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Analysis of Stress Mistakes in English among Czech Students

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Zadání bakalářské práce

Analysis of Stress Mistakes in English among Czech Students

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Because of differences in English and Czech stress patterns, Czech speakers of English tend to have stress mistakes or misplace stress because of L1 transfer. The aim of the thesis is to analyze stress mistakes in English among Czech students and to focus on the most common mistakes and the probable causes of them. Methods: auditory and acoustic analysis of students´ recordings. Kvůli rozdílům v anglickém a českém přízvuku mají čeští mluvčí angličtiny tendenci ho nesprávně umístit vzhledem k zvyklostem rodného jazyka. Cílem práce je analyzovat chyby v kladení přízvuku v angličtině mezi českými studenty a následně se zaměřit na nejčastější chyby a jejich pravděpodobné příčiny. Metody: sluchová a akustická analýza nahrávek studentů.

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24. dubna 2024 Kateřina Kobrová

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Anotace

V první, teoretické části této bakalářské práce jsou popsány základní principy, pravidla a funkce slovního přízvuku v anglickém jazyce. Dále se práce věnuje slovnímu přízvuku českého jazyka a následným rozdílům v kladení přízvuku u obou jazyků. Poslední kapitola se zabývá chybami, kterých se čeští mluvčí dopouští v umístění přízvuku v angličtině v důsledku češtiny jako rodného jazyka. Druhá, praktická část je zaměřena na kladení přízvuku při četbě anglického textu mezi českými studenty vysoké školy. Bylo zjišťováno, k jakým chybám dochází, zda se opakují a důvod, proč k nim dochází. Dále bylo zkoumáno, jak se v míře chybovosti liší studenti, kteří studují angličtinu a ti, kteří mají jinou specializaci. Po zachycení slov, u kterých došlo k nesprávnému kladení slovního přízvuku, se konala akustická analýza v programu Praat, který je na analýzu řeči zaměřen, za účelem vyobrazení důkazů zachycených chyb v kladení přízvuku, kterých se mluvčí dopustili.

Klíčová slova

Přízvuk, primární přízvuk, sekundární přízvuk, nesprávné kladení přízvuku, nerodilí mluvčí, český slovní přízvuk, zvuková analýza, Praat

Abstract

The thesis focuses on describing the general principles, rules, and functions of word stress in English. It is also dedicated to the word stress system in Czech and the differences in the placement of stress in both languages. The last chapter is about the mistakes that Czech speakers make regarding stress in English due to Czech being their mother language. The paper then concentrates on the mistakes of stress placement among Czech university students. The main purpose was to find what mistakes the students make, if they repeat them, and the possible causes of the misplacement of stress. Another goal was to find out how students with English as their major, and students of other specializations differ in the number of mistakes. After capturing the words with wrong stress placement, an acoustic analysis was made in a program called Praat, which focuses on analyses of speech, in order to visualize evidence of captured mistakes regarding stress placement committed by the speakers.

Key words

Word stress, primary stress, secondary stress, misplacement of stress, non-native speakers, Czech word stress, acoustic analysis, Praat

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Introduction

The main purpose of this thesis is to analyse mistakes in stress placement among Czech students of English. The goal is to detect the differences, and summarize the general rules of both language systems. English word stress is a complex matter for a non-native speaker. It cannot be simply determined in relation to the syllables, as can be done in Czech, and therefore, some experts advice to treat it within individual words (Roach, 2009, 76). Compared to stress in Czech, it differs in placement, rhythm, and function. As a result, a misplacement of stress might cause problems in communication or mistakes in learning to speak the language properly.

The thesis is divided into three parts – a theoretical part, the description of the research methodology and the practical (experimental) part. In the theoretical part, the thesis focuses on describing the nature of stress. More specifically, characteristics of stressed and unstressed syllables, levels of stress, placement of stress in simple and complex words, functions of stress, and the difference between stress and accent in English. Another two chapters are dedicated to a comparison of English and the Czech language, more specifically, how they differ in terms of stress patterns and how rules of the Czech stress system influence native speakers when they learn English.

The practical part of the paper is dedicated to an analysis of mistakes of stress placement among Czech university students of English as their major and students with other specializations using auditory recordings of them reading a chosen text. The text will be an official speech with words that are often considered to be problematic, such as polysyllabic words with a challenging stress placement. The practical part is dedicated to capturing the words with an incorrect stress placement and comparing them to the native speaker´s correct representation. It focuses on three main aspects of stress – pitch, intensity, and length. The main interests of analysis are connected to four research questions: What type of words cause the most problems? Why do certain words cause shifts in stress placement? Did the participants use the features of stress to emphasize it? Was the misplacement of stress mainly caused by L1 transfer? How do students of both groups differ in the number of mistakes? The goal is to find and analyse potential misplacements of stress with the help of the findings in the theoretical part.

1 Nature of stress

Essentially, stress includes an isolation of a particular phonological element within a longer phonological unit (Fudge, 1984, 1). It is a suprasegmental feature of utterances, and it applies to whole syllables, not to individual vowels or consonants (Ladefoged and Johnson, 2014, 249). English is a stress language, every lexical word (verb, noun, adjective, or adverb) has a stressed syllable (Giegerich, 1992, 249). Two types of stress are recognized: word stress and sentence stress (Kingdon, 1958, 1). Word stress relates to the placement of stress within specific syllables of a word. Sentence stress includes selecting a specific word or phrase within a sentence, typically with special emphasis in pronunciation. The choice of the word depends on the situation the speaker is in (Fudge, 1984, 1). Both types of stresses also differ in that sense that the stressed syllable of a word is not always emphasized in pronunciation; if the word is not important in the sentence, it is possible that no syllable will be given an emphasis (Fudge, 1984, 18). In other words, stressed syllables in citation forms are quite likely to be pronounced unstressed in conversational speech (Ladefoged and Johnson, 2017, 249). Unstressed syllables have a tendency to be reduced, having shorter duration and centralization towards the mid-central vowel schwa /ə/, as in *together /tə ˈgeðə/* (Skarnizl and Rumlová, 2019, 113).

1.1 Characteristics of stressed syllables

To detect the characteristics of stressed syllables, it is crucial to understand two distinct approaches – production and perception. The production of stress involves the speaker exerting greater muscular effort than is used for unstressed syllables. Experimental studies suggest that during the production of stressed syllables, the muscles used to expel air from the lungs often display more activity, which results in higher subglottal pressure. Countless experiments on the perception of stress reveal that numerous sound characteristics are crucial in making a syllable stressed. A common feature all stressed syllables share is prominence. A minimum of four factors, usually combined, make a syllable prominent. The first one is loudness because people seem to feel that stressed syllables are louder than unstressed ones (Roach, 2009, 73-74). Certain books describe stress solely based on loudness, but this definition lacks utility if loudness is perceived merely as a measure of acoustic energy (Ladefoged and Johnson, 2014, 250). However, one must pay attention that it is difficult to make a syllable only louder without changing other aspects of it. The second one is length because if one syllable in a word is longer, the possibility of it being stressed is strong. The third factor is pitch, a perceptual characteristic of speech, which has the strongest effect. If the pitch of a syllable differs from the other ones, it has a tendency to be stressed, and to make this tendency even stronger, one can use a

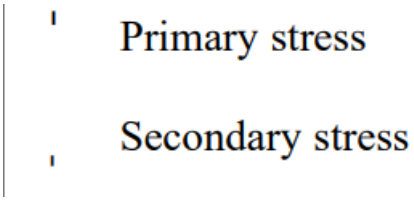
movement of pitch (rising or falling). The fourth one is a vowel, which is different from the other neighbouring ones (Roach, 2009, 73-74). Nevertheless, even though stressed syllables are usually louder, longer, and higher in pitch, this combination of features may not be present within a stressed syllable (Celce-Murcia et al., 1996, 131).

1.2 Levels of stress

When addressing stress, it is crucial to consider levels of stress, usually including one or more intermediate levels. Focusing on stress within a word (word in isolation) helps to see the placement of it more clearly than in the context of continuous speech (Roach, 2009, 74-75). According to certain phoneticians, there are six levels of words stress, but not all of them are detectable (Celce-Murcia et al., 1996, 132). The division might be only to primary and secondary, whereas some believe there is also a tertiary and quarternary level of stress. Some words might have one or multiple stresses, while others may entirely lack them. The first and strongest level is called primary stress, which is used on strongly stressed syllables and marked by a high vertical stroke preceding a syllable (Menhard, 1978, 28). When analysing the word *around*, where the stress falls on the last syllable while the first remains unstressed, the important aspect in terms of stress lies in the pitch change on the second syllable. Usually, there is a descent from a higher to a lower pitch, and this pitch movement creates the strongest type of stress, referred to as primary stress. (Roach, 2009, 75).

In specific words, a secondary stress (or medial) can be observed, which is weaker than primary stress but stronger than the one of an unstressed syllable (Giegerich, 1992, 179). It is used to mark syllables with an intermediate degree of articulatory force and represented by a low vertical stroke (Menhard, 1978, 28). It occurs in longer words and never falls on the syllable, which immediately preceds the main stress (Menhard, 1978, 31).

Figure 1: Representation of primary and secondary stress



Nevertheless, certain words contain unstressed syllables or a syllabic consonant, which sounds less prominent than an unstressed syllable containing a different vowel. For instance, when comparing words such as *poetic* and *pathetic*, it is evident that the first syllable of *poetic* is

more prominent than that of the word *pathetic*. This forms the basis for introducing a third or tertiary (or weak) level of stress (Roach, 2009, 75).

1.3 Placement of stress within a word

The placement of stress is a highly complex matter. In English simple rules for stress placement cannot be formulated (Kingdon, 1958, 12). To place stress correctly, the reader needs to be able to split an English word into syllables. It is also crucial to know where the boundaries of a syllable are placed because stress placement often depends on the number of sounds occurring in a particular position within a syllable (Fudge, 1984, 19). The English word stress is both free and fixed, meaning that the main stress is not tied to any specific position in a word, but fixed in the sense that every word has its steady and regular stress-pattern (Menhard, 1978, 29). However, there are some clear principles that help to decide where stress falls in English (Fudge, 1984, 19). The factors might be the historical origin of a word, affixation, and the word´s grammatical function in an utterance (Celce-Murcia et al, 133). Nevertheless, all of them have exceptions, so it is sometimes easier to learn the stress for each word individually (Roach, 2009, 76). To determine the placement of stress, it is necessary to consider the following factors. Firstly, whether the word is morphologically simple or complex (involving affixes), or if it is a compound word. Secondly, the grammatical category to which the word belongs, such as nouns, verbs, adjectives, etc. Thirdly, the number of syllables the word consists of, and lastly, the specific structure of those syllables (Roach, 2009, 76). Moreover, English stress is phonemic; there are some pairs of words that are segmentally identical but distinct in terms of stress placement, depending on its word class, such as the word *abstract*, which can be a noun and a verb as well (Giegerich, 1992, 180). Syllables can be classified into two categories: strong and weak. The distinction is that only strong syllables can be stressed, while weak syllables always remain unstressed. Each syllable has one component, rhyme, which contains syllable peak and coda (Roach, 2009, 76). If a syllable has a branching rhyme, containing a long vowel or diphthong, with or without a coda or a short vowel with a coda, it is considered to be heavy (McMahon, 2002, 120). A weak syllable contains a syllable peak composed of one of the vowels *a, i, u*, and lacks a coda, except the vowel *a*. Syllabic consonants are considered weak as well. For example *-fa* in *sofa* or *-zy* in *lazy* (Roach, 2009, 77).

There are rules that can help to determine where the stress lies in a word, whether it has two, three, or more syllables. They do not cover all English words, but they apply to a majority of them, and therefore, it is useful to learn them.

1.3.1 Simple words

Simple words are not composed of more than one grammatical unit. For example, the word *care* is simple, whereas *careful* is complex (because it includes two morphemes). The line between simple and complex words is not simple because a majority of words originate from other languages, such as German or Latin, and therefore, it is not always possible to divide them this way (Roach, 2009, 82).

Two-syllable words have stress placed on either the first or the second syllable but not on both. In verbs, stress typically lies closer to the end of the word unless the final syllable is weak. In that case, stress reverts to the first one (e.g., *open*). Furthermore, a final syllable remains unstressed if it contains a diphthong *au* (*follow, borrow*). Nouns, on the other hand, follow a different rule, with stress primarily falling on the first syllable unless it is weak and the second one is strong, as in *balloon* or *design*. Adverbs and adjectives behave like verbs (Roach, 2009, 77-78).

1.3.2 Complex words

There are two types of complex words. The first group is words made from a basic word form with an affix – prefix (comes before the root) or suffix (comes after the root). The second group is compound words, which are made of two (or more) independent English words (Roach, 2009, 82-83). Words that contain prefixes have tendency to be stressed on the first syllable of the base, leaving the prefix unstressed, such as *award* or *surprise* (Celce-murcia et al., 1996, 134). Certain prefixes exhibit variability in stress-repellence, contigent on whether the word they appear in functions as a noun or a verb (Fudge, 1984, 166). In English, prefixes often originate from German or Latin (Celce-Murcia et al, 1996, 134). When a word with a prefix functions as a noun, the prefix or the first syllable is stressed, such as in *outlook* and *forecast* (Celce-Murcia et al., 1996, 134). There are two types of suffixes: inflexional, which produce different forms of the same word (plural), and derivational, which produce new words along with compounding (Giegerich, 1992, 190). Suffixes affect word stress in one of three ways. The stress pattern remains unchanged when suffixes are attached to free forms, more specifically words that can exist on their own (Fudge, 1984, 40). This type is called neutral suffixes, and very often, they originate from German, for example: - *hood* (*childhood*), *-ship* (*friendship*), etc. Nevertheless, there are also others non-Germanic: *-al* (*arrival*), *-dom* (*kingdom*) etc. The second option is that they might carry strong stress themselves. Suffixes that originate from French often cause the final syllable of a word to have strong stress with others receiving light or no stress, e.g.: *-gee* (*refugee*), *-aire* (*millionaire*), etc. The final option

is that suffixes might cause the stress to shift from one syllable to another. For example: suffix: *-eous*; root: *adVANtage*; root with suffix: *advanTAgeous* etc. It is important to note that in cases where the base and the suffix have different historical origins, the suffix determines the stress. (Celce-Murcia et al., 1996, 136-137).

1.3.3 Compound words

Compound words can be separated into two or more independent English words. They may be written as a single word (*armchair*) or divided, either with a hyphen or a space (*open-minded* or a *battery charger*), and primary stress can be placed on both constituents. When two nouns form the compound, the stress falls on the first element (*typewriter*, *sunrise*). Primary stress can be placed on the second element as well, such as in compounds with an adjectival first element and the *-ed* morpheme at the end, like *bad-tempered* or *heavy-handed*. When the first element is a number, the stress typically lands on the final one, like *second-class* or *three-wheeler*. Compounds that function as adverbs often have final stress, as in *North East*. For compound functioning as verbs with an adverbial first element, the stress is placed at the end, as in *downgrade* or *ill-treat* (Roach, 2009, 85-86).

2 Function of stress

Stress in English plays a key role among the suprasegmental elements. It has an effect on the quality, but also quantity of vowels, it dictates rhythm and exercises some influence on the melodic shape of the utterance (Menhard, 1978, 29). English stress has a variety of functions. Firstly, it can be utilized within sentences to emphasize a particular word or to create a contrast between two words. It can be stated that English is contrastive, and the contrast can be implicit rather than explicit, meaning that depending on the placement of the stress, one can tell what the speaker thinks or means. (Ladefoged and Johnson, 2014, 112). Secondly, stress has a grammatical function, it indicates the syntactic category of words; this is called a distinctive function, primarily carried by the main stress within words of the same word family. It differentiates nouns or adjectives from verbs. In certain compound words, stress distinguishes the new meaning from the original meaning of the individual components. Additionally, secondary stress can also have a distinctive function (Menhard, 1978, 34-35). Another function of stress is a syntactic function, which differentiates a compound noun, such as *a ˈhot dog* and *ˈhotˈdog*. Compound nouns have a stress placed on the first element, and the adjective-plus-noun phrases on both elements (Ladefoged and Johnson, 2014, 112).

3 The difference between stress and accent in English

Terms stress and accent are sometimes used as synonyms, but despite the fact they are related, they are not identical. According to Cruttenden (2001), it is better to use the term accent instead of stress, and therefore he intentionally avoids it (25).

As mentioned before, stress is the general term for the prominence of a sound or syllable, which can arise from the force of articulation, pitch, sound duration, or, as is typically the case, a combination of these factors. In contrast, the accent is the term for the prominence of one syllable over others in a word that has more than one syllable; monosyllabic words do not have accent (Kenyon and Knott, 1949, 24). According to Schane (2003), stress indicates an explicit representation of the various levels of prominence within syllables, whereas accent specifically identifies those prominences that influence the grouping of syllables into feet, as it is the foot structure that primarily shapes the rhythmic patterns of words (5). The foot comprises a segment of phonetic material that starts at the onset of a stressed syllable and ends at the onset of the following stressed syllable. Stress indicates a syllable that begins a foot (Giegerich, 1992, 181).

Stress and accent are not opposing; they are closely related and each accommodates different aspects of the prosody of prominence. The accent is responsible for organizing syllables into higher-level units called feet and identifying the accented syllable at the head of each foot. A syllable is either accented or it is not; there are no degrees of accent. Once the accents are placed correctly, stress takes over, determining the degrees of prominence among the accented syllables and those with full vowels. Accent is a phonological unit, while stress is related to phonetics. They also diverge in the realm of rhythm. Accentual rhythm is based on the binary contrast between accented and unaccented syllables. In longer words, accented syllables are separated by one or more unaccented ones. Conversely, stress rhythm focuses on the stressed syllables and their hierarchical relationships. (Schane, 2003, 133). For example, the word *attestation* has two accents (on the first and third syllable) and three stresses (Schane, 2003, 134).

4 Differences in expression and function of stress in English and Czech

The stress systems of English and Czech diverge. The reason is that English stress is completely unpredictable for a Czech learner, whose experience is a fixed stress system and a very limited space for reductions in standard pronunciation (Weingartová et al., 2014, 236). As was mentioned before, word stress in English can occur on any syllable, depending on the word, and that is why learners of other languages might be confused. For speakers of the Czech

language, which has regular stress patterns, the more complex rules for assigning word stress in English will be difficult (Celce-Murcia et al., 1996, 132). It is possible to divide languages into three groups based on their word stress. Firstly, languages with variable word stress, such as English or German, having the location of stress unpredictable from the segmental structure of the word. Secondly, those with fixed word stress, such as Czech or Polish (Ladefoged and Johnson, 2014, 249-250). Fixed-stress languages have primary stress placed on one particular syllable (McMahon, 2002, 119). Lastly, those with fixed phrase stress, such as French (Ladefoged and Johnson, 2014, 249-250).

The distinction between fixed-stress and free-stress languages is relevant because it influences how children learn the language, and adults using it are believed to handle stress. In fixed-stress languages, such as Czech, children will learn the predictability of stress placement quickly and easily. In free-stress languages, there are no universal stress rules. Instead, speakers maintain a mental representation of each word with its stress pattern (MacMahon, 2002, 119-120).

Both languages also differ in terms of intonation. Intonational cues serve various roles in languages, and these roles can differ from one language to another. This distinction is evident in both Czech, with a free word order, and English, with a fixed one. Consequently, English places a primary emphasis on melodic cues to convey prominence, while in Czech, word order changes might be used alongside or even instead of melodic ones (Skarnitz and Rumlová, 2019, 114).

Stress placement in Czech is nearly always on the first syllable, regardless of the number of syllables within a word (Ladefoged and Johnson, 2014, 249). Some words do not bear stress, such as prepositions, conjunctions, etc. Having this rule means, that one does not have to learn words individually or learn some rules and factors concerning stress. Conversely, a Czech learner, who is used to putting stress on the first syllable will have more difficulties in determining stress patterns in English.

Another difference between English and Czech language is that English is a stress-timed language. This means that a general rule of English rhythm is that stress occurs at (roughly) equal timing intervals (Giegerich, 1992, 181). In other words, one takes an equal amount of time from one stressed syllable to the next, i.e., English rhythm has an isochrony based on stresses (Cruttenden, 1997, 20). In contrast, Czech is a syllable-timed language. In English, which follows a stress-timed rhythm pattern, incorrect stress placement can result in an inaccurate and confusing rhythm, even if the speaker understands the concept of stress-timing

correctly. The comprehensibility of speech hinges on rhythm, and as a result, the placement of stress within words can influence how effectively a native English listener comprehends a non-native speaker (Fudge, 1984, 4).

In Czech, stress has a delimitative function, meaning that by placing the stress right while speaking, one can determine which word was used, for example, *tabulka* and *ta bulka* (Palková, 1994, 277). Word stress in Czech is a complex phenomenon and prominence can be created by multiple sound qualities, either individually or in combination. The Czech word stress has a few basic tendencies. A change in melodic spectre is the first aspect; the impression of stress within a syllable can be characterized by both rising and falling tones. The size of the appropriate pitch change must be sufficient but not excessive. In everyday speech, melodic contour likely serves as the most common indicator of stress, functioning not only at the sentence level but also at the word segmentation level. A second aspect is dynamic changes. When one wants to emphasize a syllable in a word, he does so by increasing the overall muscular tension and the exhalation flow, enhancing the dynamics. In terms of length, extending a vowel as a signal of stress is not acceptable in Czech, as the difference between long and short vowels has a phonological significance. Nevertheless, in certain cases, the duration difference of sounds can still become a factor that creates the impression of syllable prominence (Palková, 1994, 278-279).

The adequate recommendation for correctly placing the Czech stress on the first syllable for non-native speakers can be formulated as a combination of two components: a melody progression within the word, starting from the first syllable either slightly downward or slightly upward, and a conscious emphasis, but not an extension of the initial syllable. (Palková, 1994, 279).

To summarize, the stress system of English and Czech differ significantly. English stress is not predictable for Czech learners due to Czech´s fixed stress system and limited pronunciation variations. Languages can be categorized into three groups based on word stress: variable (e.g., English), fixed (e.g., Czech), and fixed phrase stress (e.g., French). This distinction impacts language acquisition in children and adults. Czech stress falls on the first syllable, offering a straightforward learning process compared to the complex stress-timed rhythm of English. Additionally, Czech and English vary in terms of intonation, with English relying on melodic cues and Czech employing word order adjustments for emphasis. Another notable difference lies in the rhythmic patterns of both languages. English follows a stress-timed rhythm, while Czech is a syllable-timed language, which can lead to confusion and

misplaced stress. In Czech, stress serves a delimitative function; distinguishing between words and prominence is achieved through various sound qualities. Understanding these differences is crucial for effective language acquisition and communication in both English and Czech.

5 The interference of Czech stress patterns

The first language is rational in that learning gives one a good understanding of the functioning of the language, reflecting what was already learned and helping one speak and understand well. On the contrary, that is not the case for a second language (Ellis, 2006, 164). A number of studies shows that non-native prosody strongly affects native listener´s comprehension (Derwing et al., 2002, 156).

Many factors that influence second language acquisition exist. Understanding these aspects is crucial for comprehending the complexities of L2 learning and how various linguistic elements compete for the learner´s attention. The first one is contingency, which includes how elements in the language relate, predictability, and when they occur together. The next one is cue competition, which explores how different cues in the language vie for a learner´s attention, making them choose which ones to focus on when exposed to multiple language features. Another one is salience, which refers to how noticeable and attention-grabbing certain language features are, influencing the learning process. Then, there is overshadowing, which includes more noticeable features in L2, hiding less noticeable ones, potentially causing the learner to miss the latter. Another one is blocking, which occurs when one language rule or feature prevents another, making it challenging to master specific language elements. The last aspect is interference, which happens when the first language (L1) affects the learning of the second language (L2), either helping or hindering it (Ellis, 2006, 166-173).

Interference refers to the influence of a learner´s first language (L1) on the learning of a second language (L2). It can manifest in various ways, affecting pronunciation, vocabulary, grammar, and other linguistic aspects. Interference can lead to both positive and negative transfer. Positive one occurs when similarities between L1 and L2 facilitate learning, while negative transfer arises when differences between the two languages create challenges. Interference can lead to the development of an interlanguage, which is a transitional stage in the process of L2 acquisition. Learners may initially apply L1 rules to L2, leading to errors that gradually decrease as they become more proficient in the target language. Interference can contribute to fossilization, where learners continue to make specific errors or retain L1 features in their L2 production, even at advanced stages of language learning. Understanding

interference is essential for language teachers. They need to be aware of the potential challenges their students may face due to interference and develop teaching strategies to address them effectively (Ellis, 2006, 173-176).

The first aspect that causes interference is definitely the fact that Czech has a stress on the first syllable and English does not have the same rule. As a result, Czech native speakers have the tendency to place the stress on the first syllable and find difficult to learn the language.

Czech listeners exhibit reduced sensitivity to English vowel reductions and encounter challenges in identifying strong beats when individual attributes indicating syllable prominence are in conflict. In terms of production, Czech-accented English lacks clear temporal contrasts, with stressed syllables being shorter and unstressed syllables longer compared to native speech. This, however, may lead to instances of positive transfer from L1 in certain contexts. Czech speakers commonly equalize the duration of vowels with varying degrees of prominence. Yet, they employ various strategies to indicate syllable prominence. These strategies depend on several factors, including the phonological structure of words, their frequency in text, and their similarity to Czech counterparts. (Weingertová et al., 2014, 236).

Both language systems also differ in terms of the vowels and consonants. English vocalic system is more complex than Czech, primarily due to two key distinctions. Firstly, in Czech, vowel length is a distinctive feature, and for three of the vowel pairs (the non-high vowels), the quality of the short and long vowels remains the same. In contrast, in English, length is not distinctive. Additionally, English has a more significant number of vowels compared to Czech. While Czech has only one vowel pair */a/–/aː/*, there are four vowels in English, */æ ʌ aː ɒ/*. One common issue Czech speakers encounter is their pronunciation of the open front /æ/ vowel, which is often realized as a closer vowel *[ɛ]*. The contrast with the short /e/ is then achieved by means of duration, with the phrases *bad* and *bed* typically pronounced *[bɛːd bɛd]* by Czech learners. English and Czech differ in their diphthongs as well, although English diphthongs are generally not problematic for native Czech speakers. Certain English consonants are difficult for speakers of other languages, such as the dental fricatives */θ/* and */ð/*. Moreover, some consonants serve different functions in the phonological systems of Czech and English. While both languages include the velar nasal sound [ŋ], it carries a distinctive phonemic role in English (e.g., sin /sɪn/ vs. sing /sɪŋ/), whereas, in Czech, it appears in the context of place assimilation, e.g., *banka [baŋka]*. Consequently, Czech speakers of English frequently pronounce *[ŋ]* with an additional plosive sound (Skarnitzl and Rumlová, 2019, 110-113).

6 Analysis of stress placement among Czech students

6.1 Methodology

The practical part of the bachelor thesis is dedicated to mistakes in stress placement among Czech students of English. It focuses on four main points. Firstly, the most frequent mistakes that students make while speaking. Secondly, the possible causes for those misplacements of stress. Thirdly, how university students of English and students with other specializations differ in the number of mistakes. And lastly, if the students use features of stress, whether individually, combined or not at all. The analysis is done via three main aspects of stress: length, intensity (loudness) and pitch.

6.1.1 Participants

For the analysis, two groups of university students were chosen. The first group consists of four with English as their major. It is two females and one male, all 22 years old in the third year. The last participant from the first half is a female, 20 years old, in her second year. The second fourth consists of students whose specializations is different. It´s one female, 21 years old, who is studying to be a paramedic. Another participant is a female, 22 years old, in the fourth year studying social studies along with Czech. The third speaker is a female, 22 years old, studying special education. The last participant is a male, 22 years old, in the third year, who studies sports and geography.

6.1.2 Material

The students were asked to read aloud a given text (see Appendix 1) for about 4-5 minutes while being recorded. It is an extract of a native speaker, concretely of Emma Watson´s speech called „I found my tribe.“ It is an official speech from 2022 spoken in a normal voice, and the usage of English words is diverse; the actress uses both monosyllabic and polysyllabic words. The recordings were created through an iPhone dictaphone and extracted into MP3 format.

6.1.3 Procedure

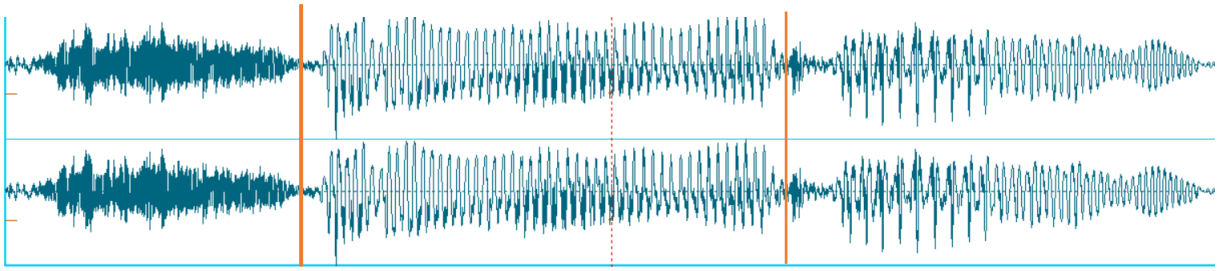
The procedure is divided into two parts. The first one is auditory, which is done by the author of this thesis. By listening to every speaker´s speech, the selection of wrongly spoken words has been made for every individual student. The second one is acoustics done via Praat, a program that provides analyses of speech and displays the mistakes.

6.2 Group number one: students of English

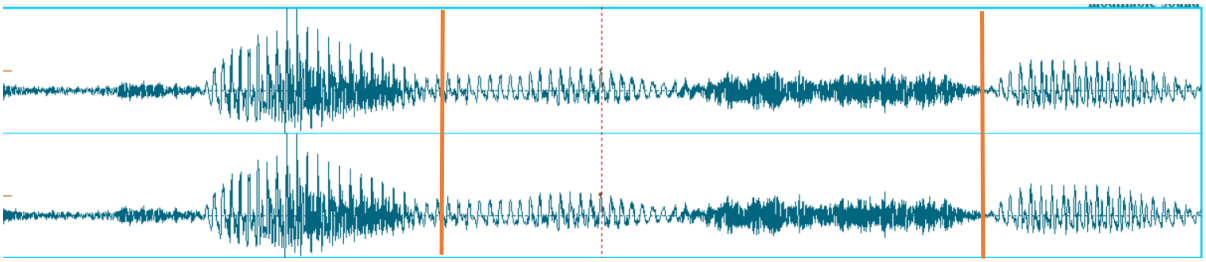
6.2.1 Speaker 1

Speaker 1 is a female, twenty-two years old, who is studying English and Czech in her second year. The only problematic word regarding wrong stress placement was *senator*, which has three syllables with the primary stress on the first. The first chart represents speaker´s wrong pronunciation of the word and that she put stress on the second syllable.

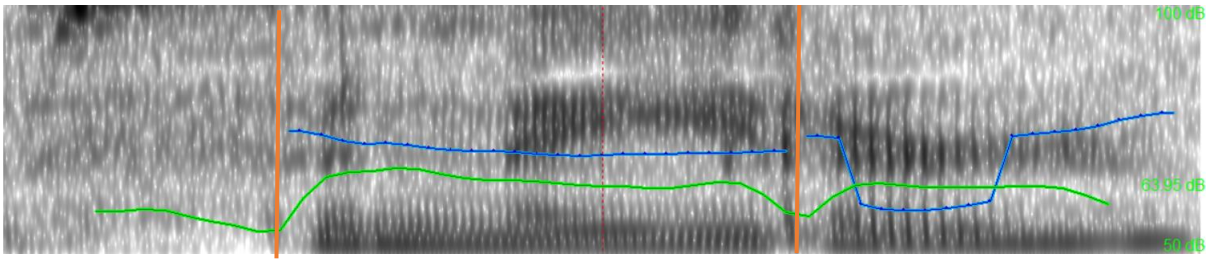
From the graph it appears that Speaker 1 made the second syllable both longer and louder.



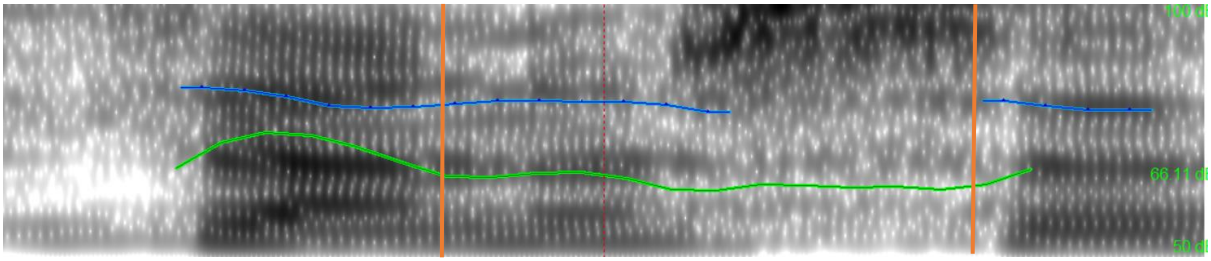
The second chart depicts the proper stress placement of the word by the native speaker. The first syllable is evidently louder than the others. In this instance, the length is not a reliable criterion as the second syllable appears longer despite the native speaker correctly stressing it.



The blue line indicating pitch maintains mostly neutral, gradually descending towards the end of the word. The green line, which means intensity, peaks on the second syllable and was incorrectly marked as stressed by the speaker. Thus, intensity, in this case, proves as one of the aspects of a stressed syllable.



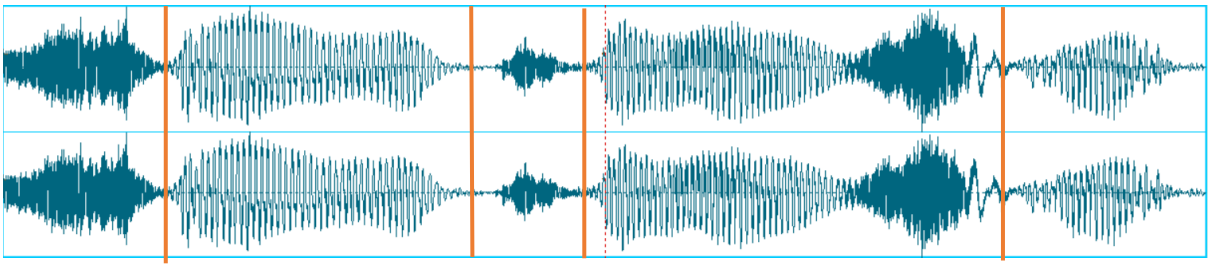
In the upcoming graph, which represents the correct pronunciation by the native speaker, the pitch (illustrated by the blue line) remains neutral, slightly falling from the first to the second syllable. On the other hand, the intensity is notably stronger on the first syllable, which carries the main stress. Hence, pitch is deemed less reliable than intensity as an indicator of stress.



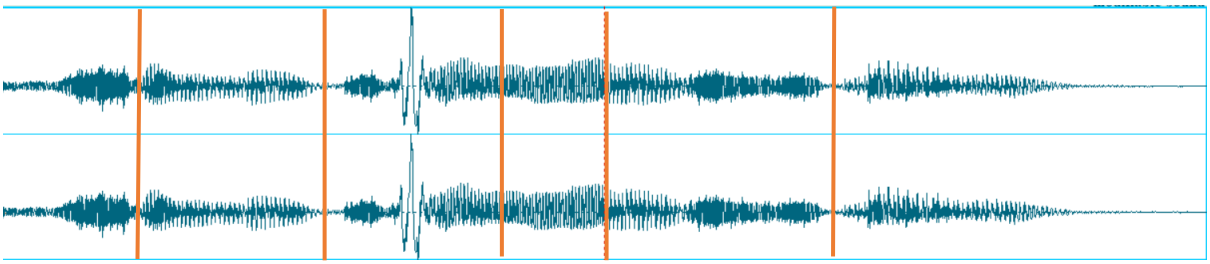
6.2.2 Speaker 2

Speaker 2, also a twenty-two years old female, is currently in her third year studying English and Czech. The problem she faced was the word *simultaneously*. Her pronunciation of the word was inaccurate, dividing the word into only five syllables and placing the stress on the second one. However, the word contains six syllables with the primary stress falling on the third syllable.

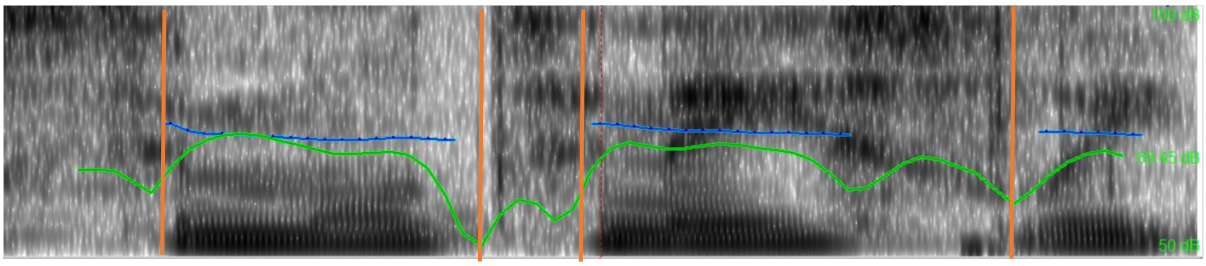
The chart shows the word´s incorrect division and highlights Speaker 2´s emphasis on the second syllable, making it louder than the others. Length, in this case, proves unreliable as the analysis reveals that the third syllable is the longest despite the stress being placed on the second syllable.



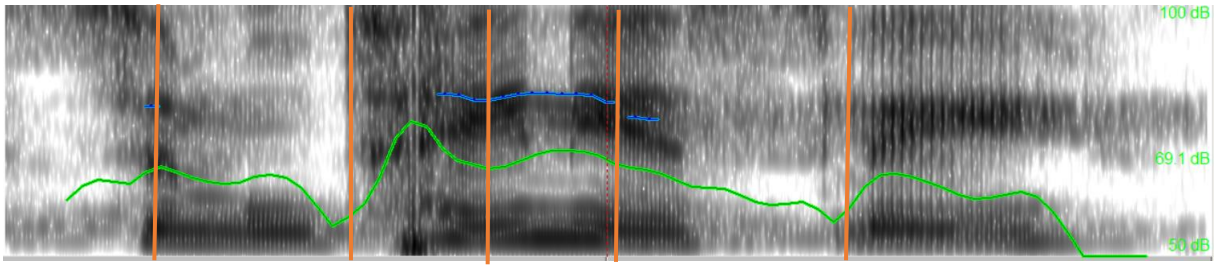
The next chart represents the pronunciation with the correct stress placement by the native speaker. As can be seen, the third syllable is the loudest, having more emphasis than the others.



As evident, Speaker 2 did not use a pitch movement when pronouncing the word, indicating that pitch is not a reliable factor in determining where the stress lies. Intensity is stronger on the second and the fourth syllable. The speaker wrongly pronounced the second one as stressed, so judging by the graph, intensity has its peak on the second syllable.

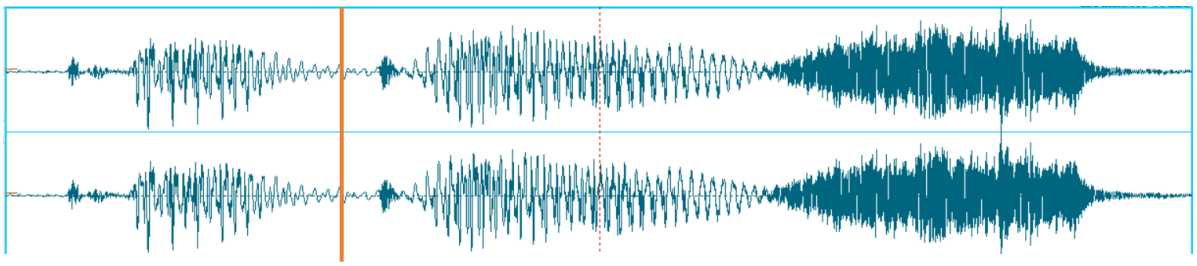


The graph depicted below, demonstrating the correct division and pronunciation of the word by the native speaker, shows the unreliability of pitch (blue line) since it was not used to emphasize the stressed syllable. Intensity (green line), on the other hand, peaks on the third, stressed syllable. Hence, intensity serves to emphasize stress and can be considered reliable.

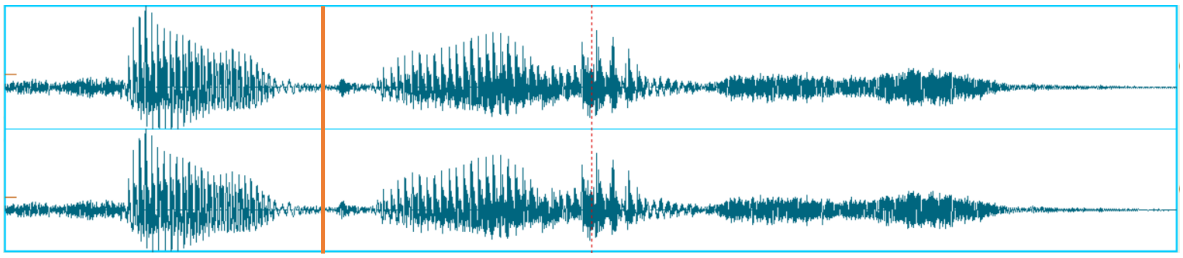


Speaker 2 encountered difficulty with the word *progress*. This word functions as both a noun and a verb, with distinct stress placement in each case. In the text, the word is a noun, with primary stress falling on the word´s first syllable. However, the speaker mistakenly stressed the second syllable, making the word sound like the verb *progress*, as depicted in the chart below.

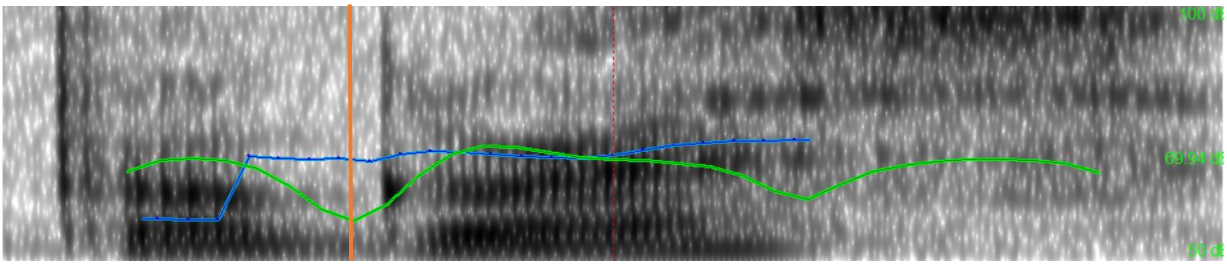
The chart clearly indicates that the second syllable was pronounced louder and longer than the first.



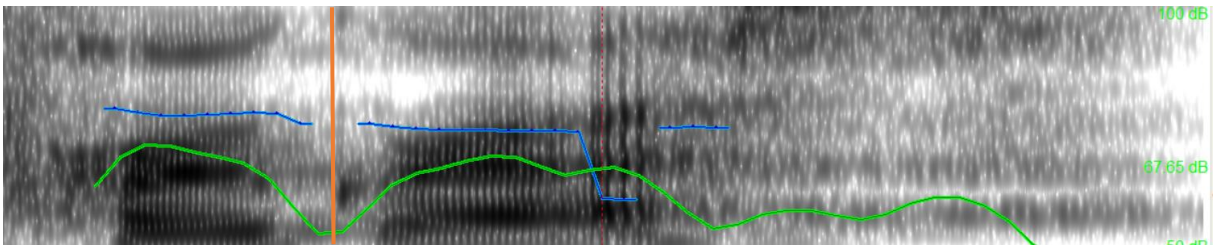
The chart below illustrates the correct representation of the word by the native speaker. Here, length plays an unreliable role when analysing stress. Despite the first syllable bearing stress, the chart indicates that the second syllable is longer. Loudness, however, is stronger on the first, stressed syllable.



The graph indicates that pitch (blue line) raises from the first to the second (wrongly) stressed syllable. The same thing occurred with intensity (green line), which is stronger on the stressed syllable. Both of these factors are reliable within the stress placement in this case.



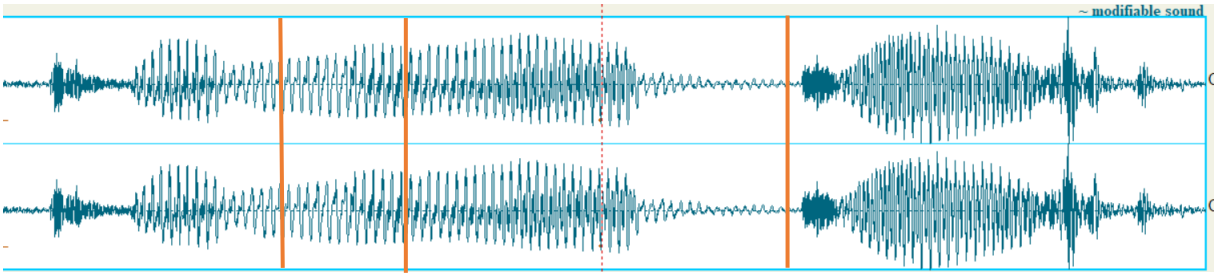
The depiction of the word pronounced by the native speaker indicates that neither pitch nor intensity were used to emphasize the stressed syllable. Both lines maintain a consistent level across both syllables, making it challenging to determine which one carries the stress solely based on pitch and intensity.



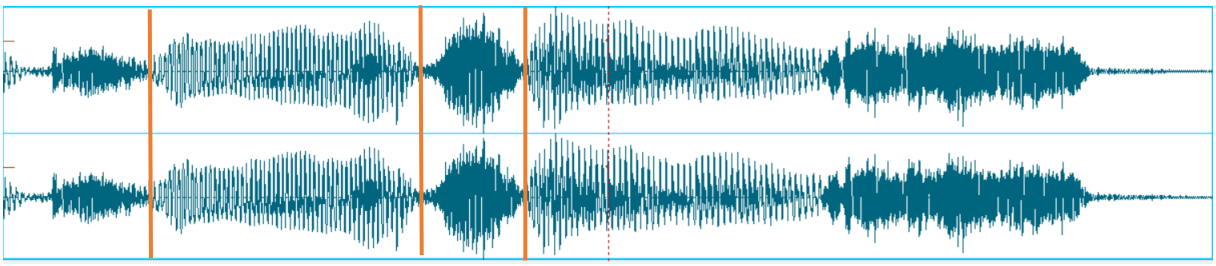
6.2.3 Speaker 3

Speaker 3, a twenty years old female, studies Czech and English in her second year. The first problem occurred with the word *communities,* which comprises four syllables. The primary stress falls on the second syllable, but the student´s pronunciation is not clear, making it

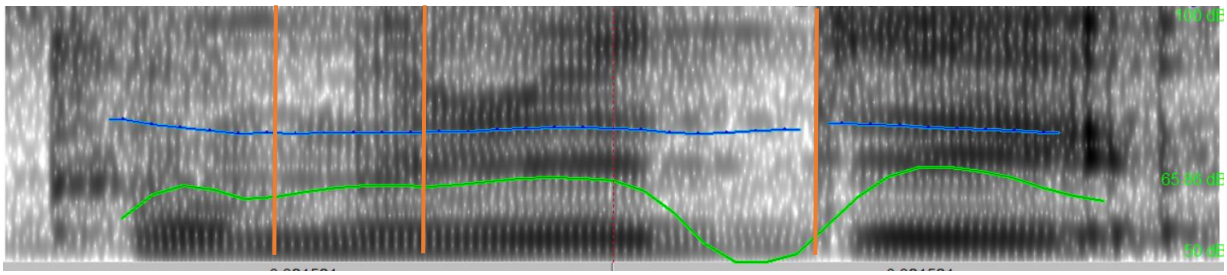
impossible to determine the stress placement and it seems that the student did not use stress at all. As the graph below shows, length is not reliable.



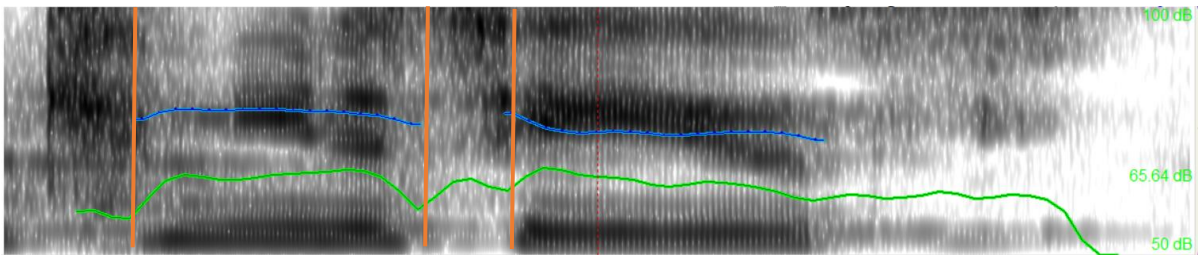
The correct representation of the word is in chart below proves that, once again, length does not play a role in stress placement.



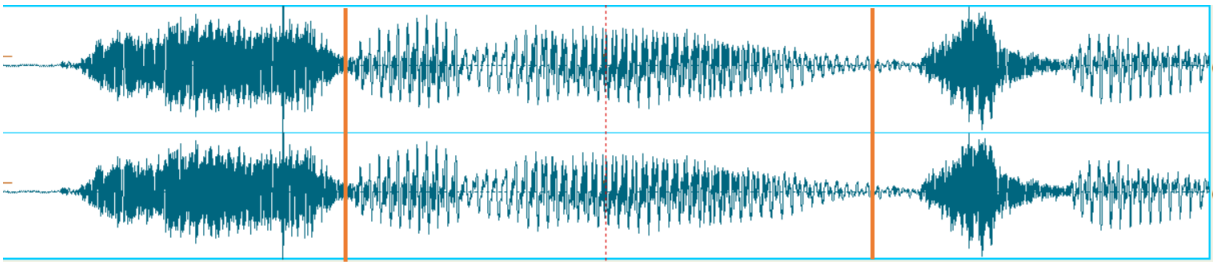
In this case, pitch and intensity are unreliable sources of stress placement. As can be seen from the graph below, the speaker does not emphasize the stressed syllable by either of them.



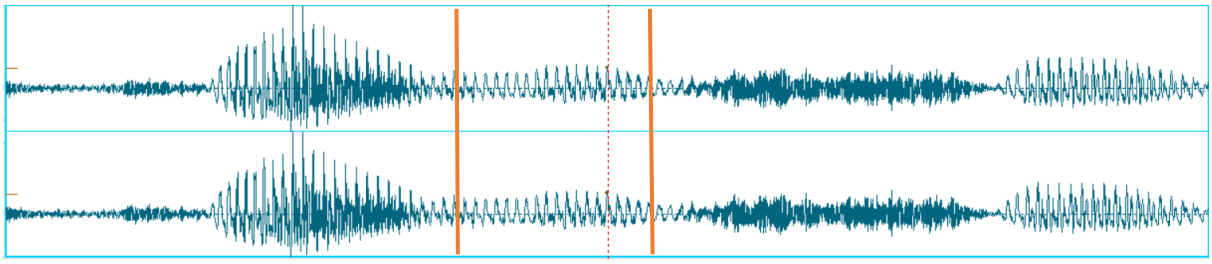
The blue line representing pitch does not clearly show the emphasis on stress. The green line, intensity, increases on the second stressed syllable.



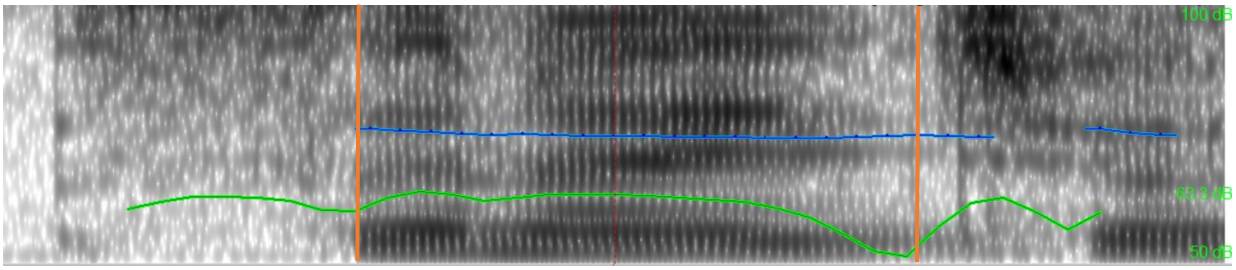
Another issue arose with the word *senator* as the speaker stressed the second syllable, making the same mistake as Speaker 1. Loudness, in this case, is less reliable than length, which is strongest on the stressed syllable. Conversely, loudness remains at a similar level or even weaker on the stressed syllable.



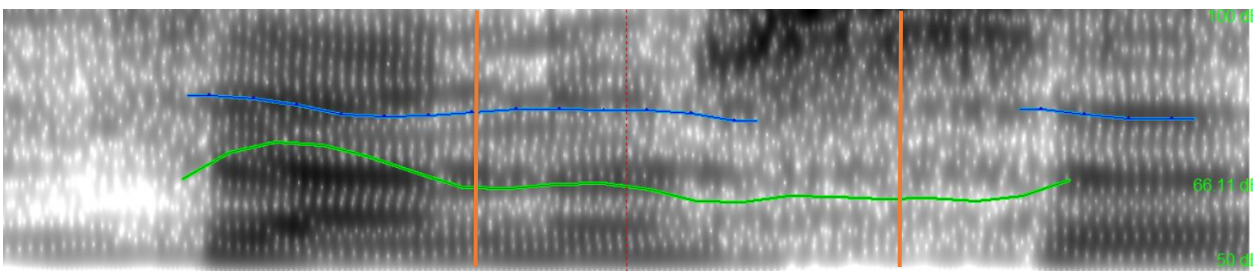
The word, as mentioned before, has a stress on the first syllable. Its correct representation by the native speaker shows that length and loudness are strongest on the first, stressed syllable.



The graph does not provide any emphasis on both elements – pitch, and intensity, and therefore, they are not considered as reliable factors of stress.

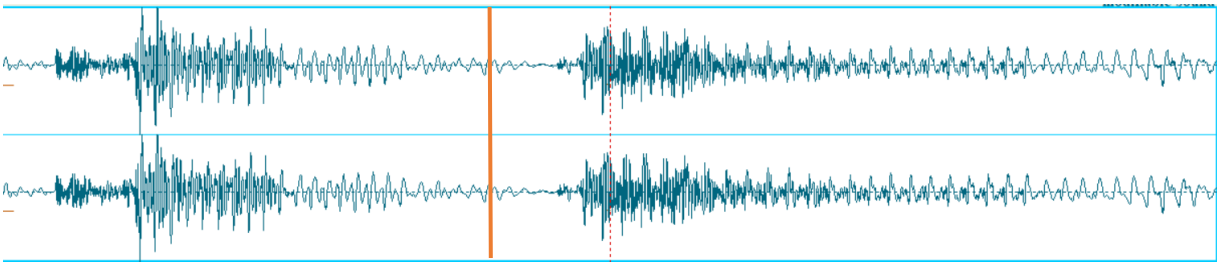


In the following graph depicting the accurate pronunciation by the native speaker, the pitch (the blue line) remains neutral, with a slight descent. On the other hand, the intensity is stronger on the first syllable, which carries the primary stress. Consequently, pitch is less reliable than intensity as an indicator of stress.

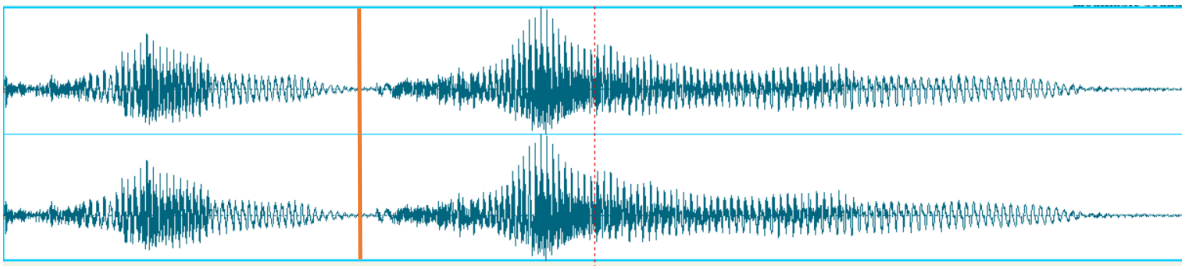


6.2.4 Speaker 4

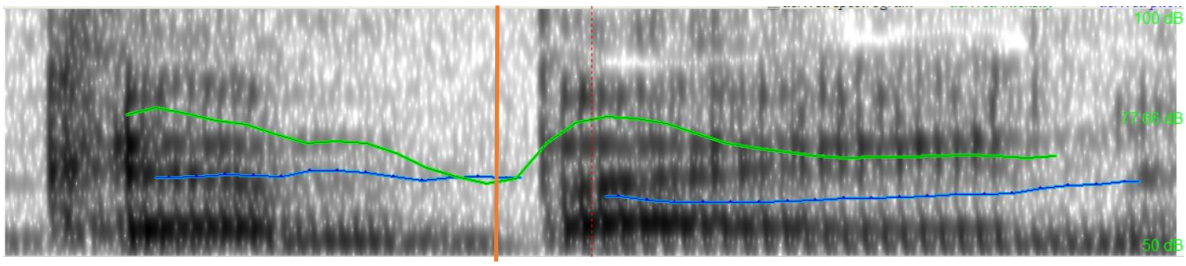
The last speaker from the initial group is a twenty-two years old male studying English and Czech in his third year. The first challenge was with the word *campaign*, consisting of two syllables with primary stress on the second syllable. The student put the stress on the first one, perhaps making it louder, as it seems in the graph. Length is not a reliable factor in this case because, despite the stress on the first syllable, the second one is longer.



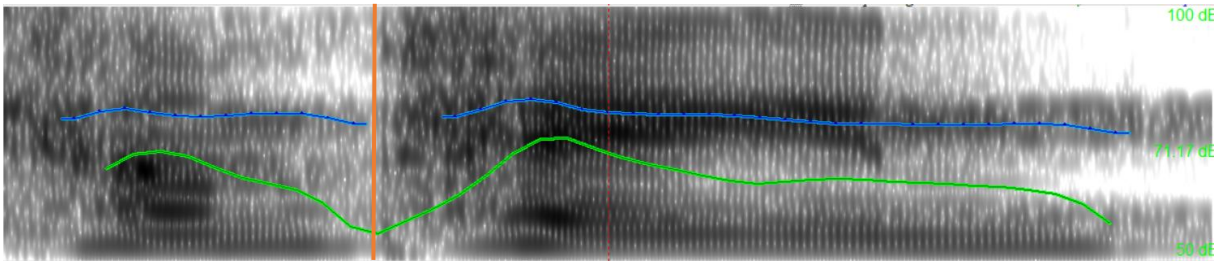
The correct representation of the word with the proper stress placement by the native speaker shows that the second syllable is clearly emphasized by both loudness and length.



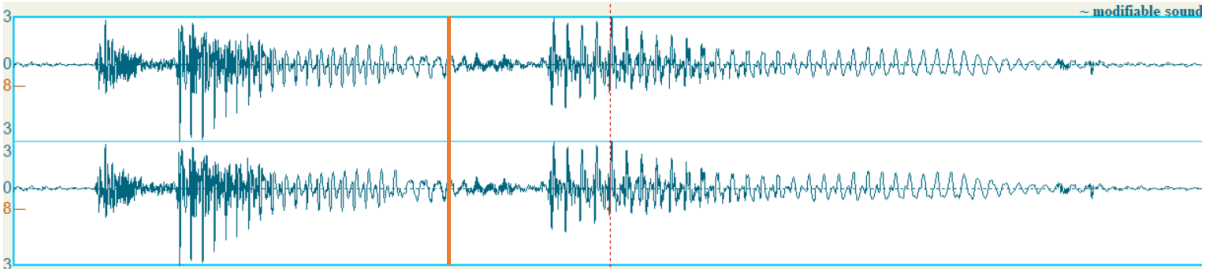
In the speaker´s case, the pitch slightly falls from the first to the second syllable. The peak is on the first one, which was marked as stressed by the speaker, and therefore, pitch was used to indicate stress within this word. Conversely, intensity seems to be almost the same on both syllables and, thus, it would be challenging to determine the stress placement judging by intensity.



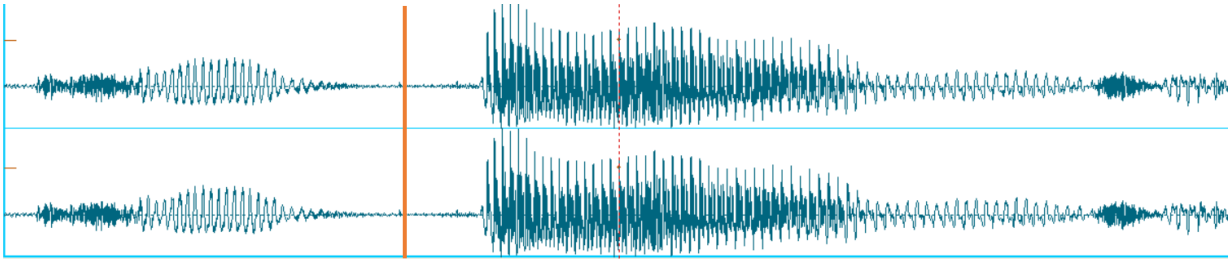
The pitch analysis of the word by the native speaker is mainly neutral with a tiny increase on the second syllable to emphasize stress. Intensity is a more dependable aspect; the green line rises on the second syllable, which carries the stress. In consequence, both factors – intensity and pitch – were used to emphasize the stressed syllable.



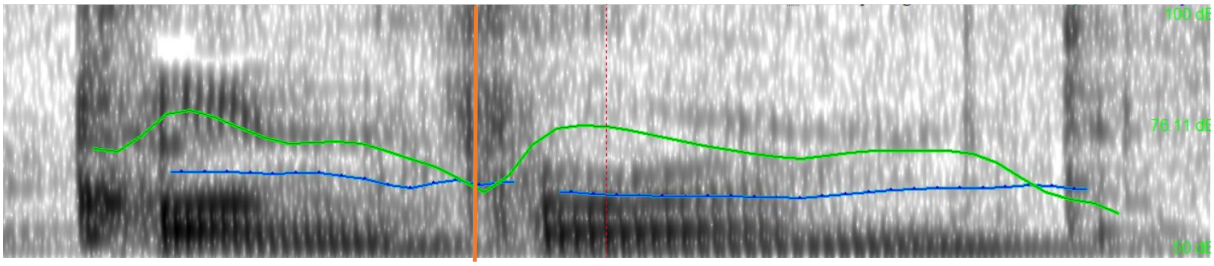
Another problem was with the word *confirmed* with two syllables and stress placed on the second one. The student misplaced the stress on the first syllable, but from the graph it is not clear if loudness was used to emphasize stress.



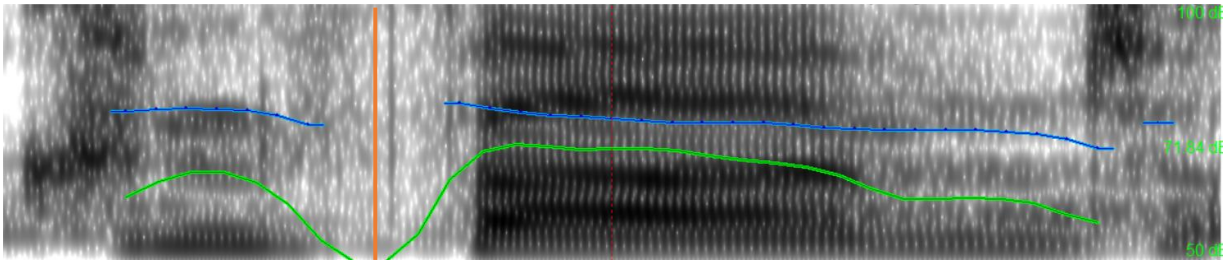
The correct representation of the word by the native speaker who uses both loudness and length to emphasize the stressed syllable.



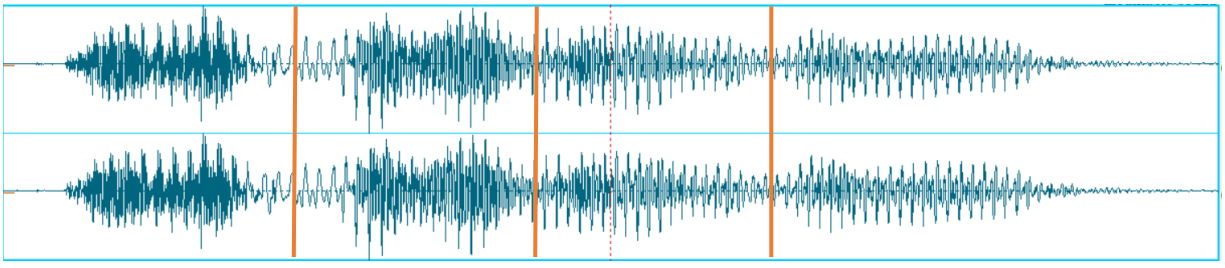
The graph below demonstrates an analysis of pitch and intensity in the speaker´s pronunciation of the word. It is apparent that the pitch (blue line) is primarily neutral, and the same throughout the duration of the word. A slight decrease is noticeable on the second syllable, suggesting that the student used falling of pitch to emphasize the first syllable as stressed. Intensity (green line) seems to be strong on both syllables, and therefore, it is not a reliable factor in determining the stressed syllable.



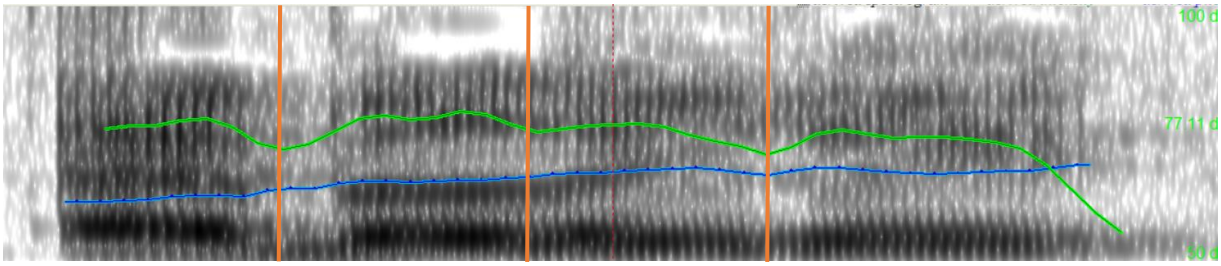
The next graph portraits the correct pronunciation by the native speaker. The blue line representing pitch exhibits an increase on the second syllable, which carries stress. Similarly, the green line representing intensity also demonstrates an increase on the second stressed syllable. Therefore, both elements of prominence serve as valid evidence for stress placement within the word.



The next problematic word was *ability*, which has four syllables, and the stress lies on the second one. By the speaker´s pronunciation, it is clear that length was not used to emphasize stress.



The graph below shows that pitch (blue line) ascends from the initial syllable and continues to increase with each subsequent syllable. Hence, the first syllable, which the speaker stressed, carries the lowest pitch, rendering this factor unreliable for determining stress within this particular word. Intensity (green line) does not prove anything as well as it remains relatively consistent across all syllables.

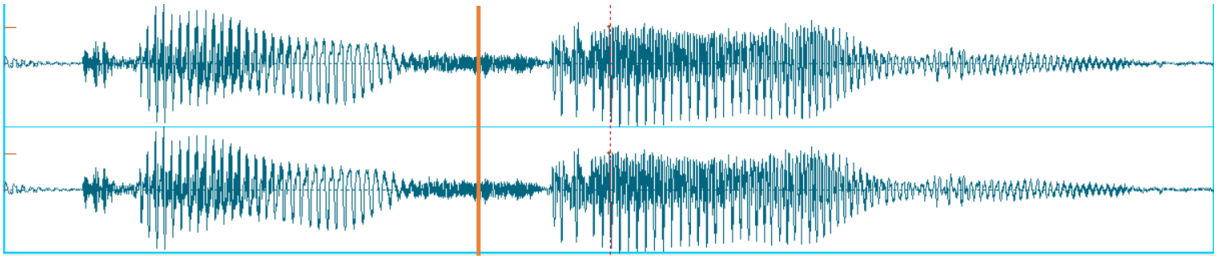


The comparison with the original was not possible because of the applause in the background that made it unable to detect the representation of the word.

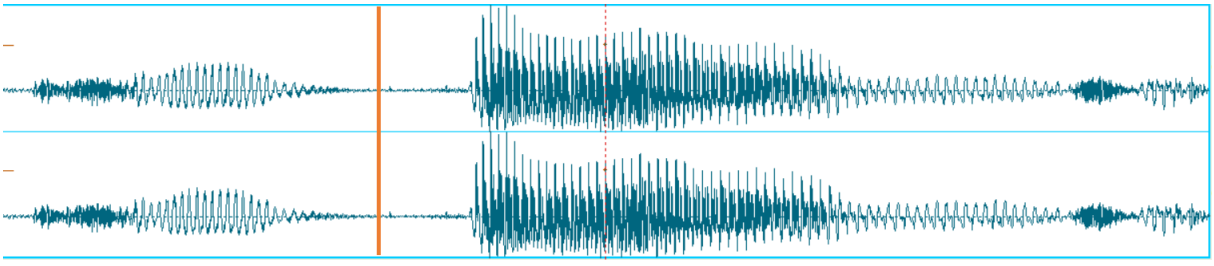
6.3 Group number two: students of other specializations

6.3.1 Speaker 5

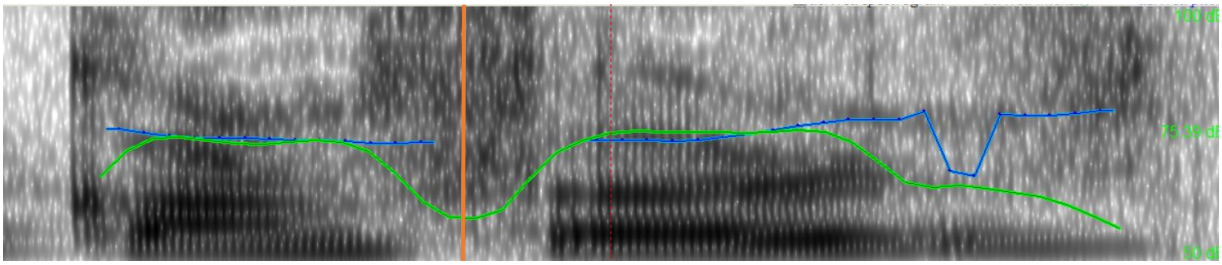
The fifth participant, a twenty-one years old female studying to become a paramedic, encountered her first stress misplacement with the verb *confirmed* that consists of two syllables with the main stress falling on the second one. In this case, it is not clear which syllable is stressed judging by length.



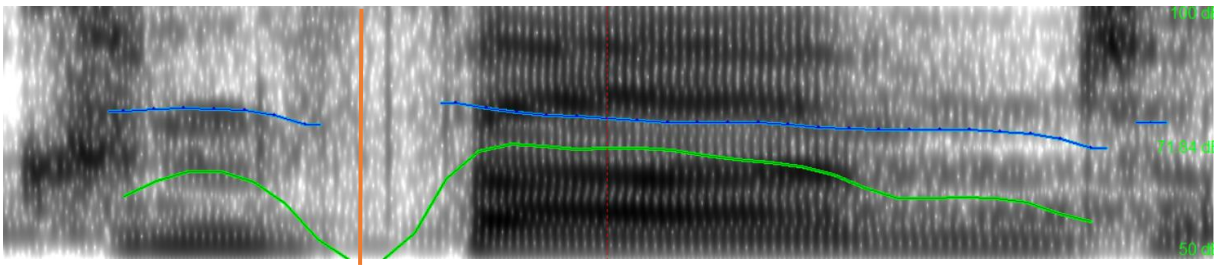
The correct representation of the word´s stress placement by the native speaker is very clear – both loudness and length are stronger on the second stressed syllable.



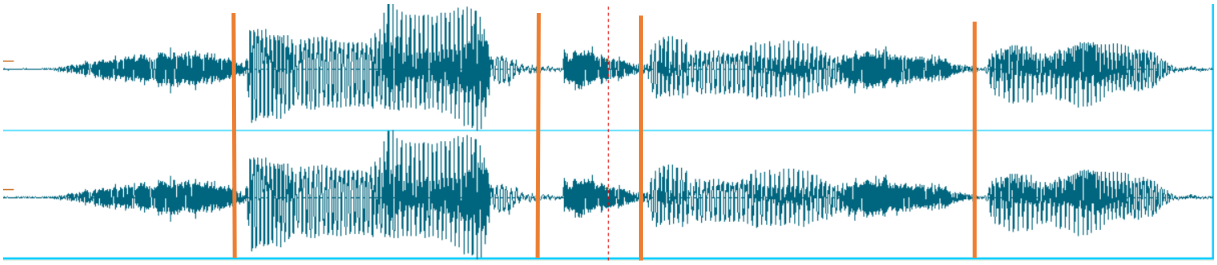
In this specific case, the speaker´s usage of pitch and intensity appears strange. The blue line (pitch) seems to rise towards the end of the second syllable which was pronounced as unstressed by the speaker. The same applies to the green line (intensity) which exhibits an increase on the second syllable, also pronounced as unstressed. Consequently, both aspects of stress suggest that the second syllable is stressed, contrary to speaker´s placement of stress on the first syllable. Thus, these factors are both unreliable.



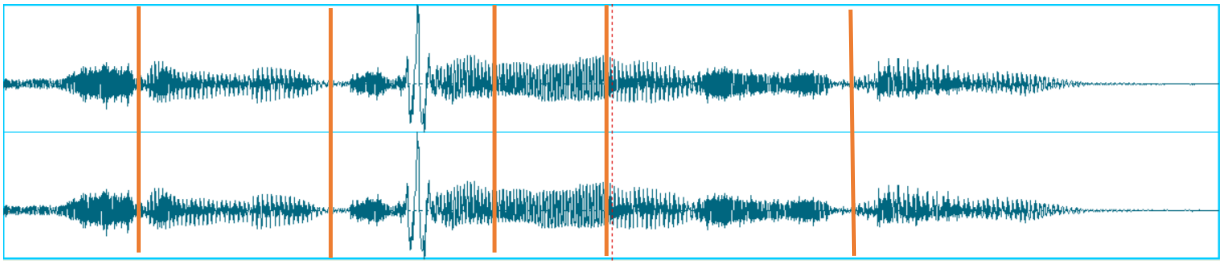
The next graph represents the correct pronunciation of the word. It appears that pitch (blue line) is mostly on the same level, slightly rising on the second stressed syllable. Intensity, on the other hand, increases on the second stressed syllable quite actively. In other words, the native speaker used both of the aspects – pitch and intensity – to emphasize the stressed syllable.



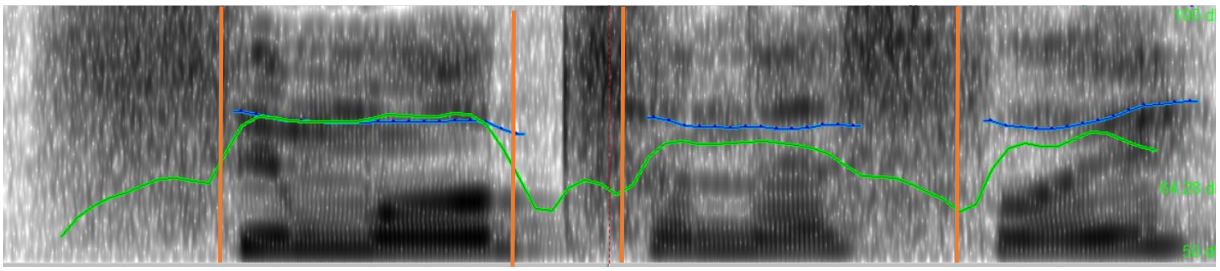
The next word is *simultaneously* that consists of six syllables and the main stress lies on the third syllable. The student pronounced the word wrongly, dividing it into only five syllables and putting the stress on the second one, making it mainly louder and also longer than other syllables.



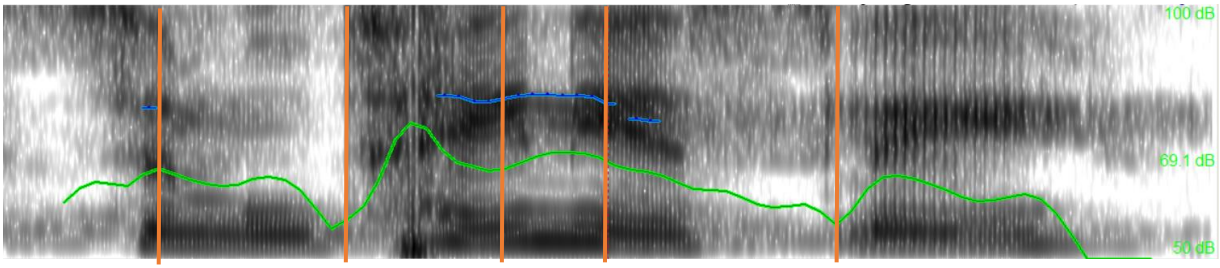
The correct representation of the word by the native speaker shows the emphasis on the third syllable, primarily by loudness but also length.



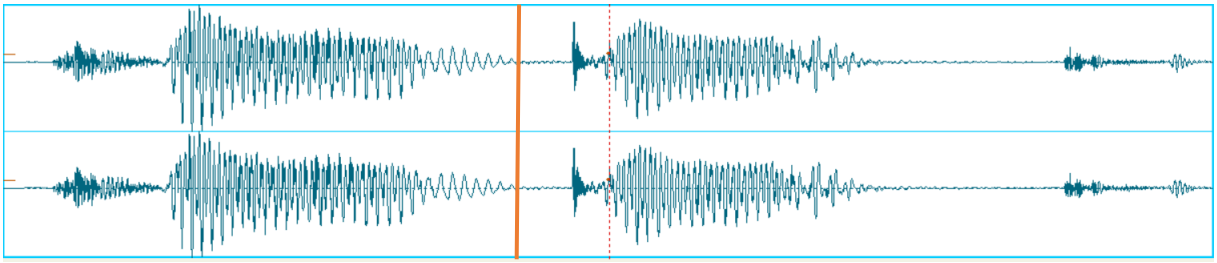
The following graph displays the pitch (blue line) and intensity (green line) of the word by the speaker. Pitch stays mostly neutral; the student did not use either – falling or rising of pitch – to emphasize the stress. In contrast, intensity is notably highest on the second syllable, which the student pronounced as stressed. Thus, the speaker utilized intensity to indicate the emphasis of stress.



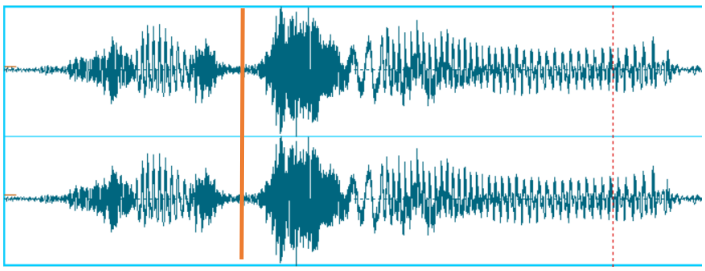
The graph below with the correct division and pronunciation of the word done by the native speaker reveals that pitch (blue line) is not a reliable indicator as it was not utilized to emphasize the stressed syllable. Conversely, intensity (green line) seems to be the strongest on the third stressed syllable. Nonetheless, intensity emphasizes the stress and is reliable.



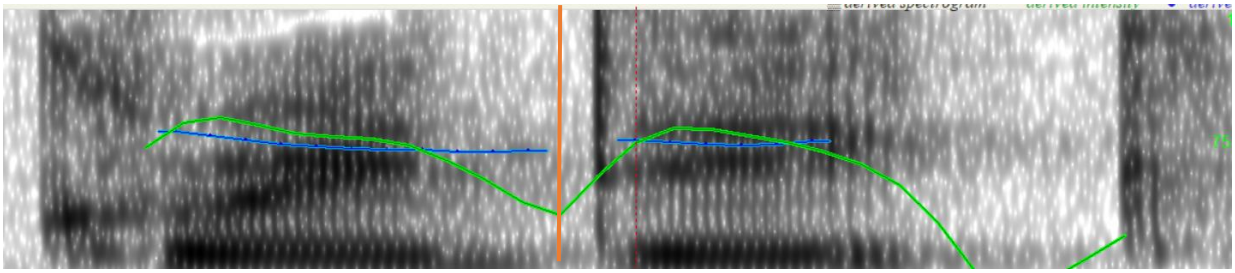
Another word that caused problems is *critique* that has two syllables with the stress falling on the second one, and the student put the stress on the first. The participant made the first syllable stressed by loudness and length.



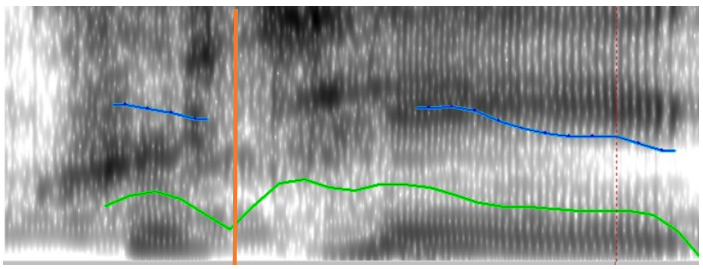
The correct representation of the word by the native speaker shows that the second stressed syllable is both louder and longer.



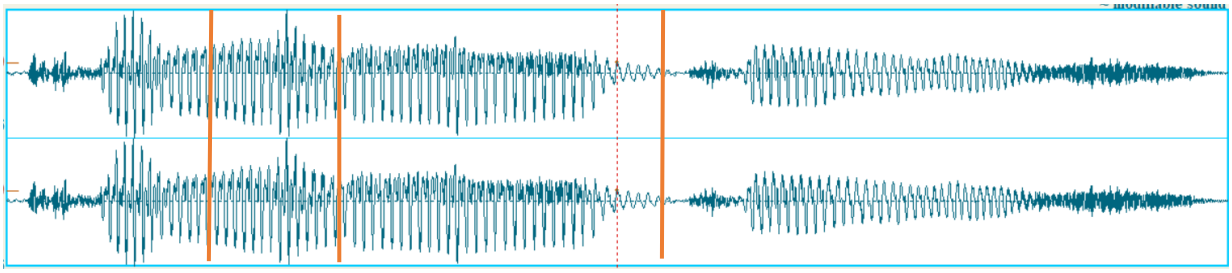
Pitch (blue line) did not serve to emphasize the stressed syllable – as depicted in the graph belows, pitch remains neutral on both syllables. Intensity seems to be consistent on both syllables as well, possibly slightly higher on the first syllable, which the speaker stressed.



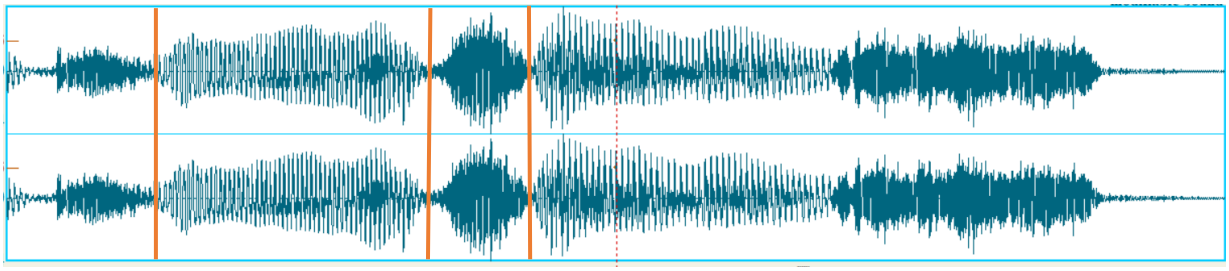
The accurate pronunciation of the word by the native speaker, as shown in the graph below, demonstrates the utilization of both pitch and intensity to signify the stressed syllable. Pitch rises, and intensity increases on the second syllable which bears the stress.



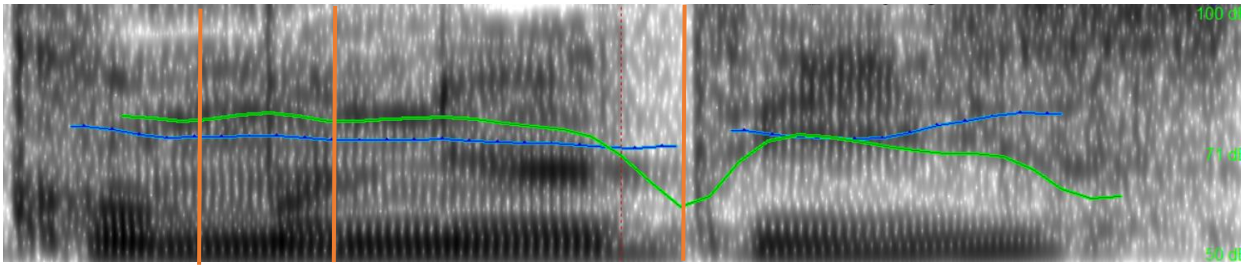
Another problem was the word *communities* that has four syllables and the stress is on the second one. By the student´s pronunciation, once again, it is not evident if the stress was used; the graph does not show which one of the syllables is the longest or loudest.



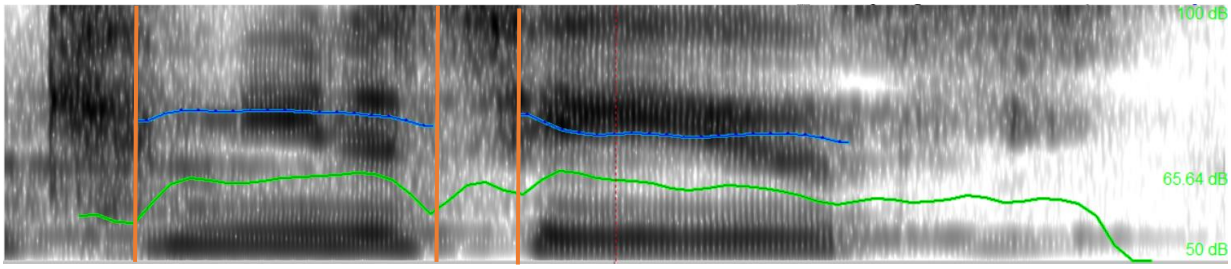
The correct representation of the word by the native speaker:



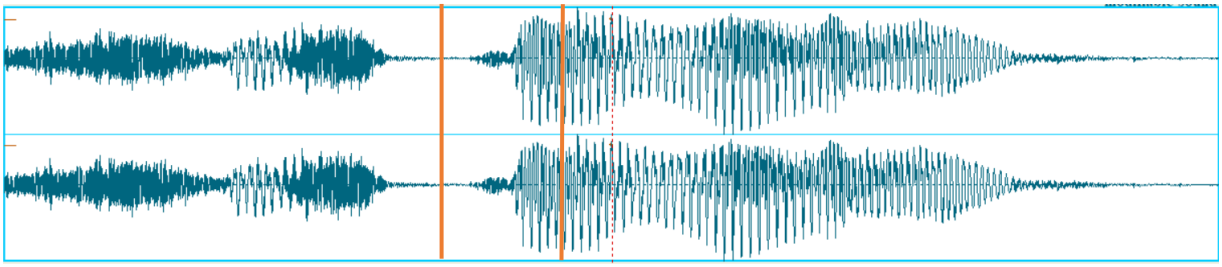
The pitch (blue line) remains mostly steady, with a slight rise observed on the final syllable, despite it not carrying stress. The speaker did not employ pitch to emphasize stressed syllable. Intensity (green line) follows the same pattern, maintaining neutral, except for a decrease between the third and the fourth syllable. Once again, the speaker did not utilize intensity to emphasize the syllable carrying stress.



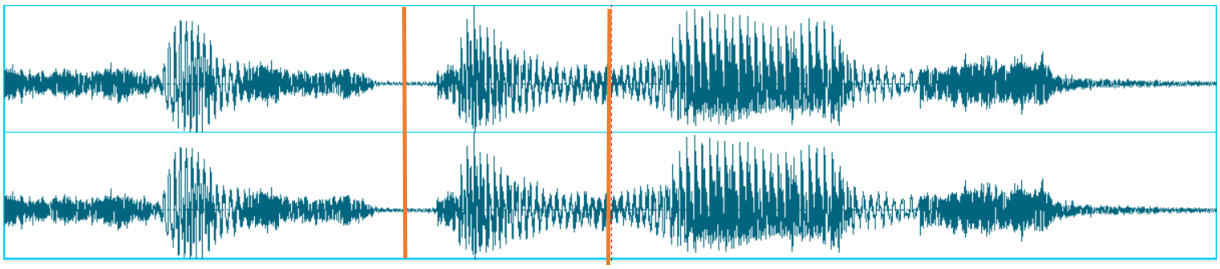
The native speaker´s pronunciation of the word suggests that pitch peaks on the second stressed syllable and gradually falls. Intensity rises on the second stressed syllable and seems to be constant on the last syllable as well, hence its reliability in determining stressed syllable is questionable compared to, for instance, pitch.



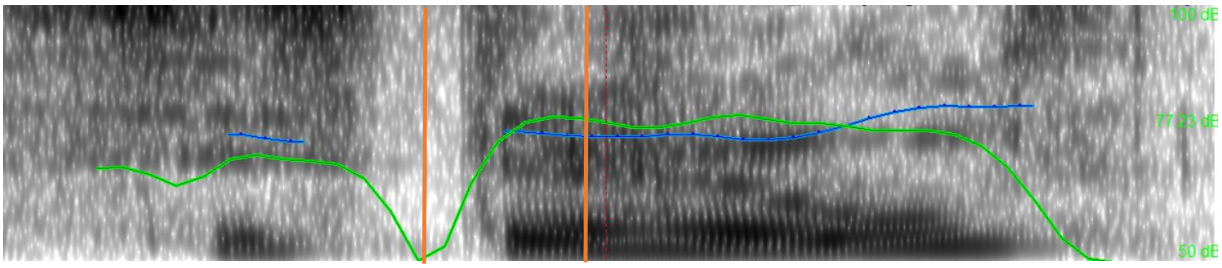
Speaker 5 encountered another obstacle with the word *sisterhood*, consisting of three syllables with primary stress on the first syllable. However, the student put the stress on the last one, resulting in it being both louder and longer than the first stressed syllable.



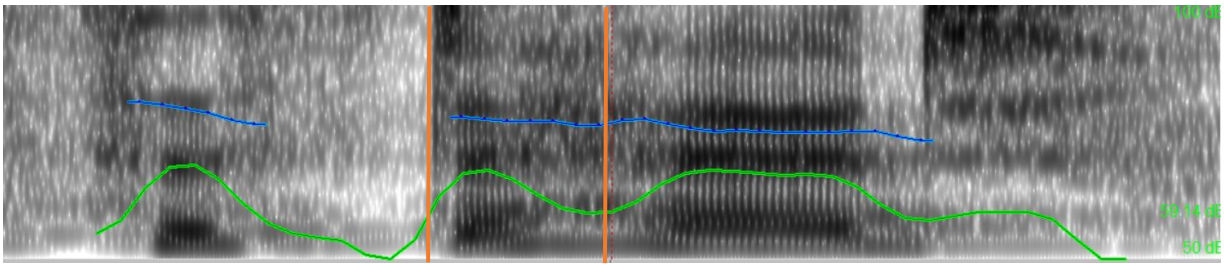
The correct representation of the word by the native speaker does not provide a proof of a correct stress placement of this specific word.



In the graph, the blue line ascends on the second syllable, indicating that the pitch is rising with the peak on the second syllable, stressed by the speaker. Likewise, intensity is stronger on the second stressed syllable. Hence, the speaker used both of the components of prominence – pitch and intensity – to emphasize the stressed syllable.

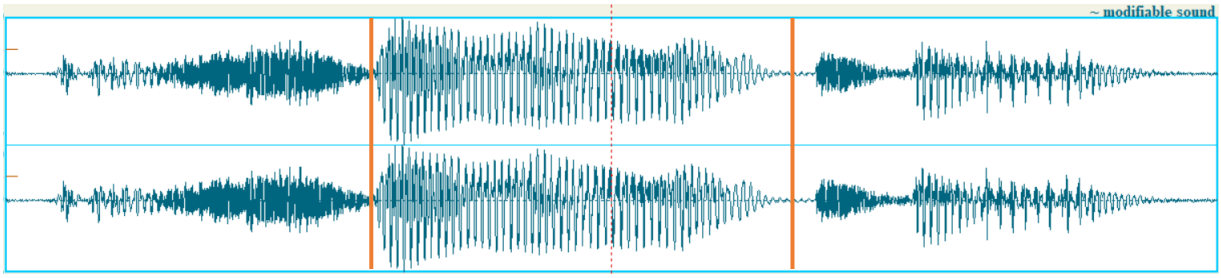


In the native speaker´s case, pitch appears to reach its peak on the first stressed syllable before gradually falling. Intensity fails to offer a reliable indication of the placement of stress considering it stays on the same level across all three syllables.

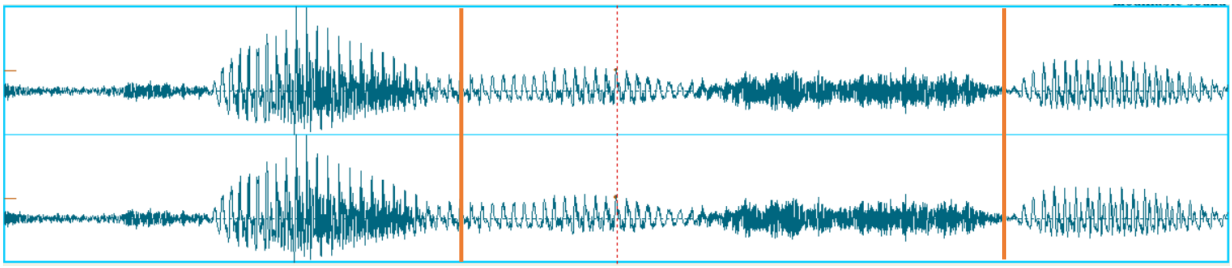


The same difficulty arose with the word *brotherhood*, which is the reason for skipping the representation with the graphs.

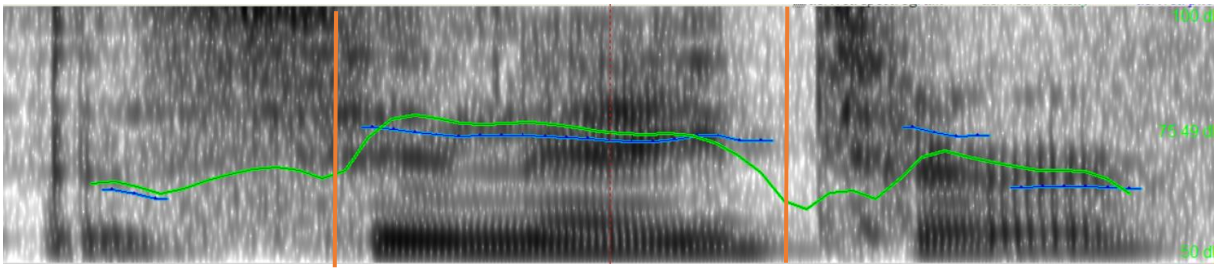
The word *senator* was also problematic regarding stress placement within the word. The student put it on the second syllable, making it both louder and longer than other syllables.



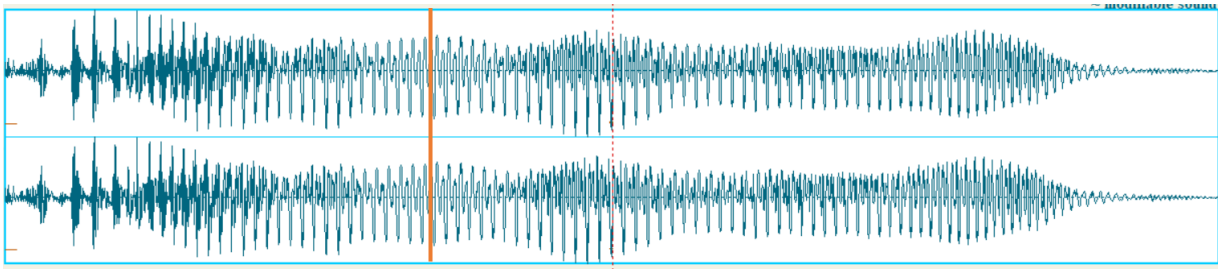
The correct representation of the word by the native speaker distinctly shows that the syllable that stands out and carries stress, is the first one, mainly relying loudness as a sign of prominence.



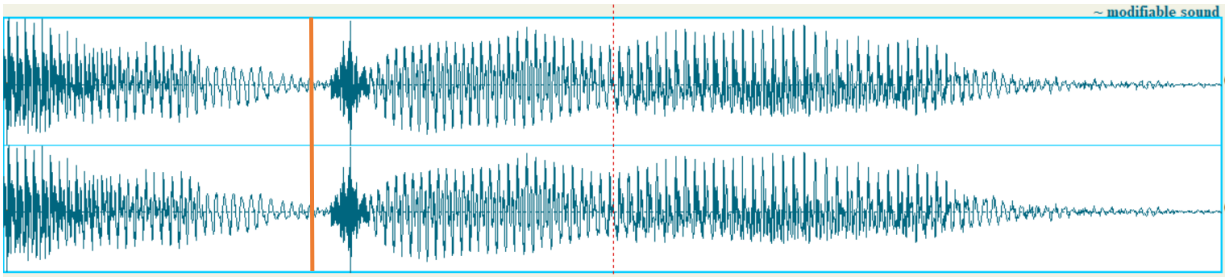
As indicated by the graph, both pitch and intensity seem to peak on the second syllable which the speaker stressed. Undoubtedly, the speaker utilized both components to emphasize the stressed syllable.



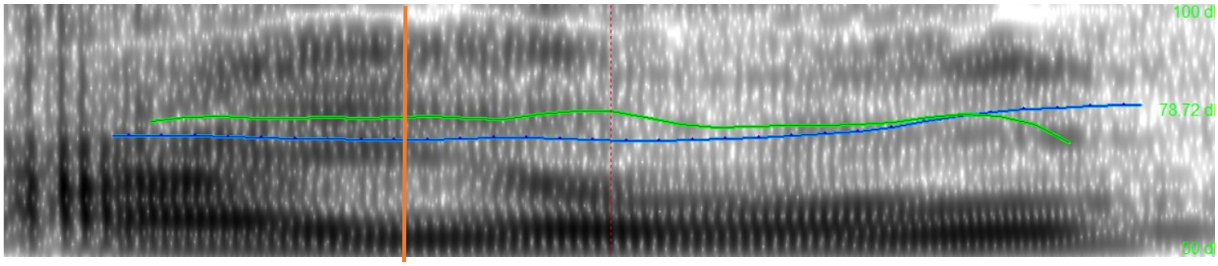
The next troublesome word was *ideal*. With a total of three syllables, the primary stress falls on the second one. The speaker divided the word into only two syllables but probably did not use stress at all.



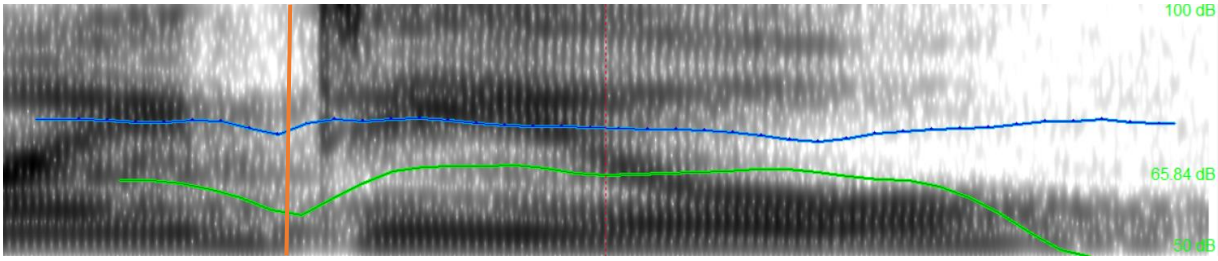
The correct representation of the word by the native speaker shows emphasis on the second stressed syllable done by length.



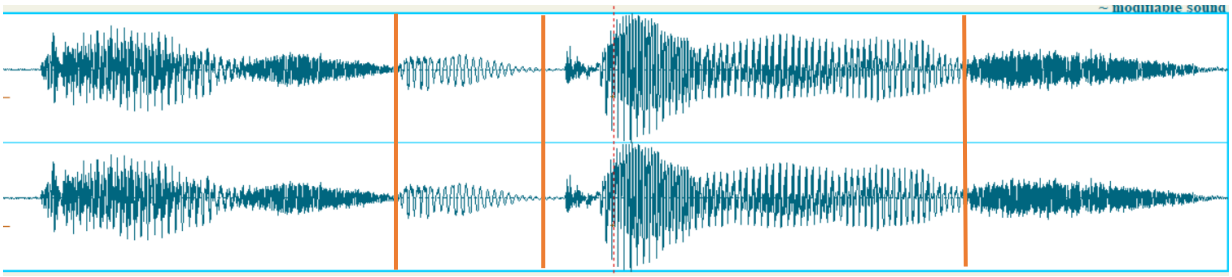
In this case, the speaker did not use any of the two components of prominence (pitch and intensity) to emphasize the stressed syllable.



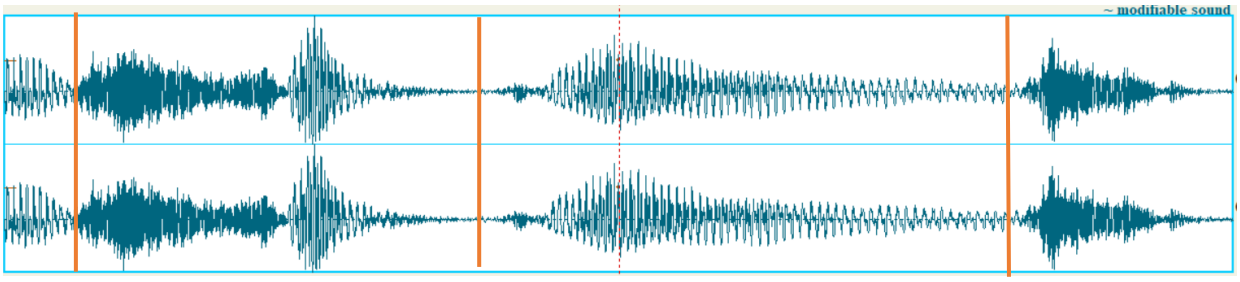
The native speaker´s pronunciation of the word also reveals that pitch stays neutral on both syllables, failing to clarify the stress pattern. While intensity might be stronger on the second syllable, which is not stressed, it is not a reliable attribute of stress within this particular word.



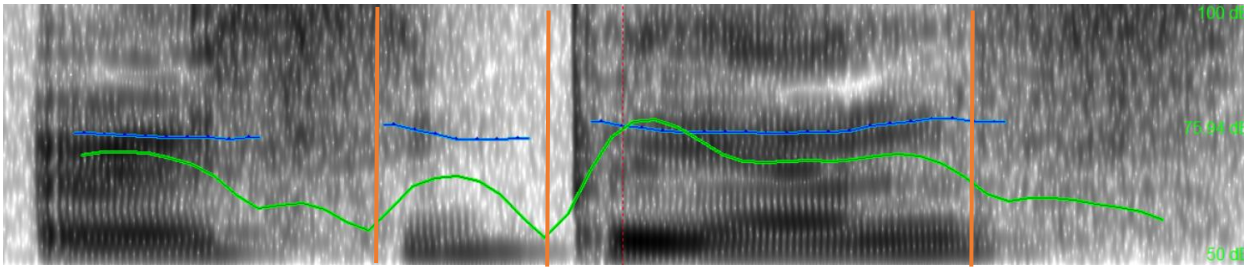
The word *recipients* was also mistakenly stressed by the speaker. It consists of four syllables and the stress is on the second one. The speaker placed the stress on the first one, making it only longer.



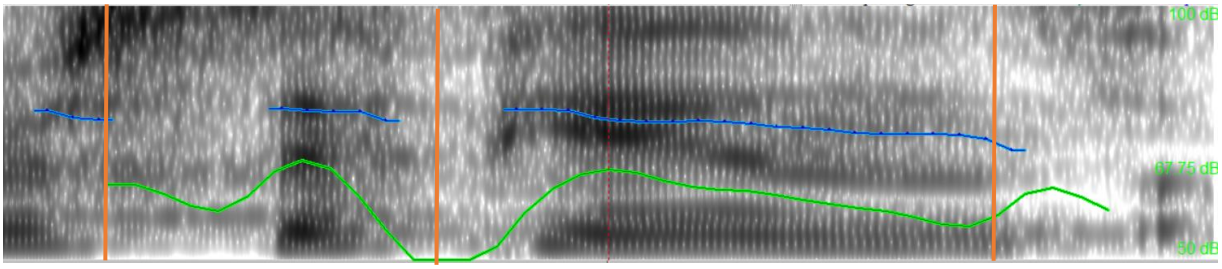
The correct representation of the word by the native speaker clearly depicts that the second syllable is stressed, using both loudness and length.



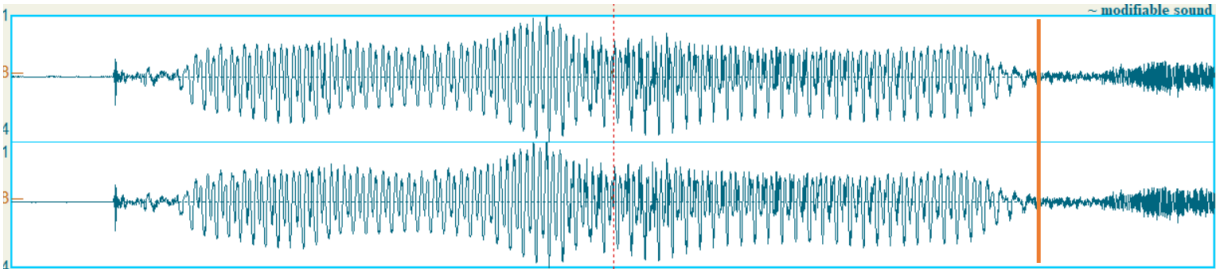
Pitch remains consistent throughout of the word and is not deemed as emphasizing the stressed syllable. Intensity appears to peak on the third syllable, which the speaker did not stress, thus not serving as credible either.



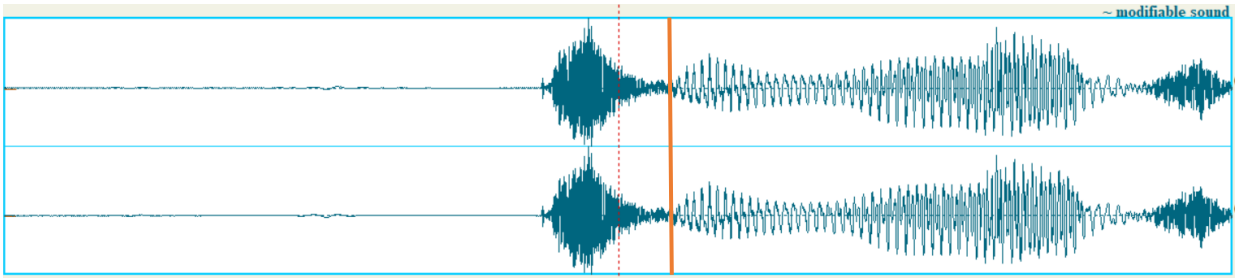
As depicted, the pitch appears neutral and does not provide any evidence of stress implication on any syllable. However, intensity peaks on the second syllable which carries the stress. The native speaker did not utilize pitch to emphasize the stressed syllable but relied solely on intensity.



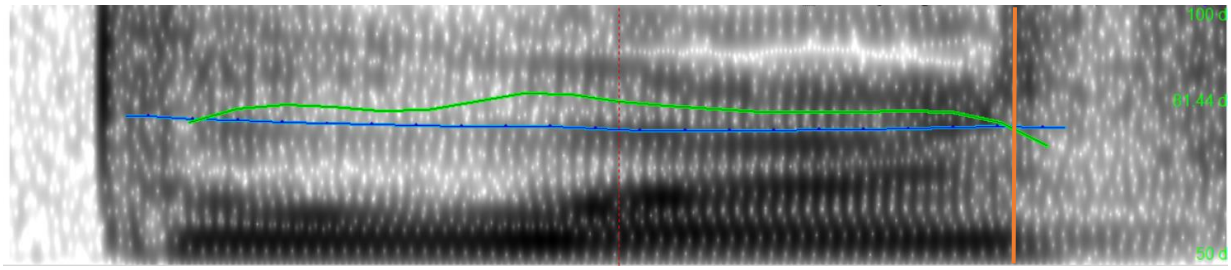
The next word is *towards*, which has two syllables and the stress is on the second one. The speaker put in on the first one, making it evidently both louder and longer.



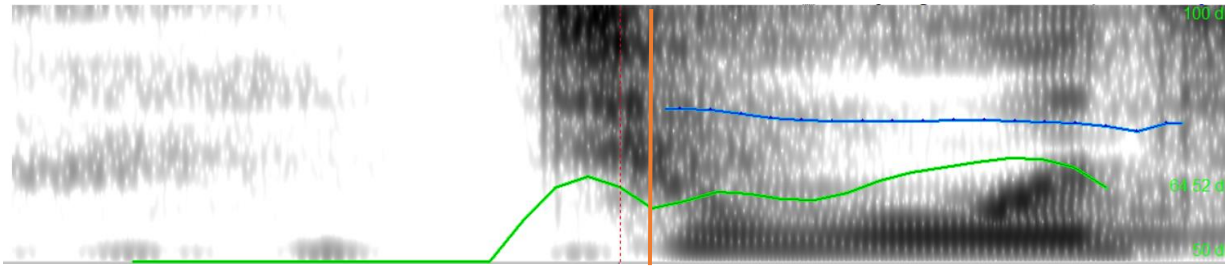
The correct representation by the native speaker where she puts the emphasis on the second syllable by both length and loudness.



The speaker encountered pronunciation difficulties with this word, particularly struggling with the second syllable, nearly omitting it. To emphasize the first syllable, she relied on intensity, with pitch appearing neutral.

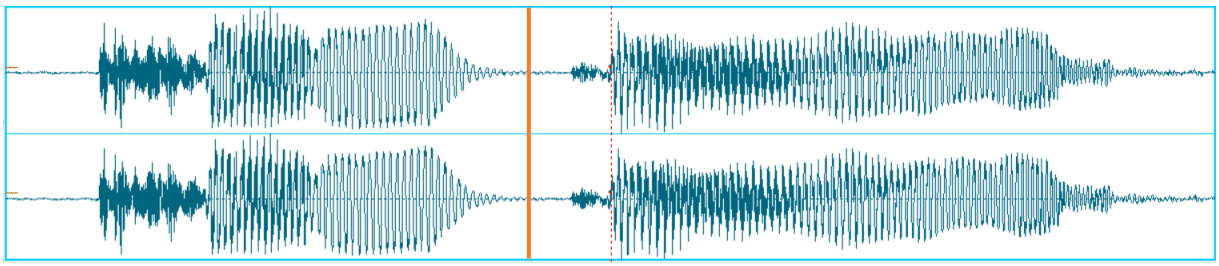


Contrasted with the native speaker, it is apparent that she employed both pitch and intensity to emphasize the second stressed syllable.

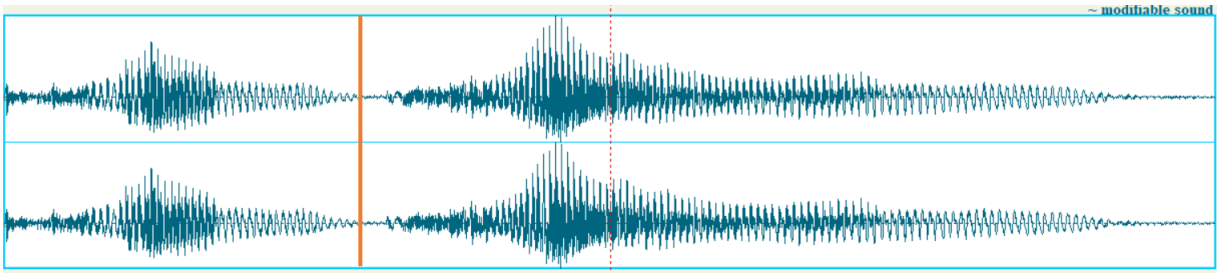


6.3.2 Speaker 6

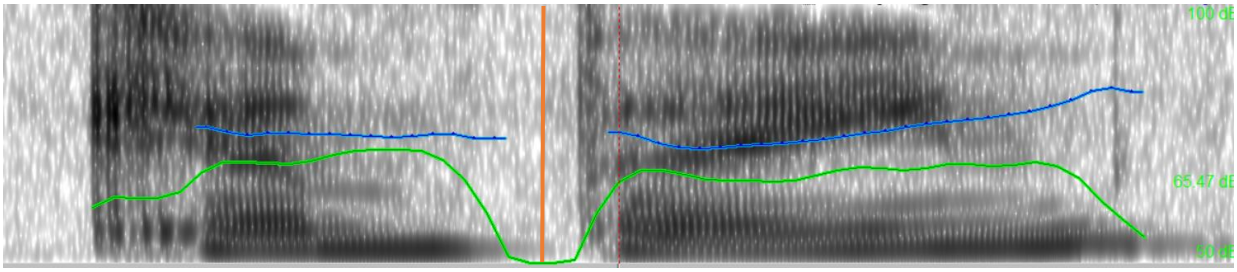
Speaker 6, a twenty-two years old female in her fourth year of studying social studies and Czech, faced her first issue with the word *campaign*, which comprises two syllables with stress on the second one. The student misplaced the stress onto the first syllable, making it perhaps louder but not longer.



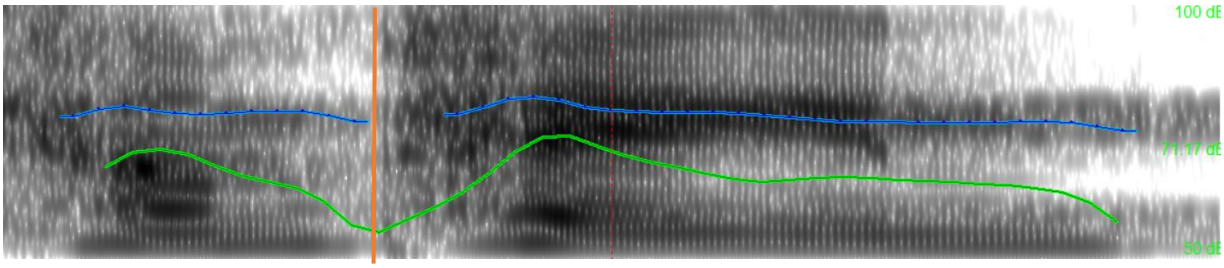
The chart shows the correct representation of the word by the native speaker, who emphasized the second stressed syllable clearly by both length and loudness.



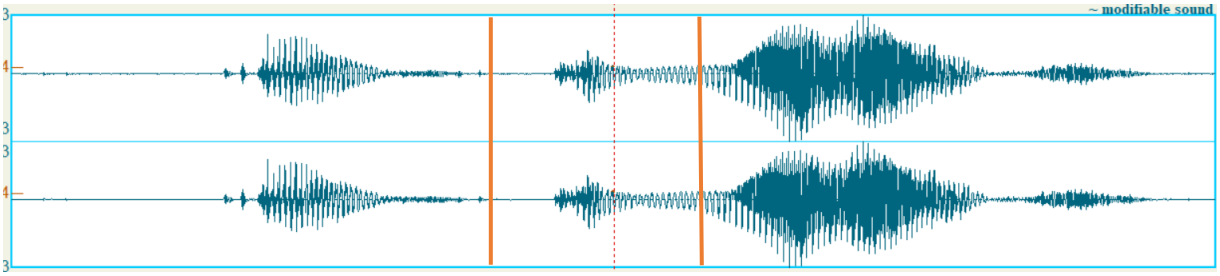
The pitch is neutral, rising towards the end of the word, hence it is not a subject for analysis here. Intensity is stronger on the first syllable which was pronounced as stressed by the speaker, thus it is used as a proof of stress.



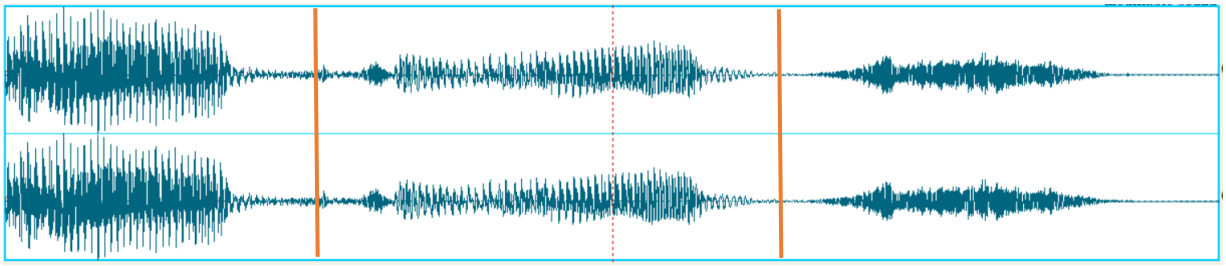
The pitch analysis of the word by the native speaker reveals neutrality with a tiny increase observed on the second syllable to highlight stress. Intensity proves to be a more reliable aspect, as indicated by the rising of the green line on the second syllable, which carries the stress. Therefore, both intensity and pitch were used to emphasize the stressed syllable.



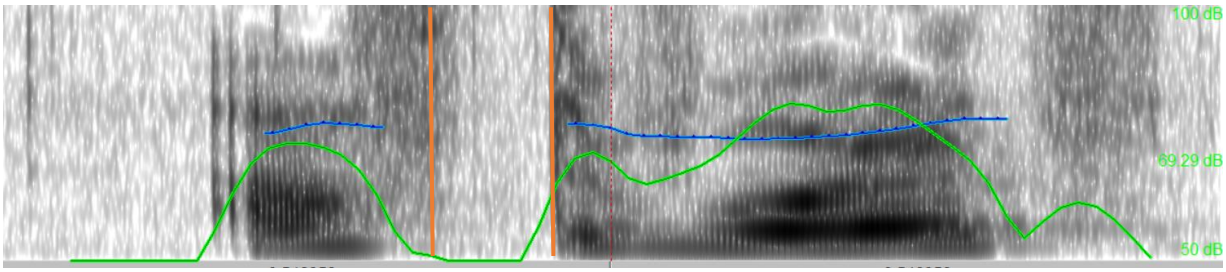
Another word is *afterwards* with two syllables and the main stress on the first one. The student wrongly put the primary stress on the third syllable. The participant emphasized the syllable by both in terms of length and loudness.



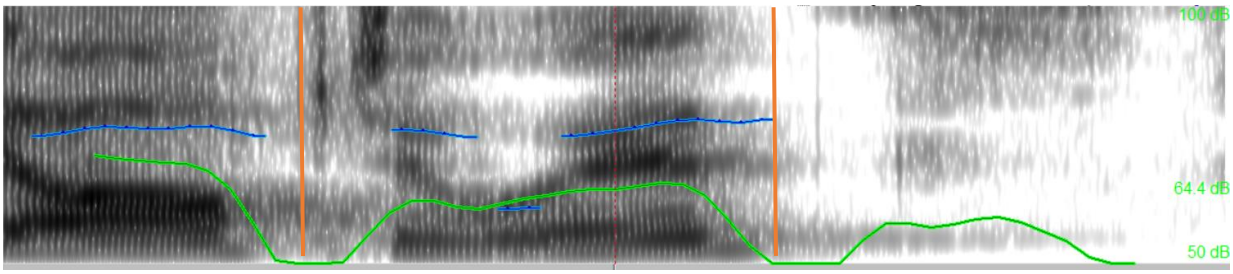
The chart shows the correct representation of the word by the native speaker, who emphasized the first syllable by both length and loudness.



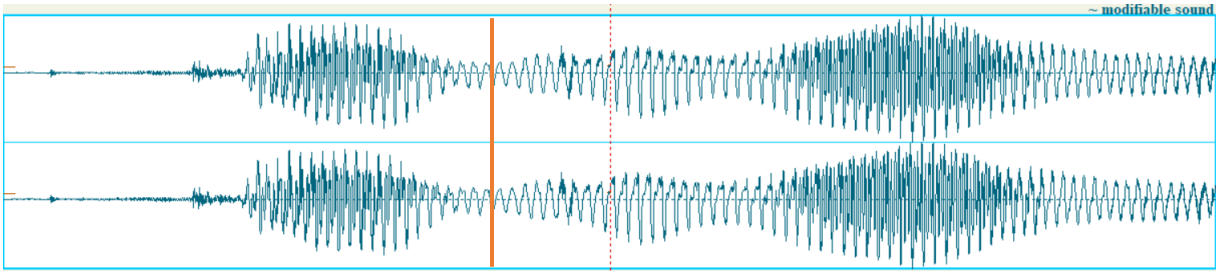
The graph indicates that pitch remains relatively stable throughout the word, with an increase towards the end. However, intensity, displays a significant growth on the third syllable which was pronounced as stressed by the speaker. Unlike pitch, intensity serves as a dependable attribute of stress.



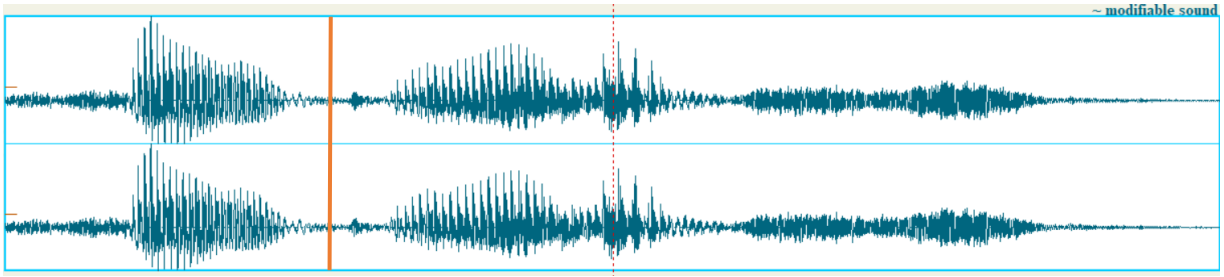
Similarly to the speaker´s pronunciation, the native speaker also avoided using a pitch movement to emphasize the stressed syllable. Instead, she relied on intensity to highlight the first stressed syllable.



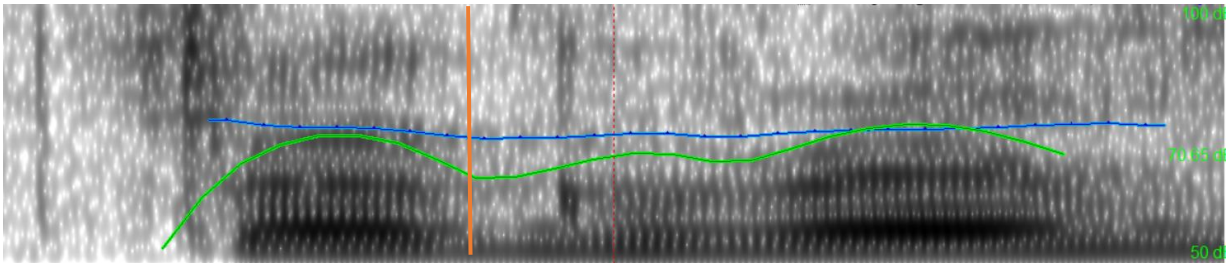
The stress placement error also occurred with the word *progress*. In the context where it was used as a noun, the main stress falls on the first syllable, yet the speaker put it on the second one making it longer.



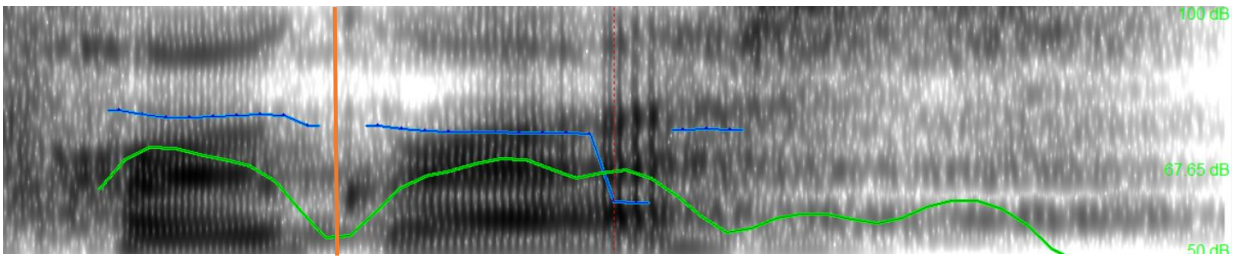
The correct representation of the word by the native speaker:



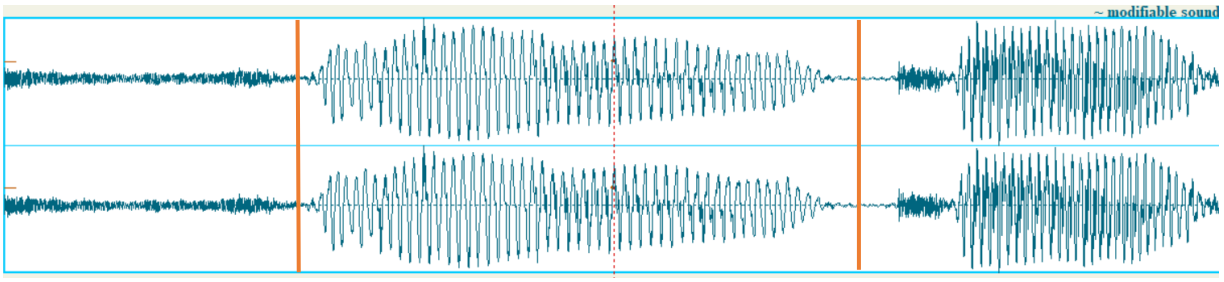
In this specific case, the speaker did not use pitch movement, as evidenced by the the blue line being on the same level for the whole duration of the word. Conversely, intensity is stronger on the second syllable and is considered to have been utilized to emphasize the stressed syllable.



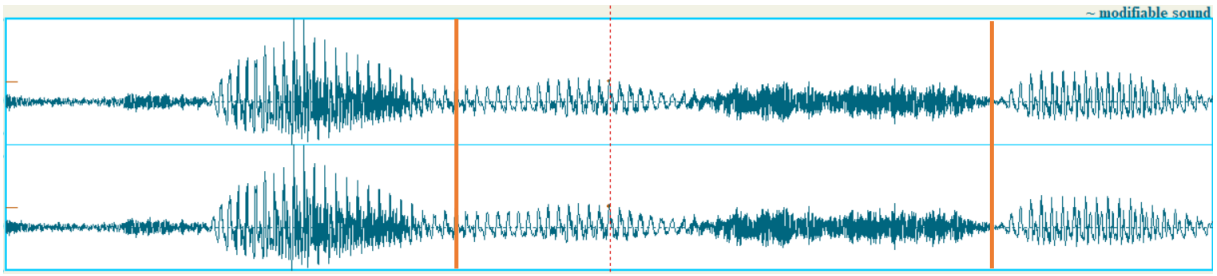
The depiction of the word pronounced by the native speaker indicates that neither pitch nor intensity were used to emphasize the stressed syllable. Both lines maintain a consistent level across both syllables, making it challenging to determine which one carries the stress solely based on pitch and intensity.



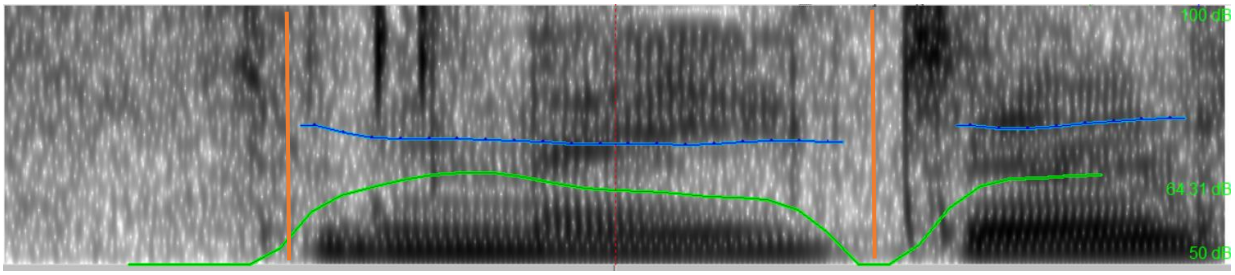
The word *senator* was also problematic for this student. As the others that misplaced the stress, the participant placed it on the second syllable while the correct position is on the first, one using length.



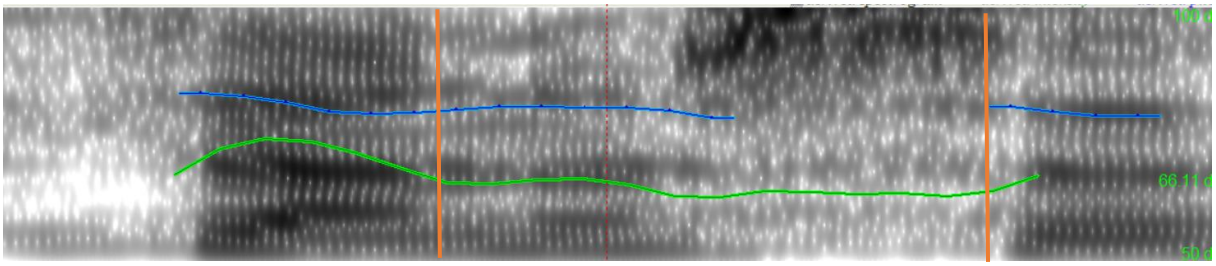
The accurate representation of the word by the native speaker:



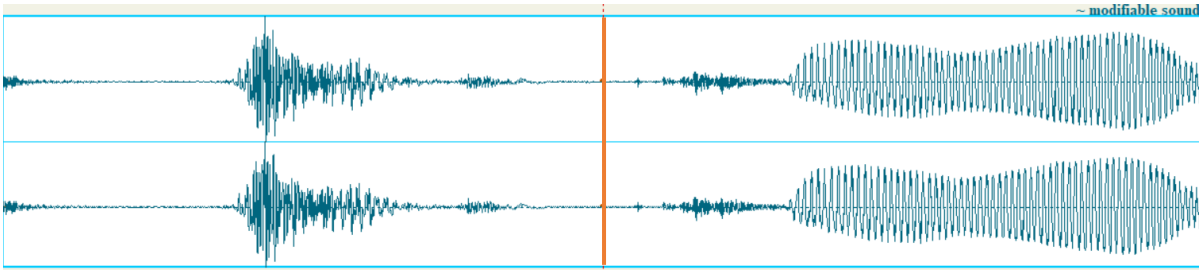
Once more, neither pitch nor intensity provide any indication of stress. Pitch stays on the same level, perhaps showing a slight rising towards the end of the word. Intensity could be perceived as stronger on the second syllable, but it also exhibits strength on the third, rendering unreliable as well.



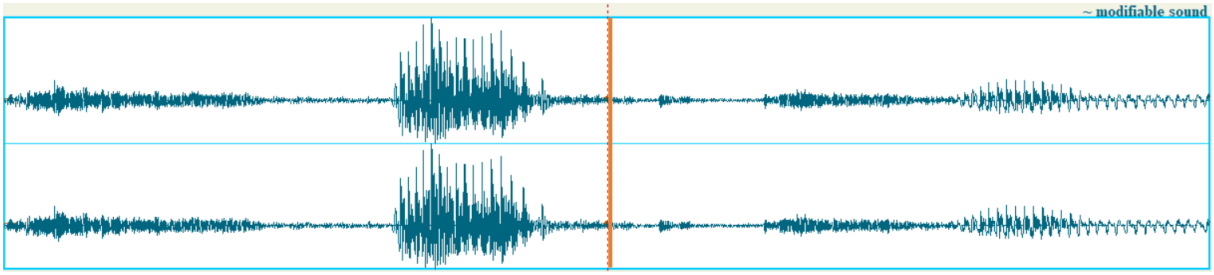
In the subsequent graph, illustrating the accurate pronunciation by the native speaker, pitch (the blue line) is once again neutral, slightly descending. The intensity, on the other hand, is undoubtedly stronger on the first syllable, which bears the main stress. Thus, pitch is not a reliable source of stress compared to intensity.



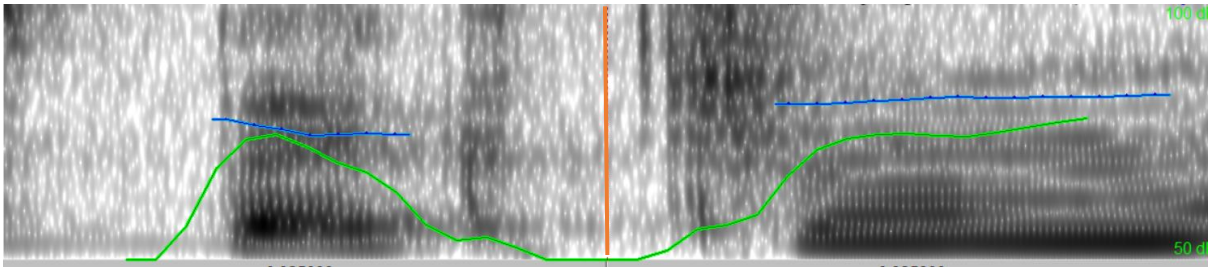
Another challenge arose with the word *spectrum* with two syllables and the stress on the first one. While the speaker correctly divided the word, she misplaced the stress on the second syllable, making it both louder and longer.



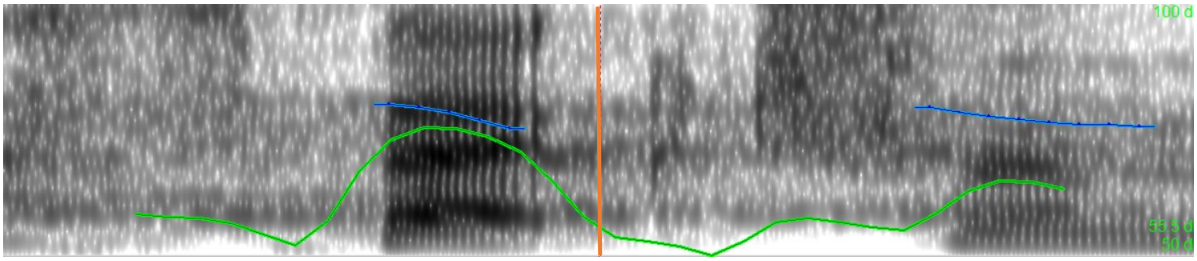
The correct representation of the word by the native speaker shows the accurate stress placement on the first syllable by using both loudness and length.



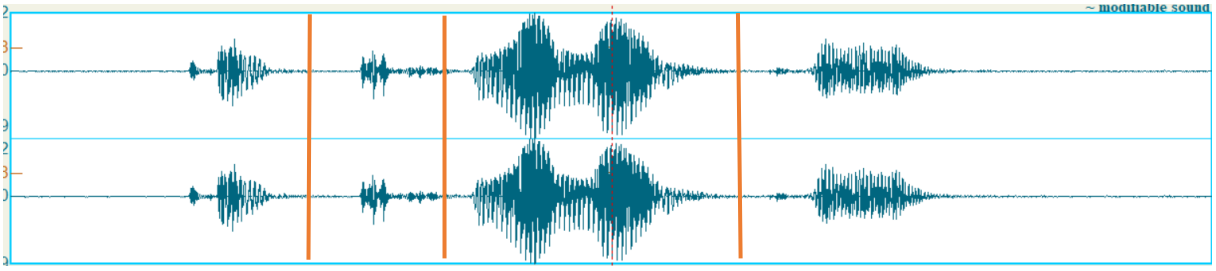
In this instance, the speaker emphasized the stressed syllable using both components of stress – pitch and intensity. As the graph below displays, both lines are elevated on the second syllable which the speaker stressed.



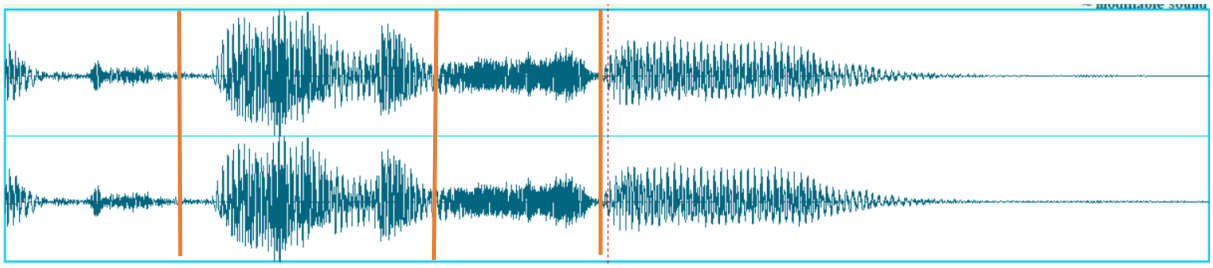
The native speaker relied primarily on intensity to emphasize the first stressed syllable, as indicated by the green line. Pitch is not reliable as it is scarcely used, perhaps exhibiting a small decline from the first syllable to the second.



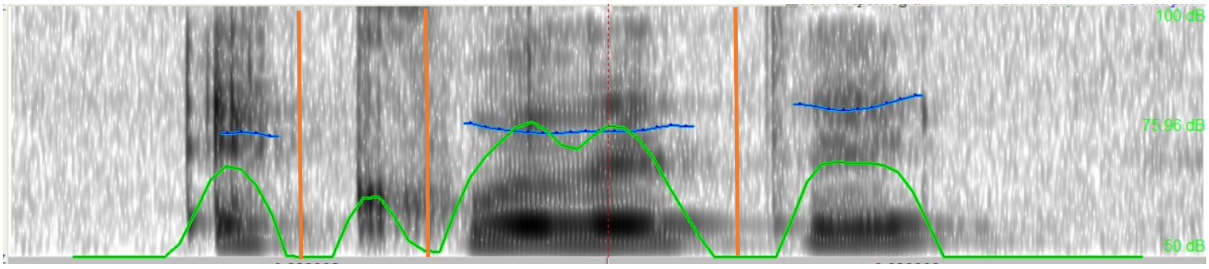
Another issue represents the word *equality*, which consists of four syllables with the main stress on the second one. Although the speaker divided it correctly, she placed the stress on the third syllable, making it both louder and longer than the other ones.



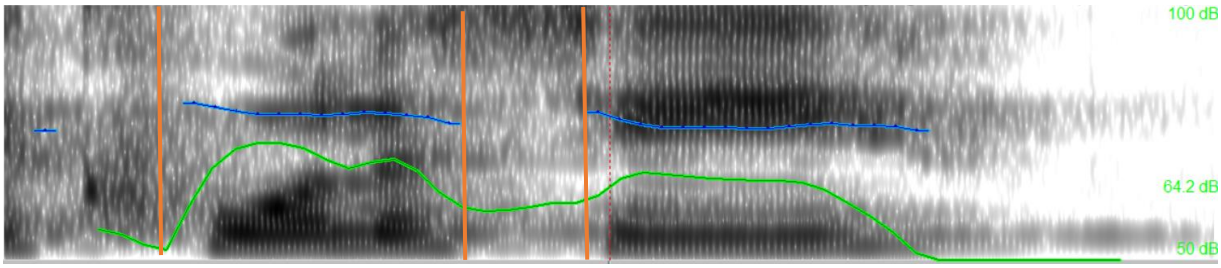
The correct representation of the word by the native speaker shows that the second one is stressed using both loudness and length.



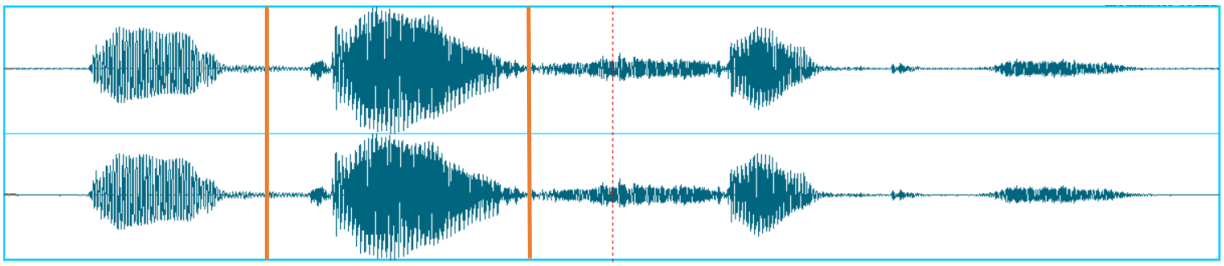
Pitch is notably ambiguous within this word – the blue line shatters and appears to rise at the end of the fourth syllable. Although, intensity seems to be strongest on the third syllable, which was pronounced as stressed by the speaker, serving as an indicator of stress.



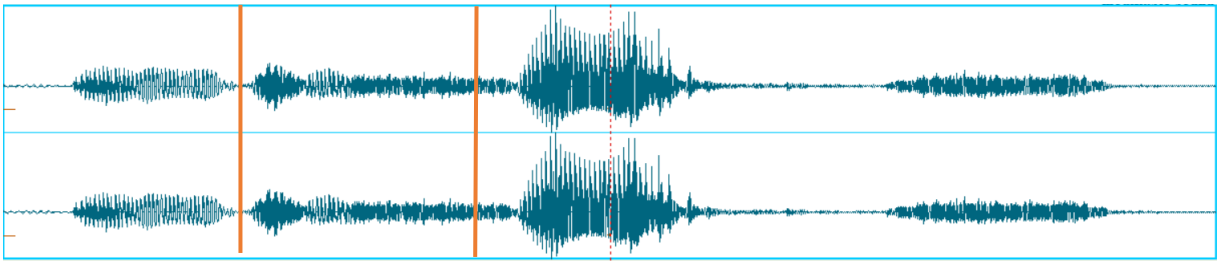
Here, pitch seems to be consistent on both the second and the fourth syllable, making it difficult to discern which one the native speaker stressed based on pitch alone. Intensity shows the most significant increase on the second stressed syllable, thus is reliable here.



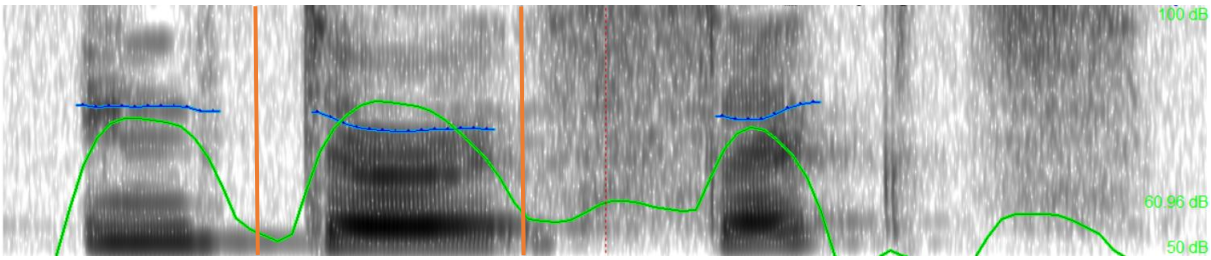
The word *intersects* also caused the wrong stress placement for the speaker. It is divided into three syllables, and the third one carries the main stress. The student wrongly placed it on the second syllable, making it perhaps louder than the other ones.



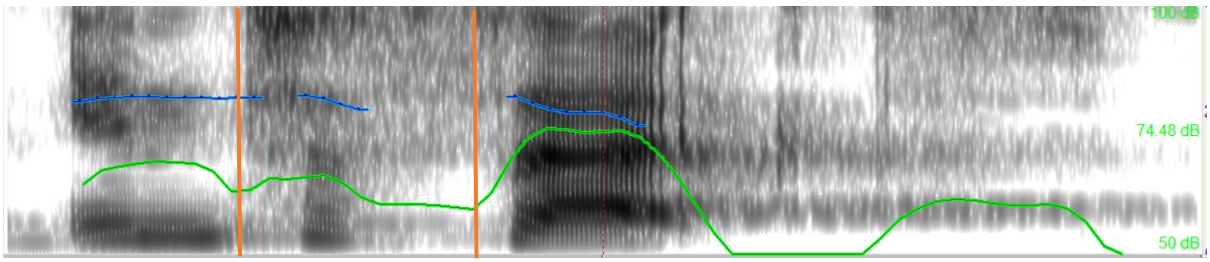
The chart provides correct representation of the word by the native speaker, who emphasized the third stressed syllable by both length and loudness.



The student´s pronunciation of the word reveals that pitch peaks on the first syllable before falling on the second one which was stressed. That is why pitch does not signify the stressed syllable here. Intensity displays an increase on the second stressed syllable, indicating its use in emphasizing the stress placement.

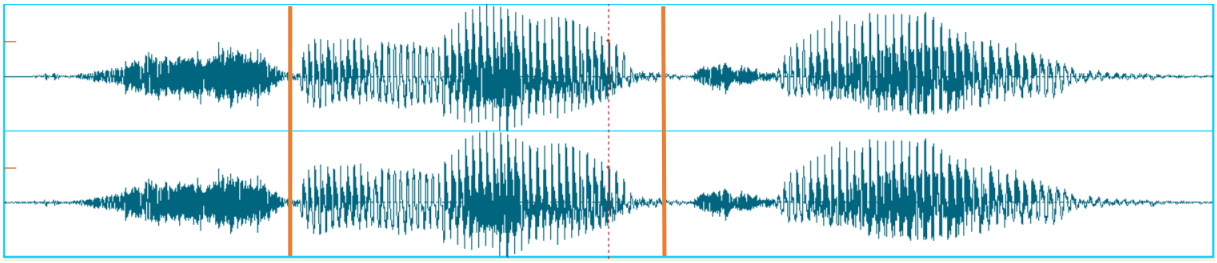


The native speaker´s pronunciation of the word signals that pitch did not mark the stressed syllable, as it falls from the first to the last stressed syllable. Intensity peaks on the last stressed syllable, making it a reliable indicator of stress.

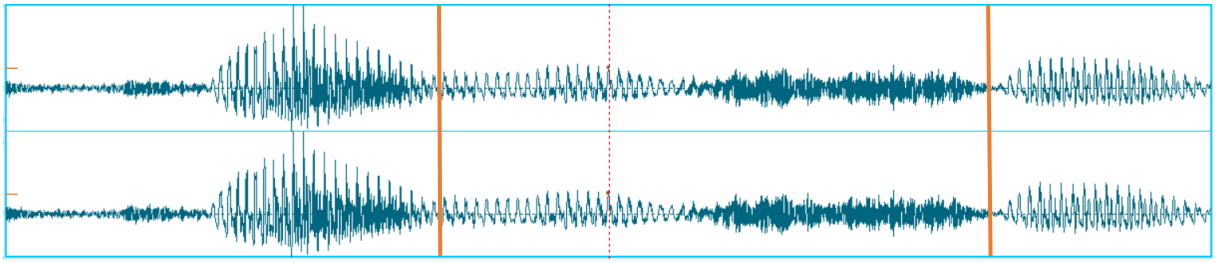


6.3.3 Speaker 7

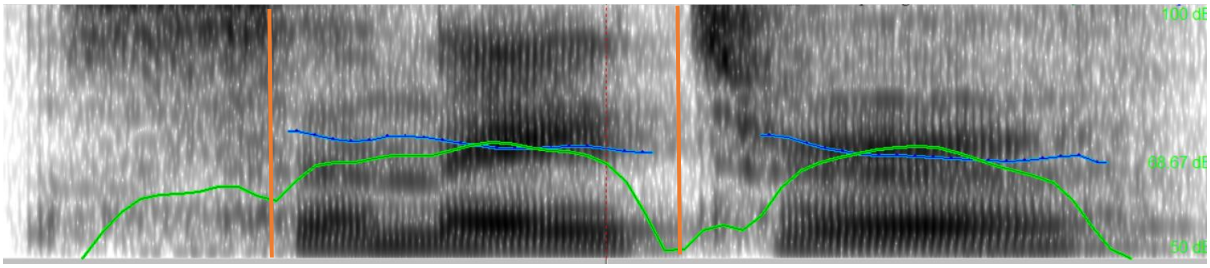
The seventh speaker is a female, twenty-two years old, studying special education. The first challenge appeared with the word *senator* where the stress was not used. The length of the syllables does not prove anything here.



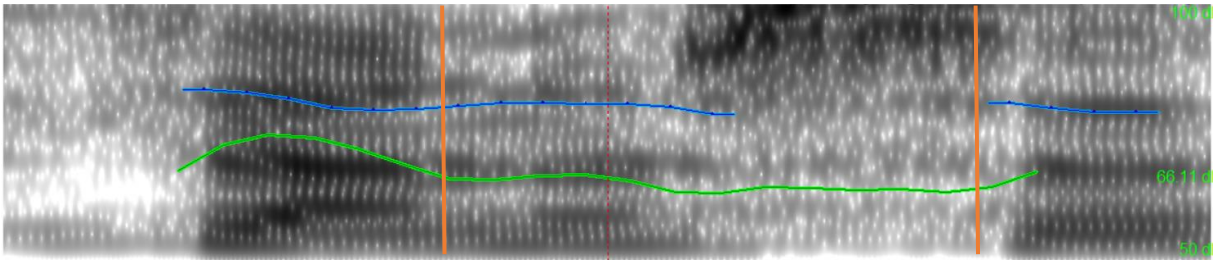
The correct representation of the word by the native speaker:



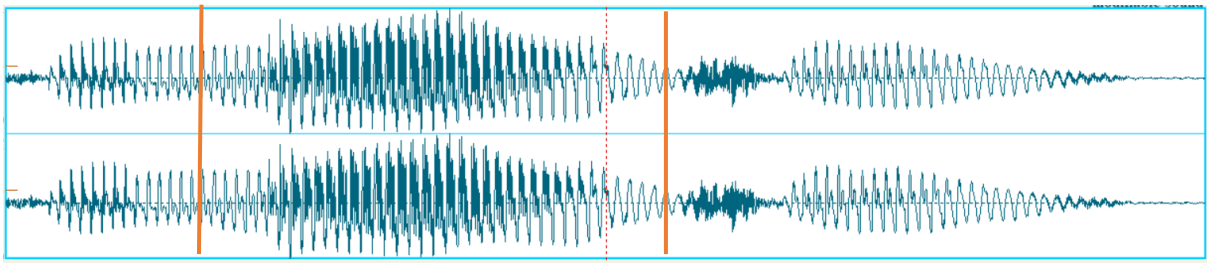
As pitch analysis implies, it stays on the same level and does not emphasize the stressed syllable. Intensity increases on the second and on the third syllable but it is difficult to guess which one of them was stressed by the speaker in the matter of intensity.



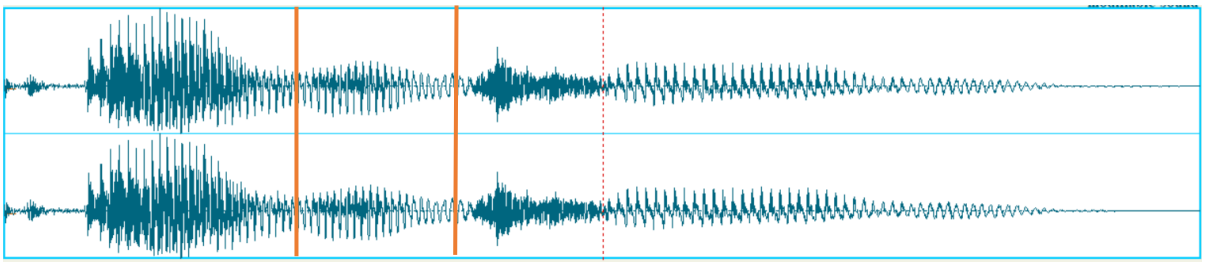
The following graph, which is a representation of the correct pronunciation by the native speaker, pitch is once again neutral, slightly falling. The intensity, on the other hand, is clearly stronger on the first syllable which carries the main stress. Therefore, pitch is not a reliable source of stress compared to intensity.



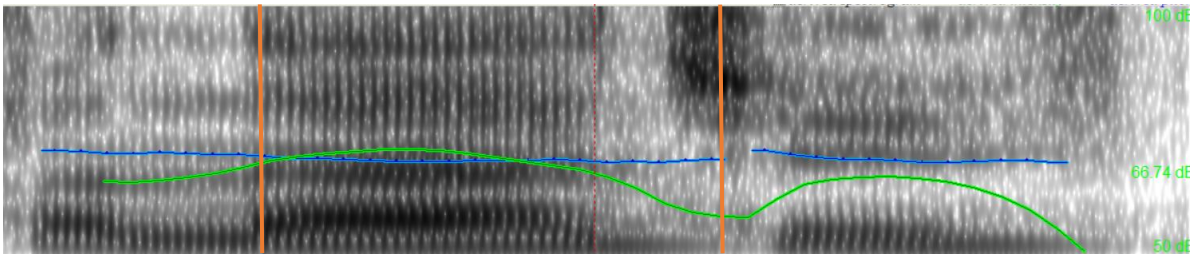
The second and last mistake was within the word *energy* that consists of three syllables and has the main stress on the first syllable. The speaker divided it correctly but put the stress on the second syllable using both length and loudness to show the prominence.



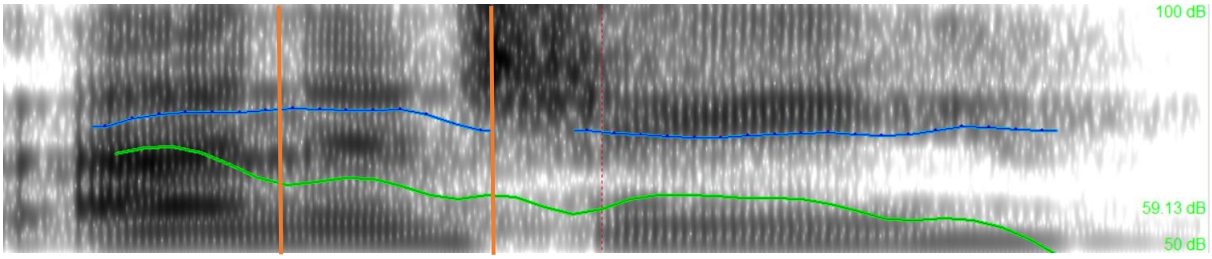
The correct placement of the word by the native speaker shows that the first syllable is stressed using both length and loudness.



The blue line representing pitch stays on the same level for the whole duration of the word and, therefore, it does not emphasize stress. Intensity, on the other hand, does. It has its increase on the second syllable which was pronounced as stressed by the speaker.

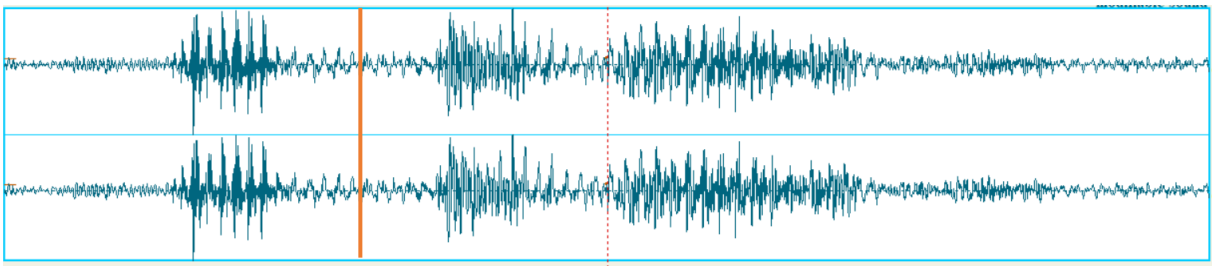


Once again, pitch proves to be an unreliable factor of stress. The pitch rises and has its peak on the second syllable which does not carry stress. However, the native speaker uses intensity to emphasize the first stressed syllable by having its strongest form on that syllable.

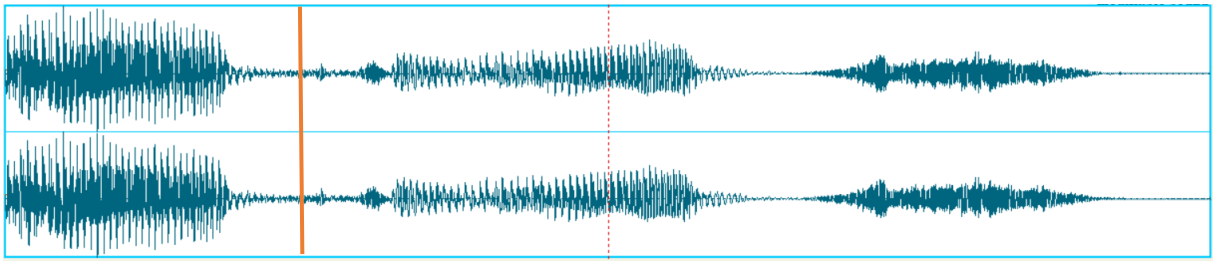


6.3.4 Speaker 8

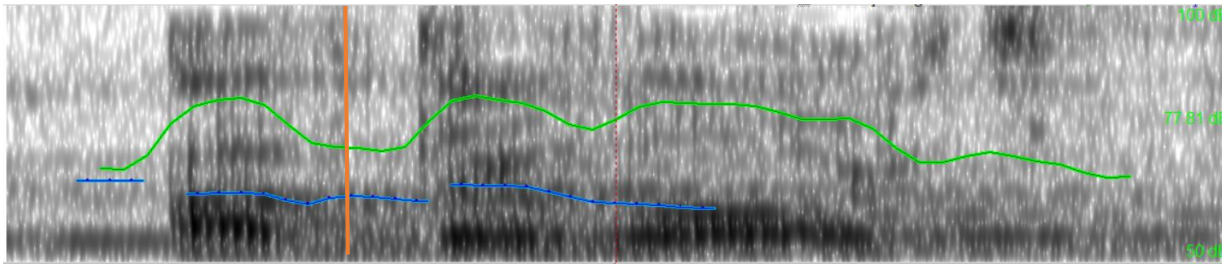
Speaker 8 is a male, twenty-two years old, studying sports and geography in the third year. The first mistake he made was with the word *afterwards*, placing the stress on the second syllable while it is on the first one. The speaker used both length and loudness to emphasize the stress.



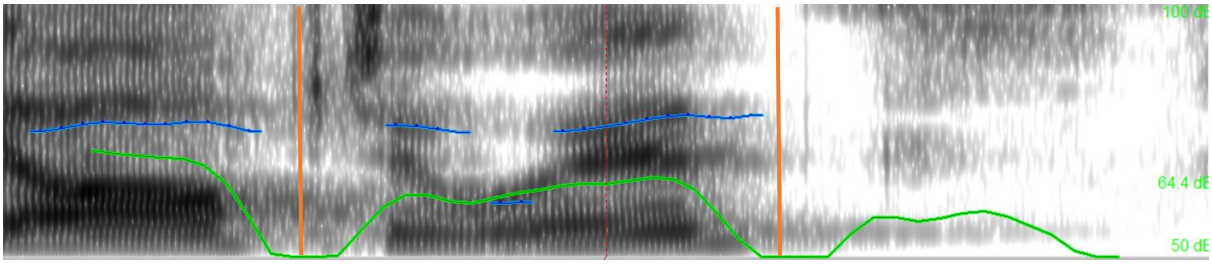
The correct representation of the word by the native speaker displays the stress by making it significantly louder but not longer.



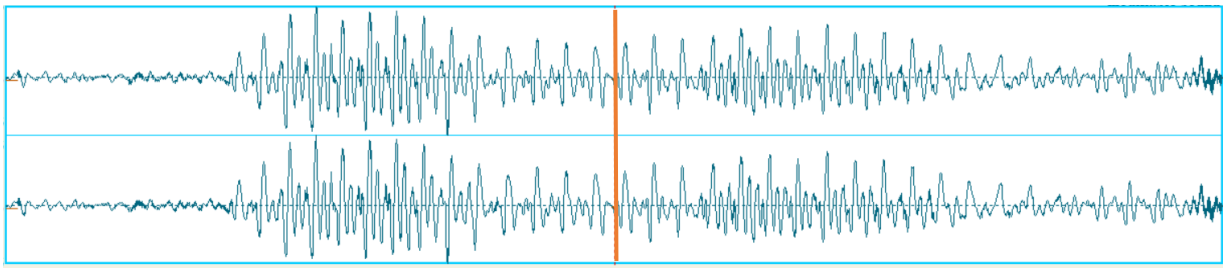
In this case, the speaker used both pitch and intensity for emphasis of the stress. Pitch rises and intensity also grows on the second syllable.



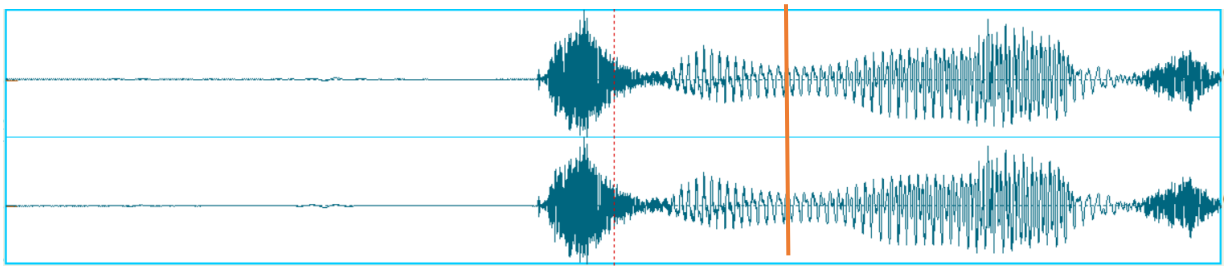
The native speaker did not use a pitch movement to emphasize the stressed syllable. However, she used intensity for emphasis on the first stressed syllable.



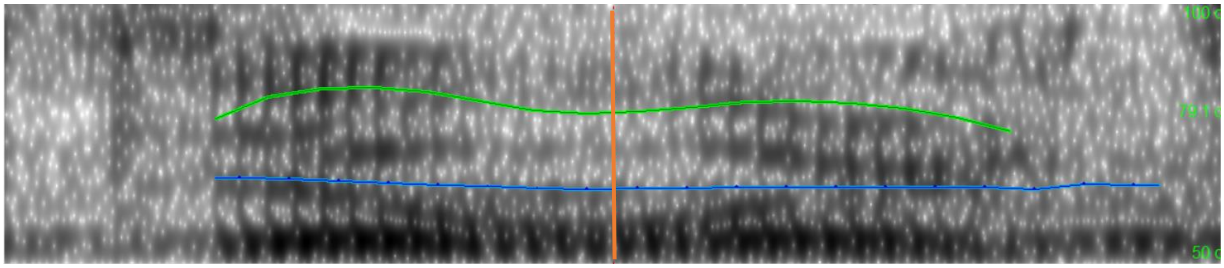
The second and last problem was with the word *towards* that has two syllables and the main stress placed on the second one. The speaker divided it correctly but placed the stress on the first syllable, making it perhaps louder.



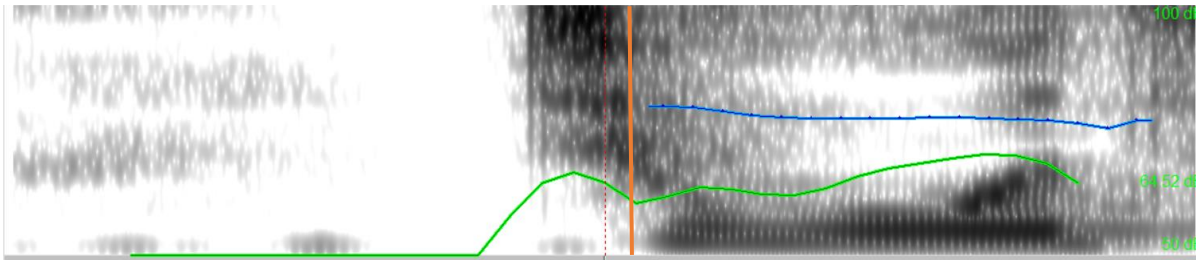
The correct representation of the word by the native speaker shows putting the emphasis on the second stressed syllable using both loudness and length.



In this case, pitch does not emphasize the stressed syllable by being neutral for the whole duration. Intensity is slightly stronger on the first syllable which was pronounced as stressed by the speaker and, therefore, emphasizes stress.



In comparison with the native speaker, one can see that she used both pitch and intensity to emphasize the second stressed syllable.



6.4 Analysis

This part is dedicated to the results of the incorrectly stressed words by the eight university students. The first group of words contains the ones that were not stressed correctly because of the wrong division. The first one was *simultaneously*. This word includes six syllables, and therefore, it was no surprise it caused difficulties regarding stress placement. For both of the students who made mistakes within the word, it was a problem to divide the word into the right number of syllables, and therefore, they put the stress on the wrong syllable. The word also carries a secondary stress on the first syllable, but the main and stronger one is on the third syllable. The second problem arose with the word *ideal*, which contains three syllables *i-de-al*, and the second one carries the stress because the first one is weak. The student pronounced the word with only two syllables *i-deal*, and stressed the whole second syllable. The second reason for the misplacement was the wrong pronunciation of the word and the following wrong stressing. The only and most frequent word in this group was *senator*. All of the students that misplaced the stress within this word pronounced *a* in *senator* as *eɪ* and therefore stressed the second syllable that carries this diphthong. The last group represents the rest of the words with incorrect stress placement. Another problem, concretely for two students,

occurred with the word *progress*, which contains only two syllables, but because it can function as both a verb and a noun, it might confuse one, and that is what happened to both of the participants. They put the stress on the second syllable, which would not be incorrect in the case of the verb. However, one has to concentrate on the context when reading because it implicates the word class of the word, which in this case was a noun, and that is why the stress falls on the first syllable. Another problematic word was *campaign*. This word originates from French, which has a fixed-stress on the last syllable, and as a result, the stress in *campaign* falls on the second syllable. The word *confirmed* was also problematic for some of the students. It has only two syllables, and the stress falls on the second one because *confirmed* comes from the infinitive *confirm*, and the root is only *-firm*, which originates from Latin. The next word was *critique*, which, like a *campaign*, originates from French, and therefore, it´s main stress lies on the last syllable, which is the second one. *Afterwards* was also confusing to a few students, causing them to put stress on the second syllable. The word includes two syllables and has the main stress on the first one because it follows the pattern of adverbs, which end in *-ward* or *-wards* (such as *forward*, *backwards*) that always have a stress on the first syllable. The same pattern follows the word *towards* that was also difficult for, concretely, two students. The words *sisterhood* and *brotherhood,* which were also problematic for some, have stress on the first syllable because they are compounds, meaning they are constructed from two independent words, and in that case, the stress typically falls on the first component of the compound. Another word is *spectrum*, which comes from Latin, and often, words that originate from this language or Greek are stressed on the first syllable, such as this word. The same applies for the word *energy*, which comes from Greek and is also stressed on the first syllable. When it comes to the word *ability*, it follows a typical English stress rule, where many words that end with the suffix -ity have stress on the preceding syllable; in other words, the penultimate syllable. The same pattern follows the word *equality* and *communities* which were both problematic for some students as well. Another word was *intersect*, which contains three syllables, and carries the main stress on the second one, and that is because it has a prefix *-in*. Typically, words that carry prefixes are usually stressed on the syllable that comes after the prefix and not on the prefix. The last problem occurred with the word *recipients* where the stress lies on the second syllable because words that end in *-ent* or *-ient* and words with this suffix typically have stress on the preceding syllable, which in this case is the second one.

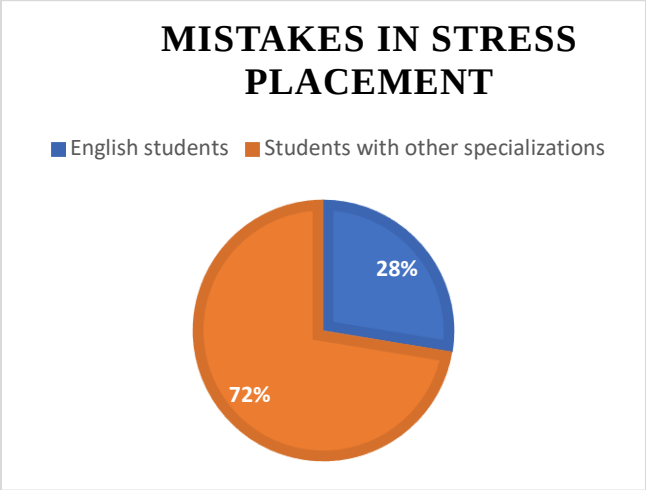
The table below illustrates every word with stress misplacement done by the participants. It focuses on whether they used the features of stress when they misplaced it on other syllables. It also displays every word´s correct representation of the pronunciation by the native speaker and which features were used to emphasize stress by her.

Participant	Word	Pitch	Intensity/ Loudness	Length
Speaker 1	Senator	-	+	+
Speaker 3	Senator	-	-	+
Speaker 5	Senator	+	+	+
Speaker 6	Senator	-	-	+
Native speaker	Senator	+	+	Not clear
Speaker 2	Simultaneously	-	+	-
Speaker 5	Simultaneously	-	+	+
Native speaker	Simultaneously	-	+	-
Speaker 2	Progress	+	+	+
Speaker 6	Progress	-	+	+
Native speaker	Progress			
Speaker 4	Campaign	+	-	-
Speaker 6	Campaign	-	+	-
Native speaker	Campaign	+	+	+
Speaker 4	Confirmed	+	-	-
Native speaker	Confirmed	+	+	+
Speaker 5	Critique	-	+	+
Native speaker	Critique	+	+	+
Speaker 5	Sisterhood	+	+	+

Native speaker	Sisterhood	+	-	-
Speaker 5	Recipients	-	-	+
Native speaker	Recipients	-	+	+
Speaker 5	Towards	-	+	+
Speaker 8	Towards	-	+	-
Native speaker	Towards	+	+	+
Speaker 6	Afterwards	-	+	+
Speaker 8	Afterwards	-	+	-
Native speaker	Afterwards	-	+	+
Speaker 6	Spectrum	+	+	+
Native speaker	Spectrum	-	+	+
Speaker 6	Equality	-	+	+
Native speaker	Equality	-	+	+
Speaker 6	Intersects	-	+	-
Native speaker	Intersects	-	+	+
Speaker 7	Energy	-	+	+
Native speaker	Energy	-	+	+

As the table displays, the factor most commonly used to emphasize stress is intensity. Among eight participants it was used seventeen times. Following closely with fifteen instances was length, and the least utilized aspect was pitch, which speakers employed only six times.

The graph below illustrates the result of the mistakes made by both groups of the participants.



7 Discussion

The discussion section of the thesis addresses the research questions established in the introduction part. The first research question sought to find out what type of words are causing the most problems. The answer to that is that the majority of words with wrong stress placement were two-syllabic words, precisely seven out of eighteen. As mentioned in the theoretical part, words that contain two syllables typically carry stress either on the first or the second syllable, but not both. Consequently, the likelihood of misplacing the stress is lower compared to words with more syllables. Following closely were six words with three syllables, which is unsurprising given the potential challenges in correctly identifying the stress pattern, particularly in distinguishing between simple words and those with affixes. The last group was five words with more than three syllables in total.

The second question aimed to find the causes of misplacing the stress. There were three in total: wrong division, wrong pronunciation and wrong stress placement in general. Moreover, the third option was the most frequent one.

Another research question asked how students utilized stress features for emphasis, concretely pitch, intensity, and length, either individually or in combination, or not at all, rendering stress detection impossible. Findings from the practical part revealed that students predominantly relied on intensity, articulating the stressed syllable louder than others. Length was the second most used feature, while pitch was the least employed. Moreover, the research also proved that they used them combined in all possible variations. Nevertheless, compared to the native speaker´s performances, they hardly used all of them. However, in some particular cases, the

students did not use any stress feature, making it impossible to determine the stressed syllable, specifically in words like *communities, ability, confirmed, ideal*, and *senator*.

The next question was whether the mistakes in stress placement were caused by L1 transfer, and as a consequence, the participant put the stress on the first syllable (according to the Czech stress system). Out of twenty-nine mistakenly stressed words, only six of them were given the stress on the first syllable. It shows that despite the students not being native speakers of English, the reason for misplacing the stress was not the cause of the rule of Czech stress system.

The last research question dealt with how English students differ in a number of mistakes they make compared to students with other specializations. The results proved that students who study English as their major were more successful, making only 28% of all mistakes, while students, who do not study English made 72%. Considering the differences in the level of English of both groups, one might have predicted that the percentage of mistakes would likely be higher among the students of other specializations, which was confirmed.

8 Conclusion

To conclude, secondary language teaching should pay greater attention to stress patterns, especially considering the disparity between the Czech and English language systems. Polysyllabic English words often present challenges in stress placement. The research revealed that in most cases of incorrect stress placement, Czech speakers did not adhere to the expected stress pattern based on the rules of the Czech language system. Additionally, Czech learners rarely utilize more than one stress feature for emphasis. Consequently, determining stress placement in certain words pronounced by the participants was sometimes impossible, unlike in the case of the native speaker, who divides the syllables more clearly, and the stressed syllables are more recognizable. The analysis did not indicate any significant changes in pitch, length, or intensity.

Based on the research, most of the participants were successful in stress placement. The number of mistakes of the eight participants was twenty-nine in total, including six two-syllabic words and eleven words that contained more than two syllables. The results also show that students who study English made fewer mistakes than those with other specializations, which was not surprising considering the level of English being different. Despite that, the students that do not study English made twenty-one mistakes (including four words without stress placement), which was for a 4-5 minute reading an admirable result. English students misplaced stress only eight times (including two words without stress placement). The number of mistakes in stress placement was six of twenty-nine cases, which were caused by the influence of the Czech fixed-stress system, having the stress on the first syllable. In other cases, it was often caused by the mispronunciation of specific words or an incorrect division, and as a result, a wrong stress placement occurred within these words. The analyses from the research thus demonstrate that incorrect pronunciation and improper syllable division are more common causes of stress misplacement than the influence of the Czech language system, which has a fixed stress on the first syllable of a word, and would be assumed as the most frequent reason for an incorrect stress placement.

The results confirmed that stress in English is not predictable and does not have one specific rule for its application. It is superior to many factors that speakers must consider. There are, however, numerous factors that help to decide where stress lies within a word. Nevertheless, it is advised by some, that the best option is to learn it with new vocabulary. However, one must know to correctly divide a syllable into a right number before deciding where to place stress.

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Figure no.1

Ladefoged, Peter, and Keith Johnson. 2014. A course in phonetics. Nelson Education, 323.

10 List of Appendices

Appendix A: Emma Watson: I found my tribe

Appendix B: The list of problematic words

10.1 Appendix A

Emma Watson: I found my tribe

Two years ago, I launched a campaign called HeforShe at the U.N. in New York. I was very nervous before that speech. The nerves were followed by a tremendous high immediately afterwards and a crushing low, a few days after that. My best hopes and my worst fears were confirmed all at once. I had opened Pandora´s Box to a standing ovation and almost simultaneously a level of critique I had never experienced in my life and the beginning of what would become a series of threats. The last two years have been a baptism of fire, to say the least. Where I learned just how little I know and also how much. It was my scary first step as an activist: a word I never imagined that I would use to describe myself.

So, reading the applications of activists who applied here for One Young World scholarships was surprising to me. Here I was reading the stories of people from nearly 200 different countries from around the world with experiences that I couldn´t even imagine. I mean, I really just… they were so out of this world to me, and yet, their notes looked like my notes. The same themes emerged over and over and over again. There was so much overlap with the things that I had been thinking about and that I had been struggling with. Because the truth is, it had never been about being an activist; it was about the choice to make myself visible and the choice that you made to do that too. Apart from the significant progress the world has made in the cause for equality, the best thing about the last two years has been this. Finding people from such disparate experiences and communities that I found that I have something in common with. This is a community of artists, spiritual teachers, dreamers, thinkers, doers, who work together and support each other. For the first time in my life, I found my sisterhood; a brotherhood, whatever, however you want to describe it. I found my tribe. My hope for you while you are here is that you will find some of your tribe too. I really needed mine. Bobby Kennedy, when he was senator for New York, said: „Each time a man or woman stands up for an ideal, or acts to improve the lots of others, or strikes out against injustice, he sends forth a tiny ripple of hope. And crossing each other from a million different centers of energy, those ripples build a current that can sweep down the mightiest wall of oppression and resistance “. That´s what we are doing. We the entire spectrum of the feminist movement are building an unstoppable current for which we need ripples of hope from every age, race, ability, walk of life, from every human experience. I feel gender equality is as important as any of the other goals that we are here to discuss. And actually, if anything, it is even more important because it intersects with every single other issue that we face. We all have feminine and masculine energies within us, and

both forces need to be lifted up, respected. They need to work together in order to make the world go round. Each of you are here at One Young World because you do something important. And it is so exciting to see you all come together in one room because One Young World isn´t about saying what I, each of us individually, can do, but what we can do, working together, supporting and listening to each other.

It´s in that spirit that I am delighted to introduce nine activists who are the first recipients of a One Young World scholarship that I´m very honored to have in my name. They are working to secure real progress towards a gender equal world, and I hope that their stories will inspire you as much as they have inspired me.

10.2 Appendix B

List of problematic words

Ability, afterwards, brotherhood, campaign, communities, confirmed, critique, energy, equality, ideal, intersects, progress, recipients, senator, simultaneously, sisterhood, spectrum, towards