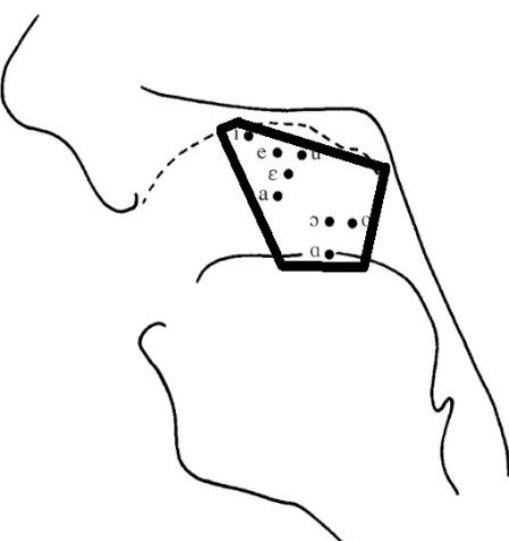
In modern theories, the vowels are looked at from a different perspective. The extremes of tongue movement were simplified into a so-called vowel quadrilateral or vowel trapezoid encompassing the oral space where a vowel can be produced. (See Fig. 2.2. illustrating this conception of the vowel space visually. Also, see Fig. 2.2. for an IPA chart and Figs. 2.4. and 2.5 for English and Czech vowel systems.)

The quadrilateral is delineated by extremes in articulations, and it means that all vowels of all languages fall within this diagram and only very rarely a vowel occurs at

³ See e.g. Fujimoto (2015), Oberly & Kharlamov (2015), Ohala (1975)

the quadrilateral's edge (in English, the high front vowel [i] may serve as an example of a vowel close to the extreme). In other words, the pronunciation of vowels in the middle of the quadrilateral is easier and more relaxed. It also implies that a shift in pronunciation of a vowel toward the centre of the quadrilateral can be a sign of reduction. Vowel can also shift in other direction due to coarticulation (for instance, by being influenced by the place of articulation of the neighbouring consonant). However, these kinds of shifts are not a part of the reduction process.

In the IPA vowel diagram in Fig. 2.3, convenient reference points specify tongue positions. The highest point of the arch of the tongue is considered to be the point of articulation of the given vowel. The vertical dimension of the vowel diagram specifies the height of vowel (on a scale low-high) and divides the region into open, open-mid, close-mid and close section. The horizontal dimension of the vowel diagram specifies tongue advancement (on a scale front-back) and divides the region into from, central and back sections.

	
<p>Fig. 2.1. Vowel classification according to tongue constriction theories. (After Ladefoged & Johnson, 2011, p. 19). Numbers represent English vowels. Arrows pointing to immovable articulators added.</p>	<p>Fig. 2.2. Vowel classification according to modern vowel theories. Continuous vowel space is represented by the trapezoid. (After Ladefoged & Johnson, 2011, p. 221; trapezoid added). Source: IPA, 2015.</p>

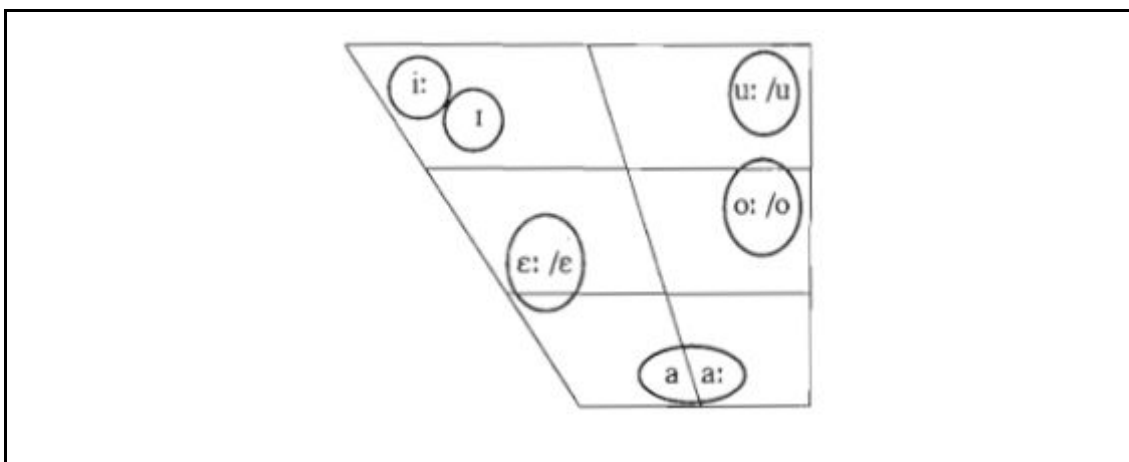


Fig. 2.5. Czech vowels. Vowels (except of high front vowels) are distinguished by duration. Vowel distinctions are also preserved in unstressed positions. Source: IPA (2014, p. 72).

Rounding of the lips is an important feature of articulation and vowels, therefore, are categorized as rounded or unrounded. Any vowel can be pronounced with rounded lips (see Fig. 2.3). Rounding of lips causes certain protrusion of lips and this prolongs the “tube” of the vocal tract used for the articulation (see Fig. 2.6). This change in frequency is one of the reasons the IPA table lists the rounded version of vowels to the right. In English, the rounded vowels are [u], [ʊ], [o], [ɔ] and the unrounded are [i], [ɪ], [e], [ɛ], [æ], [ɑ], [ɐ], [ə] (see Table 2.1).

English rounded and unrounded vowels	
Rounded vowels	Unrounded vowels
[u], [ʊ], [o], [ɔ]	[i], [ɪ], [e], [ɛ], [æ], [ɑ], [ɐ], [ə]

Table 2.1. English rounded and unrounded vowels. Source: author.

Vowels are also categorized according to the muscular effort and energy involved in articulation as tense (produced with more effort) or lax (or non-tense; less effort). Terms fortis and lenis are used in a similar way. In English, the tense vowels are [i] and [ɔ] . The lax vowels are [ɪ] and [ɔ]. The schwa sound [ə] is neutral. In phonology, tension is a distinctive feature that enables to handle variations in manner of

articulation. Acoustically, the fortis sounds have a relatively strong spread of acoustic energy (see also Crystal, 2008, p. 480)

2.2.4 Schwa

The schwa vowel [ə] is the most frequent sound in English (Fig. 2.7.). It is formed in the centre of the oral cavity (and correspondingly, it is placed in the middle of the vowel trapezoid) and hence called a central vowel. During articulation, the vocal tract is in its neutral state and, with a degree of simplification, it can be imagined as forming a near perfect tube (see Fig. 2.6). The following definition of the schwa sound and symbol sums up various characteristics of this sound and points to certain issues involved in precise and unanimous phonetic and phonological definitions of schwa:

“In between close-mid and open-mid is the vowel [ə], sometimes called ‘schwa’. This stands for a mid central vowel, sometimes called a **‘neutral’** vowel, and it is used to transcribe unstressed vowels in words such as ‘sofa’, ‘banana’, ‘assume’, ‘today’. ... **Its precise quality is highly variable**, partly because it is very short and strongly **coloured by neighbouring consonants**; this is one reason why a **‘float’ symbol, with no precise definition**, can be a useful tool for transcription: it can cover a wide range of qualities in one symbol.” (Ogden, 2009, p. 62; emphasis added)

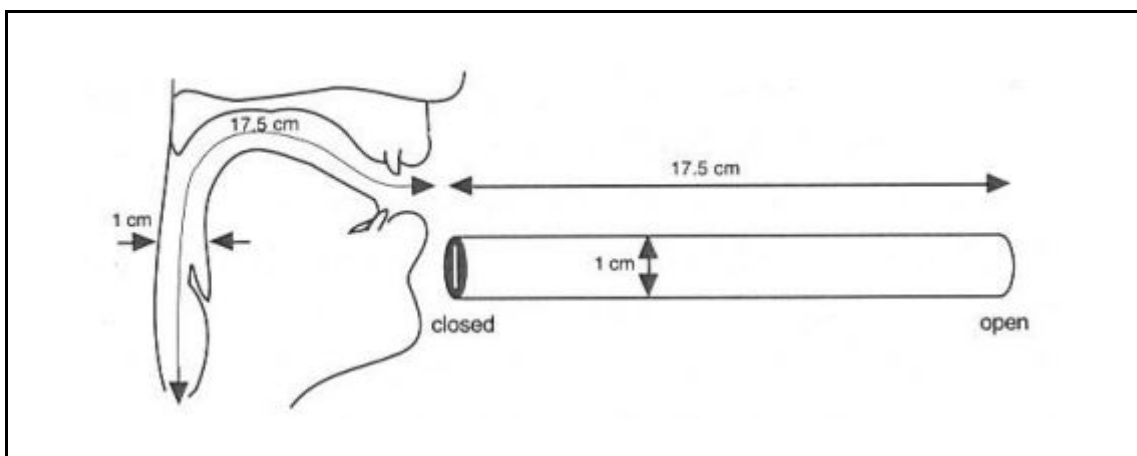


Fig. 2.6. A schematic of a neutral vocal tract. The tract on the left is in the position of vowel schwa [ə] and, on the left, there is a simplified shape of the vocal tract in this position as a tube closed on one end on the right. Source: Ladefoged (1996, p.117).

Neutral as a description of schwa is used in phonology and it means here that schwa is neither in the centre, nor on the periphery. Although reduced (and as such, it should occupy a peripheral position), schwa is the most frequent sound in English. Nothing indicates its retreat in use despite it is sound that is weak and in its shorter form, used in unstressed positions exclusively.

Such a special role of schwa causes various attitudes of phoneticians toward it - some authors ascribe schwa a phonemic status while others don't. The latter linguists usually come from Europe while the former come from America. Of the latter linguists, Heinz Giegerich (1992) observed that "taking stress into account, schwa is in complementary distribution with all other vowels (except [ɪ])" and concluded that schwa was not an English phoneme. In America, for instance, the weak vowel schwa had made its way into dictionaries as a phoneme covering an allophone [ɐ], which is a vowel sound occurring in stressed positions. The reason for it is that the pronunciation of [ɐ] has shifted toward schwa so close that the two sounds are usually indistinguishable (Ladefoged & Johnson, 2011)⁴. As a consequence, in broad transcription, the symbol of schwa [ə] is used in stressed positions as well, while narrow transcription provides for distinction between [ə] and [ɐ].

Sometimes, the schwa sound is also described as the indistinct vowel. For instance, Burchfield and Hogg note that: "indistinct vowel sound /ə/" is "often found in unstressed syllables in English, as in another /ə¹nɛðə/." (Burchfield & Hogg, 1995, p. 566). Indistinct can be understood as "unclear", "undistinguished" or "imperceptible". Crystal (2008, pp. 271, 480) only uses this label twice when he mentions "short and indistinct" muscular movements in production of lax vowels. As a phoneme, schwa must clearly contrast with other phonemes, i.e. be distinct. Even if the manner of pronunciation of schwa is indistinct (very short or hard to notice), it still must contrast with the manner of articulation of other vowels. In other words, schwa is hard to categorize like the other vowels. For example, schwa is syllabic and lax, but it shares some phonological features with tense vowels (it can occur in open syllables like tense vowels and unlike the remaining lax vowels). For this reason, schwa is unspecified ("0")

⁴ The plot of vowels on page 226 shows clearly that F1 is different but F2 of schwa and of /ɐ/ are very similar.

not only for [tense] but, by agreement, also for the remaining context dependent features. This reveals the somewhat ambiguous nature of schwa.

As for the relation of schwa to reduction, the perspective from which schwa is looked at is crucial. Different perspectives lead to different conclusions. One can ask questions such as:

- 1) Is schwa a reduced form of various full sounds (such as [e], [ɛ], [æ], [ɑ] etc.) and therefore an allophone of full vowels?
- 2) Should schwa in today's English be rather considered an independent vowel sound, therefore constitute a phoneme?
- 3) Can some occurrences of schwa be reductions of various full vowels (as in 1) and other occurrences of a phoneme (as in 2)? Are there more kinds of schwa?

It is a commonly known fact that schwa was not considered a phoneme in classical phonology, not only in English, but also in other classic languages (and English linguistics stems from linguistics of more ancient languages such as Latin or Greek). The classic linguistics of these languages would answer the first question positively. It could be easily supposed that something that is reduced is about to be deleted entirely, to vanish away, and as a reduced sound, schwa should be rare or become more and more scarce. A reduced sound should be found in the periphery of the language system⁵. However, in English, the frequency of schwa has reached such a level that it is the most frequent vowel, as can be seen from Fig. 2.7. And the remaining two weak vowels /ɪ/ and /ʊ/ follow (see Fig. 2.10.). This is characteristic of stress-timed languages which will be discussed later.

In contemporary linguistics, it is obvious that the case may be different for specific languages and, therefore, the question can be positively answered for some languages and negatively for others. As we have already mentioned above, some linguists would answer the second question positively and consider schwa to be an English phoneme.

As for the third question, some linguistic authorities believe that there are more kinds of schwa, for instance Flemming & Johnson (2007) distinguish two kinds (schwas in word-final position, as in *comma*, and schwas in other positions, as in *suppose*

⁵ See also papers of Vachek (1976) on short and long schwas.

probable). Marc van Oostendorp (1998) distinguishes three kinds of schwa for theoretical purposes (e-schwa (or epenthesis schwa) that alternates with zero, r-schwa (or reduction schwa) that alternates with a full vowel, and s-schwa or stable schwa, which covers rest of the category). Lass (1986) examines his own pronunciation of New York English and concludes that he, as a native speaker of this variety, distinguishes several kinds of schwa (see Fig. 2.9). Therefore, it seems sensible to treat schwa as a phoneme in English, since, though in some cases schwa is a reduced form of other vowels, for many words it is impossible to determine what the original vowel might have been.

The above mentioned facts serve only to illustrate the complicated discussion of phoneme inventory of a language, especially as for the schwa vowel is concerned. This work does not intend to solve the phonological disputations nor offer an opinion in this respect, since it is not the aim of this work. However, it is worth noticing such issues in regard to a proposed ability of native speakers to precisely distinguish the phoneme inventory of one's own language. It is believed, that much difficulty in acquisition of the foreign language comes from an inability of the learners to distinguish foreign language set of phonemes. However, even phonological theories show certain variations in phoneme treatment.

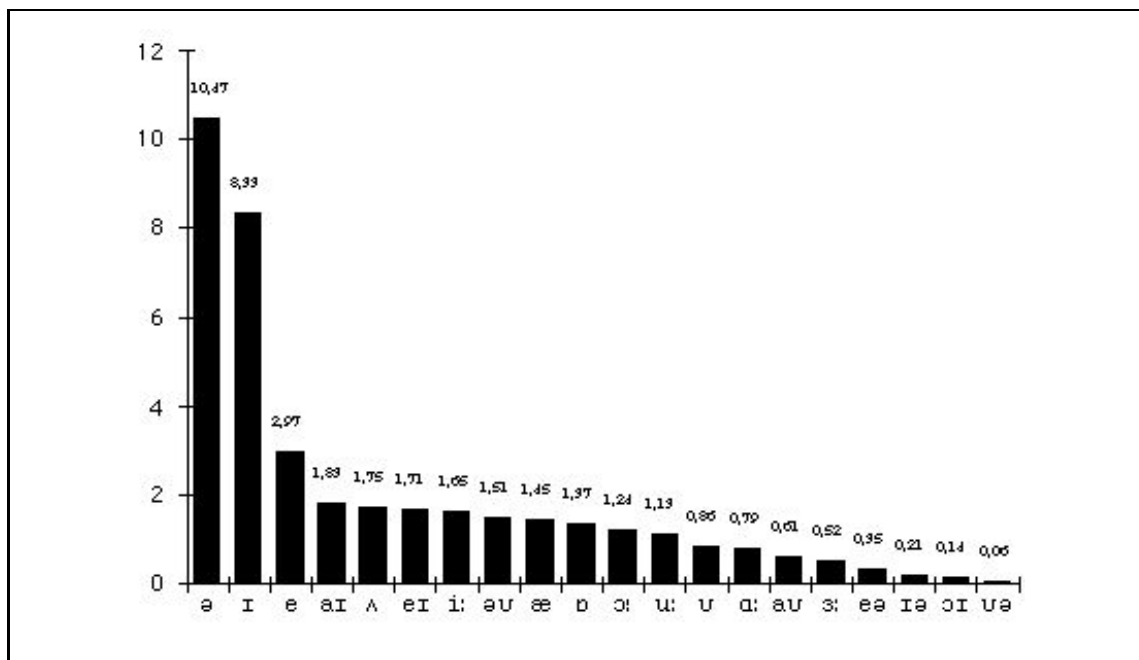
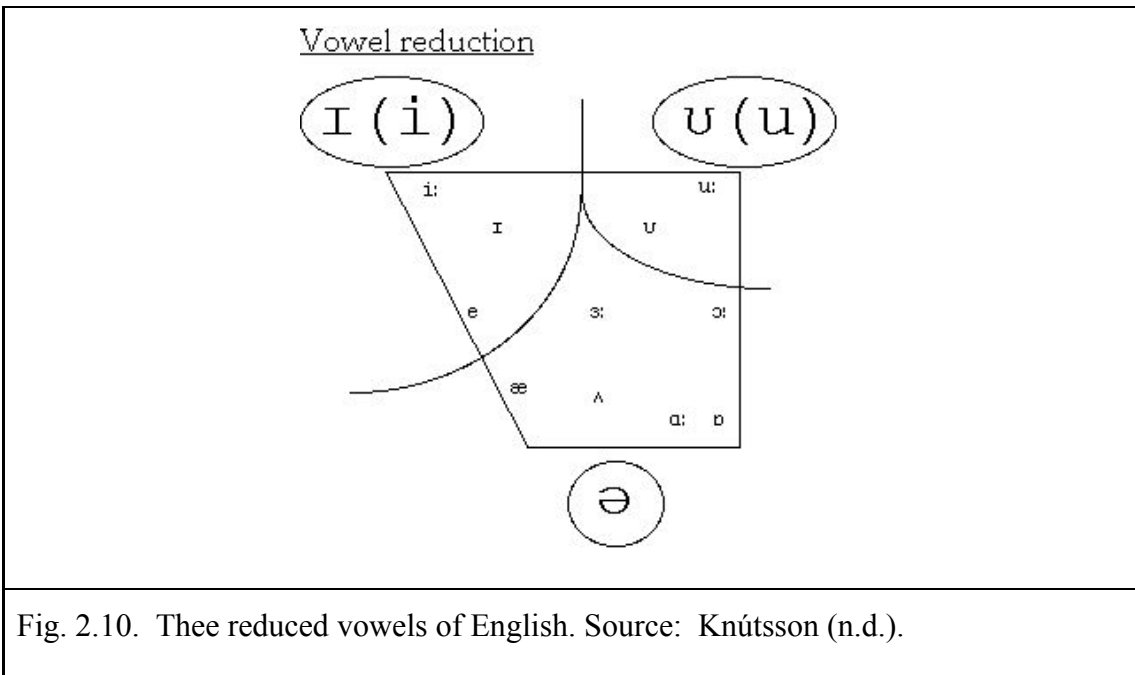
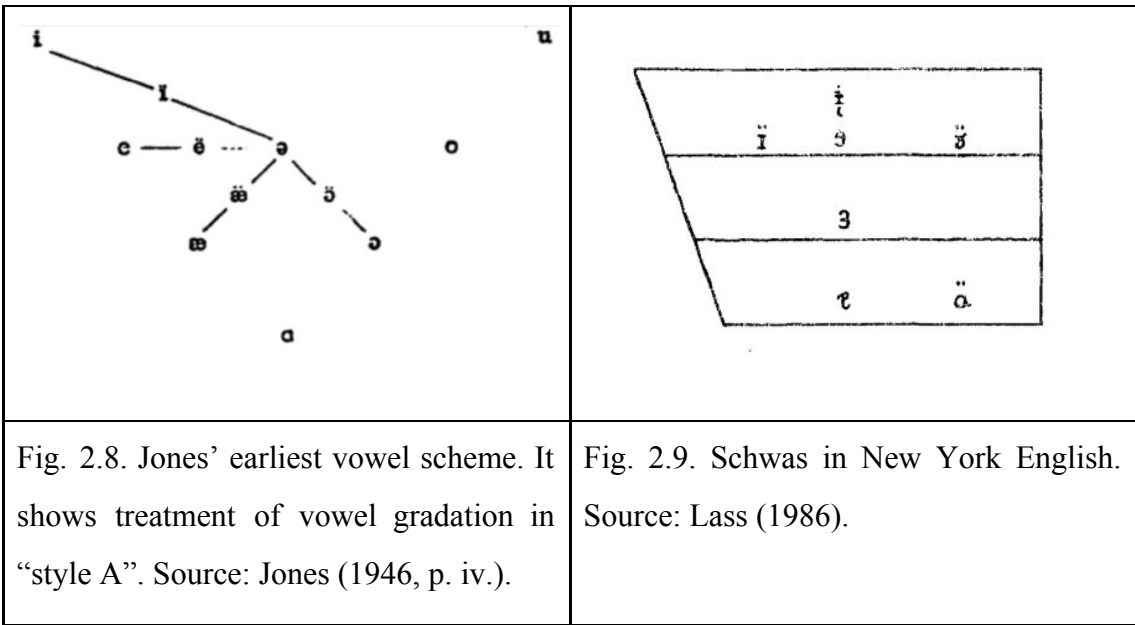


Fig. 2.7. Frequency of English vowels. Source: Knútsson (n.d.), according to Gimson. in Cruttenden (2001, p. 148) and Fry (1947).



2.2.5 Diphthongs and triphthongs

Monophthongs are simple sounds though in informal speech and many varieties of English, they usually have a glide at the end. For instance, the vowels /i:/ and /u:/ are usually slightly diphthongal ([i^h], [u^h]).

Diphthongs are those sounds that consist of a glide from one vowel to another within a single syllable. The first part of a diphthong is always more prominent, i.e. longer and louder than the second one. In RP English, there are eight diphthongs⁶. Schwa occurs at the end of centering diphthongs in all cases (as a reduction of /r/), but also appears as the more prominent part of the diphthong (/əʊ/) preceding the glide to /ʊ/.

RP Diphthongs					
Closing diphthongs	/əʊ/ know /nəʊ/	/eɪ/ bay /beɪ/	/ɔɪ/ boy /bɔɪ/	/aɪ/ buy /baɪ/	/aʊ/ bough /baʊ/
Centring diphthongs	/ɪə/ beer /bɪə/	/eə/ bear /beə/	/ʊə/ poor /pʊə/		

Table 2.2. Closing and centring diphthongs of RP.

English triphthongs end in schwa without exception. As such, all triphthongs are centering. The triphthong /əʊə/ also begins in schwa.

RP triphthongs				
/əʊə/ lower /ləʊə/	/aɪə/ liar /laɪə/	/aʊə/ power /paʊə/	/eɪə/ layer /leɪə/	/ɔɪə/ loyal /lɔɪə/

Table 2.3. Triphthongs of RP.

Monophthongization is a kind of reduction by which a diphthong becomes a monophthong (the opposite process to vowel breaking by which a monophthong becomes a diphthong). Monophthongisation is typical of some dialects of English, such as African American Vernacular English.

⁶ This number is according to Cruttenden (2001), who follows Gimson (1970), but some (usually more dated) sources claim different number of phonemes in RP, e.g. J. D. O'Connor (1973) lists 9 and Jones (1979) lists 12, but notes that 2 of them could be omitted by foreign learners.

In RP, the simplifying changes in diphthongs are referred to as “smoothing”. Diphthongs become monophthongs by dropping the second element and, in addition, the first element is usually slightly lengthened: /aɪ/ > [aː], /aʊ/ > [ɑː], /eɪ/ > [eː], /əʊ/ > [ɜː] (refer to the next chapter for compensatory lengthening).

In triphthongs, the simplification process affects the middle sound (/^laʊə/ > [ɑə]) in the first stage, but the process may go further and result in monophthongisation (/^laʊə/ > [ɑə] > [ɑː]; fire [^lfɑɪə] > [fɑə] > [fɑː]).

2.2.6 Articulation of consonants

The consonants are of a considerably greater diversity than the vowels. They are differentiated not only by place of articulation, but also by manner of articulation, by voicing and by the use of noise generation. Consonants are grouped by their acoustic characteristics according to similarities of articulation (Bilabial, Labiodental, Dental, Alveolar, Retroflex, Palato-alveolar/post-alveolar, Palatal, Velar, Uvular, Pharyngeal, Epiglottic, Glottal; see Fig. 2.11).

The distinction oral/nasal describes whether the sound is produced in oral cavity solely or also if it also involves, by the lowering of the soft palate, the air passage which leads out through the nasopharynx and the nostrils.

“Lenis” (adj.) is a term used in the phonetic classification of consonants in relation to the manner of articulation: “it refers to a sound made with a relatively weak degree of muscular effort and breath force” (Crystal, 2008, p. 274). Sounds on the opposite end of the scale are called “fortis”. The distinction lax — tense and weak — strong are used similarly, but the latter are more ambiguous. In English, the voiced consonants ([b], [d], [v], [z], etc.) tend to be produced with lenis articulation and when the voicing distinction is reduced, only the degree of articulatory strength holds the contrast between sounds.

Lenition (or weakening) is a phonological term for “weakening in the overall strength of a sound” (Crystal, 2008, p. 274), typically on a scale: plosive > fricative > approximant > vowel > zero. It can be also noted down as a following scale: aspirated > voiceless > voiced. The opposite process is called fortition (strengthening).

Cluster reduction is the most important category of phonological rules pertaining to reduction (Crystal, 2008, p. 406) that describe simplification of consonant clusters,

(consonant clusters is formed by two or more consonants occurring in in one syllable); (e.g. clock [klɒk] > [gɒk]).

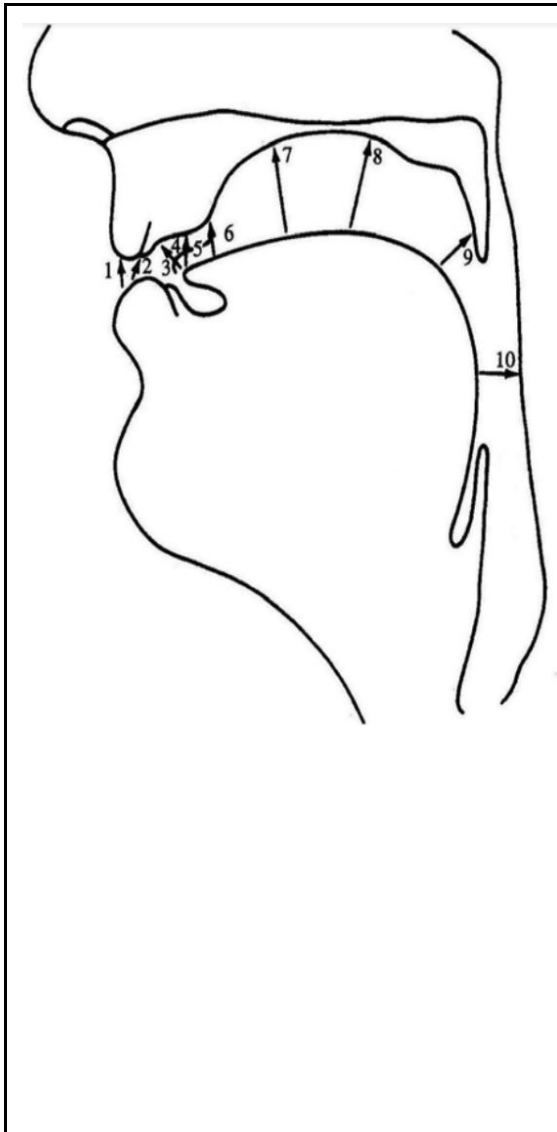


Fig. 2.11. Classification of consonants according to place of articulation. (Source: Ladefoged & Johnson, 2011, p. 49). Arrows are pointing to immovable articulators. Numbers represent the following places of articulation:

- 1) Bilabial
- 2) Labiodental
- 3) Dental
- 4) Alveolar
- 5) Retroflex
- 6) Palato-alveolar/postalveolar
- 7) Palatal
- 8) Velar
- 9) Uvular
- 10) Pharyngeal

Glottal consonants are not noted down. They are produced by epiglottis and glottis in the larynx deeper in the throat.

2.3 Reduction phenomena

The following section comments on reduction phenomena that are common in English. In speech, both vowels and consonants can be reduced. Also higher segments can be reduced or deleted (whole syllables or words). The following will section mention the basic principles that play role in reduction and should be considered.

2.3.1 Reduction and speech rate

Reduction is a phonological process which reduces a full vowel and the resulting sound can be usually analysed as a centralized variant of a vowel. Typically, vowels are reduced in schwa and, as a rule, reduction in English is connected to the absence of stress. In phonology, reduction also covers simplification of sound sequences (e.g. consonant-clusters reduction).

Strong vowels and their weak counterparts											
Strong vowels	/i:/	/ɪ/	/u:/	/ʊ/	/ɔ:/	/ɒ/	/ɑ:/	/ɛ/	/ə:/	/æ/	/e/
Weak vowels	/ɪ/		/ə/								

Table 2.4. Strong vowels and their weak counterparts. Source: Birjandi & Salmani Nodoushan (2005, p.64). Note to weak vowels: 1) /ʊ/ may be preserved in unstressed syllables without further reductions, 2) /ɪ/ may be preserved or further reduced to /ə/.

Speech, especially if spoken in a fast or sloppy fashion, contains many reduced phenomena. Warner (2011) enumerates more modes of speech where reductions can be found, classifies them into two basic groups (fast-slow and casual-formal) and argues against a simplified equation that fast speech necessarily contains reduced forms:

There are many overlapping terms falling along more than one dimension, such as **reduced, conversational, connected, spontaneous, fast, casual, and natural speech**. One could separate a speech rate dimension (fast-slow) out from the dimension of formality (casual-formal) ... Neither of these is exactly a dimension of "reduction": **some speakers talk very quickly in both formal and informal settings, yet seem to maintain almost all of their consonantal articulations**. However, reduction is probably more common in casual conversation and fast speech. (Warner, 2011, p. 1867; accent added)

It is therefore well possible to encounter reduced forms in slow, but sloppy speech. Also, some speaker can speak fast and still retain high degree of clarity. It is also worth mentioning that in this case, the consonantal articulations are noted exclusively, i.e. phenomena of coarticulation and deletion of consonants in consonantal clusters.

There is also an interesting interconnection of speech rate, reduction and context. In the study of Arai (1999) listeners were presented conversational speech and varying amounts of context. They were asked to write down what they had heard. Out of context, the listeners were unable to recognize reduced words or sounds well, yet with little context, they did quite successfully. If the findings of this study are combined with what was mentioned by Warner above, the conclusion can be that the speaker can reduce sounds in his or her speech more if the listener is supposed to understand well, for example a friend of a family friend, and in other cases, such as during recording of a read text in a tempo of the same speed, the speaker may opt for higher clarity and less reductions just on the basis of circumstances.

2.3.2 Reduction and duration

Duration literally means “the amount of elapsed time between two events”, in this case between the start (onset) and end (offset) of a pronounced sound. Also the term “length” is used sometimes, especially in phonetics.

The duration of a vowel describes its quantity in English. This is a different case than in Czech, where (with the exception of /i/ and /ɪ/) the quantity is a distinctive feature. It means that the ear of a Czech speaker is more sensitive in perception to length than to place of articulation and the ear of an English speaker vice versa.

Length of vowels is therefore easily shortened in English in fast spoken language, and the hearer has still the quality clue available. In short vowels, Pöchtrager (2006, p. 17) mentions the phenomenon of “lengthening before voiced consonants” that “can be seen in pairs like *bid* and *bit*, where the nuclear expression in *bid* is much longer than the one in *bit*.” It means, that the “distribution of length is dependent on the kind of onset that follows the nucleus” and not on the process of reduction. Warner notes that if the qualities of “segments are acoustically otherwise unaltered, overall shorter durations might stem from fast speech rather than reduction. However, shorter duration

is usually correlated with reduction in manner of articulation, therefore duration may provide a convenient way to measure reduction” (Warner, 2011, p. 1873). Some authors use a partially automated system for duration measurement (Pluymaekers et al., 2010).

2.3.3 Elision and deletion

Elision and deletion likewise refers to omission of sounds/segments. In spontaneous speech, unstressed grammatical monosyllabic words (e.g. and /ənd/ > /ən/ > /n/), unstressed syllables in polysyllabic words (e.g. camera /'kæmərə/) and syllables with complex consonant clusters (e.g. twelfths /twelθs/ or /twelfs/) are elided. Elision is named according to the position of the elided sound in a word:

1. aphaeresis or prosiopesis (deletion of a sound in word-initial position (such as the historical loss of /k/ in knife and such contractions as I've (Crystal, 2008, p. 29)),
 - 1.1 aphesis (a type of aphaeresis denoting the loss of an unstressed vowel at the beginning of a word ('gain))
2. syncope (deletion of a sound in a word-medial position)
3. apocope (deletion of a sound word-finally (such as the pronunciation of *and* as /vn/ or *of as* /v/ in such phrases as *snakes and ladders* or *cup of tea* (Crystal, 2008, p 30)).

Some authors argue that deletion is not an end status of reduction (because reducing something does not mean removing it, they argue), while others do not object such a concept. It is impossible to separate deletions from other reduced speech phenomena. It can be difficult to say whether there is some trace of the given segment still present. Browman and Goldstein (1989) note that even when a segment appears to be fully deleted acoustically, a reduced-size articulatory gesture for it may still be present (as in the apparent deletion of the final /t/ in perfect memory). Also, gesturally there is no difference between some deletions and some assimilations. For these reasons, apparent segmental deletions should be considered a type of reduction.

Compensatory lengthening can serve as an another example. The sound disappears either completely or it leaves its traces in form of alteration of other, most often adjoining, sounds, such as one may encounter in compensatory lengthening. The

syllable weight remains unchanged. Compensatory lengthening of either vowels or consonants is possible. Vowel lengthening is so prevalent that some authors consider only this kind of lengthening. As Kavitskaya (2003, p. 102) notes, there are two types of compensatory lengthening of vowels: through consonant loss and through vowel loss. The former type is characterized by the lengthening of the vowel as a consequence of the loss of the consonant, while in the latter, the lengthening of the first vowel in this sequence is correlated with the loss of the second vowel in a CVCV sequence.

1. CVC -> CV: (deleted consonant affects duration of the preceding vowel)
2. CVCV -> CV:C (vowel deletion affects duration of the vowel of the preceding syllable and causes resyllabification).

2.3.4 Alternations in segments

Changes in segments as for the manner of articulation or voicing of a segment are rather common in English. For instance, “a great many tokens in all speech styles are actually produced as approximants instead of expected intervocalic stops and flaps.” (Warner and Tucker, 2007, p. 1873).

Changes in place of articulation are due to coarticulation and consists of assimilations. Though there might be not found a perfect agreement on whether all assimilations can be viewed as reduction, Browman and Goldstein (1989) note that variable phonetic assimilations may be part of reduction.

2.3.5 Segment size and reduction

Obviously, the larger the segment is, the less likely it is reduced or deleted, for instance Johnson (2004) found 20 percent of words with at least one segment (sound) deleted and only 5-6 percent of words with a deleted syllable at least.

2.3.6 Reduction of the vowel space

Reduction of the acoustic space applies predominantly to the continuous vowel space, but can apply also to other acoustic spaces, for example the tonal space in tonal languages (see reduction of suprasegmentals in Berry, 2009). Shrinkage of vowel space can result from aging, for instance.

Reduction (or shrinkage) of the vowel space was noticed and promoted by some linguists while others do not share this idea. For instance, “Ladefoged et al. (1976) recorded speech styles ranging from conversational interviews to isolated word-list reading, and failed to find reduction of the vowel space. Koopmans-van Beinum (1980), however, found exactly that effect (in Dutch), in a wide variety of speech styles”. (Warner, 2011, p. 1870)

Vowel space reduction adherents claim that the full vowels shift closer to the central part of the vowel quadrilateral, however, at the same time they keep their position of a full vowel in contrast to schwa. Thereby, the reduction of the vowel space can be considered a kind of reduction even in spite of the fact that the full vowels do not reach the quality of a reduced vowel and do not change phonologically.

Koopmans-van Beinum (1980) notes, that sometimes the overall vowel space shrinks but some types of reduction do not result in a different transcription. In case of reduced vowels, they are still represented as full vowel phonemes (e.g. /i u a/, etc.) and not as a reduced schwa sound.

This implies that the issue with the very word “reductions” lies in the fact that something can be considered to be reduced only in comparison to something else. If the vowel space, for example, of a young person is compared to the vowel space of the same person in old age, the latter can be described as reduced, while, in concord with Koopmans-van Beinum, the full phonemes behave in the same way and stand in contrast to reduced sounds.

2.3.7 Stress-timed and syllable-timed languages

Traditional division of languages into stress-timed and syllable-timed is a well-known one. (English belongs to the stress-timed languages and Czech, with regular accent on the first syllable, belongs to the syllable-timed languages). Though many authorities find such a division between languages helpful and advocate it, others are more critical and claim that even such linguistically well researched languages as French or Spanish are not easily determined as belonging to one group or the other.

One of the reasons is the character of stress or accent. Firstly, it might be useful to present some definitions of accent and pitch. Crystal defines accent in the following way: “(1) The cumulative auditory effect of those features of pronunciation which

identify where a person is from, regionally or socially ... (2) The emphasis which makes a particular word or syllable stand out in a stream of speech ... accent is not solely a matter of loudness but also of pitch and duration, especially pitch ...the contrast in **word accent** between *record* and *record* is made by the syllables differing in loudness, length and pitch movement.” (Crystal, 2008, pp. 3-4, underline added).

Pitch is “an auditory phonetic feature, corresponding to some degree with the acoustic feature of frequency, ... the number of complete cycles of vibration of the vocal folds”. (Crystal, 2008. p. 369).

Higher pitch is typical for more prominent syllables in English, but not in Czech where the first syllable of the words is always stressed but lower in pitch than the rest. Also the duration (as mentioned in the definition of “accent” above) is more connected with the stressed syllable in English (where the unstressed syllables have a strong tendency to become shorter) than in Czech (where the unstressed syllables can be long such as in *Paříž, slavík*).

2.3.8 Pronunciation and perception

Another issue is variability in pronunciation vs. reduction. It is impossible to find a sound form in spontaneous speech and compare it against a standard or “dictionary” form. Especially in English, the pronunciations tend to vary a lot and, for instance, Greenberg (1999, p. 164) finds 117 pronunciations for the word “that”. It is inadvisable to jump to an easy conclusion that from this number, one pronunciation represented a full form and the remaining 116 pronunciation variations were reductions. Rather, it points to another fascinating fact — the variability that listeners encounter in normal conversation is enormously high. It applies to frequent words especially, and it was found by many studies that pronunciation of infrequent words tends to be more careful.

From the articulatory point of view, the general explanation of reduction often is as follows: in fast speech, the speaker saves time needed to move articulators into one position to the next position and the speech is not as clear. The movements of articulators are not fully and precisely executed. The articulatory processes that are involved range from reduction of the sound in quantity and/or quality to leaving it out altogether without any trace (for instance in the form of compensatory lengthening if contrast is needed or even without it).

If the sound is not articulated at all, it does not appear in the acoustic channel as well. However, when one examines the speech within the frames of perceptual phonetics and investigates what a listener really hears, it is often found that the brain substitutes the missing sounds and the listener “hears” them although they are not present in the acoustic channel. Undoubtedly, it is because the brain matches the words against an enormous database of the previously heard sounds, words and phrases, and “corrects” the information to be able to process it.

2.4 Some opposite processes

“Restressing” is an interesting process within the realm of sound change processes, perhaps because English is a time-stressed language. Many words are predominantly pronounced in a reduced form and the native speakers acquire fast speech forms first (unlike the learner of English as foreign language who, usually, learns the “dictionary entry” form first, i.e. the unreduced form. When the native speaker is asked to revert to formal pronunciation, as the pupils and students are at schools, Nathaniel M. Caffee asserts that:

“The unstressed vowel sounds of English, because of their quality and because of their conventionalized spelling, can be readily restressed by any literate speaker into almost any of the accented vowels. The illiterate speaker, unaware of the conventionalized spelling, does not restress them into as great a variety of sounds. Actually, his choice is fairly wide in syllables bearing secondary stress; but when the syllable is normally unstressed in the isolated word, he is limited to [i] or [a].” (Caffee, 1951, p. 103)

“Intrusion”, the opposite of elision, is a “term used occasionally in phonetics and phonology to refer to the addition of sounds in connected speech which have no basis in the pronunciation of the syllables or words heard in isolation.” (Crystal, 2008, p. 253). The intrusive /r/ in RP is the most widely known example. The intrusive sound can be a vowel or a consonant. Also, vowels sounds that are not part of the language set of vowels can intrude: “The excrescent vowel may have a quality not present in the

language's lexical vowel system; for example, excrescent schwa may exist in languages that otherwise has no schwas". (Hall, 2005, p. 1584).

There are three kinds of intrusion in relation to the position of the extra sound in a word: "prothesis" (word-initial position), "anaptyxis" or "epenthesis" (word-medial position) and "paragoge" (word-final position). The most usual kind of intrusion is epenthesis. Since epenthesis is the most frequent kind of these, it is sometimes understood as a cover term for intrusion in general (i.e. covering prothesis and anaptyxis)⁷.

Intrusion is also divided according to the type of a sound involved into two subtypes: "excrescence"(addition of a consonant) and "anaptyxis" (addition of a vowel; terms 'parasite' or 'svarabhakti' vowel are also used).

"Assimilation" covers many processes (some of them will be covered in more detail later) for which the characteristic feature is that sounds become more alike or "similar". Dissimilation is the opposite of assimilation, i.e. a sound becomes less similar to another sound. Assimilatory processes cover coarticulation, consonant harmony, consonant voicing and devoicing, fusion, Germanic umlaut, iotation, labialization, labio-palatalization, metaphony, nasalization, palatalization, umlaut and vowel harmony. They are usually divided into three basic types: assimilation of voice, place of articulation and manner of articulation. Some assimilatory processes include reduction, or weakening, others do not.

There are two types of assimilation as for position of the affected phoneme: progressive and regressive. Progressive assimilation occurs when a phoneme affects the realisation of a following phoneme (e.g. "it is" > "it's": /It Iz/ > [Its]; the voiced alveolar fricative /z/ becomes voiceless [s]). Regressive assimilation pertains to the realisation of the preceding phoneme. ("hot coffee" > [hɒkkɒfi:]; the voiceless alveolar plosive /t/ has undergone a voice assimilation into "voiced" and place assimilation into "velar" being influenced by the voiced velar plosive /k/).

"Vowel harmony" and "umlaut" are kinds of long-distance assimilatory processes. Vowels in a word must be members of the same subclass (which is described as being "in harmony"). The term, however, is used in two different senses: 1) It can

⁷ Cf. Crystal (2008), p. 171 and p. 253.

refer to any type of long distance assimilatory process of vowels, either progressive or regressive (equal to the term “metaphony”); 2) It refers only to progressive vowel harmony and for regressive harmony, the term umlaut is used (metaphony is the general term covering vowel harmony and umlaut). Even in languages with vowel harmony, not all vowels are changed by this process.

Vowel harmony is more common in syllable-stressed languages. Therefore in English, it is rare. However, in African English, where the spoken variant of English was significantly influenced by local languages that are not stress-timed, vowel harmony was applied on English, counteracted against schwas and some CVC syllables and replaced these sounds with the preceding vowel quality or added a vowel to break CVC syllable into two CV syllables (e.g. Mum > [mʊmʊ]). In essence, stress placement is as a process that directly acts against vowel reduction in the affected syllable.

“Metathesis” names the reordering of the normal sequence of elements (sounds, syllables or words). It mostly occurs in consonantal clusters or with a vowel and /r/. It a genuinely unsystematic change (often is a mere lapsus linguae such as in “ask > aks”) and can be effective in word formations (OE bridd > ModE bird). Metathesis violates linearity but not adjacency of two segments.

2.5 Concluding remarks

From the preceding pages, it is clearly seen, that reduction is a continuum, and that it is impossible to find exact boundaries between a reduced and an unreduced form. Also, there are phenomena that can lead to forms that can be analysed as reduced forms, but without justification. Reduction is a process resulting in decreasing audibility of a sound, involving a quantitative and qualitative change of a sound which can result in deletion. In English, the reduction is related to stress. Both phonemes and allophones can be reduced, but a phoneme is not necessarily the unreduced default form of a full vowel, since in some theories, schwa, a sound that is considered to be reduced, is a phoneme covering an allphone which is unreduced (and occurs in unstressed syllables).

3 Methods

The process of experiment consisted of a preparation phase that included collecting samples, ensuring that the samples were of appropriate sound quality and format, a phase of sample analysis in the Praat software (annotations, judging the sounds both by ear (perception analysis) and comparison of the sound against the spectrogram visually) and finally, a phase of sorting the data and evaluation of the findings (which will be covered in the following chapter).

As already mentioned in the introduction, the aim of the present work was to analyse reductions used in samples of Czech students of English and the hypothesis were as follows:

h1: the reductions will occur less frequently, especially in grammatical words

h2: the correlation of reductions to stress will not be present as a rule, due to stress inference of the native language which is of different stress type than English.

3.1 Samples

The experimental part of this work was limited as for availability of samples as the author of the present work is not a teacher and does not work with students of English. In spite of it, several sample recordings by students of English were finally acquired.

Since the number of samples was small, the work rather concentrates on a suitable method of study and the aim is to examine whether a particular method can yield serious data. Instead of obtaining vast data and statistically processing them, the aim is to individually analyse several samples and conclude which methods are suitable for an analysis that could be applied to larger number of samples as well.

All samples come from students of English language bachelor degree study programme in the first year. It is supposed, that the pronunciation of those students is above average, since they have chosen English as their prospective career, though not perfect yet as they find themselves at the very beginning of their English language specialisation studies.

Three sample recordings were acquired, two by a male speakers, one by a female speaker. Since the speakers differ in gender, the frequencies obtained by Praat vary accordingly. Therefore, not only the small number of data, but also the difference in gender, prevents the application of statistics. Also the teacher in the EFL classroom must evaluate the students individually.

3.2 Annotation

The recordings were transcribed and annotated in Praat. The manual transcription (that relied mainly on the ear) was checked against Praat data.

Transcription used in this work follows principles of broad transcription based on IPA (International Phonetic Alphabet). The IPA table is in Appendix 1⁸. The International Phonetics Alphabet (IPA) was published as a draft in 1887 and the first official version was published a year later. The 1888 version contained six policy statements, and, noteworthy, the second rule explicitly formulated the principle that “The same sign should be used for the same sound across all languages.” (Brown, 2012, p. 2826). However, the traditions in phonetic transcription are very strong and, as a result, IPA is not truly followed in all cases. Most of dictionaries follow certain phonological traditions or compromise typographical ease and simplicity of reading for lay readers (i.e. refrain from unusual characters and supply them with others characters already found in the alphabets, and therefore already familiar to the readers).

The use of schwa symbol can serve as an illustration. In *The Oxford Handbook of Lexicography*, Graham Pointon comments on the transcription of the schwa sound: “Inevitably, the hardest vowel to represent has been schwa, which in the earliest dictionaries was either ignored completely, or equated with the short ‘ü’...” (Pointon, 2016, p. 479). Despite the promotion of the IPA, the path of this symbols into general usage was rather long. In America, it was introduced into general dictionaries in 1947 (Clarence Barnhart’s *American College Dictionary* was the first collegiate work to use the schwa symbol at all (Landau, 2009, p. 222). Today, some dictionaries use schwa symbol in stressed syllables, too, for instance, see Merriam Webster Online Dictionary

⁸ Pullum and Ladusaw (1996) is an excellent reference book to consult in case of question on usage of almost any phonetic symbol.

(2018) for entry Productive (n.d) which is transcribed as /prə-¹dæk-tiv/. The schwa symbol in the stressed syllable is, however, expected to be pronounced as traditionally used symbol /ʌ/ (equal to /ɐ/ in IPA) .

Issues connected with transcription are also in a relationship with shifts in pronunciation. In most contemporary standardised variants of English (RP, AE, NZE as well as GA) /ɐ/ is no longer [ɐ] (a phoneme) but is covered under schwa phoneme instead. It means, that in dictionaries following this perspective, schwa symbol can occur in stressed positions. There is another issue with the sound /ʌ/ - the reversed “v” symbol is used traditionally and in IPA chart, it appears not in the near-open mid-central area, as it is usually placed in linguistic books, but on the right extreme of the vowel trapezoid. In fact, the IPA symbol of /ɐ/ usually corresponds to the sound described traditionally as /ʌ/.

In Britain, Clive Upton has worked as a pronunciation consultant for Oxford's dictionaries of English and his quantitative-qualitative system of transcription was introduced in the Concise Oxford Dictionary in 1995. It differs from for instance in the symbols for vowels: Upton uses <ɛ> instead of <e>, <a> instead of <æ>, <əː> instead of <ɜː>, <ɛː> instead of <eə>, and finally <ʌɪ> instead of <aɪ>. His decision to discard traditionally used symbols was made due of changes in pronunciation not reflected in dictionaries.

For reasons mentioned above, the notation symbols used in this work are in compliance with IPA. The symbols used for schwa and long schwa are <ə> and <əː> respectively (also in compliance with the above mentioned Upton's model or with Daniel Jones (1979), and the <ɐ> symbol is used instead of traditional <ʌ>.

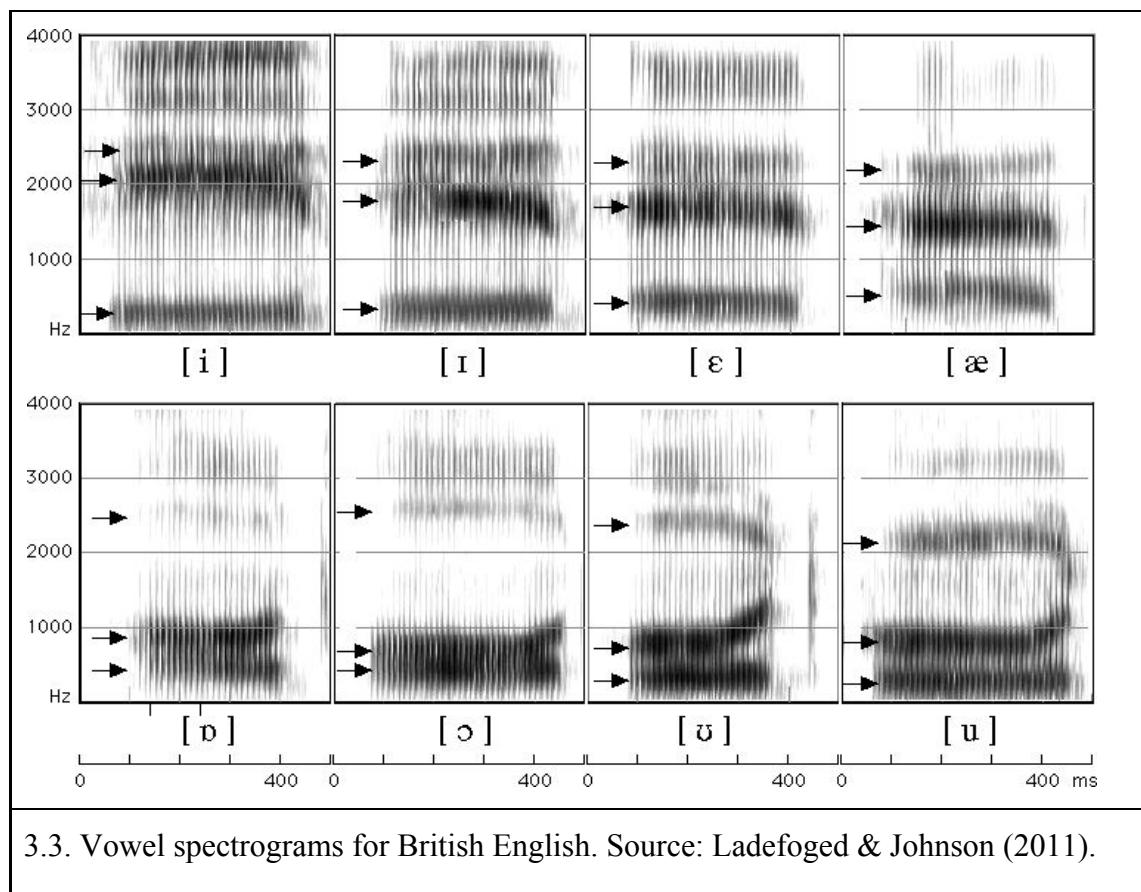
3.3 Perception analysis

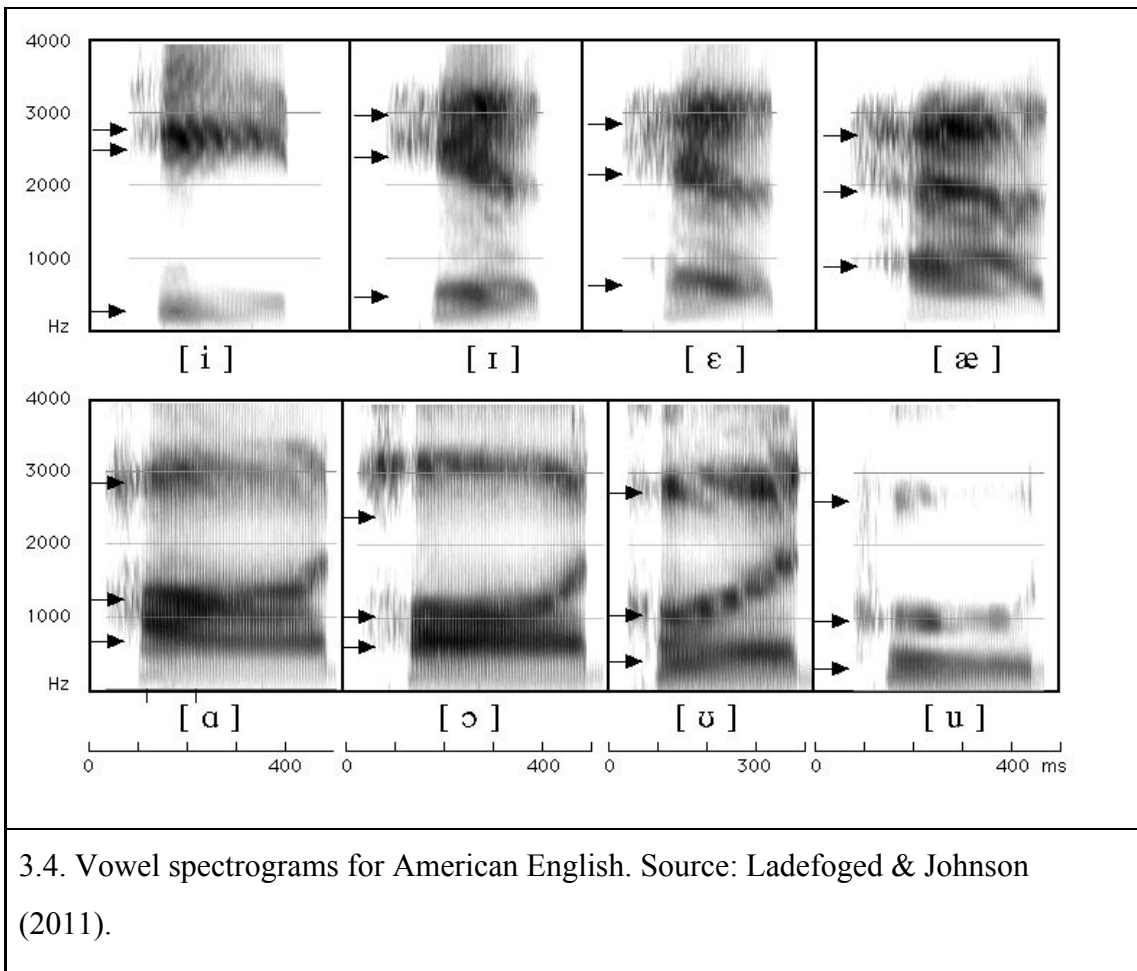
The samples were reheard many times, and in case the sounds were difficult to discern, a visual comparison with stressed vowels as in Figs. 3.3 and 3.4 and with spectrograms in Praat were also employed.

The frequencies can slightly differ speaker to speaker and for this reason the text was inspected for irregularities. The frequencies of male and female speaker differ (in the absolute values) but remain the same for the same speaker. Thus, the experimental part was not interested in the measurement of absolute values. The ratios between the

frequencies of various vowels also remain the same for the same speaker. In Figure 3.3 (and 3.4), compare the gaps in frequency peaks between the lowest dark band (F1), the middle band (F2) and the upper band (F3).

The Czech students usually study British English but hear American English very often. They are influenced by various teachers of various backgrounds and movies, songs and games of various origin, and as a result, they learn many words from American English. It is why both the American and British variety of English was compared with Czech to determine, if possible, whether the sound is closer to the native language of the speakers or to any of the English varieties.





3.4. Vowel spectrograms for American English. Source: Ladefoged & Johnson (2011).

4 Results and Commentaries

This chapter presents the analysed texts which are commented on. The sound files were optimised, manually transcribed, selected parts of the sound files were analysed in Praat (spectrograms, also formants of particular sounds were measured in Praat) and this process was also confirmed by repeated hearing. Statistical methods were not found suitable and therefore were not used especially due to the small amount of data.

As already previously stated, the speakers are freshmen in an English degree programme at a university, therefore their pronunciation is supposed to be above level. None of them comes from a bilingual family, has English native speakers in family nor has ever lived in an English speaking country. They come from different towns and completed their secondary education on various schools.

The recordings were prepared according to instructions but in privacy, i.e. the author of this work was not present to the recording. In spite of this fact, the knowledge that the speech sample would be studied by someone later could lead to an effort to control the accuracy of both pronunciation and grammar to a greater degree than in an spontaneous chat with a friend. On the other hand, the privacy might also relieve stress in the speaker more than if in front of a class and a teacher.

The recordings were rather short, to prevent reluctance or even aversion of the speaker to dwell too long on the given topic. The topic chosen was “My best holidays” which was considered to be a topic the students can easily relate to and recall some pleasant moments and relax in their speech.

4.1 Text 1

Text 1 was narrated by a male speaker.

4.1.1 English transcription

Transcription of the recording (Czech words, indecipherable words and mumbling sounds were omitted):

... well the most interesting holidays I've ever had were certainly the holidays of two thousand seventeen ... I mean the holidays just after I visited a few festivals ... one of them was ... where ... where some of my friends ... works ... thus I've ... had some some ... of stuff ... those those really great amount of ... of musicians which ... I fully enjoyed the atmosphere was friendly and yeah that's that's what ... concerns ... other than that I've visited several year of my friends at the scouts camp ... near ... south bohemia I've actually been a member of a member of this celts group ... since ... since the first ... first grade of elementary school and I've just before ... first year of high school and ... that's it ...

4.1.2 Phonetic transcription and annotation

Transcription of the spoken text in IPA (Czech words, indecipherable words and mumbling sounds were omitted). Reductions made by the speaker and mistakenly restressed variants are in bold, incorrectly placed stress in underlined):

wel ðə məʊst ˈɪntrɪstɪŋ ˈhɒlɪdeɪz aɪv ˈɛvə hæd wɜːr ˈsɜːtɪnli ˈðə ˈhɒlɪdeɪz ɒv tuː
 ˈθəʊzənd ˈsɛvənˈtiːn ... aɪ miːn ðə ˈhɒlədeɪz ˈɑːftə ... ʤɛst ˈɑːftə ðə ... aɪ
 ˈvɪzɪtɪd ə fjuː ˈfɛstɪvəlz ... wɛn ɒv ðɛm wɒz ... weɪ ... weɪ ... sɛm ɒv maɪ frɛndz
 ... wɔːks ... ðɛs aɪv ... hæd hæd sɛm sɛm ... ɒv ... ɒv stɛf ... ðeəz ðeəz ˈrɪəli greɪt
 ə ˈmaʊnt ɒf ... ɒv mjuːˈzɪʃənz wɪtʃ aɪ ˈfʊlə ɪn ˈʤɔɪd ðɪ ˈatmosfeɪ wɒz ˈfrɛndli ænd
 ... ʤə ðæts ðæts wɒt ˈkɒnsəns ... ˈθə ðæn ðæt aɪv ˈvɪzɪtɪd ... ˈsɛvə ˈdʒɪər ɒv maɪ
 frɛndz æt ðə skaʊts kæmp ... nɪər ... ɪn ... səʊθ bɒˈhiːmɪə aɪv ˈækʃəli ... aɪv
 ˈækʃəli biːn əː ˈmɛmbər ɒv ðɪs ... ɒv ðɪs kɛlts gruːp ... sɪns ... sɪns ðə ˈfɛst ... ˈfɛst
 greɪd ɒv ˈɛləmɛntri skuːl ænd left ʤɛst bɪ ˈfɔː ... ˈfɛst ˈdʒɪər ɒv haɪ skuːl ænd ...

Annotation of the sound file in Praat, in harmony with spectrograms and formants (F1-F3) has greatly contributed to greater precision of the sound identification in places of unclear pronunciation.

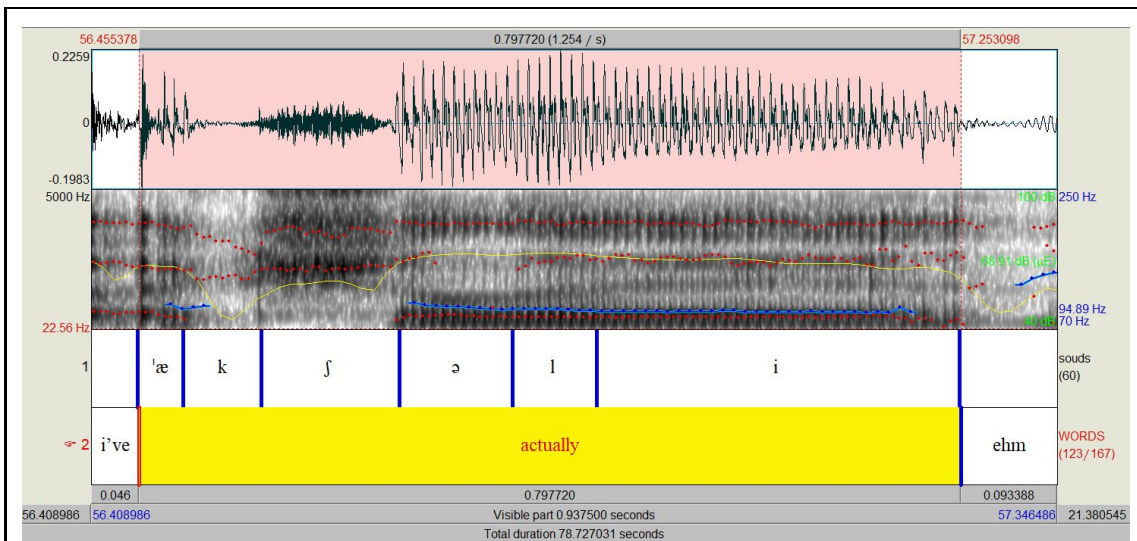


Fig. 4.1. Text 1. Praat analysis of “actually”. Actually is highly variable in pronunciation, in British English, the dictionary entry form is usually /^læktʃʊəlɪ /, in American English it can range among /^læktʃuəli; ækʃuəli; ak^lʃu:əli; ^læktʃəli; ak^ltʃəli;; ækʃəli/ (Collins, 2008). Both the speakers in Text 1 and 2 prefer the pronunciation form /æktʃəli/ which is simpler than any of the enumerated entry variants above.

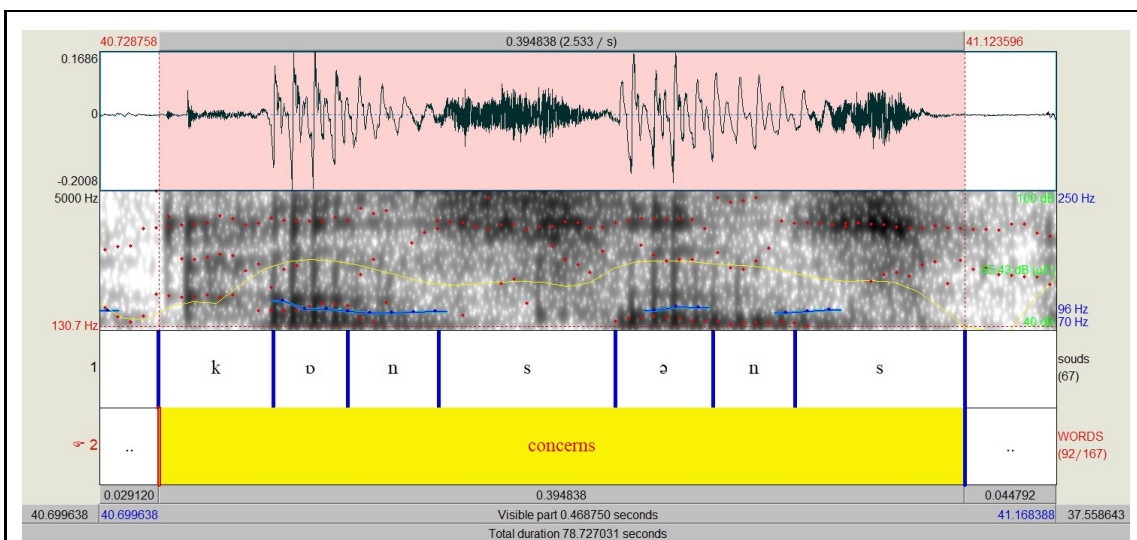


Fig. 4.2. Text 1. Praat analysis of “concerns” (verb). The speaker mistakenly stresses the first syllable and it inevitably leads to restressing of schwa into /ɒ/ and reducing the long schwa in duration. /kən^lsɜ:n/ is the dictionary form of “concern” (v.) (Collins, 2008).

4.1.3 Types of reductions

As for function words (also called structural words or grammatical words, i.e. words that do not have lexical meaning or have ambiguous meaning such as “have”, “of”, “and”), reduction was rare. Native speakers often reduce such words significantly (and: /ænd > ənd > ən > n/, at: /æt > ət/, of /ɒv > əv/) but the Czech speaker made almost no noticeable reductions in this respect. The speech was rather slow and perhaps his concentration on the contents of the message, effort to recall something relevant to the theme of the text (last summer holidays) and hesitation in choice of proper grammatical composition of the utterance can be seen especially in the case of “and” that serves more or less as a filler word and a means to gain time.

Although reduction was not found to be regularly present in grammatical words, as for content or lexical words, they were sometimes reduced significantly by the speaker (for instance, wɜ:kz > wɜ:ks, ækʃʊəli > ˈækʃəli, sɛvrəl < ˈsɛvər, ˈfʊli > ˈfʊlə).

Some words were pronounced with an American accent (rhoticity in /fəˈst/), but the speaker mostly used British pronunciation (were > wə:). The varying usage in pronunciation of lexical words, however, does not affect the system that is obvious in the speaker’s practice.

In rare instances, restressing of a schwa sound was found (for instance, wə:ks > wɔ:ks). Certain pronunciation error can be caused by visual interference - the learner is well acquainted with the written form of the English word, but after the Great English Vowel Shift, the vowel letters have different qualities in English than in Czech. This kind of interference can be seen in pronunciation of words like “works” (pronounced as /wɔ:ks/ instead of /wɜ:ks/), of (pronounced as /ɒv/, /ɒf/ rather than /əv/). The author believes that such signs of visual interference, especially if frequent, can be a sign of an inadequate auditory input and could be remedied by higher exposure of the learner to the spoken word.

4.1.4 Incorrect word stress placement

In the case of an incorrectly placed stress in the verb “concerns” (pronounced as ¹kɒnsəns instead of kən¹sɜːnz) we can see that the misplacement of the stress caused a decrease in length of long schwa and schwa in the first syllable was restressed (see Fig. 4.2.) Incorrect stress placement is leftward, i.e. towards the beginning of the word, obviously under the interference of the Czech stress placement on the first syllable.

4.2 Text 2

Text 2 was narrated by a female speaker.

4.2.1 English transcription

Transcription of the recording (Czech words, indecipherable words and mumbling sounds were omitted):

...so ... my best holiday that I've ever had ... I can't point really out. ... I don't think that ... one... holiday stands out ... stand out from the row of the holidays that I've had. So ... maybe it was when I was younger, when we ... went to ... Province in France and we went to visit our ... family friend Angela ... who is ...very very old ... British lady and she made us a lot of ... British traditional meals, but in the French way, so they were actually tasty, so ... and ... that was the first time that I've ever been to sea and that I've actually ... seen the shells on the beach and ...so it was ... there were so many new things for me to discover ... that summer ... but then the next summer we went to the same location again, so ... I can't really tell that it was the best of the ... of of the summers. And that's it.

4.2.2 Phonetic transcription and annotation

Transcription of the spoken text in IPA (Czech words, indecipherable words and mumbling sounds were omitted). Reductions made by the speaker and mistakenly restressed variants are in bold, incorrectly placed stress in underlined:

soʊ ... maɪ bɛst **ˈhɒlɪdeɪ** ðæt aɪv **ˈɛvə** hæd ... aɪ kɑːnt pɔɪnt **ˈrɪəli** aʊt. ... aɪ dɒnt
 θɪŋk ðæt ... wɒn... **ˈhɒlɪdeɪ** stænd aʊt əv... stænd aʊt **fɾɒm** ðə **rɒʊ** əf ðə **ˈhɒlɪdeɪz**
 ðæt aɪv hæd. soʊ ... **ˈmeɪbiː** It wəz wɛn aɪ wɑːz ˈjɛŋgə, wɛn wiː ... wɛnt tʊ ...
 ˈprɒvɑːns In ˈfrɑːns ænd wi wɛnt tə ˈvɪzɪt **ˈaʊər** ... **ˈfæmli** frɛnd **ˈændʒəb** ... huː ɪz
 ... ˈvɛri ˈvɛri ɒld ... **ˈbrɪtɪʃ** ˈleɪdi ænd ʃi meɪd əz ə lɒt ɒf ... **ˈbrɪtɪʃ** **ˈtrɛdɪʃən**
 miːlz, bɛt In ðə frɛnʃ weɪ, soʊ ðeɪ wɛr **ˈækʃəli** ˈteɪstɪ, soʊ ... ænd ... ðæt wɒz ðə
fɔːst taɪm ðæt aɪv **ˈɛvə** **bɪn** tə siː ænd ðæt aɪv **ˈækʃəli** ... siːn ðə ʃɛlz ɒn ðə biːʃ
 ænd ...soʊ It wɒz ... **ðər** wəː soʊ ˈmɛni njuː θɪŋz fə miː tə **dɪsˈkɛvə** ... ðæt **ˈsɛmə**
 ... bɛt ðɛn ðə nɛkst **ˈsɛmə** wi wɛnt tə ðə seɪm **lɒˈkeɪʃən** ə **ˈgɛn**, soʊ ... aɪ kɑːnt
ˈrɪəli tɛl ðæt It wɒz ðə bɛst əv ðiː ... əv əv ðə **ˈsɛməz** ən ðæts It

4.2.3 Types of reductions found in Text 2

As for reduction in function words, it was rather low, for instance “so” /soʊ/ was never reduced into /səʊ/, “was” was usually pronounced as /wɒz/, “and” was pronounced as /ænd/. Reduction was found in “been /bɪn/, for instance.

In lexical words, the identical pronunciation of “actually” with the speaker in Text 1 was found (/ækʃʊəli > ˈækʃəli/). Reduction was found in “family” (/ˈfæmli/; see Fig. 4.3). Reduction was missing e.g. in the first syllable of “location” (/lɒˈkeɪʃən/).

Rhoticity was found e.g. in “were” (/wɛr/) accompanied by reduced duration of the vowel. Rhoticity was variable in “sommer - sommers” /ˈsɛmə - ˈsɛməz/).

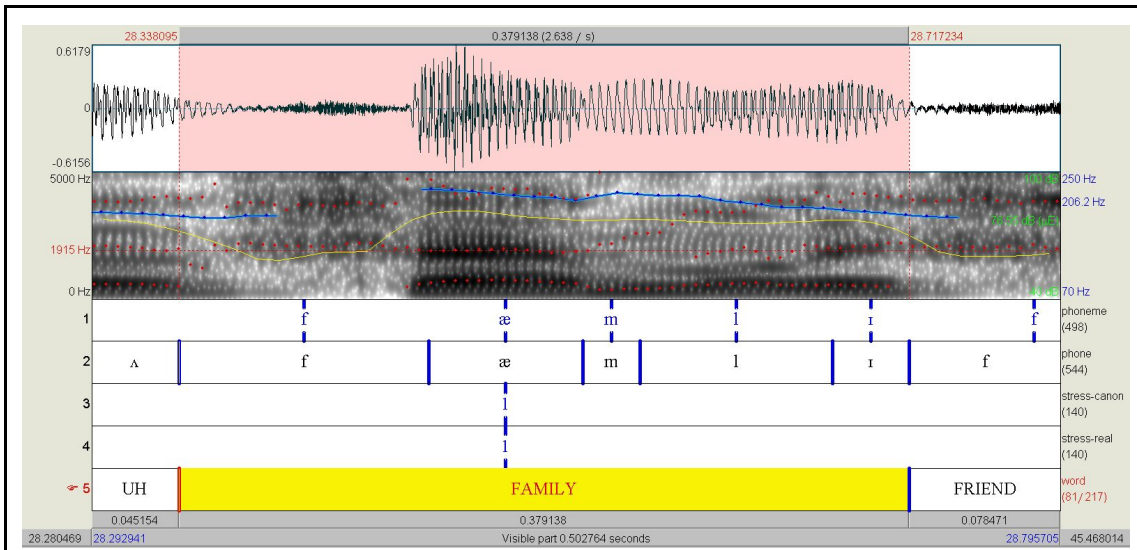


Fig. 4.3. Text 2. Praat analysis of “family”. In British English, the dictionary form is /fæməli/, in American English it varies between /fam¹əli; ¹fæmli, ¹fæməli; fam¹əli/ (Collins, 2018).

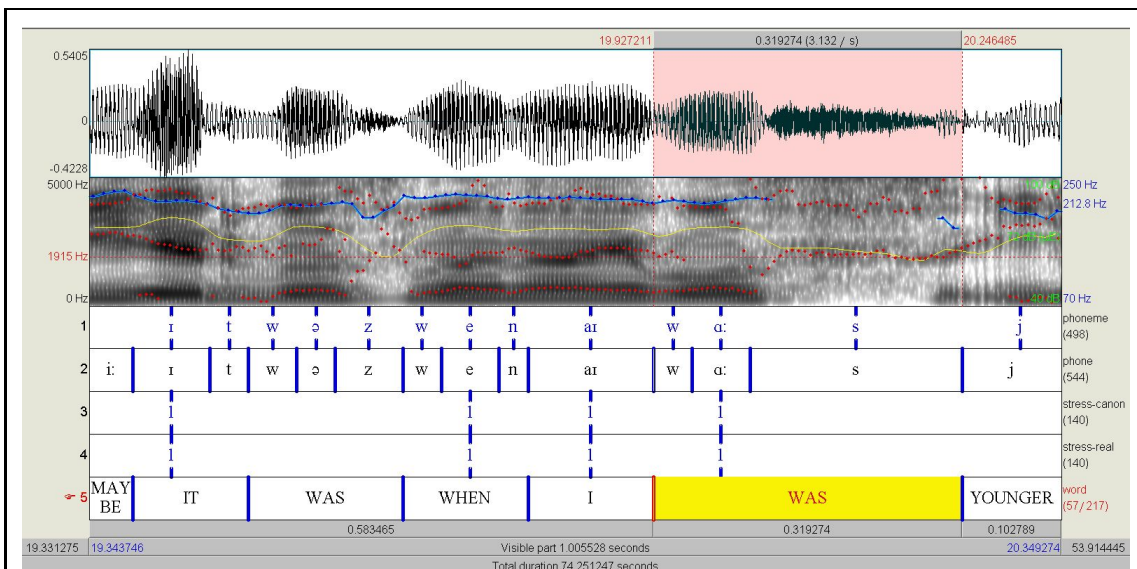


Fig. 4.4. Text 2. Praat analysis of “actually”.

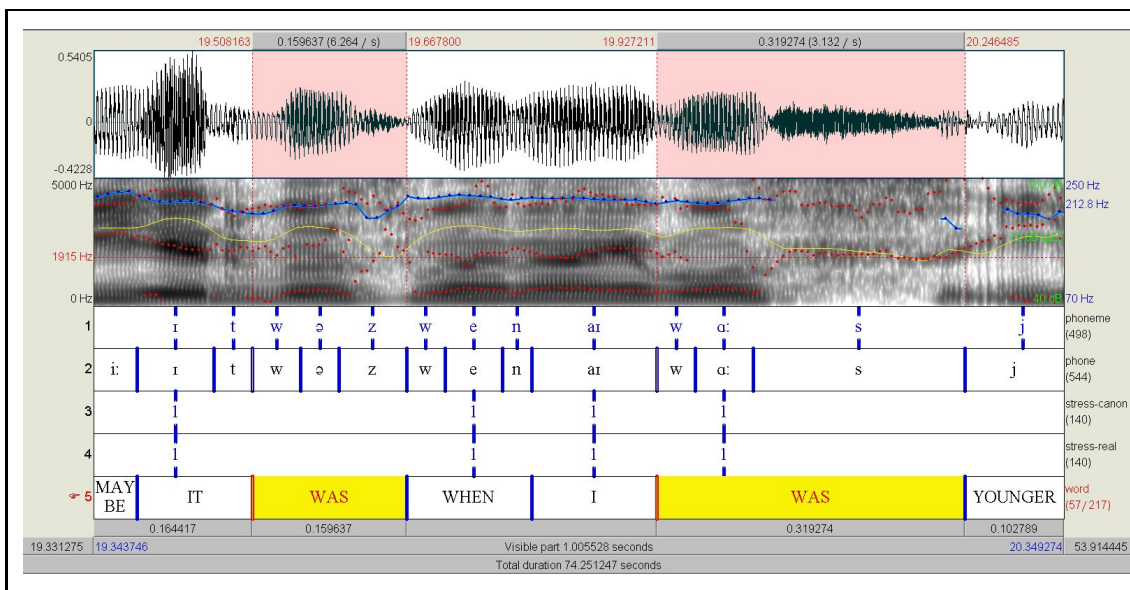


Fig. 4.5. Text 2. Praat analysis of two cases of “was”. The first occurrence is reduced while the second is unreduced.

4.2.4 Incorrect word stress placement

Incorrect rightward stress placement was found in traditional /trə¹dɪʃənl > ¹trɛdɪʃənl/, again, it was leftward, i.e. towards the beginning of the word, under the interference of the Czech stress system.

4.3 Text 3

Text 3 was narrated by a male speaker.

4.3.1 English transcription

Transcription of the recording (Czech words, indecipherable words and mumbling sounds were omitted):

all right so here's my rant about my best summer ever ... I don't really think that there is a summer that is ... as whole .. as outstanding that it could've be marked as the best summer ever but I do have a best summer experience with .. which would probably be my trip to Georgia ... Georgia the country which is between Europe and Asia ... not the

country in the United States ... or the state within the United States ... it was like two years ago ... or three years ago ... I'm not really sure right now ... and I went with my with my parallel classmates ... like the classmates from parallel classes atit was a really beautiful trip ... we went there by plane, we met a lot of locals ... we really felt like our cultures intertwined and we've learnt something from them ... and that's a much better experience than just going to see the beaches of Croatia which is the most typical holiday for Czech people I believe ...

4.3.2 Phonetic transcription and annotation

Transcription of the spoken text in IPA (Czech words, indecipherable words and mumbling sounds were omitted). Reductions made by the speaker and mistakenly restressed variants are in bold, incorrectly placed stress in underlined:

ɔ:l raɪt soʊ **hiə** z maɪ rænt ə'baʊt maɪ bɛst 'sɛmə 'ɛvə ... aɪ dɒʊnt 'rɪli θɪŋk ðæt ðər ɪz ə 'sɛmə dət ɪz ... əz həʊl .. əz aʊt'stændɪŋ ðæt ɪt 'kʊdə bi mɑ:kt əz ðə bɛst 'sɛmə 'ɛvə bət aɪ du: həv ə bɛst 'sɛmə ɪks'pɪəriəns wɪð .. wɪf wəd 'prɒbəbli bi: maɪ trɪp tə 'tʃɑ:ʃiə ... 'tʃɑ:ʃiə də 'kɛntri wɪf ɪz 'bɪtwi:n 'jʊərəp 'ænd 'eɪzə nɒt də 'kɛntri ɪn ðə jʊ'nɑɪtɪd steɪts ɔ: ðə steɪt wɪ'ðɪn ðɪ jʊ'nɑɪtɪd steɪts ... ɪt wɒz laɪk tu: 'jɪərz ə'grʊ ɔ: θri: 'jɪərz ə'grʊ aɪm nɒt 'rɪəli ʃʊə raɪt nɑʊ ... end aɪ wɛnt wɪð maɪ ... wɪð maɪ 'paralɛl 'klɑ:smeɪts laɪk ðə 'klɑ:smeɪts frɒm 'paralɛl 'klɑ:sɪz ætɪt wəz soʊ 'rɪli 'bjʊ:tɪfʊl trɪp wɪ wɛnt ðeər baɪ pleɪn wɪ mɛt ə lɒt əv 'lɒkəlz ... wɪ 'rɪəli fɛlt laɪk 'aʊə 'kɛlfəz ɪntə'twaɪnd ənd wɪ:v lɜ:nt 'sɛmθɪŋ frɒm ðəm ənd ðæts ə mɛf 'bɛtər ɪks'pɪəriəns dən tʃəst 'grʊɪŋ tə si: ðə 'bi:ʃɪz ɒf 'krɒʊʃə wɪf ɪz ðə məʊst 'tɪpɪkəl 'hɒlɪdeɪ fəʊk 'pi:pl aɪ bi 'li:v ...

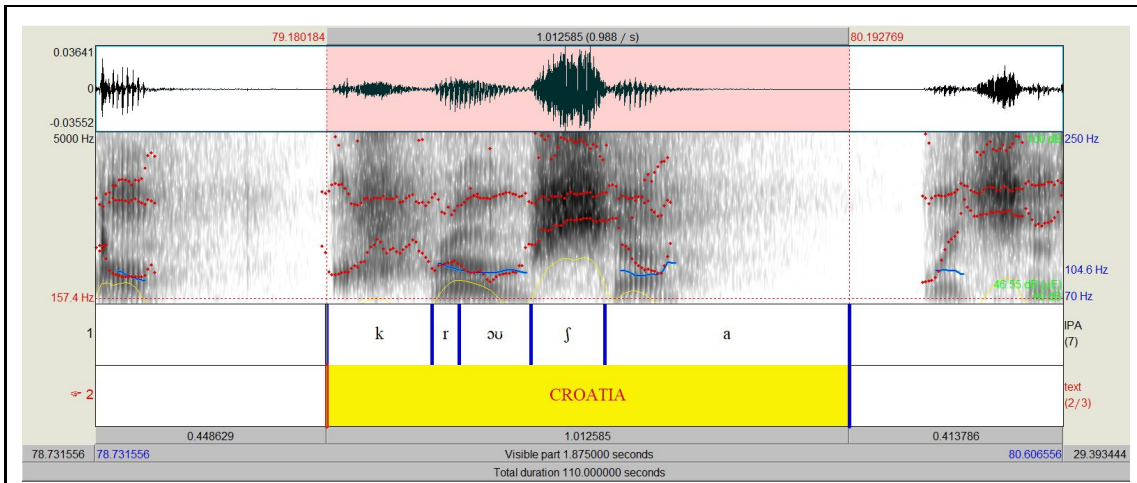


Fig. 4.6. Text 3. Praat analysis of “Croatia”. In British English, /krəʊ¹eɪʃə/ is the dictionary form, in American English, it is /krɒʊ¹eɪʃə/, the reduction of the Czech speaker is /¹krɒʊʃa/.

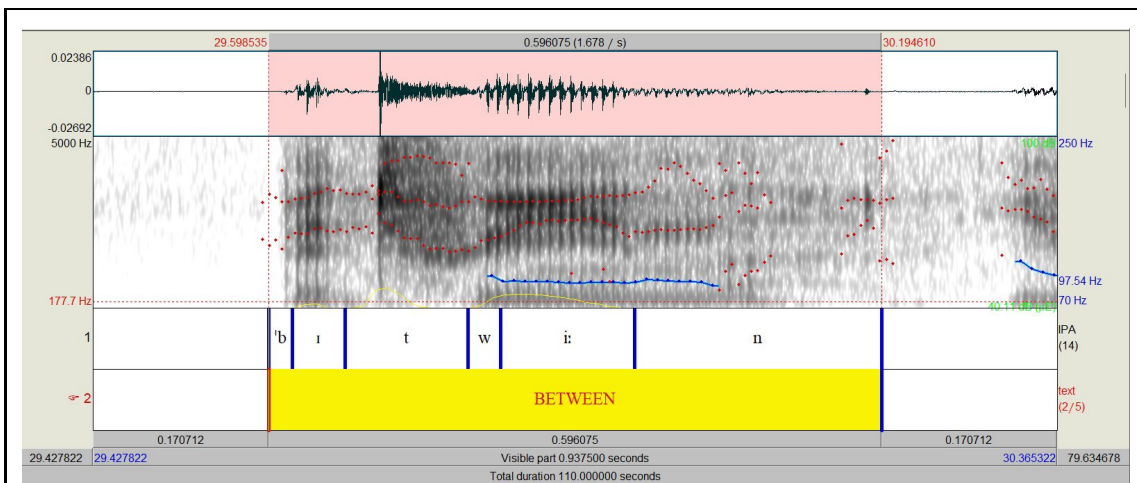


Fig. 4.7. Text 3. Praat analysis of “between”. In British English, the entry pronunciation form is /bɪ¹twiːn/, in American English it ranges between /bi¹twin; bɪtwɪn; bɪ¹twin/ (Collins, 2018), with variable stress placement.

4.3.3 Types of reductions found in Text 3

Tendency to restress schwas in some lexical words was noticed in speaker 3 (“paralel” /¹pærələɪl > ¹paralɪl/, “Europe” /¹jʊərəp > ¹jʊərəp/, “Asia” /¹eɪʒə > ¹eɪʒa/, “ago”

/ə¹gəʊ > ə¹gɒʊ/). Also prepositions such as “from”, “for” and “of” were usually pronounced more clearly (/frəm > frɒm, fə > fo, əv > əf)

In other respect, the text was similar to the two preceding speakers.

4.3.4 Incorrect word stress placement

Also in Text 3, incorrect leftward stress placement was found, in words “between” /bɪ¹twiːn > ¹bɪtwiːn / and Croatia (/krəʊ¹eɪʃə > ¹krɒʊʃə/). Again, most likely under the influence of the stress placement in the native language of the speaker, Czech.

4.4 Summary of findings

As for results, the sample recordings are very similar. Even freshmen in an university degree study programme majoring in English still tend to abstain from reducing unstressed words and syllables in environments where the native speaker always reduces.

Therefore, the first hypothesis (h1: the reductions will occur less frequently, especially in grammatical words) was found to be true for all samples. .

Also the second hypothesis (h2: the correlation of reductions to stress will not be present as a rule, due to stress interference of the native language which is of different stress type than English) was confirmed in all speakers, and the tendency to misplace stress leftward (under the influence of Czech) was found.

5 Pedagogical implications

Czech students of English as a foreign language must overcome several difficulties in pronunciation - mainly they have to learn to:

- pronounce English sounds that are not present in Czech and distinguish such sounds from the closely-related sounds in Czech
- use reduced sounds appropriately, i.e. to understand, that in English, there exists a system of reducing sounds that helps listener to distinguish words and meaning,
- place stress correctly, since it adds to the comprehensibility of the utterance, helps to reduce correct syllables. In English, stress has a distinctive function

Misplacement of word stress by Czech students of English and correct absence of vowel reduction are not notable for Czech students only, but also for speakers of other languages (e.g. this fact in Canadian French was described by Lepage (2015). In French, similarly to Czech, vowels are pronounced in their full quality, as Lepage notes, “contrary to English where the stressing of vowels in one syllable is systematically accompanied by vowel reduction in one or more surrounding syllables. In English, stress is not fixed to a given position and serves a contrastive function to help distinguish between semantically distinct words”.

Native speakers are sensitive to a system of rules of their own language, such as phonological rules or pronunciation stereotypes, and are insensitive to such rules in other language. They tend to apply the rules of their own language to the language learned, which is called interference. Interference can occur at any level of language. The problem of interference on the phonetic level is that the learners do not hear any differences between their pronunciation and pronunciation of their native speaker partners. Also, the native speakers often adjust their pronunciation, sentence structure or word choice in a way they assume is easier to understand for the non-native speaker.

The language phenomena that have distinctive function in one language but not in the other, are always difficult for the students. Concentration on correct stress

placement and sentential intonation can work positively towards correct employment of reductions as well.

The author suggests that the Czech learners of English should expose themselves to as much listening of native speakers as possible. Language acquisition in childhood and language learning is very similar in this respect, only learning language in class should make the process of language learning faster through explanation and understanding of the processes and language rules. The foreign language learners surely have an advantage of language rules being explained to them, so they can understand them, but their problem often lies in inadequate exposition to the foreign language which prevents the application of the acquired knowledge to grow into natural and fluent use of that language.

Interference with the written form of the native language is another obstacle. In English, due to the Great Vowel Shift, the vowels are pronounced in a different way than in Czech. The students are taught the correct pronunciations of the full vowels, but perhaps, at the same time, they should be taught the reduced forms of vowels, for instance according to Table 2.4. (Strong vowels and their weak counterparts).

It may also be suggested to teach the students the reduced forms of the most frequent words first, i.e. before the dictionary entry forms. It might be well regarded as the natural way since even the native speakers learn the reduced forms first - they learn the words as said in sentences, not in isolation. To mention again the article by Nathaniel M. Caffee (1951), the native speakers (Caffee's report speaks about students) sometimes struggle with the opposite problem - at times, they are unsure whether they restress the words correctly and make mistakes both in replacing contractions and restressing reduced vowels to full vowels in formal style.

The last issue the author would like to mention is the reduction in lexical words. This issue may be similar to what the young native speakers struggle with. The author feels that some lexical words are learnt by the Czech students of English in a reduced form as their basic form and then used indiscriminately of style. Other words are learnt in their full form and used indiscriminately of style as well. Consequently, in formal style, the reduced words stand out, and in informal style, the full forms divert attention of the hearer. The teachers should also focus on such issues, especially on the primary

level of education since the wrong forms that are memorized early are very hard to break of later.

6 Conclusions

The aim of this work was to explore reduced forms in spontaneous speech in English recordings narrated by young Czech students of English as a foreign language, and determine the students' ability to employ the reduced forms correctly. In Czechia, the pupils begin to learn English in elementary school (if not earlier), usually from the 3rd grade as the first foreign language or from the 5th to 8th grade as the second foreign language. By the first year of tertiary education, the students have been studying English for at least 6-11 years already.

The English and Czech languages differ in stress - English is a stress-timed language, where the stress is phonemic and variable with unpredictable position in a word. In Czech, a typical syllable-timed language, the stress is of different quality and is fixed on the first syllable. The quality and nature of stress in English causes problems to the Czech learners, and if not addressed from the very beginning, the incorrect usage of stress and reduced forms can become habitual.

Since an incorrect usage of a form is always difficult to break of, it is advised to pay attention to these issues from the very beginning. In other words, not to concentrate solely on the number of new vocabulary acquired, but also on the ability to speak fluently and with appropriate intonation. Too often, phonetics is only taught to serious students, such as to those in study programmes majoring in linguistics, but at such a level, it is usually rather late to unlearn various mistakes in pronunciation successfully.

The work showed that the Czech students tend to misplace stress and shift it on the first syllable, and that they are also reluctant in reduction of grammatical words. It seems that they are more comfortable with unreduced, dictionary entry forms. The situation could probably be remedied by higher exposure to native speakers and by learning the reduced forms sooner than the entry forms.

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Appendices

Appendix 1 The IPA chart

Appendix 2 Recordings on CD-ROM

Summary in Czech

Cílem této práce bylo probádat typy redukcí vyskytujících se ve spontánní řeči v anglickém jazyce u vybraného vzorku vysokoškolských studentů studujících obor anglický jazyk prvním rokem. U těchto studentů lze předpokládat nadprůměrnou znalost jazyka i vzhledem k jejich volbě studovat tento jazyk jako svůj obor.

Teoretický úvod k práci obsahuje mimo shrnutí principů artikulace hlásek také komentáře k chápání redukce ve fonetice a některých fonologických teoriích a shrnutí rozdílů v charakteru a použití přízvuku v anglickém a českém jazyce. Právě typové rozřazení obou jazyků podle přízvuku je odlišné - angličtina je tzv. stress-timed language, tedy jazyk, kde stojí přízvuk na větných celcích, kdežto čeština je tzv. syllable-timed language, kde je přízvuk pravidelně na prvních slabikách slov. Jeden z hlavních rozdílů mezi těmito dvěma druhy jazyků spočívá v tom, že u prvního typu dochází často k redukcím (nejčastěji k redukcí vokálů v nepřízvukných slabikách), zatímco u druhého typu nejsou tyto procesy tak časté.

Typový rozdíl mezi oběma jazyky nepochybně způsobuje studentům druhého jazyka určité obtíže. Tendence neredukovat hlásky po vzoru češtiny je u českých studentů také spjata s chybami v kladení přízvuku. Provázanost přízvuku a redukovaných hlásek je zásadní, neboť chyba v jedné oblasti způsobuje chybu v druhé oblasti. Ve zkoumaných vzorcích byla pozorována tendence neredukovat příliš gramatická slova. U lexikálních slov byly pozorovány tendence špatného kladení přízvuku a tím zapříčiněné chybné redukce jiné slabiky ve slově.

Ve výuce EFL by tedy měl být kladen důraz na správné používání redukovaných forem a přízvuku, nejlépe již od počátku výuky jazyka. Rodilí mluvčí se učí redukovaným formám dříve, než formám formálním, proto, mimo většího kontaktu s rodilými mluvčími, by se mělo českým studentům dostat i rannějšího seznámení se s principy redukce v anglickém jazyce.