Phonetic changes in English produced by native speakers and Czech learners of English caused by variation in the speech rate

(Bakalářská práce)

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1 Introduction

Connected speech sounds are exposed to the impact of various factors, including the phonetic characteristics of the neighbouring segments at word boundaries, stress, timing of the phonetic gestures used in pronunciation, the structure of syllables, the membership of a given sound in a higher linguistic unit, and speech rate. As a result there is a difference between the speech sounds in connected speech and the speech sounds in separately pronounced words (in the citation forms of words). The citation forms of words are very rarely heard in actual speech. In most utterances, words are linked between one another for the purpose of continuity.

The devices used to accomplish the continuity of an utterance are language-specific. In this thesis, I am going to focus on English and Czech. English speech sounds very continuous thanks to the usage of the so called linking phenomena (or liaison phenomena), which include linking /r/ and intrusive /r/, transient /w/ and transient /j/, and resyllabification (or pseudo-resyllabification), at word boundaries. When Czech students of English speak English, their foreign accent is clearly recognisable also because of the use of the glottal stop before the word- or syllable-initial vowel. It does not mean, though, that the glottal stop is not used in English. It is used, but not as extensively as in Czech.

It is generally assumed that in connected speech, phonetic changes are more common when the speech rate is high than when it is low or normal. It is still disputed in literature to which extent speech rate influences the phonetic changes in connected speech sounds. One point of view is that high speech rate is a sufficient cause for various kinds of phonetic changes, but that it is not necessary for them to occur (e.g. Shockey 2003). On the other hand, there is also evidence that increased speech rate is the main or one of the main factors in different kinds of phonetic changes (e.g. Smith 2002, DeJong 2001, Koreman 2006).

In my thesis, I am first going to consider the phonetic changes at the prosodic boundaries and within them, including various kinds of reductions and the use of the linking phenomena in English as opposed to the use of the glottal stop in Czech. I will also take the usage of the glottal stop in English into consideration. Next, I am going to relate the usage of glottal stops and linking phenomena to the factor of speech rate. As the usage of glottal stops is also related to the prosodic structure of speech, I am going to account for it as well.

In the second part of the thesis, I am going to report on my pilot experiment, in which two American and sixteen Czech speakers of English took part. The aim of the experiment
was to test if Czech students of English, when asked to deliberately increase their speech rate of English, or when forced to do it with a method called “shadowing”, would produce fewer glottal stops and if they would link their English speech more than in normal or low speech rate, using various linking sounds. Earlier evidence shows that Czech speakers do not drop the glottal stops in their spoken English (Volín 2003b, Bissiri and Volín 2010). I am going to focus on the influence of the increased speech rate on this omission or realization of the glottal stops in Czech speakers of English and compare it to the American speakers.

I hypothesized that when made to speak faster, Czech speakers of English would drop a considerable amount of the glottal stops that they use at normal speaking rate, but that this dropping of glottal stops would not result in an increased usage of linking phenomena because these are specific for English. Instead, I hypothesized that they would use resyllabified consonants. The usage of the linking phenomena by Czech students was assumed to be rather accidental or occasional or caused by their previous knowledge of the usage of these phenomena.

2 Literature review

2.1 Phonetic processes in spoken English and in spoken Czech

Speech is a continuum of words combined together. The two languages concerned in this thesis – English and Czech – are no exceptions. In English, every word has its citation form, i.e. the form of a word when we pronounce it in isolation in which at least one syllable is fully stressed and has an unreduced vowel (Ladefoged 2006: 107). There is, however, a major difference between the pronunciations of words in isolation and as a part of a larger linguistic unit, as for instance a sentence. The word pronounced in connected speech may differ from its citation form so radically that it can even become hard to recognize for the listener. Palková (1994a: 26) states that speech has a vague nature, i.e. that the realizations of the same word in the fluent speech may differ from each other significantly. Connecting words into utterances, sentences or sentence clusters, in both languages, creates a lot of pressure for individual words, especially for the shorter ones that tend to succumb to phonetic changes more easily than the longer ones. Ladefoged (2006: 107) notes that these shorter words such as and ([ænd]) have a strong form and a weak form. The strong form occurs when the word is stressed, usually in order to express emphasis, and the weak form, on the other hand, occurs
when the word is unstressed. In addition, a word can have more than one weak form as the
already mentioned word and ([ænd], [nd], [ən], [n]). Words can have a strong and a weak
form in Czech as well, e.g. the word jsem ([jsem], [sem]). Some words that are distinct in
their strong forms can become identical when realized in their weak forms. This process is
called neutralization of weak forms. According to Cruttenden (2008: 294), such neutralization
does not lead to any confusion because there is a redundancy of meaningful cues in English
that serve the right interpretation with the help of the context.

There are several factors that influence phonetic variations in connected speech.
Shockey (2003: 15) gives a systematic overview of the influences most explanatory of casual
speech reduction in English, which are also important in connected Czech utterances (to
compare, see Hála 1962: 293). First, the frequency of the given word is important. The more
common a word is among speakers, the more likely it is to be reduced. Second, if the word is
given for the first time in discourse, it is likely to be fully articulated as opposed to the further
mentions of this word when it is more reduced. Next, the increase in speech rate also has a
certain role in the reductions of phonetic gestures, although Shockey is not completely
convinced about that (Shockey 2003: 17). Another factor, according to Shockey’s table, is the
role a word plays in a larger linguistic unit, e. g. what part of speech the word is, if it is
stressed or not, or if it occurs at the beginning or at the end of this larger linguistic unit. The
phonetic and phonological features of the given word (like the place of articulation or the
presence of a consonant cluster in the word and the preceding or following word) are, of
course, important for the variations, as are also its morphological features.

2.1.1 Phonetic changes within words

The main group of phonetic changes within words in connected speech in both
languages are various kinds of reduction. The four most common kinds of reduction are
assimilation, elision of sounds, compression and reduction of weak forms.

Assimilation happens when one sound affects either its preceding or its following
sound. If the sound affects its preceding sound, the assimilation is called regressive, e.g. in
bank, where the velar /k/ affects the preceding nasal /n/, and when the following sound is
affected, it is progressive assimilation, e.g. in realized, where the voiced /z/ affects the
following /d/. In Czech, one can see both the progressive and the regressive kind of
assimilation in the two realizations of the word shoda ([sxoda] or [zhoda]). The neighbouring
sound copies the features, i.e. place or manner of articulation or voicing, of the given sound. Ladefoged (2006: 109) states that assimilation may be complete or partial. One can see the distinction on the pronunciation of the word *ninth* in English. If the nasal becomes absolutely dental because of the following dental, assimilation is complete. On the other hand, when the nasal is pronounced somewhere between dental and alveolar, assimilation is only partial. Further, assimilation can be either of a contact type – when the affected sound immediately precedes or follows the given sound – or of a distant type – when there is one or more sound inserted between the two interacting sounds (Palková 1994a: 144).

The opposite process to assimilation is called dissimilation in Czech (see Palková 1994a: 144) which happens when the change results in an increased distinction between the two interacting sounds (e.g. dvanáct [dvanáct] → [dvanást]). The reason for this change is usually the need to achieve contrast between the sounds for the purpose of easier pronunciation. This process is also traceable in English. Algeo and Pyles (2009: 30) present it on the example of the word *diphthong* pronounced as [dθɒn] instead of [dθɒn].

Elision means omission of an unstressed sound in order to simplify the pronunciation of the word or phrase. An example of elision within a word in English is the pronunciation of the word *fifth* [fɪθ], where the /θ/ can be omitted, and in Czech we can observe it e.g. in the word *zvláštní* → [zvlášní].

What can also happen is that two syllables can be compressed into one in pronunciation, as in the word *graduate* in English, where the word shrinks to two syllables in connected speech, as opposed to its citation form which consists of three syllables, or in the word *materiál* in Czech, where the two middle syllables may be compressed into one in connected speech and consequently, the word has only three syllables (but this process is non-standard in Czech).

The last common kind of reduction mentioned is the reduction of weak forms. As I already explained, the kind of words that have a strong and a weak form are shorter words. They are most commonly the functional, not the lexical words. The weak forms of these words can be even more reduced in connected speech.

### 2.1.2 Phonetic changes at word boundaries

As fluent speech is a continuum of phonetic gestures that usually combine with each other, the most prominent phonetic changes are present at word boundaries (or also at morpheme
boundaries) which are endangered by them mostly. These gestures, as Ladefoged (2006: 109) states, can be produced fully or in a reduced form, or they may sometimes be omitted completely. The resulting changes are therefore, according to Gimson (1962: 266), either allophonic or phonemic.

The neighbouring phonemes at the word boundaries influence each other either in a regressive (the phoneme influences the preceding one) or in a progressive way (the phoneme influences the following one), as they do within words (see Gimson 1962: 266). This is true in both languages concerned. The main phonetic change at word boundaries in both languages is thus assimilation, e.g. in *these films* in English where the voiced /z/ becomes a voiceless /s/, or in *dvacet beden* in Czech where the voiceless /t/ becomes a voiced /d/.

I am going to concentrate on other phonetic changes at word boundaries, namely the usage of linking phenomena and of the glottal stop.

2.2 **Linking phenomena in English**

So far, I discussed the phonetic changes within words and on word boundaries in both Czech and English. The following chapter is going to be focused exclusively on English phenomena, i.e. the linking phenomena, also known as the liaison phenomena.

The reason why native English speakers sound so continuous is that they link words together by the usage of the so called linking phenomena. Volín (2003a: 64) differentiates “five different phenomena in places where word-initial vowels meet preceding sounds”, namely resyllabification (or pseudo-resyllabification), linking /r/ and intrusive /r/, transient /j/ and transient /w/.

2.2.1 **Resyllabification**

Resyllabification means that in actual speech, the syllable boundaries do not correspond to the word boundaries. A speech sound can be added to the preceding or to the following syllable, causing the creation of a sometimes completely new syllable.

2.2.2 **Linking /r/**

In connected speech, the linking /r/ is used before a word-initial vowel. It occurs when the following word begins with a vowel and where an /r/-sound existed in earlier forms of
English. The appropriate vowels to which this linking sound may be added are /a/, /ɔ/, and single or complex vowels containing a final /ɔ/ (Gimson 1962: 215). Volín (2003a: 64) explains that non-rhotic accents of English have the [r]s in the syllable codas only written, but not pronounced. However, if such an /r/ is followed by a vowel of the following word, it is pronounced as a linking element, as in the doctor arrives. The reasons for the usage of this linking are, according to Volín, to avoid vowel hiatus or to avoid the necessity to use a glottal stop. The tendency to use the linking /r/ in the rhotic accents of English is less marked than in RP or in RP-influenced types of speech (Cruttenden 2008: 305), because in these accents the /r/ is actually pronounced at the ends of words.

2.2.3 Intrusive /r/

The intrusive /r/ is the kind of phenomena that emerged from the usage of the linking /r/ by extending its usage to the cases where it is not historically justifiable, i.e. where it was not used earlier (Gimson 1962: 204). These intrusive /r/ are to be heard particularly in the case of schwa-endings, e.g. in Russia and Japan. They are also preferable after /a/ and /ɔ/. The reasons for the usage of this /r/ are the same as with linking /r/. Volín (2003a:65) points out that the difference between these two phenomena is that the intrusive /r/ are “not represented in spelling.”

The usage of inserted (whether linking or intrusive) /r/ regards the position of these inserted elements (Cruttenden 2008: 305). The /r/ can be inserted either before a suffix or before a separate word beginning with a vowel. Cruttenden (2008: 306) further states that the /r/ usually closes the syllable rather than to be the initial in the next one.

Allerton (2000: 574) argues that in natural speech, the speaker has to consider two main interests. First, the speaker is aware of the system of a language and has the tendency to keep a simple system also in speech, i.e. to pronounce the words as they are pronounced in their citation forms. Second, speakers tend to diminish the articulatory effort by using the linking phenomena at word boundaries, where the effort needed is the greatest. Gimson (1962: 204) also debates this interaction of the two interests and says the speakers who are aware of the correct form (the citation form) have a strong tendency to avoid the usage of
intrusive /r/ altogether, using a glottal stop or vowel glide instead, even in the cases where the usage of a linking /r/-sound is justifiable. According to Volín (2003a: 65), intrusive /r/ was, until recently, considered “a substandard feature of pronunciation”. Nowadays, intrusive /r/s are to be heard even in the speech of educated speakers.

2.2.4 Transient /j/

The next linking phenomenon, transient /j/, occurs, as the previous two ones, between two vowels at word boundaries, after a word-final /i/, /u/, /e/, /æ/, or /ə/. It is realised as a j-like sound, and is described by Volín (2003: 66) as “an articulatory by-product without a phonemic status”. Therefore it is transcribed in brackets, e.g. in yes, he is → [jesi]. Volín further highlights that the transcription of this phenomenon is used mainly in applied phonetics, mostly for the purpose of teaching foreign languages. Cruttenden (2008: 306) warns that one should be able to distinguish this transient /j/ from the phonemic /j/ as in my ears [maɪəz] and my years [maɪjəz].

2.2.5 Transient /w/

The last kind of linking phenomena described by Volín is transient /w/. If a word-final /u/, /u/, /æ/, or /ə/ is linked to the initial vowel of the following word, a w-like glide can be heard. Volín compares its status to that of the transient /j/ – “an articulatory by-product without a phonemic status” – and therefore it is, like the previous phenomenon, transcribed in brackets, as in Sue asked me → [suː(ə)sktmi:]. As with the transient /j/, Cruttenden (2008: 306) warns about the distinction between the transient /w/ and the phonemic /w/ as in two-eyed [tuˈaɪd] and too wide [tu waid].

2.2.6 Juncture in English

Apart from the linking phenomena introduced above, the speaker can also use the phenomena called juncture to distinguish between the groups of words that sound identical. Cruttenden (2008: 307) uses the examples pea stalks and peace talks. Both groups of words can be transcribed as [piːstɔks]. If one wants to make a difference between these two groups,
one can reduce the /i/ and aspirate the following /t/ in the first one and on the contrary, one can maintain the full length of the /i/ and not aspirate the /t/ in the second one.

2.3 Glottal stop

The glottal stop is a gesture created at the glottis. The vocal folds are closed and thereby the airstream is obstructed, creating pressure below the glottis. The pressure is released by a sudden separation of the vocal folds (Cruttenden 2008: 178f). This gesture is present both in Czech and in English.

Glottalization is a term used for the use of any glottal gesture, which is not only the glottal stop, but there are also other kinds of glottal gestures such as creak, breathy voice, barbell glottal stop or continuous creak (see Bortlík 2009: 5). In this thesis, however, only the glottalization of word-initial vowels by the use of the glottal stop or, potentially, of creaky phonation (by which the glottal stop is often being replaced because it requires a great effort to be articulated – see Bissiri et al. 2011: 165), is going to be considered. Glottalization of word-initial vowels serves as the onset of phonation and as a boundary signal at the beginning of the vowel.

2.3.1 Glottalization in Czech

In contrast to conversational English, there are not any linking phenomena in conversational Czech. The only similar phenomenon is only the /j/ inserted between two vowels within a word, e.g. in médiúm → [médiúm], but this does not happen at word boundaries.

The main difference between the two languages as for the phonetic changes at word boundaries is the usage of linking phenomena in English and the usage of glottal stop in Czech. When word boundaries are represented by two vowels or by a consonant and a following vowel, these two phenomena are used to either connect the vowels in English or divide them in Czech. It does not mean, though, that in English, glottal stop is not used. It is used, but not as extensively as it is in Czech. In Czech, it is used even on weak prosodic boundaries (between syllables), which is the reason why it is a more frequent sound in this language.

The glottal stop is described as a firm clasping of the vocal folds at the beginning of the vowel which results in the vowel being perceived as more clearly divided from the preceding syllable. Volín (2010: 54) describes the glottal stop as a case of prothesis, i.e. the
addition of a sound to the word-initial position. The glottal stop before a vowel is used in Czech at the beginning of a word or within a word after the prefix. It is also automatically used after a pause. Its usage is compulsory after non-syllabic prepositions *k, s, z*, and *v* (e.g. *k říknu* → [k řoknu]), and it is recommended after an unaccented monosyllabic word (e.g. *byl ospalý* → [bil řospalý]) (see Palková 1994b: 11, Hůrková 1995: 25).

Palková (1994b: 12f) states that the usage of the glottal stop influences the voicing of the preceding consonant of the preceding word. When the glottal stop is used the preceding vowel is always voiceless (e.g. in *bezočkldně* → [besťotkladňe]). When it is omitted, it depends on whether it is on the boundary between a prefix and the rest of the word or a monosyllabic accented preposition and the following word; in both cases the preceding consonant is always voiced (e.g. in *bezočkldně* → [bezočkldně]); or at the boundary between two words when the preceding consonant is always voiceless (e.g. in *dub opadal* → [dup opadal]).

Speakers of Czech generally use the glottal stop unconsciously (Pavelková 2001: 79). The glottal stop is the most likely to be used in careful and energetic pronunciation, in lower rather than in higher speech rate, in emphatic and emotional utterances, and when the speaker wishes to enhance the distinctiveness of his speech (see Pavelková 2001: 83, Hůrková 1995: 26).

### 2.3.2 Glottalization in English

Although I called the glottal stop a frequent Czech phenomenon, it naturally occurs also in English. In Czech, the usage of the glottal stop at the beginning of a vowel-initialized word is compulsory, whilst in English, it is not. There are four different uses of the glottal stop in English, namely the regular glottal reinforcement, the extended use of reinforcement, the glottal replacement and the more extensive use of glottal replacement in other dialects.

The first use, the regular glottal reinforcement, is used by the speakers to mark the syllable or word boundary when the initial sound of the following syllable or word is a vowel. Consequently, in careful speech, the vowel hiatus, e.g. in the word *cooperation*, can be avoided, by the separation of the vowels by a glottal stop. In some overly careful English speakers, the glottal stop reinforcement may be used in cases where the use of an intrusive /r/ or linking /r/ would be possible, e.g. in *doctor[?]*eams. In such cases, the glottal stop is
overused. In addition, any word-initial or morpheme-initial accented vowel can be reinforced by a glottal stop, when the word or the morpheme is emphasised, e.g. in It is John! (I told you it was him). The preceding sound of this vowel does not play any role in this reinforcement (for further examples, see Cruttenden 2008: 178).

As all the three following uses consider the glottal reinforcement or replacement of consonants, they will not be very useful for this thesis because I am going to concentrate on the phonetic processes between words where the second word begins with a vowel. Therefore, they are going to be only marginally mentioned for the completeness of the account of the glottal stop usage. The second use of the glottal stop is that also the consonants /p, t, k/ and also /tʃ/ may be reinforced by the glottal stop. The third use concerns syllable-final consonants /p, t, k/ which can be replaced by a glottal stop under certain conditions. This process of replacing the consonant with the glottal stop is called glottaling and particular attention should be paid not to mistake this term with glottalization which is applied for the consonantal reinforcement or the glottalization of vowels. The difference is then that glottaling is a replacement phenomenon, whereas glottalization is a complementary phenomenon. And finally, the fourth use concerns mainly the dialects of English in which the glottal stop replacement may be used more often, e.g. Cockney.

Cruttenden (2008: 307) states that in the cases where the emphasis is needed to distinguish the juncture, as in a name versus an aim, the usage of the glottal stop is possible before [eɪ] in the second phrase. But it is not necessary, unless the emphasis is needed. He adds that the overuse of the glottal stop in such positions as the one mentioned above is typical for some foreign learners of English. This statement is useful for the purposes of this thesis because Czech is a language with a frequent use of the glottal stop in front of vowels, and therefore the Czech speakers of English tend to overuse the glottal stop rather than to omit it.

Dilley and Shattuck-Hufnagel (1996: 424) presented a study which confirms that glottalization in English happens on the boundary between two vowels and that it mainly occurs at the word-initial contexts. As the glottalization under these circumstances does not happen always, but is only likely to happen, they further investigated the influences on the glottalization of vowels in the word-initial position. Their study confirmed that “glottalization of word-initial vowels is more likely when the target word is marked with a pitch accent.” (Dilley and Shattuck-Hufnagel 1996: 442) The other factors that they formulated in the study are that even the reduced vowels in word-initial position are likely to be glottalized if they
occur at the beginning of the full intonational phrase, not only the full vowels, although the full vowels are naturally glottalized more often. Furthermore, if the target word is preceded by a pause or by glottalization, the possibility of the following word-initial vowel increases. In this respect, glottalization in English could be understood as a reflex to the prosodic boundary (Dilley and Shattuck-Hufnagel 1996: 436).

Another study by Redi and Shattuck-Hufnagel (2001: 425) proved that glottalization may also occur in the word-final and phrase-final positions as a boundary marker. They add that some speakers use only a glottalized voice near the intonational phrase boundary.

According to the studies mentioned above, even though glottalization does not happen canonically at the beginnings or at the ends of phrase or word boundaries, it is a significant phenomenon in these contexts which is advisable to observe when considering the phonetic changes at word boundaries.

### 2.3.3 Glottalization: Czech vs. English

When the phonetic system of a language is concerned, there is no difference between Czech and English. In both languages, the glottal stop is not a phoneme, i.e. it does not change the meaning of a word. It is only a phone.

The difference between the two languages can be found in the definition of glottalization itself. In his thesis, Jakub Bortlík (2009: 4) warns about the distinction between the terms “glottalization” and “ráz” in Czech, “ráz” covering the glottal stop and its various realizations and referring mainly to its function, and “glottalization”, referring more to the articulatory technique. In English, there is another term to be cautious about, namely the glottaling, i.e. the replacement of a consonant by the glottal stop mentioned in 2.3.2.

According to Hůrková (1995: 26) and Pavelková (2001: 83), in Czech, the glottal stop is used to enhance the comprehensibility of an utterance. In English, on the other hand, it is the appropriate linking that serves the right intelligibility.

### 2.4 Resyllabification

#### 2.4.1 Syllable structure

To explain the phenomenon of resyllabification, we must start with the description of the syllable structure. The syllable both in Czech and English consists of onset, nucleus (also
known as peak) and coda. In English, nucleus and coda are joined together under the umbrella term “rhyme”, e.g. in Cruttenden (2008: 49). In both languages, nucleus is the part of the syllable where the vowel occurs and onset and coda are the parts where the consonants occur. Of these three parts of a syllable, only the nucleus is obligatory in a syllable. Both onset and coda are only optional.

Volín (2010: 56) states that in Czech, onsets can be composed of more consonants, nucleuses can be either vowels or also /l/, /r/ or, exceptionally, /m/ or /n/, and codas are predominantly shorter, composed of up to two consonants. Codas are the parts of syllables that succumb to phonetic changes, this making them the least stable part of the syllable.

As for the composition of individual syllable parts, English is similar to Czech. Cruttenden (2008: 50) adds that the onset usually involves the increasing sonority up to the nucleus which is represented by a sonorant and hence it is the most sonorous. The coda, in contrast to the onset, involves decreasing of the sonority. The same description is appropriate for Czech syllables.

2.4.2 Resyllabification in English

When Cruttenden (2008: 50) speaks about distinguishing syllable boundaries in English, he mentions a principle which is according to him widely claimed to be universal in languages. He gives the term “maximal onset principle” which he describes as the assignment of consonants to the onsets of the following syllables wherever it is possible.

This principle of moving the coda consonant to the beginning of the next unit, when applied not only on syllable boundaries, but also on word or phrase boundaries, is basically the resyllabification. As I focus on word boundaries in this thesis, I will consider the resyllabification at word or phrase boundaries preferentially.

In the process of resyllabification, the coda consonant of the first word is added to the onset of the following word which begins with a vowel, i.e., as De Jong (2001: 197) explains it, the coda consonant is resyllabified as the onset consonant. The consonants /p, t, k/ are to some extent more resistant to resyllabification (at least from the perceptual point of view), because they are less aspirated in the coda position than in the onset position (Dubèda 2005: 98).

The reason for resyllabification may be the increased speech rate combined with the fact that onset structures of syllables are nearly universal among languages, whilst many languages do not allow coda structures (De Jong 2001: 197). Furthermore, the most common
type of syllable not only in Czech, but also in many world languages, including English, is the consonant-vowel (CV) type (Volín 2010: 55). This type of syllable can be thought of as ideal because it is easy to be pronounced. When the syllable is of the vowel-consonant (VC) type, there is a tendency to either resyllabify or to “repair” it by addition of the glottal stop to the beginning of it. This explanation is in concord with another possible reasons formulated by Scobbie and Pouplier (2010: 240), namely that the syllable beginning with a vowel lacks an onset, and therefore the coda consonant from the preceding syllable is associated to it, or that the coda consonant and the following onset vowel are gesturally co-ordinated with each other. They further state that “resyllabification and ambi-resyllabification can occur before a following segment only if the resulting onset is phonotactically permissible” (Scobbie and Pouplier 2010: 242).

In this phase another term needs to be explained – the ambisyllabic consonant. It can be found in e.g. Scobbie and Pouplier (2010: 242) and they explain it as the consonant which is “intermediate in behaviour between onset and coda” or which “vacillates between the two”. It is then, in short, the coda consonant which is either resyllabified as the onset consonant of the following word, or which stays in its original place at the coda of the syllable at the end of the word.

Another useful observation by Scobbie and Pouplier (2010: 242) is that they warn that resyllabification may be only perceptual, without actually being produced by the speakers. But they also state that this notion has not yet sufficient proof in the literature.

2.4.3 Resyllabification in Czech

In Czech, resyllabification is not a standard tendency. When the onset vowel is preceded by a coda consonant, it is generally enforced to be pronounced with the glottal stop. For instance, the phrase *jen aby* is recommended to be pronounced *[jenʰaby]* instead of *[jeʰnaby]*. The glottal stop serves as a boundary signal in connected speech, and therefore it is also a barrier for resyllabification (see Duběda 2005: 98). The pronunciation with resyllabification in Czech can be also seen as undesirable or unfavourable by some authors, e.g. Hála (1962: 208). There is, however, a tendency towards resyllabification in Czech, in the form of the so called prothetic consonant */v/* (and rarely also the consonants */j/* and */h*/) inserted before the word-initial vowel and replacing the glottal stop, e.g. in the word *okno* which becomes *[yokno]*. It is a non-standard tendency, though, present mainly in Bohemia and the western part of Moravia (Krčmová 1984: 95).
As for the difference between the speakers of Bohemia and Moravia with respect to resyllabification, it is important to note that Moravian speakers tend to omit glottal stops and resyllabify instead. On the other hand, in Bohemia, speakers do not omit glottal stops and do not resyllabify. In the contexts where one word ends in a consonant and the following word begins with a vowel, the coda consonant of the first word is usually voiceless in Bohemian speakers and voiced (and resyllabified) in Moravian speakers (Palková 1994a: 327).

2.4.4 Glottalization as a complication for resyllabification

It is clear that when the onset vowel is reinforced by a glottal stop, it may pose a serious problem for the resyllabification principle. This notion is to be found e.g. in Scobbie and Pouplier (2010: 243), where they state that in the appropriate context for resyllabification, but with the vowel being reinforced by a glottal stop, resyllabification to onset does not always occur, despite the tendencies to maximize onsets (i.e. the maximal onset principle). It can also be observed in the study of De Jong (2001: 198) who explains the glottal stop as a marker of the initial edge of a new prosodic unit which cannot be violated.

It follows from the above described characteristics of glottalization and resyllabification principles that these two have a mutually exclusive relationship. This statement can be proved by a sentence adopted from De Jong’s study: “If VC utterances canonically have onset glottal stops, eliminating the glottal stop might contribute to the perception that the VC syllable had changed to a CV syllable.” (De Jong 2001: 198)

2.5 Speech rate and its influence on the phonetic processes at word boundaries

In this chapter, I am going to briefly consider the main types of speech with respect to rate and style. Speech rate should be distinguished from articulation rate. The articulation rate is defined as “the measure of rate of speaking in which all pauses are excluded from the calculation” (e.g. in Dankovičová 1999: 269). Speech rate, on the other hand, is a complex measure which “includes pauses as well as the articulation rate” (e.g. in Dankovičová 1997: 287).

According to rate of speech, the basic speech types are slow, normal and fast speech. Speech rate is further related to speech style (see e.g. Koreman 2006: 583). The two basic types of speech as for speech style are careful and casual (sloppy) speech. It is generally supposed that the higher the rate of speech, the more casual the speech itself. In the slow or
normal, careful speech, it is more likely that the citation forms of words will be pronounced than in the fast, casual speech where the phonetic processes described in the chapter 2.1, mainly various kinds of reductions (e.g. the vowel reduction) are likely to occur. About this, Smith (2002: 241) notes that non-final vowels are reduced more than final vowels. As a result of higher speech rate, the articulation of some words can even be deformed in casual speech (e.g. in Machač 2006: 182), because the time needed for exact articulation is shortened. Other factors that influence the phonetic changes are also whether the speech is prepared (e.g. the read aloud speech or the so called lab speech) or utterly spontaneous. It is also generally known that each speaker has his individual rate of speech, which depends on his speech habits, mood and temper, and also on the importance of the conveyed information and the attitude of the speaker towards it (Hála 1962: 253).

2.5.1 Speech rate and tone units

Speech is organized according to certain prosodic features such as pitch, sound length or loudness, which contribute to the creation of prosodic patterns in speech. Single sounds are organized into larger units of the prosodic structure. These units constitute a certain hierarchy together. The basic prosodic unit is syllable. Syllables are organized into rhythmic units called stress groups or feet and then into higher prosodic units called intonational phrases or tone units.

Each stress group has one stress. The tone units are composed of more stress groups which have all their own stresses and in addition, each tone unit as a whole has its main stress, called the pitch accent or pitch stress. There is a certain intonational pattern extending over the whole tone unit, making it a complex unit. The speaker divides his speech according to certain syntactic and semantic features which suggest that the words and phrases within one tone unit are mutually interconnected more than with other words and phrases in the neighbouring tone units (Volín 2010: 58).

Tone units may be separated, amongst other means, by longer or shorter pauses. When speech rate is low or normal, pauses are consequently longer because the speaker is not under pressure to continue further quickly and he makes fewer pauses between the tone units. On the contrary, it has been observed that high speech rate results in fewer and shorter pauses made by the speaker (see Butcher 1981: 105, Lass 1970: 275 or Crystal and House 1982: 708). As pauses are usually markers of the boundary between two tone units, fewer pauses made in fast speech indicate that tone units are connected with each other in the discourse by
the speaker. As a result, there are fewer and longer tone units produced in high speech rate in comparison with normal (or low) speech rate.

Boundaries between the units of the prosodic structure are called prosodic boundaries. I’m going to consider mainly the boundaries between tone units and within them (i.e. the boundaries between stress groups, too). Prosodic boundaries are signalled by boundary markers, one of which is the already mentioned presence of a pause which is the most common (but not the only) marker. Other boundary markers include pitch movement within the phrase, completion of the intonational pattern within the tone unit, phrase-final syllable lengthening, faster tempo of initial unstressed syllables after the boundary, changes in amplitude or changes in the voice quality (see Dankovičová et al. 2004: 18). These boundary markers are used differently by different speakers. As well as the usage, also the combination of these markers is individual. The markers can be used separately, together or not at all by various speakers (Dankovičová et al. 2004:19).

Prosodic boundaries between prosodic units vary in strength (see e.g. Palková 1994a: 300). The strength scale follows the hierarchy of the prosodic units, described e.g. in Duběda (2005: 126), and starts with the boundaries between syllables which are the weakest and continues up to the boundaries between tone units which are the strongest. The boundary strength is an important factor in reorganizing the tone units under the influence of the accelerated speech rate. The stronger the boundary is, the greater the possibility that the two units it divides will remain separated even in high speech rate. On the other hand, the units with weak boundaries tend to be combined into one.

To sum it up, speech rate and the number of tone units in spoken English are in reverse proportion. Increased speech rate results in prosodic division of speech into fewer and larger tone units.

The arrangement of sounds above the segmental layer, i.e. the organisation of speech into stress-groups and then into tone units, is language specific. But the boundary markers are the same in Czech as in English. Tone units are also divided mainly by the use of pauses (see Palková 1994a: 290) and when speech rate accelerates, tone units merge with one another and their number decreases. It can also be supposed for the purpose of this thesis that when Czech speakers are forced to speak English at an increased speech rate, they will divide their speech into longer and fewer tone units as well as they perform this in Czech (see Palková 1994a: 283).
2.5.2  \textit{Speech rate and phonetic processes at word boundaries in English}

The impact of increased speech rate on the division of speech into fewer and larger tone units is closely related to the phenomena of glottalization, resyllabification and linking phenomena such as linking /r/ and intrusive /r/, transient /j/ and transient /w/ and their changes at the accelerated speech rate.

In normal (or low) speech rate, the glottal stop can be used before a vowel to prevent the vowel from merging with its preceding vowel, or to emphasize the word or the syllable beginning with a vowel. The speaker can also use the glottal stop in lower speech rate for the sake of distinctiveness of his speech. In fast speech, on the other hand, the glottal stop is often omitted because the speech is divided into fewer and longer tone units and therefore there are fewer contexts for the glottal stop to be used. Instead, a vowel hiatus might occur, e.g. in the already mentioned \textit{cooperation}. If speech rate is very high, the two identical vowels can even merge into a single one in this word. In other cases, where the various linking phenomena are available, they are usually also applied, e.g. linking /r/ in the phrase \textit{the doctor escapes}, transient /j/ in \textit{three envelopes} or resyllabification in \textit{the president arrived}.

The only circumstance under which a glottal stop is retained even in high speech rate is when it occurs at the beginning of a larger prosodic unit, i.e. tone unit. In this position, ideally combined with a preceding pause, glottalization of the preceding segment or a pitch accent on the particular syllable, it serves as a boundary strengthening phenomenon (Dilley and Shattuck-Hufnagel 1996: 438). But in all the other cases, when the glottal stop is placed inside a tone unit, the number of glottal stops is reduced in high speech rate or the glottal stops may also be completely deleted from speech (Koreman 2006: 592).

The process of omission of glottal stops in the non-initial position of the tone unit, induced by the acceleration of the speech rate, is closely connected with the process of resyllabification. I already described these two processes as being in a mutually exclusive relationship. This is even more visible at high speech rate. It has been proved that coda consonants are resyllabified as onset consonants of the following word at high speech rates (see De Jong 2001: 197, Krakow 1999: 47). If, then, a glottal stop is not realized at the beginning of the word as a result of an increased speech rate, the resyllabification is activated when possible as one of the phenomena opposing to glottalization.

The other phenomena opposing to glottalization are the already described linking phenomena. They are often combined with resyllabification, e.g. in the phrase \textit{the director is}. 

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The /r/, in the non-rhotic variants of English, is not realized at the end of the word. But in this case, the linking /r/ is realized because of the following vowel in order to avoid a vowel hiatus or the use of the glottal stop and the consequent discontinuous impression of the produced speech. In addition, the /r/ as the coda consonant of the first word is directly resyllabified as the onset consonant of the following word, i.e. of the word is. Not only linking /r/, but also other linking phenomena are used in the same way at high speech rates along with resyllabification. They are resyllabified as the onsets of the following words, e.g. the intrusive /r/ is inserted between the two vowels in the phrase Lamia and Isabel and resyllabified as the onset consonant of the word and. Similarly, transient /j/ is inserted between the two vowels in the phrase many ears and resyllabified as the onset consonant of the second word. And finally, also transient /w/ can be inserted between two vowels at high speech rate and resyllabified as the onset, e.g. in the phrase you are.

In this chapter I focused on the impact of increased speech rate on various phonetic processes described earlier in this thesis. To summarize, the increased rate of spoken English results in reduction of the number of glottal stops combined with the consequent resyllabification of coda consonants as the onset consonants of the following word and with the occurrence of linking phenomena such as linking /r/ and intrusive /r/, transient /j/ and transient /w/. I also noted that the glottal stop is the most likely to be retained, however, in the initial position of a tone unit where its prosodic role of a boundary marker is too strong to be broken.

2.5.3 Speech rate and phonetic processes at word boundaries in Czech

In this chapter, I am going to focus on the impact of increased speech rate on the use of the glottal stop and resyllabification in spoken Czech and I am also going to consider the influence of increased speech rate on English produced by Czech speakers. As there are no similar linking phenomena in Czech as there are in English, it can be supposed that the Czech speakers will not use them very much when they speak English as opposed to the native speakers of English.

I already described one similarity between Czech and English at high speech rate, namely the division of speech into fewer and longer tone units.
The other similarity is that the number of glottal stops as a demarcating means is reduced at high speech rate in Czech (Volín 2010: 62, Pavelková 2001: 83). The glottal stops do not have the same importance at prosodically strong boundaries (i.e. tone unit boundaries) in Czech as in English, because they are used much more extensively before word-initial vowels in Czech, even on prosodically weaker boundaries. It is caused by the fact that they are standard in Czech. As for English produced by Czech speakers, Bissiri and Volín (2010: 23) found out that the prosodic structure of English does not have any importance for the use of the glottal stop by Czech speakers of English. In their study, their English and Czech subjects read two BBC news bulletins at a normal speech rate. Czech speakers of English glottalized nearly 100% of the tokens at phrase boundaries and only slightly fewer tokens at non-phrase boundaries, whereas the English speakers glottalized about 50% of the tokens at phrase boundaries and they glottalized only seldom at non-phrase boundaries (see Bissiri and Volín 2010: 27). These results can be further supported by an earlier study by Volín, in which he focused on the glottalization of the preposition “of” by English speakers compared to Czech speakers of English. In his research, the Czech speakers of English glottalized the preposition “of” in 73, 4% of all its incidents, whereas the English speakers only in 9% of incidents (see Volín 2003: 15f). These findings prove that the glottal stop usage poses a strong interference of Czech in English by Czech speakers of English. It can be described as a negative transfer (see Gass and Selinker 2001: 67).

One can still presume that if Czech speakers are forced to make longer and fewer tone units at high speech rate when producing spoken English, the glottal stops at the beginnings of tone units will be retained as in the case of English speakers as the result of the preceding pause or of the pitch accent of the particular word. Generally, the fewer tone units there are in speech, the fewer contexts possible for the glottal stop to occur. I already discussed that in Czech, the glottal stop is a much more frequent sound than in English because it also occurs at prosodically weak boundaries (boundaries between syllables and stress groups). Despite that, I also argued that there is evidence that this sound is omitted in Czech when speech rate is increased. Based on these facts, I hypothesize that when Czech speakers are forced to speak English at an increased speech rate, they will make fewer glottal stops, mainly within tone units.

It is very difficult, on the other hand, to say whether the Czech speakers are going to resyllabify in their spoken English as the result of increased speech rate because, as I stated before, resyllabification is generally perceived as non-standard and unnatural in Czech. The tendency to resyllabify in Czech has not been proved; it is only known that there is a certain
tendency to compensate the length of the consonants and vowels in the CV-sequences (Machač and Skarnitzl 2007: 537), and that there is a tendency to resyllabify in Moravian speakers. Therefore it would be logical to anticipate that the Czech will not resyllabify in English either. But the accelerated speech rate will force them to omit glottal stops where possible and, as a result, they will have no other choice than to resyllabify in their spoken English.

In the following pilot experiment, I will test the hypothesis that Czech speakers, when forced to speak English at an increased speech rate, will divide their speech into fewer and longer tone units and thereby reduce the number of glottal stops where possible, not only (but mainly) within tone units, and that they will not produce many linking sounds consciously because they do not do so in their native language either. On the other hand, they will be forced to use resyllabification, even though it is a non-standard phenomenon in their native language, but they will have to use it because of the omitted glottal stops.

3 Methodology

3.1 Participants

Two groups of participants were recorded, one group of native speakers of English and the other one of Czech speakers of English. The American group consisted of 2 speakers ranging from 40 to 50 years of age. Both of them are teachers of English residing in the Czech Republic. The recordings of these two speakers were used to confirm the previous statements that in fast speech, native speakers of English divide their speech into fewer and longer tone units, produce fewer glottal stops (mainly within the tone units), and use various linking sounds to connect words together.

The second group of participants included 14 Czech students of English between 20 and 30 years of age. 8 of them are from Moravia and one of them is from Bohemia. All of them have studied English for more than 10 years. The majority of them are students of English philology, with the exception of four subjects who study other subjects but whose level of English was comparable to that of the English philology students.
3.2 Materials

The participants of the pilot experiment were recorded reading an English text of 399 words of length (2-3 minutes of reading), divided into 6 paragraphs, and taken from a book of Harry Potter (Rowling 2000: 7f). The text was continuous and meaningful and participants were given enough time to practise reading it ahead to minimize mispronouncing and discontinuity. In the text, there were 83 contexts in which a word-initial vowel was possible to be preceded by a glottal stop (or a linking sound or a resyllabified consonant).

For the purposes of the shadowing method, described below, a recording of the text read by a native speaker of English was used. This recording will further be called the “shadowing file”. The speaker in the shadowing file divided the text into 101 tone units. Out of the 83 contexts for glottalization 30 occurred at tone unit boundary and 53 within tone unit. The speaker realized 35 glottal stops (42% of the 83 possible; 27 of those at tone unit boundary and 8 within tone unit). In the remaining cases, he either used a linking sound (in 11 of all instances – 13%; 1 of them at tone unit boundary and 10 within tone unit) or he applied resyllabification (in 37 of all instances – 45%; 2 at tone unit boundary and 35 within tone unit).

3.3 Procedure

All the subjects were recorded using two different conditions (methods) which both aimed to force them to increase their rate of reading the given text. The recordings were taken in a quiet room using the sound recorder in Praat 5.1.04 (Boersma and Weenink 2008), at the sampling frequency 44100 Hz.

In the first condition, the speakers were asked to read the text twice, first at a normal speech rate and second at an increased speech rate. They altered the speech rate themselves, according to their individual speaking habits and abilities. Therefore, this condition will further be called “self-controlled”.

The second condition will be called “shadowing”. In this condition, the participants also read the text twice, each time at a different speech rate. They heard the shadowing file in their headphones and had to read the text along with the file and adapt their rate of speech to that of the speaker in the recording. First, they read the text along with the “shadowing file” at its normal rate, and second, they read it along with the same file whose rate was increased by 10% in Audacity 1.3 Beta (Mazzoni 2011).
The two methods were chosen to test which one of them would be more successful in making Czech speakers of English increase their rate of speech and consequently omitting glottal stops. The order of the use of the two conditions by individual speakers was not counter-balanced (as I planned initially), because despite they had time to practise reading the text, it was too difficult according to most speakers to speak along with the recording first. Therefore, they first controlled their speech rate themselves, and after that, they spoke along with the shadowing file.

Five subjects had to be excluded from the Czech group of speakers, because at least one of their total four records was incomplete, too quiet or unintelligible; and one of the American speakers failed in the shadowing condition, which he evaluated as too difficult. His two recordings of shadowing had to be excluded as well.

All recordings were transcribed. The transcriptions were divided into tone units, and the phonetic processes at word boundaries were transcribed using special symbols before the word-initial vowel. For the glottal stop, the standard IPA-symbol “ʔ" was applied. Every linking sound used was transcribed as a capital letter in brackets and every case of resyllabification was transcribed as a capital letter added to the beginning of the following word. All the added signs were typed in bold and underlined to enhance the orientation in text. All the transcribed recordings used for the following analysis can be found in the appendix.

Although subjects had sufficient time to prepare for the reading, they still omitted or mispronounced some words and their mistakes had to be transcribed as well. Each omission of a word or a group of words was transcribed as “(−)”, each mispronounced word or group of words as “(...)”. One exception to this strategy was made, namely the word “unDursleyish”, which was problematic for most subjects. They frequently mispronounced only the second part of this complex word in which no phonetic processes considered occurred. Therefore it was decided not to code the whole word as mispronounced, but only the mispronounced or omitted part (the second part). When the speaker omitted a word or a group of words at the beginning of a tone unit, the following word was taken as the initial in the tone unit. When the speaker repeated a word or a group of words, each time in the same manner, the repetition was transcribed as mispronounced, but if the repetitions were different from each other, they were each transcribed as mispronounced.

In each transcript, the following were counted: the number of tone units, all possible contexts for the occurrence of the glottal stop (or a linking sound or a resyllabified consonant)
at tone unit boundaries and within tone units, the number of realized glottal stops at tone unit boundaries and within tone units, the number of linking sounds used at tone unit boundaries and within tone units, and the number of resyllabified consonants at tone unit boundaries and within tone units. From these raw data, percentages were calculated individually for each speaker depending on the number of contexts in their utterances. This number varied according to the mispronounced or omitted words.

The dependent variables, namely the numbers of tone units and contexts for the occurrence of a glottal stop, linking sound or resyllabified consonant, together with the percentages of glottalized vowels, linking sounds or resyllabified consonants used in the remaining recordings of Czech subjects, were tested by the Repeated measures Anova with two independent variables (Condition X Tempo) which both had two levels (Normal X Fast). The strength of interaction was shown by a post-hoc Tukey HSD test.

4 Results

4.1 Number of tone units and phonetic contexts for the occurrence of glottal stops, linking sounds or resyllabified consonants

A Repeated measures Anova produced a significant main effect only for Tempo (rate) but not for Condition (method) (p<0.001), the interaction between Tempo and Condition was significant (F(1,8)=76.238, p<0.001). A post hoc Tukey test revealed that the effect for Tempo and the interaction between Condition and Tempo were equally significant (p<0.001) (for more detailed results, see the tables in the appendix). The number of tone units, into which the speakers divided their utterances, changed under the influence of increased speech rate only in the self-controlled condition. The interaction between condition and tempo is clearly visible in Figure 1:
It is clearly recognisable that the increase in speech rate influences the number of tone units if speakers control their speech rate by themselves. They divide their speech into fewer (and consequently longer) tone units in fast speech than in normal speech. The interaction visible in Figure 1 demonstrates that whereas speech rate influences the number of tone units in the self-controlled condition, it has no impact in the shadowing condition. There is a noticeable difference between the two conditions with respect to the number of tone units, but as far as speech rate is concerned, only the data within the self-controlled condition differ significantly. The difference between the number of tone units at normal compared to fast tempo of speech in the shadowing condition is too small to be significant.

The number of phonetic contexts for the occurrence of glottal stops, linking sounds or resyllabified consonants at tone unit boundaries is directly linked to the number of tone units. When the number of tone units decreases, the number of contexts for glottalization at tone unit boundaries decreases as well. The number of contexts at tone unit boundaries was tested by a Repeated measures Anova with Condition and Tempo as factors. It produced a significant result for Tempo (p<0.001) and a significant interaction between Condition and Tempo.

The following Tukey test showed that the effect for Tempo (p<0.001) was more significant than the interaction between Condition and Tempo (F(1,8)=22.301, p<0.01).
Figure 2 demonstrates the interaction between tempo and condition. The number of contexts for a glottal stop (or a linking sound or a resyllabified consonant) at tone unit boundaries was higher at normal speech rate in self-controlled condition than in shadowing condition, and it became substantially decreased at fast tempo, whereas in shadowing, the decrease was only minor.

**Figure 2. Number of possible glottal stops at the tone unit boundaries related to “Tempo” and “Condition”.

4.2 Realized glottal stops (%)

The percentage of realized glottal stops was tested by a Repeated measures Anova with the factors of Tempo and Condition. As for the glottal stops realized within tone units, the effect of Tempo and Condition was shown significant (p<0.05), as well as the interaction between Condition and Tempo (F(1,8)=6.5837, p<0.01). The post-hoc Tukey test confirmed that the interaction between Condition and Tempo was more significant (p<0.01) than the effect of Condition and that of Tempo (p<0.05).

The differences between the two conditions in the percentage of realized glottal stops within tone units are particularly important. Results of the Tukey test (Figure 3) show that speech rate had a strong influence only in the self-controlled condition, where the percentage
of glottal stops used rapidly decreased. In the shadowing condition there was no difference between the percentages of realized glottal stops at normal and at fast rate.

**Figure 3. Realized glottal stops within the tone units (%) related to “Tempo” and “Condition”.

It is obvious that speech rate had a strong influence on the percentage of realized glottal stops within the tone units in the self-controlled condition. As Figure 3 shows, the speakers reduced the number of realized glottal stops only in the self-controlled condition, whereas in shadowing, it remained almost the same at both rates. The most important interaction between tempo and condition was that both percentages in the shadowing condition were lower than both the percentages in the self-controlled condition.

### 4.3 Linking sounds used (%)

There was not found any significance in the results of the linking sounds used, neither at tone unit boundaries, nor within tone units. At tone unit boundaries, only one speaker used linking techniques. Within tone units, more speakers used them, but the overall significance of neither factor for this usage was proved significant enough in the Repeated measures Anova with the factors Condition and Tempo (p=0,058 for the effect of Tempo).
4.4 Resyllabified consonants used (%)

As well as by the number of glottal stops realized, the changes in the percentage of resyllabified consonants were also found significant only within tone units. The Repeated measures Anova with the factors of Condition and Tempo revealed that the effect of Condition (p<0.01) and the interaction between Condition and Tempo (F(1,8)=10.770, p<0.05) were significant. It did not show the effect of Tempo significant (p=0.053), but this was then re-tested by a post-hoc Tukey test, which revealed this effect as significant (p<0.05) in the self-controlled condition. It also rated the effect of Condition as highly significant (p<0.001).

![Figure 4. Resyllabified consonants (%) related to “Tempo” and “Condition”.](image)

Figure 4 shows that the condition played an important role in the case of resyllabification within tone units. In the self-controlled condition, the speakers increased the number of resyllabified consonants made within tone units at the increased tempo, and this was in an inverse proportional relation with the glottal stops they made within tone units – the fewer glottal stops they produced, the more resyllabified consonants were used by them. However, none of the percentages of the self-controlled rate exceeded the lower percentage of the shadowing method. What may seem illogical is that in the shadowing method, the
speakers resyllabified slightly more consonants at the normal compared to the fast tempo of speech.

4.5 Brief summary of the performance of the American subjects

In Table 3, the percentage of the phenomena used in the reading according to both conditions is presented. In the self-controlled condition, there are data of both American speakers (Speaker M and Speaker J), and in the shadowing condition, only the data of Speaker M are included as the Speaker M had to be excluded from the experiment in this type of condition. As there were only these two subjects participating in the experiment, the results of their data were not necessary to test in the same manner as the data of the Czech group. Therefore, only a table with the percentage of the phenomena used by them is presented for comparison.

The data of the self-controlled condition show that under the influence of increased rate of speech, both speakers reduced the number of tone units as well as the contexts possible for the occurrence of the glottal stop at tone unit boundaries at increased speech rate (whereas within tone units, the percentage of such possible contexts logically became higher because of the reduction in the number of tone units). The speakers reduced the number of glottal stops realized at tone unit boundaries. Within tone units, the number of glottal stops was decreased by Speaker M and only slightly increased (by 0.75%) by speaker J. Such difference between the data was considered rather accidental than deliberate. The number of linking sounds and resyllabified consonants used increased in both speakers, both at tone unit boundaries and within tone units.

In the shadowing condition, speaker M. slightly reduced the number of tone units (the decrease was significantly lower than that in the self-controlled condition, though). The number of possible contexts for the occurrence of the glottal stop remained almost unaltered by him. Both at tone unit boundaries and within tone units, the number of glottal stops was reduced by the speaker, whilst he produced more linking sounds and more resyllabified consonants.
Table 1. The results of the American subjects (%).
(NR=Normal Rate, IR=Increased Rate).

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Number of tone units</td>
<td>NR</td>
<td>103</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>97</td>
<td>89</td>
</tr>
<tr>
<td>Contexts for the ? across the tone unit boundary</td>
<td>NR</td>
<td>28</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>29</td>
<td>26</td>
</tr>
<tr>
<td>Contexts for the ? within the tone unit</td>
<td>NR</td>
<td>46</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>47</td>
<td>54</td>
</tr>
<tr>
<td>?s realized across the tone unit boundary</td>
<td>NR</td>
<td>96,4</td>
<td>78,8</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>79,3</td>
<td>46,2</td>
</tr>
<tr>
<td>?s realized within the tone unit</td>
<td>NR</td>
<td>15,2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>6,4</td>
<td>7,4</td>
</tr>
<tr>
<td>Linking sounds used across the tone unit boundary</td>
<td>NR</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>6,9</td>
<td>26,9</td>
</tr>
<tr>
<td>Linking sounds used within the tone unit</td>
<td>NR</td>
<td>15,2</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>17</td>
<td>24,1</td>
</tr>
<tr>
<td>Cases of resyllabification across the tone unit boundary</td>
<td>NR</td>
<td>3,6</td>
<td>18,2</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>13,8</td>
<td>26,9</td>
</tr>
<tr>
<td>Cases of resyllabification within the tone unit</td>
<td>NR</td>
<td>69,6</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>76,6</td>
<td>68,5</td>
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</table>

5 Discussion

As for the American group of speakers, the results of the pilot experiment agree with the expectations based on Chapter 2. The native speakers of English divided their speech into fewer and longer tone units in the self-controlled condition. In the shadowing condition, the one speaker concerned made approximately similar amount of tone units at both rates as the shadowing file was only accelerated as a whole, but the division of speech into tone units remained unchanged in it. This perfectly corresponds to the fact that in the shadowing condition, people tend to copy the speaker they hear. The contexts for the possible occurrence of the glottal stops were reduced at tone unit boundaries in the self-controlled speech rate by both speakers, which can be explained by the reduction of the number of tone units, which reduced the number of possible contexts at tone unit boundaries at the same time (these contexts then became the contexts within tone units). Both speakers reduced the overall number of glottal stops used. The results confirm that the native speakers of English preserve the glottal stop at a strong prosodic boundary, whilst within tone units, they resyllabify or use linking sounds instead. The percentage of linking sounds or resyllabified consonants used increased in speaker M; Speaker J used more linking sounds, but decreased the number of resyllabified consonants within tone units (by 4,8%). This could also be explained by the fact
that he was considerably nervous and therefore made his speech diffluent at some points and made unnecessary pauses.

In the results section, we have also seen that in the Czech group of speakers, there were four sections of data which brought significant results, namely the data of the number of tone units together with the contexts for the occurrences of the glottal stops at tone unit boundaries, the actually realized glottal stops within tone units and the resyllabified consonants within tone units.

The number of tone units was reduced significantly only in the self-controlled condition, because of the same reason as in the American group – the speakers tend to copy the division of speech from the speaker they hear in their headphones in the shadowing condition. The same interpretation of the results is suitable also in the case of the possible contexts at tone boundaries for the glottal stops (or linking sounds or resyllabified consonants) to occur, whose number decreased in the self-controlled condition along with the number of tone units. In the shadowing condition, the number of contexts changed only slightly. It can be explained by the fact that the normal speech rate of the speakers is not the same as the normal speech rate of the speaker in the shadowing file. Therefore, in the self-controlled condition, the speakers have the chance to reduce the number of tone units and contexts for glottal stops, linking sounds or resyllabified consonants more significantly than in the shadowing condition, where they try to adapt their speech rate to the speech rate of the speaker in the shadowing file. As a result of the reduction of the number of contexts at tone unit boundaries, the number of contexts within tone units proportionally increased in the self-controlled condition. In the shadowing condition, they remained almost the same.

Before taking the pilot experiment, I did not expect that the usage of glottal stops at tone unit boundaries would change significantly, because such contexts are usually situated after a pause, and in such cases, the glottal stop is mostly realized. This was confirmed by the results. On the other hand, within tone units, the number of glottal stops was significantly reduced in the self-controlled condition under the influence of fast tempo of speech, which I expected that would happen. Table 4 shows that in the shadowing condition, speakers produced approximately the same number of glottal stops at both speech rates, and what is important, both percentages of the glottal stop usage within tone units were lower than the lower one in the self-controlled condition. This finding corresponds to the tendency of speakers to copy the speaker whom they hear in the headphones in the shadowing condition, not only with respect to the division of speech into tone units, but also to the glottal stops omission.
Table 2. The overall average percentages of the use of the glottal stops by all Czech subjects.

<table>
<thead>
<tr>
<th></th>
<th>Shadowing con.</th>
<th>Self-controlled con.</th>
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<tbody>
<tr>
<td></td>
<td>Boundary</td>
<td>Within</td>
</tr>
<tr>
<td>Normal</td>
<td>98,2</td>
<td>60,3</td>
</tr>
<tr>
<td>Fast</td>
<td>97,2</td>
<td>59</td>
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</table>

The same explanation is plausible in the case of resyllabification within tone units in the shadowing condition, where the results were very similar. The speakers resyllabified more consonants at both rates in this condition, and their number was higher at both rates than the number of the resyllabified consonants in the self-controlled condition at increased speech rate, which was significantly higher in comparison to the normal speech rate. Again, a clear tendency to copy the heard speaking habits of the speaker in the shadowing file is a credible interpretation of the results. When speakers can control their speech rate, they reduce the number of glottal stops within tone units at high speech rate, and replace them by resyllabified consonants (or, not as frequently, by linking sounds). I also considered the fact that most subjects were from Moravia and its possible influence on the results. When I compared the performance of Moravian speakers to that of the one speaker from Bohemia (S06), I did not find any considerable difference. Consequently, I decided not to ascribe significant importance to this dialectal affiliation of speakers and I considered the speakers as the members of one (Czech) group. Moreover, if the interference of the tendency to resyllabify in Moravian speakers was strong, they would tend to resyllabify in English even at normal speech rate, but in the experiment, they did not show such a tendency. They were forced to resyllabify because of the increase in speech rate (or, in the shadowing condition, because of the tendency to copy the speaker they heard).

Finally, I did not anticipate the percentage of linking sounds used by Czech speakers of English to increase significantly, because they do not use such phenomena in their native language and moreover, the glottal stop, frequent in their native language, is a significant barrier to the use of linking sounds. This anticipation was also proved in the pilot experiment. No significant changes in the percentage of linking phenomena applied were found. Neither the condition, nor the speech rate forced the speakers to link words in significantly more contexts at higher speech rate.
To summarize, Figure 5 shows the overall percentages of glottal stops, linking sounds and resyllabified consonants used by Czech speakers in both conditions at normal as compared to increased speech rate, both at tone unit boundaries and within tone units.

Figure 5. The overall percentage of glottal stops, linking sounds and resyllabification used by the Czech speakers both at tone unit boundaries and within tone units.

6 Conclusion

In the thesis, I focused on the phonetic changes at word boundaries in spoken English produced by native speakers of English compared to Czech speakers of English, mainly on the usage of the glottal stop and its two counterparts in the contexts concerned – the linking sounds and resyllabified consonants. The word boundaries concerned were boundaries between a word ending in a consonant or a vowel and the following word beginning exclusively with a vowel.

The thesis had two main objectives. The first goal was to explore literature, relevant to the topic, and to gather information about what processes do the Czech and the native speakers of English apply at tone unit boundaries at normal compared to increased speech rates. The main facts acquired were that English speakers prefer to link the words together using any of the linking phenomena, and this tendency is strengthened at increased speech
rate, whereas in Czech, speakers prefer to use the glottal stops very frequently, although their number can be lowered at high speech rates. Therefore, it was hypothesized that Czech speakers, when forced to speak English at increased speech rate, would omit a significant number of glottal stops and use more resyllabified consonants instead, but that they will not use many linking sounds because such a phenomenon is not present in their native language.

The second goal of the thesis was to design a pilot experiment in which the Czech and the native speakers of English would be made to increase their speech rate. I compared two conditions (methods) of controlling the speech rate of participants. In the first condition, they read a book extract and controlled their speech rate by their own, according to their speaking habits and skills. In this condition, the hypothesis that they would reduce the number of tone units, omit more glottal stops and apply more resyllabified consonants at increased speech rate was confirmed. In the second condition called “shadowing”, where they read along with a recording that they heard in the headphones, they rather tended to copy the speaking habits of the speaker from the shadowing file than to be forced to change their own speaking habits. Therefore, the first method seems to be more suitable for the compulsion of speakers to alter their speech rate and to apply the related phonetic processes at word boundaries. The shadowing condition is, nevertheless, not useless. It could be applied as a successful practising method at learning the native accent, because it rather forces to imitate the heard speech than to alter the speech rate. For the purposes of the pilot experiment in this thesis, the first condition was more suitable and confirmed the formulated hypothesis.
7 Appendix

7.1 Transcripts

Both shadowing files (normal + increased rate)
101 tone units, 83 contexts for the occurrence of the ? (30 on the tone unit boundary, 53 within the tone unit), 35 ?s realized (27 on the tone unit boundary, 8 within the tone unit), 11 linking sounds used (1 on the tone unit boundary, 10 within the tone unit), 37 cases of resyllabification (2 on the tone unit boundary, 35 within the tone unit).

Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blondel and had nearly twice the usual amount of neck, which came very useful as she spent so much time craning her neck to spy over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they also had a secret, and their greatest fear was that somebody would discover it. They didn’t think they could bear it if anyone found out about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years; in fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were as unDursleyish as it was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr and Mrs Dursley woke up on the dull, grey Tuesday of our story starts, there was nothing about the cloudy sky to suggest that strange mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window.

At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” chortled Mr Dursley, as he left the house. He got into his car and backed out of number four’s drive.

34
was no finer boy
street.

Dursleys shuddered
years;

None
him.

Mr Dursley
(O) Dursleys

from resyllabification (1 across the tone unit boundary, 32 within the tone unit).

7 linking sounds used (0 across the tone unit boundary, 7 within the tone unit), 33 cases of
resyllabification (1 across the tone unit boundary, 32 within the tone unit).

(-) Mrs Dursley,l 2 of number four,\| Privet Drive,l (-) proud to sayl that they were perfectly
normal,\| thank you very much.\| They were the last people\| you’d D expect to be (J) involved\| D in ?anything strange\? or mysterious,\| because they just\| didn’t hold with such nonsense.l

Mr Dursley\| was the director\| (\| ...) firm\| (-) Grunnings,l (-) drills,l He was Z a big,l beefy
man\| with hardly ?any neck,l (\| ...) he did have V a very large moustache.l Mrs Dursley\| (-) thin\|
?and blonded \(\)\| and had nearly twice the usual L amount T of neck,l which came Min very
usefull \(\) as she spent so much T of her timel craning \(\) over garden fences,l spying \(\) \(\) on the
neighbours.l (-) Dursleysl had D a small son called Dudleyl \(\) and N in their (R) opinionl there
was no finer boy \(\) \(\) anywhere.l

(-) Dursleys\| had \(\) 2 everthing they wanted,l but they \(\) also\| had D a secret,l \(\) \(\) and their
greatest fearl was that somebody\| would discover (R) it.l They didn’t think they could bear \(\) (-)l
(\| ...) found D outl \(\) about the Potters.l Mrs Potter\| was Mrs Dursley’s sister,\(\) (-) metl for several
years;l \(\) \(\) \(\) in fact,l Mrs Dursley \(\) (\| ...) \(\) she didn’t have V a sister,l because her sister\| \(\) \(\) and
her good-for-nothing husbandl were (R) as ?unDursleyishl \(\) as Z it was possible to be.l The
Dursleys shudderd\| to think what the neighbours would sayl \(\) if the Potters S arrivedl \(\) \(\) in the
street.l The Dursleys knewl that the Potters had D a small son,\(\) too,l but they had never seen
him.l This boyl was Z anotherl \(\) good reasonl for keeping the Potters S away;\(\) they didn’t want
Dudleyl mixing with D a childl like that.l

When Mr (R) and Mrs Dursley woke K upl \(\) on the dull,l \(\) greyl Tuesdayl (-) story starts,l there
was nothing \(\) about the cloudy sky \(\) (D) outside\| to suggestl that strange D and mysterious
thingsl would soon be happening? \(\) all L over the country,l Mr Dursley hummed \(\) as he picked
T out his mostl boring tie\| for workl \(\) and Mrs Dursleyl gossiped T awayl happily\| \(\) as she
wrestled D a screaming Dudleyl \(\) into his high chair.l

None N of them noticed \(\) a large\| tawnyl \(\) owl\| flutterl past the window.l

? At half past T eight,l Mr Dursleyl picked T up his briefcase,l pecked Mrs Dursley
(J) on the cheekl \(\) \(\) and tried to kiss Dudleyl goodbye\| but missed,l because Dudley was now
having \(\) a tantruml \(\) \(\) and throwing his cereal L at the walls.l “Little tyke,”\l \(\) \(\) chortled (-) Dursleyl
\(\) \(\) as he left the house.l He got D(r) into his carl \(\) \(\) and backed T outl (\| ...) number four’s drive.l
Mrs Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly a moustache. Mrs Dursley was thin and blonde, and had nearly twice the usual amount of neck, which came Min very usefull Las she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and his sister, Mrs Dursley’s sister, was Mrs Dursley’s sister, because they just didn’t hold with such nonsense.

Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blonde, and had nearly twice the usual amount of neck, which came Min very useful as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and his sister, Mrs Dursley’s sister, was Mrs Dursley’s sister, because they just didn’t hold with such nonsense.

When Mr Dursley woke up the dull, grey Tuesday, our story starts, nothing about the cloudy sky outside that strange and mysterious things would soon be happening! All over the country, Mr Dursley hummed as he picked up his most boring tie for work, and Mrs Dursley gossiped happily as she wrestled screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window.

At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek, and tried to kiss Dudley goodbye but missed, because now having a tantrum throwing his cereal at the walls. “Little tyke,” chortled Mr, as he left the house. His car (backed out of number four’s drive).
Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blonde and had nearly twice the usual amount of neck, which came usefully as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they also had a secret. And their greatest fear was that somebody would discover it. They didn’t think they could bear if anyone found out about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years; in fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were as unDursleyish as it was possible to be.

The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr Dursley woke on the dull, grey Tuesday, our story starts, there was nothing about the cloudy sky outside to suggest that strange Dursleyish mysterious things would soon be happening all over the country. (…) Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped happily as she wrestled into his high chair.

None of them noticed a large tawny owl flutter past the window. At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” he chortled as he left the house. He got into the car and backed out of number four’s drive.
Mr (R) and Mrs Dursley\(,\) of number four, Privet Drive, were proud to say that they were perfectly normal. I thank you very much. They were the last people you'd expect to be involved in anything strange or mysterious, because they just didn't hold with such nonsense.\(\text{\textregistered}\)

Mr Dursley was the director (R) of a firm called Grunnings, which made drills. He was a big, beefy man with hardly (J) any neck. Although he did have a very large moustache, Mrs Dursley was thin and blonde, and had nearly twice the usual amount (T(r)) of neck, which came in very useful as she spent so much (J) of her time climbing over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley, and in their opinion there was no finer boy (J) anywhere.\(\text{\textregistered}\)

The Dursleys had everything they wanted, but they also had a secret. And their greatest fear was that someone might discover (R) it. They didn't think they could bear (R) it if anyone found out about the Potters. Mrs Potter\(\text{\textregistered}\) was Mrs Dursley's sister, but they hadn't met for several years; in fact, Mrs Dursley pretended she didn't (\text{\textregistered}) have a sister, because her sister and her good-for-nothing husband were ... another good reason for keeping the Potters away; they didn't want Dudley mixing with a child like that.\(\text{\textregistered}\)

When Mr (R) and Mrs Dursley woke on the dull, grey Tuesday our story starts, there was nothing about the cloudy sky (J) outside to suggest that strange and mysterious things would soon be happening. All over the country, Mr Dursley hummed Das he picked Tout his most boring tie for work, and Mrs Dursley gossiped away happily (J) as she wrestled Da screaming Dudley (J) into his high chair. None of them noticed Da largel tawn\(\text{\textregistered}\)y owl flutter past the window.\(\text{\textregistered}\)

At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley (J) on the cheek, and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal (\text{\textregistered}) the walls. "Little tyke," chortled Mr Dursley (J) as he left the house. He got D(r) into his car (R) and backed Tout of number four's drive.\(\text{\textregistered}\)
Speaker J. (Am.) – Self-controlled (normal rate)

109 tone units, 77 contexts for the occurrence of the ? (29 across the tone unit boundary, 48 within the tone unit), 26 is realized (23 across the tone unit boundary, 3 within the tone unit), 11 linking sounds used (2 across the tone unit boundary, 9 within the tone unit), 40 cases of resyllabification (4 across the tone unit boundary, 36 within the tone unit).

Mr (R) and Mrs Dursley, I ? of number four, [Privet Drive], I were proud to say I that they were perfectly normal, I thank you very much. I They were the last people you’d D expect to be (J) involved! D in N anything strange? for or mysterious, I because they just didn’t hold with such nonsense. [L]

Mr Dursley was the director (R) of V a firm called Grunnings, a which made drills. I He was Z a big, I beefy man with hardly ? any neck, [L] although he did have V a very large moustache. I Mrs Dursley was thin? and blondel? and had nearly twice the usual L amount T of neck, I which came Min very usefull? as she spent so much T of her timel craning n over garden? fences, I spying Non the neighbours. I The Dursleys had Da small son called Dudley? and Nin their (R) opinion there was no finer boyl? anywhere. [L]

The Dursleys had Deverything they wanted, [L] but they (-) had Da secret, I ? and their greatest fear I was that somebody would discover (R) it. I They didn’t think I they could bear (-) I (R) if E anyone found Doul? about the Potters. I Mrs Potterl was Mrs Dursley’s sister, I but they had not metl for several years; I ? in fact, I Mrs Dursley pretended she did not have V a sister, I because her sisterl? and her good-for-nothing husbandl were (-) ?unDur(-)leyishl (…) Fit it was possiblel to be. [J] The (…) I shuddered to think I what the neighbours would (…) I ? if the Potters Zarrivedl D in the street. I The Dursleys knew (…) the Pottersl had Da small son, I too, I but they had never seen him. I This boyl was Z another good reasonl for keeping the Potters Z away; I they didn’t want Dudleyl mixingl with Da childl like that. [L]

When Mr (R) and Mrs Dursley woke K up P on the dull, I greyl Tuesdayl 2our story starts, I there was nothing (…) the cloudy sky (J) outside to suggest that strange D and mysterious thingsl would soon be happening! ? all L over the country. I Mr Dursley hummed D as he picked Tout his mostl boring tie for workl? and Mrs Dursley gossiped (-) happilyl? asl she wrestled? a screaming Dudleyl? into his high chair. [L]

None N of them (…) I noticed Da large tawny (J) owl l flutter past the window. I

? At half past T eight, I Mr Dursleyl picked Tup his briefcase, I pecked Mrs Dursley (J) on the cheek? and tried to kissl Dudley goodbye but missed, I because Dudley was (-) having Na tantruml? and throwing his cereal L at the walls. I “Little tyke,” I chortled Mr Dursleyl (J) as he left the house. I He got D(r) into his carl? and backed Toutl? of number four’s drive. I
Mr (R) and Mrs Dursley\(l\) of number four, \(l\) Privet Drive\(l\), were proud to say\(l\) that they were perfectly normal, \(l\) thank you very much. \(l\) They were the last people\(l\) you’d expect to be \(J\) involved\(l\) in \(N\) anything strange \(D\) or mysterious, \(l\) because they just didn’t hold\(l\) with such nonsense.\(l\)

Mr Dursley\(l\) was the director \(R\) of \(V\) a firm\(l\) called Grunnings, \(l\) which made\(l\) drills. \(l\) He was \(Z\) a big,\(l\) beefy man with hardly \(J\) any neck, \(l\) although he did have\(l\) \(V\) a very large moustache. \(l\) Mrs Dursley\(l\) was thin\(l\) and blonde\(l\) and had nearly twice the \(-\) \(J\) amount \(T\) of neck, \(l\) which came \(M\) in very useful\(l\) \(l\) as she spent \(-\) \(M\) uch \(T\) of her timel\(l\) craning \(U\) over garden fences, \(l\) spying \(N\) on the neighbours. \(l\) The\(l\) \(R\) small son called Dudley\(l\) \(P\) and \(N\) in their \(R\) opinion\(l\) there was no finer boy\(l\) \(P\) anywhere.\(l\)

The Dursleys\(l\) had \(D\) everything they wanted, \(l\) but they \(J\) also had \(D\) a secret, \(l\) \(P\) and their greatest fear\(l\) was that somebody\(l\) would discover \(R\) it.\(l\) They didn’t think\(l\) they could bear \(R\) it if\(l\) anyone found \(D\) out\(l\) \(T\) (\(r\)) about the Potters. \(l\) Mrs Potter was Mrs Dursley’s sister, \(l\) but they \(J\) met for several years. \(l\) In fact, \(J\) the Dursley pretended\(l\) she didn’t have \(V\) a sister, \(l\) because her sister\(l\) \(R\) and her good-for-nothing husband were \(-\) \(d\) un\(D\) ursleyish\(l\) \(P\) as \(Z\) it was possible to be. \(l\) The\(l\) shuddered to think\(l\) what the neighbours\(l\) would say \(J\) if the Potters\(l\) \(Z\) arrived\(l\) in the street. \(l\) The\(l\) knew\(l\) the Potters had\(l\) \(D\) a small son, \(l\) too, \(l\) but they had never seen him. \(l\) This boy was \(J\) a good reason\(l\) for keeping the Potters\(l\) \(Z\) away; \(l\) they didn’t want Dudley\(l\) \(J\) with \(D\) a child\(l\) like that.\(l\)

When Mr \(R\) and Mrs \(J\) woke\(l\) \(K\) up\(l\) \(P\) on\(l\) \(P\) dull, \(l\) grey Tuesday\(l\) \(P\) our story starts, \(l\) there was nothing\(l\) about the cloudy sky \(J\) outside\(l\) to suggest\(l\) that strange\(l\) \(D\) and mysterious things\(l\) would soon be happening\(l\) all\(l\) over the country. \(l\) Mr \(J\) hummed\(l\) \(P\) as\(l\) he picked\(l\) \(T\) out his most boring tie for work\(l\) \(P\) and Mrs Dursley gossiped\(l\) \(T\) away happily\(l\) \(P\) as\(l\) they wrestled\(l\) \(D\) into his high chair.\(l\)

None\(l\) \(N\) of them noticed\(l\) \(D\) large\(l\) \(P\) \(T\) o\(w\) ll\(l\) flutter past the window.\(l\)

At half past\(l\) \(T\) eight,\(l\) Mr \(J\) picked\(l\) \(T\) up his briefcase, \(l\) pecked Mrs Dursley\(l\) \(P\) on the cheek\(l\) \(P\) and tried to kiss Dudley goodbye\(l\) but missed, \(l\) because Dudley had now having\(l\) \(N\) a tantrum\(l\) \(M\) and throwing his cereal\(l\) \(L\) at the walls.\(l\) “Little tyke,”\(l\) chortled\(l\) Mr Dursley\(l\) \(J\) as he left the house. \(l\) He got\(l\) \(D\) into his car\(l\) \(P\) and backed\(l\) \(T\) out\(l\) \(P\) of number four’s drive.\(l\)
Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blond, and had nearly twice the usual amount of neck, which came Min very (...) as she spent so much of her time craning (...), spying on the neighbours. (-) had a small son called Dudley and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but (-) also had a secret, and their greatest fear was that somebody would discover it. They didn’t think they (...) bear it! (-) if anyone found about the Potters. Mrs Potter was Mrs (...) sister, but they hadn’t met for several years; (-) Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were as unDursleyish as it was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When (...) and (...) (-) on the dull, grey Tuesday our story starts, (...) nothing about the cloudy sky outside (-) suggested that strange and mysterious things (-) soon be happening. (...) all Over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window.

At half past eight, Mr Dursley picked up his briefcase and pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” chortled Mr Dursley as he left the house. He got into his car and backed out of number four’s drive.
Mrs Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with a large moustache. Mrs Dursley was thin and blonde, and had nearly twice the usual amount of neck, (-) cracking over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they also had a secret. Their greatest fear was that somebody would discover it. They didn’t think they could bear it. If anyone found out about the Potters, Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years. In fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were not Dursleyish as it was possible to be. The Dursleys shuddered to think the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was a good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr and Mrs Dursley woke up on the dull, grey Tuesday, our story starts, there was nothing (…) outside to suggest that strange and mysterious things would soon be happening. All over the country, Mr Dursley hummed as he picked up his briefcase, (-) on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” Mr Dursley said as he left the house. He got into his car and backed out of number four’s drive.
Mr and Mrs Dursley, of number four, Privet Drive, were proud to say that they were perfectly normal, thank you very much. They were the last people you’d expect to be involved (…) in anything strange or mysterious, because they just didn’t hold with such nonsense.

Mr Dursley was the director of a film called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blond and had nearly twice the usual amount of neck, which came in very (…) as she spent so much of her time craning (…) over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley (R) and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, (…) but they also had a secret, their greatest fear was that somebody would discover it. They didn’t think they could bear (R) if anyone found out about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years; in fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were as unDursleyish as it was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr and Mrs (…) woke up on the dull, grey Tuesday, our story starts, there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work (…) and Mrs (…) gossiped away happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window.

At half past eight, Mr (…) picked up his briefcase (…) pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye, but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” Mr (…) as he left the house. He got into his car and backed out of number four’s drive.
Mr Dursley was the director of Va (...) called Grunnings, which made drills. He was Za big, beefy man with hardly any neck. Although he did have (...) a very large moustache. Mrs Dursley was thin and blond (...) and had nearly twicel ( ...) the usual amount of neck, which came in very ( ...) as she spent so much of her time craning over garden fences, spying on the neighbours. ( ...) The Dursleys had Da small son called Dudley ( ...) and in their (R) opinion there was no finer boy than anywhere. 

The Dursleys had everything they wanted, but they also had Da secret, ( ...) and their greatest fear was that somebody would discover (R) it. They didn’t think they could (...) bear (R) it if anyone found Doubl about the Potters. Mrs Potter was Mrs Dursley’s sister, ( ...) but they hadn’t met for several years; ( ...) in fact, Mrs Dursley pretended she didn’t have Va sister, because her sister ( ...) and her good-for-nothing husband were as unDursleyish ( ...) as Za it was possible to be. The Dursleys shuddered to think ( ...) what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had Da small son, too, (...), but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with Da child like that. 

When Mr and Mrs Dursley woke Kupl on the dull, grey Tuesday our story starts, ( ...) there was nothing about the cloudy sky outside to suggest ( ...) that strange and ( ...) mysterious things would soon be happening! All over the country, Mr Dursley hummed as he picked T out his most boring tie for work ( ...) and Mrs Dursley gossiped away ( ...) happily as she wrestled a screaming Dudley into his high chair. 

None of them noticed a large tawny owl flutter past the window. 

At half past eight, Mr ( ...) picked T up his briefcase, pecked Mrs Dursley ( ...) on the cheek ( ...) and tried to kiss Dudley goodbye but missed, because Dudley was now ( ...) having a tantrum and throwing his cereal ( ...) the walls. “Little tyke,” he chortled! Mr ( ...) as he left the house. He got ( ...) into his car ( ...) and backed T out ( ...) of number four’s drive.
perfectly normal, because her sister but they (...) had never seen him. There was no finer boy Mr Dursley was the director of (...) firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blond and had nearly twice the usual amount of neck, which came in very useful as she spent so much time craning over (...) fences, the neighbours. The Dursleys had a small son called Dudley and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they also had a secret, and their greatest fear was that somebody would (...) it. They didn’t think they could bear it if anyone found out about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years; in fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were as unDursleyish as it was (...) possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had (...) small son, too, but they (...) had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr and Mrs Dursley woke up on the dull, grey Tuesday our story starts, there was nothing about the cloudy sky outside to suggest that strange and mysterious (...) would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she (...) screamed Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window. At half past eight, Mr Dursley (...) his briefcase, pecked Mrs Dursley on (...) cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his (...) at the (...). “Little (...) tyke,” I chortled. Mr Dursley as he left the house. He got into his (...) car and backed out of number four’s drive.
Mr (R) and Mrs Dursley, | their greatest fear was that somebody would (...) | it. They didn’t think they could bear it if anyone found Doutl about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years; | in fact, Mrs Dursley pretended she didn’t have V a sister, | because her sister and her! good-for-nothing husband were ?as (...) | as it was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had D a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with D a child like that.

When Mr ? and Mrs Dursley woke Kupl on the dull, | there was nothing K about (...) sky to suggest that strange ? and mysterious (...) | would soon be happening | all over the country. Mr Dursley hummed | as he picked ? out his most boring tie for work | and Mrs Dursley gossiped | away happily | as she wrestled ? a screaming Dudley into his high chair. | None N of them noticed ? a large tawny ? owl flutter past the window. | At half past ? eight, Mr Dursley picked ? up his briefcase, I pecked Mrs Dursley ? on her cheek ? and tried to kiss Dudley goodbye but missed, | because Dudley was (...) now having ? a tantrum | and throwing his cereal | at the (...) | “Little tyke,” I chortled Mr Dursley as he left the house. I He got ? into his car | and backed ? out of number four’s drive.
Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blond and had nearly twice the usual amount of neck, which came in very usefull as she spent so much of her timel craning over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they also had a secret, and their greatest fear was that somebody would discover it. They didn’t think they could bear it if anyone found out about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years, in fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were as unD(lyish) it was possible to be. The Dursleys (...) shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away, they didn’t want Dudley mixing with a child like that.

When Mr Dursley woke up on the dull, grey Tuesday our story starts, there was nothing about the cloudy sky to suggest that strange (…) mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs (…) gossiped away happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window.

At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” chortled Mr Dursley as he left the house. He got into his (...) and backed out of number four’s drive.

S02 (Cz.) – Self-controlled (normal rate)

114 tone units, 82 contexts for the occurrence of the (35 across the tone unit boundary, 47 within the tone unit), 72 2s realized (35 across the tone unit boundary, 37 within the tone unit), 0 linking sounds used, 10 cases of resyllabification (0 across the tone unit boundary, 10 within the tone unit).
Mr (R)and Mrs Dursley, | of number four, | Privet Drive, | were proud to say | that they were | perfectly normal, | thank you very much. | They were the last people you’d expect to be | involved in anything strange or mysterious, | because they just didn’t hold with such nonsense. |

Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, | beefy man | with hardly any neck, | although he did have a very large moustache. Mrs Dursley was thin | and blond, | and had nearly twice the usual amount of neck, which came in very useful as she spent so much (…) | of her time craning over garden fences, | spying on the neighbours. The Dursleys had a small son called Dudley | and in their opinion there was no finer boy | anywhere. |

The Dursleys had (…) they wanted, but they also had a secret, | and their greatest fear was that somebody would discover it. They didn’t think they could bear it if anyone found out about the Potters. Mrs Potter was Mr Dursley’s sister, | but they hadn’t met for several years; | in fact, | Mrs Dursley pretended (…) she didn’t have a sister, | because her sister and her good-for-nothing husband were as (…) un-Dursleyish as it was possible to be. The Dursleys (…) shuddered to think (…) the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, | too, | but they had never seen him. This boy was another good reason | for keeping the Potters away; | they didn’t want Dudley | mixing with a child | like that. |

When Mr (R) and Mrs Dursley woke up on the dull, | grey Tuesday our story (…) there was nothing about the cloudy sky outside | to suggest that strange D and mysterious (…) would soon be happening | all over the country. Mr Dursley hummed as he picked out his most boring tie for work | and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair. |

None of them noticed | a large owl flutter past the window. |

At half past eight, | Mr Dursley picked up his briefcase, | pecked Mrs Dursley on the cheek | and tried to kiss Dudley | but missed, | because Dudley was now having a (…) tantrum | and throwing his cereal at the walls. | “Little tyke,” | chortled Mr Dursley as he left the house. | He got into (…) his (…) | and backed out of number four’s drive. |
Mr [R] and Mrs Dursley, [J] of number four, Privet Drive, were proud to say that they were perfectly normal, thank you very much. They were the last people you’d expect to be (…). Of anything strange or mysterious, because they just didn’t hold with such nonsense.

Mr Dursley was the director [R] of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blond and had nearly twice the usual amount of neck, which came very usefully as she spent so much of her time craning over garden fences, spying on (…) neighbours. The Dursleys had a small son called Dudley and in their opinion (…) there was no finer boy anywhere.

The Dursleys had everything they wanted, but they also had a secret, and their greatest fear was that somebody would discover it. They didn’t think they could bear (…) if anyone found doubt about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years; (…) fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were as unDursleyish as it was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr Dursley woke up on the dull Tuesday our story starts, there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening; all over the country. Mr Dursley hummed as he picked (…) most boring tie for work and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair.

None of them (…) noticed a largelaw owl (…) past the window.

At half past eight Mr Dursley picked up his briefcase, pecked Mrs (…) the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum (…) throwing his cereal at the walls. “Little tyke,” Mr Dursley called, as he left the house. He got into his car and backed out of number four’s drive.
Mr (R) and Mrs Dursley, (J) of number four, Privet Drive, (J) were proud to say, (J) that they were perfectly normal, (J) thank you very much. (J) They were the last people you’d (D) expect to (R) be (J) involved in anything strange or mysterious, (J) because they just didn’t hold with such nonsense.

Mr Dursley was the (R) director of a firm called Grunnings, (J) which made drills. (J) He was (-) big, (J) beefy man, (J) with hardly any neck, (J) although he did have a very large moustache. (J) Mrs Dursley was thin and blond, and had nearly twice the usual amount of neck, which came very useful as she spent so much of her time craning out of garden fences, (J) spying on the neighbours. (J) The Dursleys had a small son called Dudley (J) and a (N) sister, (J) opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, (J) but they also had a secret, (J) and their greatest fear was that somebody would discover it. (J) They didn’t think they could bear it if anyone found out about the Potters. (J) Mrs Potter was Mrs Dursley’s sister, (J) but they hadn’t met for several years; (J) fact, (J) Mrs Dursley pretended she didn’t have a sister, (J) because her sister and her good-for-nothing husband were (R) as (un)Dursleyish as sit was possible to be. (J) The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. (J) The Dursleys knew that the Potters had a small son, too, but they had never seen him. (J) This boy was (...) good reason for keeping the Potters away; (J) they didn’t want Dudley mixing with a child like that.

When Mr (R) and Mrs Dursley woke up on the dull, grey Tuesday morning, (J) their story starts, (J) there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening all over the country. (J) Mr Dursley hummed as he picked (...) his most boring tie for work, (J) and Mrs Dursley gossiped away happily, (J) as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny owl (...) past the window. (J) At half past eight, Mr Dursley (...) K up his briefcase, (J) pecked (...) Mrs Dursley (J) on the cheek, and tried to kiss Dudley goodbye, but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” Mr Dursley (J) as he left the house. He got (...) into his car (...) K out of number four’s drive. (J)
S03 (Cz.) – Self-controlled (normal rate)

111 tone units, 82 contexts for the occurrence of the ? (36 across the tone unit boundary, 46 within the tone unit), 60 ?s realized (36 across the tone unit boundary, 24 within the tone unit), 5 linking sounds used (0 across the tone unit boundary, 5 within the tone unit), 17 cases of resyllabification (0 across the tone unit boundary, 17 within the tone unit).

Mr (R) and Mrs Dursley, I ?of number four, Privet Drive, I were proud to say I that they were perfectly normal, I thank you very much. I They were the last people you’d ?expect to be (J) involved in ?anything strange or mysterious, I because they just didn’t hold with such nonsense.

Mr (…) Dursley was the director ?of a firm called Grunnings, I which made drills. I He was (Z) a big, (L) beefy man with hardly ?any neck, I ?although he did have (R) a very (…) large moustache. I Mrs Dursley was thin (A) and blondel and had nearly twice the usual (M) amount (O) of neck, I which came (M) in very usefull as she spent so much (O) of her time craning (P) over garden fences, I spying ?on the neighbours. I The Dursleys had (D) a small son called Dudley (R) and ?in their ?opinion there was no finer boy! ?anywhere.

The Dursleys had ?everything they wanted, but they (J) also had (D) a secret, I ?and their greatest fear was that somebody would discover (R) it. I They didn’t think they could (…) bear ?it ?if ?anyone found (D) out ?about the Potters. I Mrs Potter was Mrs Dursley’s sister, I but they hadn’t met ?for several years; ?in fact, I Mrs Dursley pretended she didn’t have (F) a sister, I because her sister ?and her ?good-for-nothing husband were (O) as (…) ?ungDursleyish ?as (Z) it was possible to be. I The Dursleys shuddered to think what the neighbours would say ?if the Potters ?arrived ?in the street. I The Dursleys knew that the Potters had (D) a small son, I too, I but they had never seen him. I This boy was ?another good reason for keeping the Potters ?away; I they didn’t want Dudley mixing with (D) a child like that.

When Mr (A) and Mrs Dursley woke (K) up ?on the dull, I grey ?Tuesday ?our story starts, I there was nothing ?about the cloudy ?sky ?outside to suggest that strange (D) and mysterious things would soon be happening ?all ?over the country. I Mr Dursley hummed (O) as he picked (…) I his most boring tie for work, I and Mrs Dursley gossiped ?away happily ?as she wrestled ?a screaming Dudley (O) into his high chair.

None (N) of them noticed (D) a large tawny (J) owl ?flutter past the window. I

(…) ?at half past ?eight, I Mr Dursley picked (T) up his briefcase, I pecked Mr Dursley ?on the cheek ?and tried to kiss Dudley goodbye, but missed, I because Dudley was now having (O) a tantrum (O) and throwing his cereals ?at the walls. I “Little tyke,” I chortled I Mr Dursley (R) as he left the house. I (…) He got (O) into his car (O) and backed (T) out (O) of number four’s drive.
S03 (Cz.) – Self-controlled (increased rate)
93 tone units, 81 contexts for the occurrence of the ? (29 across the tone unit boundary, 52 within the tone unit), 34 ?s realized (27 across the tone unit boundary, 7 within the tone unit), 15 linking sounds used (1 across the tone unit boundary, 14 within the tone unit), 32 cases of resyllabification (1 across the tone unit boundary, 31 within the tone unit).

Mr (R)and Mrs Dursley, (J)of number four, Privet Drive, were proud to say that they were perfectly normal, but you’d expect to be (J)involved in anything strange (J)for mysterious, because they just didn’t hold with such nonsense.

Mr Dursley was the director (R)of a firm called Grunnings, which made drills. He was a big, beefy man with hardly (J)any neck, although he did have a very large moustache. Mrs Dursley was thin and blond(e) and had nearly twice the usual (J)amount of neck, which came and had nearly twice the usual (J)amount of neck, which came Min very usefull (J)as she spent so much (J)of her timel craning (J)over garden fences, spying (J)on the neighbours. The Dursleys had a small son called Dudley and their (R)opinion, there was no finer boy (J)anywhere.

The Dursleys had everything they wanted, but they also had a secret, (J)and their greatest fear was that somebody would discover (R)it. They didn’t think they could bear (R)it! (J)if anyone found (J)out (J)about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years; (J)in (J)fact, Mrs Dursley pretended she didn’t have a sister, (J)because her sister (J)and her good-for-nothing (J)husband were (R)as (J)unDursleish (J)as it was possible to be. The Dursleys shuddered to think (J)what the neighbours would say (J)if the Potters arrived in the street. The Dursleys knew that the Potters had a (J)small son, too, (J)but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr (R)and Mrs Dursley woke up on the dull, grey Tuesday morning, there was nothing about the cloudy sky outside to suggest that strange (J)and mysterious things would soon be happening. All (J)over the country, Mr Dursley hummed (J)as he picked (J)his most boring tie for work (J)and Mrs Dursley gossiped away happily (J)as she wrestled (J)into his new chair.

None of them noticed a large, tawny (J)owl flutter past the window. At half past eight, Mr (J)Dursley picked up his briefcase, pecked Mrs Dursley on the cheek (J)and tried to kiss Dudley goodbye (J)but missed, because Dudley was now having a tantrum and throwing his cerebral (J)at the walls. “Little tyke,” Mr Dursley (J)as he left the house. He got into the (-)car (J)and backed out of number four’s drive.
Mr and Mrs Dursley, of number four, Privet Drive, were proud to say that they were perfectly normal, thank you very much. They were the last people you'd (...) to be involved in anything strange or mysterious, because they just didn't hold with such nonsense.

Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blonde (...) had nearly twice the usual amount of neck, which came in very useful as she spent so much of her time craning over garden fences, or spying on the neighbours. The Dursleys had a small son called Dudley and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they also had a secret, and their greatest fear was that somebody would discover it. They didn't think they could bear it (-) anyone found out about the Potters. Mrs Potter was Mrs Dursley's sister, but they hadn't met for several years; in fact, Mrs Dursley pretended she didn't have a sister, because her sister and her good-for-nothing husband were as un-Dursleyish as it was possible to be. The Dursleys shuddered to think what the neighbours would say (...) the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn't want Dudley mixing with a child like that.

When Mr and Mrs Dursley woke on the dull Tuesday our story starts, there was nothing about the cloudy sky to suggest that strange and mysterious things would soon be happening all over the country. Mr (...) hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window.

At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum (...) throwing his cereal at the walls. (...) “Little tyke,” chortled Mr Dursley as he left the house. He got into his car and backed out of number four's drive.

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(-) Mrs Dursley knew that they were perfectly normal, thank you very much. They were the last people you’d (...) to be involved in anything strange or mysterious, because they just didn’t hold with such nonsense.

Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blond and had nearly twice the usual amount of neck, which came in very useful as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had (...) small son called Dudley and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they also had a secret, (...) their greatest fear was that somebody would discover it. They didn’t think they could bear it if anyone (...) about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years; in fact, Mrs Dursley (...) she didn’t have a sister, because her sister and her good-for-nothing husband were as undursleyish as it was possible to be. The Dursleys shuddered to think what the neighbours would say (-) the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr and Mrs Dursley woke on the dull, grey Tuesday our story starts, there was nothing about the cloudy sky outside to suggest that (...) strange (...) mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she wrestled (...) screaming Dudley into his high (...) chair.

None of them noticed a large tawny owl (...) past the window.

At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing (-) cereal at the walls. “Little tyke,” chirped Mr Dursley as he left the house. He got into his car and backed out of number four’s drive.
Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blonde and had nearly twice the usual amount of neck, which came in very useful as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and in their opinion there was no finer boy anywhere.

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When Mr Dursley woke up on the dull Tuesday morning, our story starts, there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window.

At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal (…) at the walls. “Little tyke,” she chortled Mr Dursley as he left the house. He got into his car and backed out of number four’s drive.
Mr and Mrs Dursley, of number four, Privet Drive, were proud to say that they were perfectly normal, thank you very much. They were the last people you’d (...) to be involved in anything strange or mysterious, because they just didn’t hold with such nonsense.

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When Mr and Mrs Dursley woke up, on the dull, grey Tuesday, our story starts, there was nothing about the cloudy sky to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work, and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny owl (…) past the window.

At half past eight, Mr Dursley (…) up his briefcase, pecked Mrs Dursley on the cheek, and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” he chortled. Mr Dursley, as he left the house, He got into his car (…) and backed out of number four’s drive.
Mr Dursley was the director of Fa firml called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blonde and had nearly twice the usual amount of neck, which came very useful as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and their opinion there was no finer boy within the tone unit), 64 cases of resyllabification (0 across the tone unit boundary, 2 within the tone boundary), 16 linking sounds used (0 across the tone unit boundary, 2 within the tone boundary), 16 cases of resyllabification (0 across the tone unit boundary, 16 within the tone unit).

When Mr Dursley woke on (…) dull, grey Tuesday our story starts, there was nothing about the cloudy sky to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair.

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None of them noticed a large tawny owl flutter past the window. At half past eight, Mr Dursley (…) up his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” chortled Mr Dursley as he left the house. He got into his car and backed out of number four’s drive.
Mr Dursley was the director (R) of a firm called (...) Grunnings, which made drills. He was a big, beefy man with hardly any neck, although (...) he did have a very large moustache. Mrs Dursley was thin and blond and had nearly twice the usual amount of neck, which came Min very useful as she spent so much of her time craning over (...) garden fences, spying on the neighbours. The Dursleys had Da small son called Dudley and in their opinion there was no finer boy anywhere. The Dursleys had everything they wanted, but they (...) also (-) a secret, and their greatest fear was that somebody would discover it. They didn’t think they could bear it if anyone found out about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years; in fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were as undursleyish as Sit was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had Da small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

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None of them noticed a large tawny owl (...) past the window. At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the (...) cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his (...) at the walls. “Little tyke,” chortled Mr Dursley as he left the house. He got into his car and backed out of number four’s drive.

Mr and Mrs Dursley, of number four, Privet Drive, were proud to say that they were perfectly normal, thank you very much. They were the last people you’d expect to be involved in anything strange or mysterious, (...) because they just didn’t hold with such nonsense.

S05 (Cz.) – Self-controlled (normal rate)
117 tone units, 83 contexts for the occurrence of the ? (38 across the tone unit boundary, 45 within the tone unit), 72 ?s realized (38 across the tone unit boundary, 34 within the tone unit), 3 linking sounds used (0 across the tone unit boundary, 3 within the tone unit), 8 cases of resyllabification (0 across the tone unit boundary, 8 within the tone unit).
Mr and Mrs Dursley, of number four, Privet Drive, were proud to say (...), that they were perfectly normal, thank you very much. They were the last people you'd expect to be involved in anything strange or mysterious, because they just didn't hold with such nonsense.

Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man, with hardly any neck. Although he didn't have a very large moustache, Mrs Dursley was thin and blond and had nearly twice the usual amount of neck, which came very useful as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they (...) also a secret, and their greatest fear was that somebody would discover it. They didn't think they could bear it! If anyone found out about the Potters, Mrs Potter was Mrs Dursley's sister, but they hadn't met for several years; in fact, Mrs Dursley pretended she didn't have a sister, because her sister and her good-for-nothing husband were as undursleyish as it was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn't want Dudley mixing with a child like that.

When Mr and Mrs Dursley woke on (...) dull, grey Tuesday our story starts, there was nothing about the cloudy sky outside (...) to suggest that strange and mysterious (...) would soon be happening over the country. Mr Dursley hummed as he (...) put his most boring tie for work and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window.

At half past eight, Mr Dursley (...) put his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. "Little tyke," chortled Mr Dursley as he left the house. He got into his car and (...) out of number four's drive.
Mr and Mrs Dursley, of number four, Privet Drive, were proud to say that they were perfectly normal. I thank you very much. I They were the last people you’d expect to be involved in anything strange or mysterious, because they just didn’t hold with such nonsense.

Mr Dursley was the director of Va (called Grunnings), which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blond, and had nearly twice the usual amount of neck, which came very useful as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley, and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they also had a secret, and their greatest fear was that somebody would discover it. They didn’t think they could bear it if anyone found out about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years; in fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were as unDursleyish as it was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that (...).

When Mr and Mrs Dursley woke on the dull, grey Tuesday, our story starts, there was nothing about the cloudy sky to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window. At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” he chortled, as he left the house. He (...) his car and backed out of number four’s drive.
Mr and Mrs Dursley, of number four,Privet Drive, were proud to say that they were perfectly normal, I thank you very much. They were the last people you’d expect to be involved in anything strange or mysterious, because they just didn’t hold with such nonsense.

Mr Dursley was the director of Va (…) called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley (…) thin and blondel (…) nearly twice the usual amount of neck, which came Min very useful as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son called (…) Dudley and in their opinion there was no finer boy anywhere.

(…) The Dursleys had everything they wanted, but they also had a secret, and their greatest fear was that somebody would discover it. They didn’t think they could bear it if anyone found out about the Potters. Mrs (…) was Mrs Dursley’s sister, but they hadn’t met for several years; in fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were as unDursleyish as Zit was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr and Mrs Dursley woke up on the dull, grey Tuesday our story starts, there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she wrestled Da screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window.

At half past eight, Mr Dursley picked up his briefcase, and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” I chortled Mr Dursley, as he left the house. He got into his car and backed out of number four’s drive.
Mr and Mrs Dursley, of number four, Privet Drive, were proud to say that they were perfectly normal, thank you very much. They were the last people you’d expect to be involved in anything strangler or mysterious, because they just didn’t hold with such nonsense.

Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was (...) thin and blond and had nearly twice the usual amount of neck, which came very useful as she spent so much of her timel craving over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and in their opinion there was no finer boy anywhere. The Dursleys had everything they wanted, but they also had a secret, and their greatest fear was that somebody would discover it. They didn’t think they could bear it if anyone found about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years; in fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were as un-Dursleyish as it was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they (...) had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr and Mrs Dursley woke on the dull, grey Tuesday our story starts, there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window.

At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodby but missed, because Dudley was now having a tantrum and throwing his (...). cereal at the walls. “Little tyke,” Mr Dursley said as he left the house. He got into his car and backed out of number four’s drive.

The Dursleys had [J] everything they wanted, [J] but they [J] also had [D] a secret, [J] and their greatest fear was [J] that somebody would discover [R] it. They didn’t think they could bear [R] it if [J] anyone [D] found [D] out [D] about the Potters. [J] Mrs (…) was Mrs Dursley’s sister, [J] but they hadn’t met for several years; [J] in fact, [J] Mrs Dursley pretended she didn’t have [V] a sister, [J] because her sister [J] and her good-for-(…) nothing husband [J] were [J] unDursleyish [J] as [Z] it was possible to be. [J] The Dursleys shuddered to think [J] what the neighbours would say [J] if [J] the Potters arrived [J] in the street. [J] The Dursleys knew [J] that the Potters had [D] a small son, [J] too, [J] but they had never seen him. [J] This boy was another good reason for keeping the Potters away; [J] they didn’t want Dudley mixing with [J] a child like that. [J]


None [N] of them noticed [J] a large tawny [J] owl [J] flutter past the window. [J]

Mr and Mrs Dursley, of number four, Privet Drive, were proud to say that they were perfectly normal, thank you very much. They were the last people you’d expect to be (…) anything strange or mysterious, because they just didn’t hold with such nonsense. Mr Dursley was the director of Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did (…) very large moustache. Mrs Dursley was thin and blond, and (…) nearly twice the usual amount of neck, which made drills. She didn’t have a sister, because her sister and her good-for-nothing husband were (…) it was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr and Mrs Dursley (…) up on the dull, grey Tuesday, our story starts, there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening. All over the country, Mr Dursley hummed (…) picked out his most boring tie for work, and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny (…) I fluttered past the window.

At half past eight, Mr Dursley picked up his briefcase and pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye (…) missed, because Dudley was now having a tantrum and (…) throwing his cereal at the walls. “Little tyke,” (…) Mr Dursley as he left the house. He got (…) and backed out of number four’s drive.
Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blond and had nearly twice the usual amount of neck, which came in very useful as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and his good-for-nothing husband, who was Mrs Dursley’s sister, had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away, they didn’t want Dudley mixing with their child like that.

When the neighbours woke up on the dull Tuesday their story starts, there was nothing about the cloudy sky to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window. At half past eight Mr Dursley picked his briefcase and pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his tantrum at the walls. “Little tyke,” Dursley chortled as he left the house. He got into his car and backed out of number four’s drive.
Mr and (...) Mrs Dursley of number four, Privet Drive, were proud to say that they were perfectly normal, I thank you very much. They were the last people you’d expect to be involved in anything strange or mysterious, because they just didn’t hold with such nonsense.

Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big man with hardly any neck, although he did have a very large moustache. (...) Dursley was thin and blond, and had nearly twice the usual amount of neck, which came in very useful as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they also had a secret, and their greatest fear was that somebody would discover it. They didn’t think they could bear it. (...) anyone found out about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t (...) for several years; in fact, Mrs Dursley pretended (...), she didn’t have a sister, because her sister and her good-for-nothing husband were as unDursleyish as it was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr and Mrs Dursley woke up on the dull, grey Tuesday, our story starts, there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening. Over the country, (...) Dursley hummed (...), picked up his most boring tie for work and Mrs Dursley gossiped away happily as she (...). A screaming Dudley into his high chair.

None of them noticed a large tawny owl past the window.

At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek, and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” (...) Mr Dursley as he left the house. He got into his car and backed out of number four’s drive.
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When Mr and Mrs Dursley woke up on the dull, grey Tuesday, our story starts, there was nothing about the cloudy sky to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley (…) (…) as he picked out his most boring tie for work and (…) Mrs Dursley gossiped away happily as she (…) an screaming Dudley into his high chair.

None of them noticed a large tawny owl fluttering past the window.

At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his (…) at the walls. “Little tyke,” chortled Mr Dursley (…) as he left the house. He got into his car and backed out of (…) drive.
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None of them noticed a large tawny owl flutter past the window.

At half past eight, Mr Dursley picked up his briefcase, he pecked Mrs Dursley on the cheek and tried to kiss Dudley goodby but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” chortled Mr Dursley as he left the house. He got into his car and backed out of number four’s drive.
Mr (R) and Mrs Dursley, [of number four,] Privet Drive, I were proud to say, that they were perfectly normal, I thank you very much. I They were the last people you’d D expect to be (J) involved in anything strange or mysterious, I because they just didn’t hold with such nonsense. I

Mr Dursley was the director of a firm called Grunnings, I which made drills. I He was Za big, I beefy man with hardly any neck, I although he did have Va very large moustache. I Mrs Dursley was thin and blond, I and had nearly twice the usual amount of neck, I which came Min very usefull as she spent so much of her time crane over garden fences, I spying on the neighbours. I The Dursleys had Da small son called Dudley (-) in their (R) opinion there was no finer boy in anywere. I

The Dursleys had everything they wanted, I but they also had Da secret, I and their greatest fear was that somebody would discover (R) it. I They didn’t think they could bear (R) it if anyone found Doout about the Potters. I Mrs Potter was Mrs Dursley’s sister, I but they hadn’t met for several years; I in fact, I Mrs Dursley pretended she didn’t have Va sister, I because her sister and her good-for-nothing husband were as unDursleyish as Z it was possible to be. I The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. I The Dursleys knew that the Potters had Da small son, too, I but they had never seen him. I This boy was another reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that. I

When Mr and Mrs Dursley woke Kup on the dull, grey Tuesday, our story starts, there was nothing G about the cloudy skyl outside to suggest that strange and mysterious things would soon be happening all over the country. I Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair. I

None N of them noticed a largel tawny owl flutter past the window. I

At half past eight, Mr Dursley picked up his briefcase, I pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, I because Dudley was now having Ga tantrum and throwing his cereal at the walls. I “Little tyke,” I chortled Mr Dursley, as he left the house. I He got into his car and backed out of number four’s drive. I

70
Mr and Mrs Dursley, of number four, Privet Drive, were proud to say that they were perfectly normal, I thank you very much. They were the last people you’d expect to be involved in anything strange or mysterious, because they just didn’t hold with such nonsense.

Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blond and had nearly twice the usual amount of neck, which came in very useful as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they also had a secret, and their greatest fear was that somebody would discover it. They didn’t think (...) they could bear it if anyone found out about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years; in fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were unsavoury. As it was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. I The Dursleys knew that the Potters had a small son, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr and Mrs Dursley woke up on the dull, grey Tuesday, our story starts, there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his high chair.

None of them noticed a largel tawny owl flutter past the window.

At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” chortled (...) Mr Dursley as he left the house. He got (...) into his car and backed out of number four’s drive.
Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with a large moustache. Mrs Dursley was thin and blond, and had nearly twice the usual amount of neck, which came in very useful as she spent so much of her time craning over garden fences. Mrs Dursley gossiped to her sister, and Mrs Dursley's opinion was that she didn't have a very large moustache.

The Dursleys knew that somebody would discover it. They didn't think they could bear it if anyone found out about the Potters. Mrs Potter was Mrs Dursley's sister, but they hadn't met for several years. In fact, Mrs Dursley pretended she didn't have a sister, because her sister and her good-for-nothing husband were a very large man and Mrs Dursley was thin. It was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a child, but they had never seen him. This boy was another good reason for keeping the Potters away; they didn't want Dudley (...) mixing with a child like that.

When Mr Dursley woke up on the dull, grey Tuesday, our story starts, there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she wrestled a screaming Dudley into his (-) chair.

None of them noticed a large tawny owl (...) flutter past the window. At half past eight, Mr Dursley picked up his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his cereal at the walls. “Little tyke,” chortled Mr Dursley as he left the house. He got into his car and backed out of number four's drive.
Mr Dursley was the director of a firm called Grunnings, which made drills. He (-) big, beefy man (with hardly any neck), although he did have a moustache. (...) Dursley was thin and blond, and had nearly twice the usual amount of neck, which came Min very usefull as she spent so much Tff of her timel craning over garden fences, spying on the neighbours. The (...) had Da small son called Dudley and in their opinion there was no finer (...) anywhere.

The Dursleys had everything they wanted, but they also had Da secret, and their greatest fear was (-) somebody would discover it. They didn’t think they could (...) bear it! (...) (-) about the Potters. Mrs Potter was Mrs Dursley’s sister, but they hadn’t met for several years! In fact, Mrs Dursley pretended she didn’t have Va(...) because her sister’s and her good-for-nothing husband were as unDursley(...) as it was possible to be. The Dursleys shuddered to think what (-) would say if the Potters arrived in the street. The Dursleys knew that the Potters had Da small son, too, but they had never (...) seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with Da child like that.

(-) Dursley woke Kupl on the dull, grey Tuesday. Our story starts, there was nothing Gabout the cloudy sky ?outsidel to suggest that strange and mysterious things would (...) be happening all over the country. Mr Dursley hummed as he (...) Koutl his most boring tie for work and Mrs Dursley gossiped (...) happily as she (...) a screaming Dudley into his high chair.

None of them noticed a largel tawny owll (...) past the window.

At half past eight, Mr (...) Kup his briefcase, (...) Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having Ga tantrum and throwing his (...) at the walls. “Little tyke,” (...) Mr (...) as he left the house. He got into (...) his carl and backed outl of number four’s drive.
(-) Mrs Dursley, of number four, Privet Drive, were proud to say that they were perfectly normal. I thank you very much. They were the last people you’d expect to be involved in anything strange or mysterious, because they just didn’t hold with such nonsense.

Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a large moustache. Mrs Dursley was thin and blond and had nearly twice the usual amount of neck, which came in very useful as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son, called Dudley, and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they (...), a secret, and their (...) fear was that somebody would discover it. They didn’t think they could (...), for several years, in fact, Mrs Dursley pretended she didn’t have a sister, because her sister and her good-for-nothing husband were as unDurs(...) as it was possible to be. The Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never (...) seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

(...) Mr and Mrs (-) woke up on a dull Tuesday. Our story starts, there was nothing about the cloudy sky to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley hummed as he (...), most boring tie for work and Mrs Dursley gossiped happily as she (...), screaming Dudley (...) his high chair.

None of them noticed a large owl fluttering past the window. At half past eight, Mr Dursley (...), his briefcase, pecked Mrs Dursley on the cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his (...) at the walls. “Little tyke,” (...) Mr Dursley as he left the house. He got into his (...) of number four’s drive.
Mr Dursley was the director of a firm called Grunnings, which made drills. He was a big, beefy man with hardly any neck, although he did have a very large moustache. Mrs Dursley was thin and blond and had nearly twice the usual amount of neck, which came in very useful as she spent so much of her time craning over garden fences, spying on the neighbours. The Dursleys had a small son called Dudley and in their opinion there was no finer boy anywhere.

The Dursleys had everything they wanted, but they also had a secret and their greatest fear was that somebody would discover it. They didn’t think they could (…) if anyone found out about the Potters. Potter was (…) Mrs Dursley’s sister, but they hadn’t met for several years; in fact, Mrs Dursley pretended she didn’t have (…) sister, because her sister’s good-for-nothing husband was unDursleyish as it was possible to be. The Dursleys (…) to think what the neighbours would say if the Potters arrived in the street. The Dursleys knew that the Potters had a small son, too, but they had never (…) seen him. This boy was another good reason for keeping the Potters away; they didn’t want Dudley mixing with a child like that.

When Mr Dursley woke up on the (…) grey Tuesday our story starts, there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening all over the country. Mr Dursley hummed as he picked out his most boring tie for work and Mrs Dursley gossiped away happily as she (…) a screaming Dudley into his high chair.

None of them noticed a large tawny owl (…) flutter past the window. At half past eight Mr Dursley picked up his briefcase, pecked (…) Mrs Dursley on the (…) cheek and tried to kiss Dudley goodbye but missed, because Dudley was now having a tantrum and throwing his (…) at the walls. “Little tyke,” Mr Dursley chortled as he left the house. He got into his car and backed out of number four’s drive.
Mr (R) and Mrs Dursley, 1 of number four, 1 Privet Drive, 1 were proud to say that they were perfectly normal, 1 thank you very much. 1 They were the last people you’d expect to be involved in anything strange or mysterious, 1 because they just didn’t hold with such (…) nonsense.

Mr Dursley was the director of a firm called Grunnings, 1 which made drills. 1 He was a big, 1 beefy man with hardly any neck, 1 although he did have a very large (…) moustache. (…) Mrs Dursley was thin and blond, 1 and had (…) nearly twice the usual amount of neck, 1 which came in very useful as she spent so much of her time craning over garden (…) spying on the neighbours. (…) Dursleys had a small son called Dudley 1 and Nin their opinion there was no finer boy anywhere. 1

(-) Dursleys had everything they wanted, 1 but they also had a secret, 1 and their (…) fear was that somebody would discover it. 1 They didn’t think they could (…) if anyone (…) found out about the Potters. 1 Mrs Potter was Mrs Dursley’s sister, 1 but they hadn’t met for several years. 1 In fact, 1 Mrs Dursley pretended she didn’t (…) have (…) sister, 1 because (…) her sister and her good-for-nothing husband were (…) un-Dursleyish 1 as it was possible to be. (…) Dursleys shuddered to think what the neighbours would say if the Potters arrived in the street. 1 The Dursleys knew that the Potters had a small son, 1 too, 1 but they had never (…) seen him. 1 This boy was another good reason for keeping the Potters away; 1 they didn’t want Dudley mixing with a child like that.

When Mr and Mrs Dursley woke up on the dull, 1 grey Tuesday 1 our story starts, 1 (…) there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening all over the country. 1 Mr Dursley hummed as he picked out his most boring tie for work 1 and Mrs Dursley gossiped away happily as she (…) a screaming Dudley into his high chair.

None of them noticed a large tawny owl flutter past the window. 1

At half past eight, (…) Mr Dursley picked up his briefcase, 1 pecked Mrs (…) on the cheek 1 and tried to kiss Dudley goodbye 1 but missed, 1 because Dudley was now having a tantrum and throwing his cereals at the walls. 1 “(…) Little tyke,” 1 (…) Mr Dursley 1 as he left (…) the house. 1 He got into his car 1 and backed out of number four’s drive.
7.2 Tables

Number of tone units related to “Tempo” and “Condition” (Repeated measures Anova).

<table>
<thead>
<tr>
<th>Effect</th>
<th>Sum of squares</th>
<th>Degrees of freedom</th>
<th>Average of squares</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONDITION</td>
<td>69,4</td>
<td>1</td>
<td>69,4</td>
<td>3,8</td>
<td>0,088</td>
</tr>
<tr>
<td>TEMPO</td>
<td>711,1</td>
<td>1</td>
<td>711,1</td>
<td>132,6</td>
<td>.000*</td>
</tr>
<tr>
<td>CONDITION*TEMPO</td>
<td>373,8</td>
<td>1</td>
<td>373,8</td>
<td>76,2</td>
<td>.000*</td>
</tr>
</tbody>
</table>

Number of tone units related to “Tempo” and “Condition” (Tukey-test).

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>TEMPO</th>
<th>{1}</th>
<th>{2}</th>
<th>{3}</th>
<th>{4}</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>shad.</td>
<td>normal</td>
<td>0,167336</td>
<td>0,000294</td>
<td>0,001863</td>
</tr>
<tr>
<td>2</td>
<td>shad.</td>
<td>fast</td>
<td>0,167336</td>
<td>0,000236</td>
<td>0,032497</td>
</tr>
<tr>
<td>3</td>
<td>self-contr.</td>
<td>normal</td>
<td>0,000294</td>
<td>0,000236</td>
<td>0,000231</td>
</tr>
<tr>
<td>4</td>
<td>self-contr.</td>
<td>fast</td>
<td>0,001863</td>
<td>0,032497</td>
<td>0,000231</td>
</tr>
</tbody>
</table>

Number of contexts for glottal stops at the tone unit boundaries related to “Tempo” and “Condition” (Repeated measures Anova).

<table>
<thead>
<tr>
<th>Effect</th>
<th>Sum of squares</th>
<th>Degrees of freedom</th>
<th>Average of squares</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONDITION</td>
<td>32,11</td>
<td>1</td>
<td>32,11</td>
<td>4,48</td>
<td>0,067</td>
</tr>
<tr>
<td>TEMPO</td>
<td>75,11</td>
<td>1</td>
<td>75,11</td>
<td>32,68</td>
<td>.000*</td>
</tr>
<tr>
<td>CONDITION*TEMPO</td>
<td>40,11</td>
<td>1</td>
<td>40,11</td>
<td>22,3</td>
<td>.001*</td>
</tr>
</tbody>
</table>

Number of contexts for glottal stops at the tone unit boundaries related to “Tempo” and “Condition” (Tukey-test).

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>TEMPO</th>
<th>{1}</th>
<th>{2}</th>
<th>{3}</th>
<th>{4}</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>shad.</td>
<td>normal</td>
<td>0,626771</td>
<td>0,001186</td>
<td>0,438928</td>
</tr>
<tr>
<td>2</td>
<td>shad.</td>
<td>fast</td>
<td>0,626771</td>
<td>0,000487</td>
<td>0,984085</td>
</tr>
<tr>
<td>3</td>
<td>self-contr.</td>
<td>normal</td>
<td>0,001186</td>
<td>0,000487</td>
<td>0,000405</td>
</tr>
<tr>
<td>4</td>
<td>self-contr.</td>
<td>fast</td>
<td>0,438928</td>
<td>0,984085</td>
<td>0,000405</td>
</tr>
</tbody>
</table>
Realized glottal stops within tone units (%) related to “Tempo” and “Condition” (Repeated measures Anova).

<table>
<thead>
<tr>
<th>Effect</th>
<th>Sum of squares</th>
<th>Degrees of freedom</th>
<th>Average of squares</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONDITION</td>
<td>940,2</td>
<td>1</td>
<td>940,2</td>
<td>9,338</td>
<td>.016*</td>
</tr>
<tr>
<td>TEMPO</td>
<td>423,8</td>
<td>1</td>
<td>423,8</td>
<td>8,25</td>
<td>.021*</td>
</tr>
<tr>
<td>CONDITION*TEMPO</td>
<td>276,8</td>
<td>1</td>
<td>276,8</td>
<td>6,584</td>
<td>.033*</td>
</tr>
</tbody>
</table>

Realized glottal stops within tone units (%) related to “Tempo” and “Condition” (Tukey-test).

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>TEMPO</th>
<th>{1}</th>
<th>{2}</th>
<th>{3}</th>
<th>{4}</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>shad.</td>
<td>normal</td>
<td>0,971560</td>
<td>0,003951</td>
<td>0,700119</td>
</tr>
<tr>
<td>2</td>
<td>shad.</td>
<td>fast</td>
<td>0,971560</td>
<td>0,002455</td>
<td>0,465005</td>
</tr>
<tr>
<td>3</td>
<td>self-contr.</td>
<td>normal</td>
<td>0,003951</td>
<td>0,002455</td>
<td>0,015502</td>
</tr>
<tr>
<td>4</td>
<td>self-contr.</td>
<td>fast</td>
<td>0,700119</td>
<td>0,465005</td>
<td>0,015502</td>
</tr>
</tbody>
</table>

Realized linking sounds within tone units (%) related to “Tempo” and “Condition” (Repeated measures Anova).

<table>
<thead>
<tr>
<th>Effect</th>
<th>Sum of squares</th>
<th>Degrees of freedom</th>
<th>Average of squares</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONDITION</td>
<td>0,57</td>
<td>1</td>
<td>0,57</td>
<td>0,181</td>
<td>0,681</td>
</tr>
<tr>
<td>TEMPO</td>
<td>62,99</td>
<td>1</td>
<td>62,99</td>
<td>4,869</td>
<td>0,058</td>
</tr>
<tr>
<td>CONDITION*TEMPO</td>
<td>3,69</td>
<td>1</td>
<td>3,69</td>
<td>0,439</td>
<td>0,526</td>
</tr>
</tbody>
</table>

Resyllabified consonants within the tone units (%) related to “Tempo” and “Condition” (Repeated measures Anova).

<table>
<thead>
<tr>
<th>Effect</th>
<th>Sum of squares</th>
<th>Degrees of freedom</th>
<th>Average of squares</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONDITION</td>
<td>894,3</td>
<td>1</td>
<td>894,3</td>
<td>11,33</td>
<td>.010*</td>
</tr>
<tr>
<td>TEMPO</td>
<td>160</td>
<td>1</td>
<td>160</td>
<td>5,13</td>
<td>0,053</td>
</tr>
<tr>
<td>CONDITION*TEMPO</td>
<td>216,5</td>
<td>1</td>
<td>216,5</td>
<td>10,77</td>
<td>.011*</td>
</tr>
</tbody>
</table>

Resyllabified consonants within the tone units (%) related to “Tempo” and “Condition” (Tukey-test).

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>TEMPO</th>
<th>{1}</th>
<th>{2}</th>
<th>{3}</th>
<th>{4}</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>shad.</td>
<td>normal</td>
<td>0,987222</td>
<td>0,000675</td>
<td>0,098656</td>
</tr>
<tr>
<td>2</td>
<td>shad.</td>
<td>fast</td>
<td>0,987222</td>
<td>0,000857</td>
<td>0,155474</td>
</tr>
<tr>
<td>3</td>
<td>self-contr.</td>
<td>normal</td>
<td>0,000675</td>
<td>0,000857</td>
<td>0,011107</td>
</tr>
<tr>
<td>4</td>
<td>self-contr.</td>
<td>fast</td>
<td>0,098656</td>
<td>0,155474</td>
<td>0,011107</td>
</tr>
</tbody>
</table>
Table used for Repeated measures Anova with the factors of Tempo and Condition.

Legend for the table:

SNTU\text{\textsubscript{n}} Shadowing Normal Number of Tone Units
SFTU\text{\textsubscript{n}} Shadowing Fast Number of Tone Units
CNTU\text{\textsubscript{n}} Self-Controlled Normal Number of Tone Units
CFTU\text{\textsubscript{n}} Self-Controlled Fast Number of Tone Units
SNPBn Shadowing Normal Number of Possibilities at the Boundary
SFPBn Shadowing Fast Number of Possibilities at the Boundary
CNPBn Self-Controlled Normal Number of Possibilities at the Boundary
CFPBn Self-Controlled Fast Number of Possibilities at the Boundary
SNPWn Shadowing Normal Number of Possibilities Within TU
SFPWn Shadowing Fast Number of Possibilities Within TU
CNPWn Self-Controlled Normal Number of Possibilities Within TU
CFPWn Self-Controlled Fast Number of Possibilities Within TU
SNGBp Shadowing Normal Percentage of Glottalization at the Boundary
SFGBp Shadowing Fast Percentage of Glottalization at the Boundary
CNGBp Self-Controlled Normal Percentage of Glottalization at the Boundary
CFGBp Self-Controlled Fast Percentage of Glottalization at the Boundary
SNGWp Shadowing Normal Percentage of Glottalization Within TU
SFGWp Shadowing Fast Percentage of Glottalization Within TU
CNGWp Self-Controlled Normal Percentage of Glottalization Within TU
CFGWp Self-Controlled Fast Percentage of Glottalization Within TU
SNLBp Shadowing Normal Percentage of Linking at the Boundary
SFLBp Shadowing Fast Percentage of Linking at the Boundary
CNLBp Self-Controlled Normal Percentage of Linking at the Boundary
CFLBp Self-Controlled Fast Percentage of Linking at the Boundary
SNLBp Shadowing Normal Percentage of Linking Within TU
SFLBp Shadowing Fast Percentage of Linking Within TU
CNLBp Self-Controlled Normal Percentage of Linking Within TU
CFLBp Self-Controlled Fast Percentage of Linking Within TU
SNRBp Shadowing Normal Percentage of Resyllabification at the Boundary
SFRBp Shadowing Fast Percentage of Resyllabification at the Boundary
CNRBp Self-Controlled Normal Percentage of Resyllabification at the Boundary
CFRBp Self-Controlled Fast Percentage of Resyllabification at the Boundary
SNRWp Shadowing Normal Percentage of Resyllabification Within TU
SFRWp Shadowing Fast Percentage of Resyllabification Within TU
CNRWp Self-Controlled Normal Percentage of Resyllabification Within TU
CFRWp Self-Controlled Fast Percentage of Resyllabification Within TU
<table>
<thead>
<tr>
<th></th>
<th>SNTUn</th>
<th>SFTUn</th>
<th>CNTUn</th>
<th>CFTUn</th>
</tr>
</thead>
<tbody>
<tr>
<td>S01</td>
<td>99</td>
<td>91</td>
<td>107</td>
<td>91</td>
</tr>
<tr>
<td>S02</td>
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8 Shrnutí

Ve své bakalářské práci jsem se zaměřila na fonetické změny, probíhající na hranicích slov v angličtině, produkované anglickými a českými mluvčími.

Nejprve jsem na základě přečtené literatury uvedla, k jakým fonetickým změnám dochází jak v angličtině, tak v češtině, a to uvnitř i na hraniciích slov. V souvislé řeči dochází k navazování slov, a proto ve výslovnosti těchto slov může naproti izolovaným formám docházet k fonetickým změnám uvnitř slov nebo na hranici se sousedními slovy. Slova v souvislé řeči totiž podléhají vlivu mnoha faktorů, mezi které patří například přízvuk, struktura slabík nebo tempo řeči. Mezi nejčastější změny, ke kterým vlivem těchto faktorů uvnitř slov v obou jazyce dochází, patří asimilace, elize a redukce hlásek, případně slabík. Při asimilaci dochází k přizpůsobení charakteristiky hlásky charakteristice sousední hlásky (například přizpůsobení místa nebo způsobu tvoření, přizpůsobení znělosti), elize znamená vynechání hlásky či slabíky, a redukce hlásek a slabík se týká samořádek, které jsou redukovány na neznělé /ə/. Na hranici slov pak v obou jazycech nejčastěji dochází k asimilaci.

Protože v obou jazycech existuje celá řada fonetických změn, ke kterým může docházet, rozhodla jsem se zaměřit na změny, probíhající na hranicích mezi slovy končícími samohláskou nebo souhláskou a slovy začínajícími výhradně samohláskou. V angličtině je v tomto případě řeč o spojovacích jevech (linking phenomena), mezi které patří spojovací (linking) a epentetické (intrusive) /r/, hiátové (transient) /j/ a /w/, a resylabifikace (připojení koncové samohlásky slova na začátek následujícího slova, začínajícího samohláskou). Důvody pro používání těchto spojovacích strategií, kdy je daná samohláška připojena na začátek slova, začínajícího samohláskou, jsou: zajištění plynulosti projevu, zamezení splynutí samohlásek nebo užívání rázu. Ráz je v angličtině v normálním tempu řeči používán, pokud chce mluvčí dát na dané slovo (či slabík) důraz. V rychlém tempu je ráz v angličtině zachován uvnitř promluvových úseků (na silných prozodických hranicích). V češtině je ráz standardním jevem při jakémkoli tempu, přičemž platí, že v obou jazycech je ráz zachován po pauze. Vlivem rychlého tempa je počet rázů v češtině redukován, ale na rozdíl od angličtiny na tuto redukci nemá vliv síla prozodické hranice.

Při formulaci hypotézy pro svůj následný pilotní experiment jsem tedy vycházela z těchto předpokladů, získaných z literatury: V angličtině mluvčí při zvýšení tempa řeči redukuji počet rázů, a to zejména uvnitř promluvových úseků, a častěji propojují slova mezi sebou pomocí spojovacích jevů (linking phenomena). V češtině mluvčí při zvýšení rychlosti
řeči pouze mírně redukují počet rázů nezávisle na poloze rázu uvnitř promluvových úseků nebo na hranicích mezi nimi. Čeští mluvčí v angličtině v přirozeném tempu řeči nepropojují slova a zachovávají je většinou případně ráz. Na základě těchto poznatků jsem pro svůj pilotní experiment zformulovala tuto hypotézu: Pokud budou čeští mluvčí v angličtině donuceni zvýšit tempo řeči, budou produkovat méně rázů než v normálním tempu řeči, a to zejména uvnitř promluvových úseků, a budou namísto rázů používat resylabifikované souhlásky, případně spojovací souhlásky.

V pilotním experimentu jsem se pokusila pomocí dvou různých metod donutit české mluvčí zvýšit tempo řeči v angličtině. Mým cílem bylo zjistit, zda se potvrdí výše formulovaná hypotéza, a která ze dvou použitých metod bude pro účely experimentu více vyhovovající. Experimentu se zúčastnili 2 američtí a 14 českých mluvčích angličtiny na pokročilé úrovni. Jejich úkolem bylo přečíst anglický text o délce 399 znaků (2 až 3 minuty čtení), rozdělený do 6 odstavců. V rámci první metody, nazvané „samostatné ovládání tempa“ (self-controlled) mluvčí sami regulovali své tempo řeči, a přečetli text nejprve v jejich přirozeném tempu řeči, a poté tempo sami zrychlili. Pro účely druhé metody, nazvané „stínování“ (shadowing), jsem si obstarala nahrávku stejného textu anglickým mluvčím. Účastníci pokusu v metodě stínování přečetli text rovněž dvakrát, nejprve v normálním a poté ve zrychleném tempu řeči. Na rozdíl od první metody neregulovali svou rychlost řeči sami, ale zkoušeli ji přizpůsobit anglickému mluvčímu na nahrávce, kterou slyšeli ve sluchátkách. Nejprve mluvili současně s nahrávkou v normálním tempu, a poté s nahrávkou, zrychlenou o 10 procent.

Všechny pořízené nahrávky byly přepsány s použitím speciálního značení pro sledované jevy. Nahrávky 5 subjektů z české skupiny a 1 subjektu z americké skupiny (z metody stínování) byly z experimentu vyřazeny pro neúplnost, špatnou kvalitu nebo nedostatečnou hlasitost. Procentuální užití sledovaných jevů (počet promluvových úseků, počet možných kontextů pro ráz, spojovací souhlásky nebo resylabifikaci, a počet realizovaných rázů, spojovacích nebo resylabifikovaných souhlásek) v české skupině subjektů bylo analyzováno pomocí testu Anova pro opakovaná měření. Data dvou amerických mluvčích (z toho jedna neúplná), převedená na procenta, byla použita pouze pro srovnání.

Co se týče členění řeči na promluvové úseky, v metodě samostatného ovládání tempa mluvčí v rychlém tempu snížili jejich počet oproti normálnímu tempu. V metodě stínování byly počty promluvových úseků v obou tempech téměř stejné, protože mluvčí se snažili přizpůsobit nahrávce, ve které bylo členění řeči na promluvové úseky v obou tempech stejné. Když mohli mluvčí tempo samostatně ovládat, měli možnost v rychlém tempu počet
promluvových úseků zredukovan. Redukce počtu promluvových úseků se pak v této metodě projevila také v redukci možných kontextů pro ráz, spojování či resylabifikaci na hranicích mezi promluvovými úseky, protože některé tyto hranice zmizely a z kontextů na hranicích mezi promluvovými úseky se tak staly kontexty uvnitř promluvových úseků. V metodě stínování naproti tomu nedošlo v tomto ohledu k výrazným změnám.

Na hranicích mezi promluvovými úseky čeští mluvčí většinou ráz zachovávali. Na druhou stranu, uvnitř promluvových úseků docházelo v metodě samostatného ovládání tempa podle mého očekávání ke značné redukcí počtu rázů, což pak vedlo k nahrazování těchto rázů resylabifikovanými souhláskami (ve většině případů), případně spojovacími souhláskami. V metodě stínování subjekty spíše napodobovaly mluvčího, kterého slyšely v nahrávce, a proto používali v obou tempech celkově méně rázů než v metodě samostatného ovládání tempa, a uchylovali se spíše k resylabifikaci, případně ke spojování slov, čímž také napodobovali mluvčího z nahrávky.

Ze shrnutí důležitých výsledků vyplývá, že pro účely pilotního experimentu je vhodnější metoda samostatné regulace tempa řečí, při které mluvčí v rychlém tempu naproti přirozenému tempu snížili počet promluvových úseků a současně kontextů pro užití rázu, spojování nebo resylabifikace, a snížili počet rázů uvnitř promluvových úseků, které nahradili resylabifikací nebo spojováním, čímž se potvrdila formulovaná hypotéza. Metoda stínování by z důvodu tendence subjektů kopírovat mluvčího, kterého v nahrávce subjekty slyšely, byla vhodná spíše pro nácvik anglického přízvuku pro české studenty angličtiny. Subjekty sice donutila mluvit rychleji, ale také je donutila k napodobování. Vhodnější metoda pro účely pilotního experimentu tedy byla metoda samostatné regulace tempa, ve které se potvrdila formulovaná hypotéza.
9 Annotation

- **Author**: Kateřina Kolářová
- **Faculty and department**: Philosophical Faculty, Department of English and American Studies
- **Title**: Phonetic changes in English produced by native speakers and Czech learners of English caused by variation in the speech rate
- **Supervisor**: Mgr. Šárka Šimáčková, Ph.D.
- **Number of characters**: 85 372
- **Number of appendixes**: 2 + CD
- **Number of references**: 38
- **Keywords**: phonetic changes, glottal stop, linking phenomena, resyllabification, speech rate
- **Description**: The aim of my thesis was to find out whether Czech speakers of English, when forced to increase their rate of speech, will produce less glottal stops and more resyllabified and linking consonants instead, as the native speakers in English do.

First, I explored relevant literature and saw what phonetic processes take place in English and in Czech produced by native speakers and what processes take place in English produced by Czech speakers of English. Then, on the basis of the information gathered in the literature review, I conducted a pilot experiment, testing whether it was possible to force Czech speakers of English to increase their rate of speech, and whether they would drop more glottal stops in fast speech compared to normal speech and use more resyllabified and linking consonants instead. I tried two different methods to see which one of them would be more suitable for the purposes of the pilot experiment.
10 Anotace

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- **Název práce**: Fonetické změny v angličtině rodilých mluvčích a českých studentů angličtiny, způsobené variací rychlosti řeči
- **Vedoucí práce**: Mgr. Šárka Šimáčková, Ph.D.
- **Počet znaků**: 85 372
- **Počet příloh**: 2 + CD
- **Počet titulů použité literatury**: 38
- **Klíčová slova**: fonetické změny, ráz, spojovací jevy, resylabifikace, tempo řeči
- **Charakteristika**: Tato práce měla za cíl zjistit, zda čeští studenti angličtiny budou, stejně jako rodilí mluvčí angličtiny, produkovat méně rázů a namísto nich více resylabifikovaných či spojovacích souhlásek, pokud budou donuceni zrychlit tempo řeči. Nejprve jsem zkonzultovala relevantní literaturu a zjišťovala, k jakým fonetickým změnám dochází v angličtině a češtině, produkovaných rodilými mluvčími, a k jakým změnám dochází v angličtině českých studentů angličtiny. Na základě získaných informací jsem provedla pilotní experiment, ve kterém jsem se snažila zjistit, zda je možné české mluvčí donutit zrychlit tempo jejich angličtiny, a zda budou ve zrychleném tempu snižovat počet rázů a namísto nich zvyšovat počet resylabifikovaných nebo spojovacích souhlásek. Vyzkoušela jsem dvě metody, abych zjistila, která z nich bude pro účely pilotního experimentu vhodnější.
11 References


