



# The Phonetic Production of Selected English Accents Among TUL Students of English for Education in the Third Year

## Bakalářská práce

*Studijní program:*

B7507 Specializace v pedagogice

*Studijní obory:*

Anglický jazyk se zaměřením na vzdělávání

Španělský jazyk se zaměřením na vzdělávání

*Autor práce:*

**Nikola Horčíčková**

*Vedoucí práce:*

Mgr. Pavel Čanecký

Katedra anglického jazyka





## Zadání bakalářské práce

# The Phonetic Production of Selected English Accents Among TUL Students of English for Education in the Third Year

*Jméno a příjmení:* **Nikola Horčíčková**  
*Osobní číslo:* P18000687  
*Studijní program:* B7507 Specializace v pedagogice  
*Studijní obory:* Anglický jazyk se zaměřením na vzdělávání  
Španělský jazyk se zaměřením na vzdělávání  
*Zadávací katedra:* Katedra anglického jazyka  
*Akademický rok:* **2020/2021**

### Zásady pro vypracování:

#### Cíle práce:

Bakalářská práce bude analyzovat užití vybraných anglických akcentů mezi studenty třetího ročníku oboru Anglický jazyk se zaměřením na vzdělávání. Práce se zaměřuje na standardní britskou angličtinu (RP) a standardní americkou angličtinu (GenAm). Bude rozdělena do dvou částí. V teoretické části budou definovány základní rozdíly mezi oběma akcenty, a to výhradně z fonetického hlediska. Praktická část si bude klást za cíl zodpovědět dvě otázky. První ústřední otázkou bude, jakému ze dvou přízvuků dávají studenti přednost, a to jak z hlediska percepce (poslech), tak produkce (výslovnost). Druhou ústřední otázkou bude zjistit na základě fonetické analýzy, do jaké míry se tito studenti ve svém mluveném projevu skutečně blíží jednomu či druhému akcentu.

#### Metody:

Zkoumaný vzorek se bude skládat výlučně ze studentů třetího ročníku oboru Anglický jazyk se zaměřením na vzdělávání v prezenčním bakalářském studiu. V praktické části bude vytvořen dotazník, pomocí kterého budou získána data ohledně lingvistického pozadí zkoumaných subjektů. Pro účely zkoumání mluveného projevu čili produkce řeči bude pořízen hlasový záznam respondentů. Hlasové záznamy budou poté z fonetické perspektivy hodnoceny jak rodilými, tak nerodilými mluvčími se zřetelem na detekci proměnlivosti ve výslovnosti.

Rozsah grafických prací:  
Rozsah pracovní zprávy:  
Forma zpracování práce:  
Jazyk práce:

tištěná/elektronická  
Angličtina



### Seznam odborné literatury:

- COLLINS, Beverly and MEES Inger M. 2003. *The Phonetics of English and Dutch*.
- DAVIES, Christopher. *Divided by a Common Language: A Guide to British and American English*. Boston: Houghton Mifflin Harcourt, 2007.
- HUGHES, Arthur, Peter TRUDGILL and Dominic WATT. *English accents and Dialects: An Introduction to Social and Regional Varieties of English in the British Isles*. London: Routledge, 2013.
- LEWIS, Jack Windsor. *A concise pronouncing dictionary of British and American English*.
- MATTHEWS, Brander. *A Standard of Spoken English*. *The North American Review* 203, no. 727 (1916): 895-903. Accessed September 10, 2020. <http://www.jstor.org/stable/25108846>.
- POUND, Louise. *British and American Pronunciation: Retrospect and Prospect*. *The School Review* 23, no. 6 (1915): 381-93. Accessed September 11, 2020. <http://www.jstor.org/stable/1076278>.
- ROACH, Peter. *English phonetics and phonology: A practical course*. Cambridge University Press, 2009.
- TRUDGILL, Peter, Jean HANNAH 2017. *International English: a guide to varieties of English around the world*. London: Routledge, Taylor & Francis Group.
- WELLS, J. C. 1982. *Accents of English: Volume I: An Introduction*. New York: Cambridge University Press.
- WELLS, J. C. 1982. *Accents of English: Volume III: Beyond the British Isles*. New York: Cambridge University Press.
- ZANDVOORT, R. W. *Standards of English in Europe*. *American Speech*, vol. 9, no. 1, 1934, pp. 3–10. Accessed September 10, 2020. [www.jstor.org/stable/451978](http://www.jstor.org/stable/451978).

Vedoucí práce: Mgr. Pavel Čanecký  
Katedra anglického jazyka

Datum zadání práce: 18. září 2020  
Předpokládaný termín odevzdání: 15. prosince 2021

prof. RNDr. Jan Pícek, CSc.  
děkan

L.S.

Mgr. Zénó Vernyik, Ph.D.  
vedoucí katedry

## Prohlášení

Prohlašuji, že svou bakalářskou práci jsem vypracovala samostatně jako původní dílo s použitím uvedené literatury a na základě konzultací s vedoucím mé bakalářské práce a konzultantem.

Jsem si vědoma toho, že na mou bakalářskou práci se plně vztahuje zákon č. 121/2000 Sb., o právu autorském, zejména § 60 – školní dílo.

Beru na vědomí, že Technická univerzita v Liberci nezasahuje do mých autorských práv užitím mé bakalářské práce pro vnitřní potřebu Technické univerzity v Liberci.

Užiji-li bakalářskou práci nebo poskytnu-li licenci k jejímu využití, jsem si vědoma povinnosti informovat o této skutečnosti Technickou univerzitu v Liberci; v tomto případě má Technická univerzita v Liberci právo ode mne požadovat úhradu nákladů, které vynaložila na vytvoření díla, až do jejich skutečné výše.

Současně čestně prohlašuji, že text elektronické podoby práce vložený do IS/STAG se shoduje s textem tištěné podoby práce.

Beru na vědomí, že má bakalářská práce bude zveřejněna Technickou univerzitou v Liberci v souladu s § 47b zákona č. 111/1998 Sb., o vysokých školách a o změně a doplnění dalších zákonů (zákon o vysokých školách), ve znění pozdějších předpisů.

Jsem si vědoma následků, které podle zákona o vysokých školách mohou vyplývat z porušení tohoto prohlášení.

15. července 2022

Nikola Horčíčková



## **Anotace:**

Tato bakalářská práce pojednává o akcentech anglického jazyka, se kterými se studenti mohou nejčastěji setkat – Received Pronunciation a General American English. Práce zkoumala, jaký akcent preferují studenti třetího ročníku oboru Anglický jazyk se zaměřením na vzdělávání na Technické univerzitě v Liberci z hlediska percepce a produkce. Klíčovou otázkou bylo, zda se tito studenti přibližují ve svém mluveném projevu preferovanému akcentu. Potřebná data byla získána prostřednictvím dvou metod. Nejprve byl vytvořen dotazník, jehož cílem bylo odhalit lingvistické pozadí zkoumaných studentů a zjistit, jaký akcent preferují, co se percepce a produkce týče. Poté byly pořízeny hlasové záznamy zkoumaných studentů. Nahrávky byly následně ohodnoceny rodilými a nerodilými mluvčími angličtiny. Dále byla fonetická analýza nahrávek provedena pomocí programu pro analýzu řeči PRAAT. Tato fonetická analýza ukázala, zda se daný student ve svém mluveném projevu skutečně přibližuje preferovanému akcentu, který uvedl v dotazníku.

## **Klíčová slova:**

Akcent, Received Pronunciation, General American English, fonetická analýza, studenti TUL, výslovnost, PRAAT

**Abstract:**

This bachelor's thesis focuses on the English accents that learners can most often encounter - Received Pronunciation and General American English. It examines which accent third-year students of the English for Education bachelor's degree program at the Technical University of Liberec preferred in terms of perception and production. The principal aim was to ascertain whether these students approach the preferred accent in their speech. The necessary data were obtained using two methods. Firstly, a questionnaire was created with the purpose of outlining the respondents' linguistic background and presenting which accent they preferred regarding both perception and production. Secondly, the voice recordings of the respondents were taken. The recordings were subsequently commented on and evaluated by native and non-native speakers of English. In addition, a computer program for speech analysis in phonetics PRAAT was utilized to analyze the recordings. The voice recordings demonstrated whether the students actually approached the accent they stated in the questionnaire.

**Keywords:**

Accent, Received Pronunciation, General American English, phonetic analysis, TUL students, pronunciation, PRAAT

## Table of Contents

List of Figures .....	2
List of Tables.....	3
List of Abbreviations.....	4
Introduction .....	5
1. Theoretical Background .....	7
1.1 The Difference Between Accent, Dialect, and Idiolect .....	7
1.2 EFL Learners' Accent Preferences .....	8
1.2.1 Factors Affecting Accent Preferences .....	10
1.3 On Received Pronunciation and General American English.....	12
1.3.1 Received Pronunciation (RP) .....	12
1.3.2 General American English (GenAm) .....	13
1.3.3 Phonetic Differences between RP and GenAm.....	14
1.3.3.1. Vowel System of RP and GenAm .....	14
1.3.3.2 Consonant System of RP and GenAm.....	17
2. Method .....	20
2.1 Participants .....	20
2.2 Material and Procedure.....	21
2.2.1 Questionnaire .....	22
2.2.2 Recordings .....	23
2.2.3 Assessing Recordings .....	26
2.3 Measurement.....	28
3. Results.....	33
3.1 Self-Report.....	33
3.2 Segmental Analysis .....	34
3.2.1 PRAAT .....	34
3.2.2 Auditory Assessment.....	38
3.3 Global impression.....	41
3.4 Questionnaire.....	42
3.4 Summary of Results.....	45
Conclusion .....	48
References .....	52
Appendix .....	54

## List of Figures

Figure 1 (Wells 1982, 119) - Vowel System of RP .....	14
Figure 2 (Wells 1982, 120) - Vowel System of GenAm .....	14
Figure 3 (Wells 1982, 123) – The standard lexical sets .....	17
Figure 4 (Roach 1992, 62): Chart of English consonant phonemes .....	18
Figure 5: Formants in PRAAT .....	29
Figure 6: Example of VOT .....	32
Figure 7: Ps' Self-Report.....	34
Figure 8: Phonetic values of P1 .....	35
Figure 9: Results of the phonetic analysis in PRAAT .....	37
Figure 10: Results of the selected word segments (PRAAT).....	38
Figure 11: Results of the phonetic analysis according to the AA.....	40
Figure 12: Results of the selected word segments (AA) .....	40
Figure 13: Results of the GI .....	42
Figure 14: Question 16 .....	44
Figure 15: Question 17 .....	45
Figure 16: Summary of Results (P1-P6).....	46
Figure 17: Summary of Results (P7-P12).....	46
Figure 18: Results of all investigated areas .....	47

## List of Tables

Table 1: Differences between the vowel systems of RP and GeAm .....	16
Table 2: Differences between the consonant systems of RP and GenAm.....	19
Table 3: Phonetic transcription of the selected words in RP and GenAm.....	25
Table 4: Likert scale .....	27
Table 5: Self-report of the Ps.....	33
Table 6: Number of Ps who assessed their production accurately (PRAAT)...	36
Table 7: Number of Ps who assessed their production accurately (AA).....	39
Table 8: Global Impression .....	41

## **List of Abbreviations**

AA – Auditory assessment

EFL – English as a foreign language

F1 – Formant 1

F2 – Formant 2

GenAm – General American English (accent)

GI – Global impression

P(s) – participant(s)

RP – Received Pronunciation

VOT – Voice onset time

# Introduction

Accent forms an essential feature of a person's language. Through the accent, it is possible to express one's identity and position within the social world. There are currently various approaches with regard to EFL/ESL pronunciation. Some emphasize comprehensibility and intelligibility rather than learning or teaching a specific accent or native-like pronunciation, which is considered secondary. Others still view native-like pronunciation as a desirable goal. Education and pop culture are, without doubt, also highly influential. In these two areas, British and American accents are most often encountered, at least in Europe. Since British English is used in the teaching materials of most European countries, it is not unreasonable to assume that most teachers as well as students in Europe will prefer the British accent in the classroom. What tendencies in terms of English pronunciation preferences are prevalent among Czech university students of pedagogy is surely a research-worthy question.

This thesis analyses the phonetic variation in English pronunciation among third-year students of English for Education bachelor's degree program at the Technical University of Liberec (TUL). Particular attention is given to Received Pronunciation (RP) and General American English (GenAm). The principal aim of the thesis is to examine which English accent the researched students claim to prefer in terms of both perception and production and to identify which accent the students actually approximate in their speech. Moreover, possible contributing factors to this inclination are investigated.

The thesis consists of a theoretical part and a practical part. In the theoretical part, the commonly confused terms *accent*, *dialect*, and *idiolect* are defined. In addition, factors affecting accent preferences are introduced. The following chapters

deal with phonetic differences between RP and GenAm. Here, the system of vowels and consonants of both accents are described and compared. The practical part examines the English pronunciation among the selected students. The necessary data were obtained by means of a questionnaire and voice recordings. For the purposes of this research, RP and GenAm are understood as the British-like and American-like accents.



# 1. Theoretical Background

This chapter, among other things, focuses on the definition of the commonly confused terms *accent*, *dialect*, and *idiolect*. Furthermore, the chapter presents several studies of English learners' accent preferences. Subsequently, factors affecting accent preferences are outlined. Finally, two major accents of the English language are introduced – Received Pronunciation (RP) and General American English (GenAm). The vowel and consonant systems of these two accents are described and compared.

## 1.1 The Difference Between Accent, Dialect, and Idiolect

It is essential to differentiate between *accent*, *dialect*, and *idiolect*. Although these terms are closely related, each has a different linguistic meaning. A *dialect* is a variety of language used by a particular group of people that manifests itself in spoken and written form. It includes vocabulary, grammar, and pronunciation. On the other hand, an *accent* is an element of a dialect and is limited only to pronunciation (Hughes, Trudgill and Watt 2013, 3). Dialect is, therefore, a broader concept than accent. An *idiolect* indicates an individual's linguistic preferences in terms of vocabulary, grammar, and pronunciation. In other words, each of us has our own "original" variety of language. The word idiolect is made up of two morphemes: *Idio-*, which is taken from Greek, denotes "personal, distinct," and *-lect*, which means "social variety of a language." Therefore, it can be said that although they speak the same language, two people do not have the same linguistic set (Wright, Oxford Bibliographies 2018). Idiolect is influenced by the environment in which one lives and the people he/she associates with. This bachelor's thesis focuses exclusively on accent and idiolect.

## 1.2 EFL Learners' Accent Preferences

This chapter examines the preferences of the English accent among EFL students from different parts of Europe. Firstly, it is necessary to explain the difference between the terms *ESL learners* and *EFL learners* to avoid confusion. ESL learners study English as a Second Language in a foreign country (usually in an English-speaking country). On the other hand, EFL learners study English as a Foreign Language in their home country (or any other non-English speaking country). In ESL learners' classroom, the students share a target language, whereas, in EFL learners' classroom, they share a native language (CORE Languages 2017). Nevertheless, this thesis focuses exclusively on EFL students.

The study by Hans J. Ladegaard and Itesh Sachdev (2006) investigates the language attitudes, vitality, and foreign language learning of EFL learners in Denmark. It focuses not only on the perception of RP and GenAm but also on Australian, Scottish and Cockney accents. It examines 96 EFL Danish learners and consists of three parts: a language attitude experiment, a questionnaire, and a language performance test. Students listened to recordings of five people with different English accents and then completed the questionnaire. The vast majority of respondents preferred RP. It is remarkable that the respondents not only rated this accent as the most prestigious but also considered it to be the most suitable in terms of other aspects. As Hans J. Ladegaard and Itesh Sachdev (2006, 100) write in their paper: "Not only was the RP speaker evaluated most favourably on key dimensions such as intelligence, education, leadership and self-confidence, but his language was also seen as the most fluent, the most efficient, beautiful and correct and as the most appropriate model for pronunciation." Moreover, most Danish EFL learners stated that, although they are fascinated by American culture, they do not lean towards the American accent.

Brabcová and Skarnitzl's study (2018) analyses 145 participants of Czech origin who responded to the questionnaire. In this paper, the participants answered questions relating to their attitude towards the English accent. 70 % of participants stated that they would like to have a native English accent; however, only half of them concretised which one it would be – the majority opted for RP. Some respondents also added why they want to acquire British English – it seems more sophisticated, elegant, and prestigious. Interestingly, respondents who expressed a strong preference for British English were mostly females.

Erin Carrie (2017) from Manchester Metropolitan University examined 71 Spanish nationals from the Universities of Salamanca and Valladolid. While in the previous study, participants only answered questions, participants in this study also listened to recordings with the voices of native speakers and evaluated their accents. Some voices represented the accent of RP and some GenAm. In accordance with the previous study, EFL learners were more inclined towards RP. Interestingly, students preferred the British accent when thinking rationally, but they leaned towards the American accent when it came to responding emotionally.

The aforementioned studies are instrumental for this thesis as perception and production of accents can be seen as closely related. If a person perceives one particular accent more positively than the other, it can be assumed that they will likely prefer this accent also when speaking. On the contrary, if one has a negative attitude towards a specific accent, it is unlikely that they will use the accent in their speech. Based on the previous studies, a hypothesis can be formulated that the researched students of this bachelor's thesis will similarly incline towards RP rather than GenAm in both their perception preferences and, to a certain extent, their pronunciation.

### **1.2.1 Factors Affecting Accent Preferences**

In Europe, Received Pronunciation is generally preferred and less frequently General American English (Dziubalska-Kolaczyk and Przedlacka 2008, 11). Joanna Przedlacka (2008, 18) adds that in the 20<sup>th</sup> century, RP was the most popular model accent of EFL objectives in Europe. This statement was confirmed in a study by Henderson and Frost (2012) which examined the English pronunciation teaching in Europe. The respondents were teachers from seven different countries in Europe – Finland, France, Germany, Macedonia, Poland, Spain and Switzerland. The results showed that teachers prefer RP as a model of pronunciation, however, they admit that students may have a preference for GenAm.

Another important factor related to the school environment is the tools that students use, most often textbooks. Some EFL learners conclude that if they study from RP textbooks, they will likely use RP. Nevertheless, "many foreign speakers who have learned their English pronunciation from RP textbooks and have aspirations in this direction, may believe that they speak with the British accent, when in fact their pronunciation is only an approximation to RP, and distinguishably different from it" (Brown 1991, 33). Moreover, one might presume that since these students learn RP in school, they might view it as the most intelligible accent of English. According to Brown (1991, 33-34), however, this reasoning is far from true. He claims that there are many accents that are on the same level of intelligibility as RP, such as General American English, which this bachelor's thesis will address later.

In the 20<sup>th</sup> century, America became a world power in terms of economy, politics, and culture. "Such dominance, with its political/economic underpinnings, currently gives America a controlling interest in the way the language is likely to develop" (Crystal 2003, 60). This also reflects on the Internet, where one can often

encounter American English whether in movies, series, computer games, or songs. It is no surprise that today's young generation's hobbies are tied to the computer and the Internet. If students have a favourite English series, a movie or a song that they often listen to, they might try to imitate the accent of a singer or an actor.

Nevertheless, students can change the accent according to the situation. Erin Carrie (2017, 443) has found in her study that "EFL learners at university in Spain may benefit from using RP as a reference accent within the classroom to achieve their instrumental goals but may optimise their learning beyond the classroom by using GenAm speech, engaging with GenAm speakers and consuming American cultural products." In other words, students can choose RP in the classroom during English language lessons, but outside the classroom (for example, when talking to their English-speaking friends) they would rather lean towards GenAm.

There are several more factors that affect speaker's accent preferences. For instance, whether the EFL student was temporarily abroad (e.g., Erasmus) and how much time he spent there. It is conceivable that if a learner lives in an English speaking country for more than a year, he or she might adopt and emulate a local accent. Kateřina Brabcová and Radek Skarnitzl (2018, 45) showed in their study that one's accent preferences can also be gender-based: most of the female respondents preferred British English. It may be because they see RP as more sophisticated and elegant. Wells (1982, 19) confirms that there are noticeable pronunciation differences which correlate with differences in sexual identity. Age is another significant factor influencing one's accent preference. However, from a certain age, the preference of the accent does not change that much. "On the whole speakers do not alter their accents much once they are past puberty" (Wells 1982, 24).

## **1.3 On Received Pronunciation and General American English**

### **1.3.1 Received Pronunciation (RP)**

It is necessary to specify the term RP from the geographical and social viewpoint. Foreigners very often associate RP with the whole of the United Kingdom. Surprisingly, however, very few people speak this accent in the UK. Therefore, it is understandable that this fact incommodes the Scots, Welsh and others who do not speak RP. On the other hand, Received Pronunciation appears to be the most broadly used pronunciation model for ESL and EFL learners (Brown 1991, 30). Although Received Pronunciation has its origin in public schools of Southern England, it is not associated with any region. Therefore, it is rather a social than a geographical accent (Giegerich 1992, 44).

The term Received Pronunciation was introduced by the British phonetician Daniel Jones (Cruttenden 2014, 77). RP is often labelled as "the Queen's English" since the Queen speaks with this accent. In the obsolete sense, the word received means "socially acceptable". It had been considered to be the most prestigious accent of English in the middle part of the 20<sup>th</sup> century. In other words, RP had been associated for a long time with the upper-class (prestigious schools and professions, aristocracy etc.). Even BBC announcers had to speak RP (Brown 1991, 30-31). Nonetheless, in recent decades, there have been changes in society and thus people began to perceive this accent differently. Nowadays, it is not unusual to work, for example, as a BBC announcer even without the British accent. The non-British accents such as Scottish, GenAm, or Irish accents are already at the same level as RP, in terms of social status.

### **1.3.2 General American English (GenAm)**

In terms of accent variation, the United States can be divided into Eastern (New England and New York City), Southern (extended from Virginia to Texas and to all states southwards) and General (the remaining territory). However, none of the accents (including GenAm) in North America corresponds to the prestige and the status of RP in England. It can be said that General American English does not have clearly defined regional characteristics. "General American is a term that has been applied to the two-thirds of the American population who do not have a recognizably local accent" (Wells 1982, 118). Therefore, General American English is more variable than Received Pronunciation. GenAm is also known as the accent used by radio and television announcers for the national American networks (Rogers 2000, 18), so it can be called "Network English" just as RP is sometimes called "BBC English".

The term *General American English* was coined by George Philip Krapp, who studied American English. The term was supposed to mean the "type of American speech which was neither Eastern nor Southern" (William N Van Ripper in Allen, Harold 2014, 124).

Nevertheless, this term raises doubts for some people. For example, Kretzchmar's article (2004, 262) describes that GenAm has come to be associated with the most common type of American English. According to Kretzchmar (2004, 262), General American is only the result of people suppressing regional and social features. He argues that the term "general" should not be used, as it could make someone feel that the accent is preferred over other American accents. Instead, Kretzchmar prefers to use the term "Standard American English" which he defines as the pronunciation of American English used by educated speakers in a formal setting. For the purposes of the thesis, however, the term General American English will be applied.

### 1.3.3 Phonetic Differences between RP and GenAm

This chapter introduces the phonetic differences between the vowel and consonant systems of RP and GenAm.

#### 1.3.3.1. Vowel System of RP and GenAm

The RP vowel system contains nineteen vowels (not counting /ə/, which is considered an unstressed syllable). On the other hand, in the vowel system of GenAm, there are fifteen vowels if weak syllables schwa /ə/ is not counted. For a better understanding, figures of vowel systems 1 (RP) and 2 (GenAm) are presented below:

I	U	i:		u:	ɪə	ʊə
e		eɪ	ɔɪ	əʊ	ɜ:	ɔ:
æ	ʌ		aɪ	aʊ		ɑ:
	ɒ					
<i>checked</i>		<i>free</i>				

Figure 1 (Wells 1982, 119) - Vowel System of RP

I	U	i		u		
ɛ	ʌ	eɪ	ɔɪ	o	ɜ	ɔ
æ			aɪ	aʊ	ɑ	
<i>checked</i>		<i>free</i>				

Figure 2 (Wells 1982, 120) - Vowel System of GenAm



The duration of vowels depends on the phonetic environment in which they occur. The short vowels / ɪ, e, æ, ʌ, ɒ, ʊ / have certain phonetic limitations. As can be seen in Figures 1 and 2, vowels can be divided into "checked" and "free" vowels. Checked vowels cannot be found in words with one syllable that do not have a final consonant. Therefore, in the words such as *rent* - /rent/, *cat* - /kæt/, *kit* - /kɪt/ or *cup* - /kʌp/ the final consonant "can be interpreted as checking the pulse of air for the syllable and its vowel" (Wells 1982, 119). On the other hand, in free vowels, which can be found, for instance, in words *snow* - /snəʊ/, *key* - /ki:/ or *near* - /niə/, no checking consonant is present. However, free vowels (or diphthongs) can also appear before checking consonants, as in the word *keep* - /ki:p/.

There are a large number of differences between the vowel system of RP and GenAm. For instance, the vowel /ɒ/ (*lot* - /lɒt/) which appears in RP is not present in GenAm. In GenAm, it is pronounced with more open lips as /ɑ:t/. Vowels in the words *balm* and *bomb* are pronounced as /bɑ:m/ and /bɒm/ in RP. In GenAm, however, the vowels in these two words are pronounced as /ɑ:/: *balm* - /bɑ:m/ and *bomb* - /bɑ:m/, thus in GenAm, the two words are homophones (Cruttenden 2014, 127). Another example of this phenomenon is the word *clock*, which is pronounced /klɒk/ in RP and /kla:k/ in GenAm.

Regarding the so-called "bath vowel", British native speakers utilize a more back vowel sound and pronounce it as /bɑ:θ/. However, American native speakers would use a more front vowel sound and pronounce this word as /bæθ/. More such examples are presented in the table below:

Vowels in RP	Vowels in GenAm	Examples (RP-GenAm)
ɑ:	æ	pass /pɑ:s/-/pæs/
ɑ:	eɪ	vase /vɑ:z/-/veɪs/
ə	æ	address /ə'dres/-/'ædres/
ɪ	aɪ	dynasty /'dɪnəsti/-/'daɪnəsti/
əʊ	oʊ	home /həʊm/-/hoʊm/
e	i:	leisure /'leɪzə/-/'li:zər/
æ	e	carry /'kæri/-/'keri/
ɑ:	a:r	car /kɑ:/-/kɑ:r/
eə	er	hair /heə/-/her/
ɪə	ɪr	cheer /tʃɪə/-/tʃɪr/
ɔ:	ɔ:r	force /fɔ:s/-/fɔ:rs/

Table 1: Differences between the vowel systems of RP and GeAm

Wells (1982, 122) uses the term "good match" when comparing the vowels of RP and GenAm in particular words. For instance, /i:/ in RP corresponds to /ɪ/ in GenAm and the other way around. The words *people* /'pi:pl/-/'pɪpl/ or *key* /ki:/-/kɪ/ can be given as an example. Nevertheless, he also mentions that in other cases, this "match" is one-to-two or two-to-one instead of one-to-one. In other words, a vowel in RP does not always have to correspond to only one particular vowel in GenAm and vice versa. This issue can be demonstrated on the word *stop* where /ɒ/ in RP has the corresponding /ɑ/ in GenAm, but in the word *gone* RP /ɒ/ corresponds to GenAm /ɔ/; thus it is the "one-to-two match" (/ɒ/ of RP corresponds to /ɑ/ and /ɔ/ in GenAm). On the other hand, /ɑ/ in GenAm has the corresponding /ɒ/ in RP in the word *stop*, but in the word *father*, GenAm /ɑ/ corresponds to RP /ɑ:/, and therefore, it is the "two-to-one match" (/ɒ/ and /ɑ:/ of RP corresponds to /ɑ/ of GenAm). "It turns out that for vowels in strong (stressed or stressable) syllables, there are twenty-four matching pairs of RP and

GenAm vowels" (Wells 1982, 122). Wells presents them in the standard lexical sets (see Figure 3). In addition, he mentions that the most critical differences in phonetic realization are noticeable in the lexical sets "GOAT" (in RP there is /əʊ/ while in GenAm it becomes /oʊ/) and "THOUGHT" (/ɔ:/ in RP, /ɔ/ in GenAm).

The standard lexical sets

	RP	GenAm	keyword		RP	GenAm	keyword
1.	ɪ	ɪ	KIT	13.	ɔ:	ɔ	THOUGHT
2.	e	ɛ	DRESS	14.	əʊ	o	GOAT
3.	æ	æ	TRAP	15.	u:	u	GOOSE
4.	ɒ	ɑ	LOT	16.	aɪ	aɪ	PRICE
5.	ʌ	ʌ	STRUT	17.	ɔɪ	ɔɪ	CHOICE
6.	ʊ	ʊ	FOOT	18.	aʊ	aʊ	MOUTH
7.	ɑ:	æ	BATH	19.	ɪə <sup>1</sup>	ɪr	NEAR
8.	ɒ	ɔ	CLOTH	20.	ɛə <sup>1</sup>	ɛr	SQUARE
9.	ɜ: <sup>1</sup>	ɜr	NURSE	21.	ɑ: <sup>1</sup>	ɑr	START
10.	i:	i	FLEECE	22.	ɔ: <sup>1</sup>	ɔr	NORTH
11.	eɪ	eɪ	FACE	23.	ɔ: <sup>1</sup>	or	FORCE
12.	ɑ:	ɑ	PALM	24.	ʊə <sup>1</sup>	ʊr	CURE

<sup>1</sup> with /r/ following before a vowel only.

Figure 3 (Wells 1982, 123) – The standard lexical sets

### 1.3.3.2 Consonant System of RP and GenAm

As for the system of consonants, there are no significant differences between RP and GenAm as in the vowel system. According to Wells (1982, 125), the consonant system of RP is practically indistinguishable from the consonant system of GenAm. It contains 24 consonants, which are divided into voiced (for example /b/) and voiceless (/p/ as the voiceless equivalent to /b/). They can also be classified according to the place of articulation and manner of articulation. The rest of the consonants are presented in Figure 4.

Table 2. Chart of English consonant phonemes

	Place of articulation								
	Bilabial	Labiodental	Dental	Alveolar	Palato-alveolar (Post-alveolar)	Palatal	Velar	Glottal	
Manner of articulation	Plosive	p b			t d			k g	
	Fricative		f v	θ ð	s z	ʃ ʒ			h
	Affricate					tʃ dʒ			
	Nasal	m			n			ŋ	
	Lateral				l				
	Approximant	w				r		j	

Figure 4 (Roach 1992, 62): Chart of English consonant phonemes

A significant difference can be found in the case of the consonant L. There are two different /l/ sounds – the *light* /l/ and the *dark* /ɫ/. The light /l/ can be found at the beginning of words or before vowels (e.g., love, allow), whereas the dark /ɫ/ appears usually at the end of words (ball) or at the end of syllables (pillow). Therefore, the word *pillow* in GenAm is pronounced as /'pɪləʊ/ while in RP, it is pronounced /'pɪləʊ/, since the dark /ɫ/ does not exist in RP.

Another notable difference is observed for the consonant /t/ in the intervocalic position, i.e., between vowels. In GenAm, /t/ is generally a *flap T* /t̬/ as in the word *letter* /'let̬ər/ while in RP, /t/ always stays voiceless. Thus, the word *letter* will be pronounced as /'letə/ in RP (Wells 1982, 125). In a simplified way, sometimes it may sound as if the GenAm speaker says /d/ or even /r/ instead of /t/. Another example is the word *city* which is pronounced /'sɪt̬i/ in GenAm and /'sɪti/ in RP.

Nevertheless, the major difference between Received Pronunciation and General American English concerns the presence or absence of *rhoticity*, which is the pronunciation of the rhotic consonant /r/. RP is a non-rhotic accent which means that /r/ is usually silent unless it is followed by a vowel. On the other hand, GenAm is a

rhotic accent since the letter R is pronounced. The word *car* can be used as an example – in RP, it is pronounced /kɑ:/ whereas in GenAm, the phonetic transcription is /kɑ:r/ (Rogers 2000, 37). Nevertheless, in words like *far away*, /r/ is pronounced at the end of the first word even in RP because the next word starts with a vowel. In RP, the following pairs sound the same: *sore/saw-* /sɔ:/, *or/awe-* /ɔ:/, *court/caught-* /kɔ:t/. In GenAm, however, these pairs sound differently:

- a) *sore* - /sɔ:r/                      *saw* - /sa:/  
 b) *or* - /ɔ:r/                              *awe* - /a:/  
 c) *court* - /kɔ:rt/                        *caught* - /ka:t/

Table 2 illustrates other differences between the two consonant systems:

Consonants in RP	Consonants in GenAm	Examples (RP-GenAm)
z	s	erase /ɪ'reɪz/-/ɪ'reɪs/
ʃ	sk	schedule /'ʃedʒu:l/-/'skedʒu:l/
ju:	u:	new /nju:/-/nu:/
t	ɾ	better /'betə/-/'beɾər/
ɜ:	ɜ:r	word /wɜ:d/-/wɜ:rd/

Table 2: Differences between the consonant systems of RP and GenAm

As for the word *new*, a prevalent difference can be seen. While the RP speaker pronounces /j/ after the alveolar consonants (t, d, n, l, s, z), the GenAm speaker omits it. This omission of the /j/ sound is called *yod dropping*. To get a better idea of what yod dropping is, here are more examples (the first phonetic transcription is RP, the second is GenAm):

- a) *tuna*                      /'tju:nə/                      /'tu:nə/  
 b) *suit*                        /sju:t/                        /su:t/  
 c) *opportunity*            /,ɒpə'tju:nəti/              /,ɑ:pər'tu:nəti/  
 d) *duty*                        /'dju:ti/                        /'du:ti/

## 2. Method

This chapter aims to introduce the participants of the research. Subsequently, the research procedure and materials used for the purposes of this thesis are explained. The crucial aspects of the material and procedure were recordings and a questionnaire which will be discussed in more detail. Finally, the method of measurement is presented. In addition, it was essential to become acquainted with the PRAAT program, a computer software analysing speech in phonetics, which also helped with the evaluation of the recordings.

### **Research questions:**

- 1) What English accent do third-year students of the English for Education bachelor's degree program at the Technical University of Liberec prefer in terms of perception?
- 2) What English accent do the students claim to emulate in their pronunciation?
- 3) What English accent, and to what extent, do the students actually approximate in their pronunciation?

**Hypothesis:** Most participants incline towards RP in terms of perception preferences and approximate the British accent in their pronunciation.

### **2.1 Participants**

This thesis investigated third-year students of the English for Education bachelor's degree program at the Technical University of Liberec. The sample was recruited through the personal contacts of the researcher. A total of 16 participants, 8 female students and 8 male students of approximately the same age ( $M_{age} = 22,25$ ), were selected for this research. These students should now be at level B2/C1 as they will soon be taking their state examination in English. Every participant speaks Czech

as their mother tongue. No participant was an early bilingual, and only 5 reported having a good or very good proficiency in one of their foreign languages and using them on a regular basis at the time of data collection.

## **2.2 Material and Procedure**

The data required for the investigation were obtained by means of two tasks – a *questionnaire* and *voice recordings*. Communication with the sample was conducted online via e-mail. Firstly, the participants were informed about the topic of the bachelor's thesis, and then they completed the questionnaire through which information about their linguistic background was obtained. This step provided an overview of the respondents' preferences regarding accents and their contact with English at school as well as in their free time.

Subsequently, the participants were asked to make voice recordings while reading a text and describing a picture, both selected by the researcher of this thesis. These recordings were then sent via e-mail to assessors who were tasked with listening to the respondents' recordings and evaluating whether an interviewed student approached the British or rather the American accent. The evaluators had another critical task – to record themselves reading the same text as the participants. The values of the selected phonemes in the words *city*, *new* and *tower* obtained from the assessors' recordings were subsequently measured in the PRAAT program using the same procedure as for the participants. The selected segments in the words *city*, *new* and *tower* of the respondents and assessors were finally compared. This method was used because it was not possible to find the relevant and reliable data for the selected segments. Regarding the word segments in *clock* and *past*, the formant results from the studies *Vowel quality in the idiolects of four BBC World News presenters* and

*Acoustic characteristics of American English vowels* were used for the comparison with the participants' pronounced word segments.

### **2.2.1 Questionnaire**

To acquire information about participants' accent preferences and linguistic background, the students were asked to complete a questionnaire created in Google Forms. A link to the questionnaire was sent to the interviewed students by e-mail. It contained 18 questions in English that aimed to examine the respondents' preferences regarding two accents – Received Pronunciation (British accent) and General American English (American accent). In the questionnaire, however, only the terms "British accent" and "American accent" were mentioned to avoid misunderstandings.

Out of 16 participants, 4 were excluded from the research after completing the questionnaire. The reason for the reduction in the number of participants was their answers to some questions, where these students indicated that they do not hear any difference between the English accents, or they did not have any preferences in terms of accents. Thus, for the purposes of the thesis, these students were not included in the phonetic analysis and only those who were able to distinguish between the English accents were kept for further research to investigate the participants' (in)ability to accurately assess their pronunciation.

The questionnaire consisted of the following types of questions: *closed-ended questions*, *specific open questions*, and *multiple-choice questions*. The closed-ended questions did not permit the respondents to answer the question in their own words; instead, the respondents had to select one of the answers prepared by the researcher. This type was used for questions that required the participants to be objective. Conversely, for specific open questions, the interviewed students had to answer the



question in their own words, filling in blank space. These questions were used in order for the respondents to specify the previous question, and at the same time, it was very likely that the respondents' answers to these questions would differ. Multiple-choice questions formed the most significant part of the questionnaire. For this type of questions, the participants had a choice with multiple possible answers and, in addition, the option to mark the answer such as "I do not know" or "Other". The "Other" option was meant for most questions as a different accent than the British or American accent.

Generally, the questions investigated the respondents' linguistic environment, including the persons with whom they surrounded themselves, such as their English-speaking friends or teachers. Questions that researched which accent the interviewed students generally preferred to emulate in their speech and what was the reason for their option formed the crucial part, as this survey examined mainly the production of sounds. Another aspect had to be taken into consideration, specifically how the participants spend their free time, assuming that they listen to English singers or watch English movies. It was essential to ascertain what accents they regularly encountered in their free time because that is purely their choice, not the choice of their English teacher, for example.

### **2.2.2 Recordings**

Recordings formed a crucial part of the research, as they provided a sample for further analysis. Both careful and spontaneous speech were analysed. Selecting a suitable text and a picture was imperative for the recordings to be made since the participants produced the careful speech when reading the text, and on the contrary, they showed their spontaneous speech in the picture description. Recordings formed a crucial part of the research, as they provided a sample for further analysis. Both careful

and spontaneous speech were analysed. Selecting a suitable text and a picture was imperative for the recordings to be made since the participants produced the careful speech when reading the text, and on the contrary, they showed their spontaneous speech in the picture description.

Regarding the selected text, it was crucial that it feature a large number of phonemes that would be pronounced differently by a British native speaker and differently by an American native speaker. Therefore, an article from The New York Times called "He's Springing Forward to Move City Clocks to Daylight Time" was chosen and slightly modified to meet the research requirements. The selected word segments needed to be repeated there at least four times to ensure that the participants actually pronounced the word with RP or GenAm. Nevertheless, if the respondents pronounced the word only once, the enunciation could only be a coincidence.

This research method was inspired by the American linguist William Labov and his research method applied in his study *The Social Stratification of English in New York City* (1966), focusing on the social stratification of /r/ in New York City department stores. Participants in this study also repeated words with /r/ several times. (Mather 2011, 2).

The following words were chosen from the article: *clock*, *city*, *new*, *past*, and *tower*. The phonetic transcription of these words is illustrated in Table 3. The segments selected for subsequent phonetic analysis are marked in color. These phonemes were chosen because they present some of the most distinctly audible and salient differences between RP and GenAm. The differences between the phonemes in the words *clock* and *past* derive from the backness and frontness of a vowel. The word *city* is pronounced with a flap T /ɾ/ in American English and /t/ in British English. *New*

contains the typical feature of *yod dropping* in the American pronunciation, which does not appear in RP. Finally, the R at the end of the word *tower* is rhotic in GenAm and vice versa in RP it is non-rhotic.

	AMERICAN ACCENT	BRITISH ACCENT
<b>CLOCK</b>	/klɑ:k/	/klɒk/
<b>PAST</b>	/pæst/	/pɑ:st/
<b>CITY</b>	/sɪtɪ/	/sɪtɪ/
<b>NEW</b>	/nu:/	/nju:./
<b>TOWER</b>	/taʊər/	/taʊə/

Table 3: Phonetic transcription of the selected words in RP and GenAm

Recording these words in the participants' spontaneous speech was also essential to confirm whether they approached the British or the American accent in their pronunciation. This was achieved through the description of the picture. It was requisite to find a picture in which all five words that the previously mentioned text focused on would appear. That is why a picture of London in the newspaper was chosen. The interviewed students were expected to use all these words when describing the picture: *clock* and *tower* (in the picture, there is Big Ben, which is a *clock tower*), *city* (London is a *city*), *new* (the picture is in the newspaper; the word *new* is part of the word *newspaper*), *past* (the picture shows London in the *past*; the photo is black and white). Together with the text, this picture was then sent to the students online by e-mail. They recorded themselves reading the text and describing the picture on a dictaphone on a mobile phone, and then sent it to the author of this bachelor's thesis. Nevertheless, most participants failed to pronounce all of the selected

words when describing the picture. On that account, they were requested to describe the picture again and were prompted with, for example, the sentence "Focus on what is in the background of the picture."

Two native speakers, one British English speaker and one American English speaker, were also tasked to record themselves on a dictaphone while reading the previously mentioned text from The New York Times. Subsequently, they were asked to send it via e-mail to the researcher. The first assessor was a native British English speaker from Great Britain who has been teaching English at a language school in Liberec since 2018. The second assessor, a native American English speaker from British Columbia, Canada, has been teaching English in the Czech Republic since 1998. Currently, he teaches English at a language school in Pilsen.

As mentioned earlier in this thesis, due to the absence of relevant and reliable data, the selected phonemes in the words *city*, *new* and *tower* pronounced by the assessors were measured. This step was necessary for acquiring a "model" of British and American accents. It was thus practicable to compare the selected phonemes in the words *city*, *new* and *tower* pronounced by the native speakers with the same phonemes pronounced by the respondents. For this comparison of the phonemes, the PRAAT program was used, which provided even more accurate results in determining the accent of respondents.

### **2.2.3 Assessing Recordings**

Two techniques were used for assessing the recordings. The first was the acquisition of a *global impression* to provide a brief, stand-alone assessment of the assessor's view of the respondent's production. It provided an overall summary measure. The reason for this was that the recordings had to be assessed by adepts who would recognize with

certitude the differences between British and American accents. In this case, the previously mentioned native speakers and one non-native English speaker, who has been teaching English for fifteen years, were selected as the assessors. Their task was to listen to and evaluate students' recordings by filling in the Likert scale (see Table 4). It is composed of statements to which the respondents can answer on the scale, representing their opinion. The Likert scale focused on the phonetic features in these five words - *clock*, *city*, *new*, *past*, and *tower*. The assessors focused on these phonemes in the interviewed students' speech and ticked on the Likert scale whether the student approached a native-like American accent, rather American accent, rather British accent, a native-like British accent, or a neutral accent. The neutral accent means that the assessor did not observe neither British nor American accent in the recording.

	<b>NATIVE-LIKE (American)</b>	<b>RATHER AMERICAN</b>	<b>NEUTRAL</b>	<b>RATHER BRITISH</b>	<b>NATIVE-LIKE (British)</b>
<b>CLOCK</b> (/klɑ:k/ vs /klɒk/)					
<b>CITY</b> (/sɪtɪ/ vs /sɪti/)					
<b>NEW</b> (/nu:/ vs /nju:/)					
<b>PAST</b> (/pæst/ vs /pɑ:st/)					
<b>TOWER</b> (/taʊər/ vs /taʊə/)					

Table 4: Likert scale

Moreover, *voice analysis* was required to obtain even more exact outcome. Therefore, the PRAAT program was used. The software enables analyzing,

synthesizing, and manipulating speech in phonetics. It contrives to generate waveforms, spectrograms, intensity, and pitch. This program made it possible to analyze and compare the respondents' and native speakers' voices of the acquired recordings. In this way, it was feasible to discover if the interviewed students approximated rather the British accent or the American accent.

### **2.3 Measurement**

The recordings were analyzed in PRAAT. Specifically, the selected segments in the words *clock*, *past*, *city*, *new*, and *tower* were thoroughly examined. The vocalic articulation of the segments in *clock* (/ɒ/ x /ɑ:/) and *past* (/ɑ:/ x /æ/) was analyzed by measuring Formant 1 (F1) and Formant 2 (F2) (see Figure 5). F1 is inversely related to vowel height: the higher the vowel, the lower F1. It determines whether the vowel is close, half-close, half-open, or open. F2, on the other hand, is associated with the degree of frontness or backness of the vowel. The higher the value of F2, the more front the vowel is. Because all examined vowels are either open or near-open, close attention was paid to F2 to be able to detect the nuanced variability in the participants' pronunciation of the vowels in terms of frontness/backness.

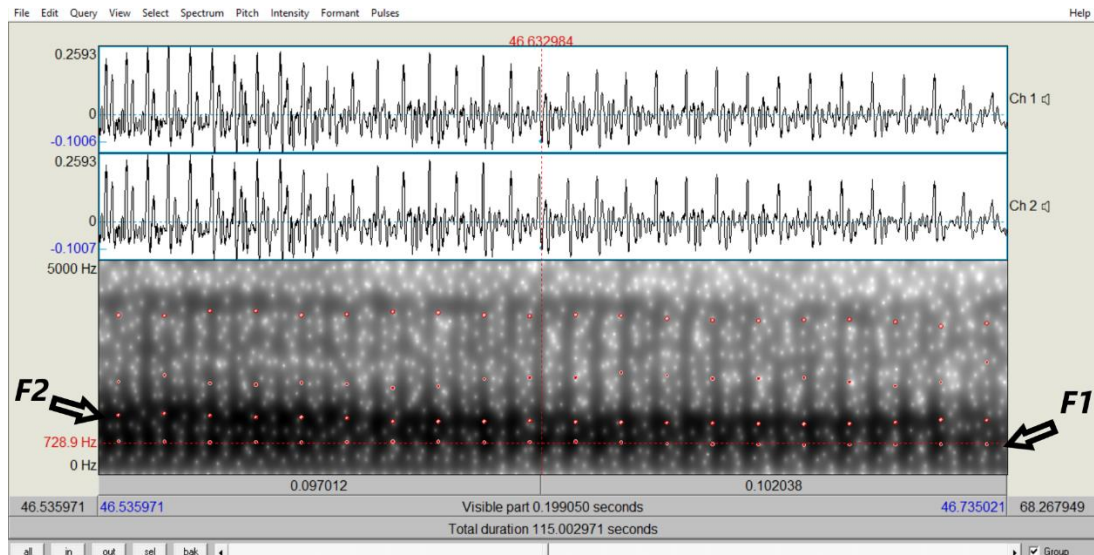


Figure 5: Formants in PRAAT

First, the formants needed to be adjusted so that they were clearly visible. The formant settings, which includes *formant ceiling*, *number of formants*, *window length*, *dynamic range*, and *dot size*, were different for men's recordings and different for women's recordings. The formant ceiling means the highest frequency of the highest monitored formant and was set to 5000 Hz for the male voice and 4600 Hz for the female voice. The number of formants means how many formants are to be monitored, and this number was the same for men and women - 4 formants. The window length is the average energy over a window and was 0.025 s for the male voice and 0.04 s for the female voice. Finally, the dynamic range (in dB) and dot size (in mm) remained the same for both sexes at 30 dB and 1 mm. This setting was used for each participant. The only exception was participant 6, for whom it was necessary to set the number of formants to 5 in order to see formants 1 and 2 better.

To measure the formants, it was necessary to click on the center of vowel duration or find a spot in the vowel sound where the formants are flat and stable. PRAAT then generated F1 and F2 values. Since each respondent pronounced the words *clock* and *past* several times when reading the text (careful speech), the F1 and

F2 frequencies were measured as many times as they appeared in the text and were pronounced - eleven times for the word *clock* and four times for the word *past*. All measured F1 values were then averaged into one F1 result as were the F2 values. In the spontaneous speech (description of the picture), the same method was used, except that this time, the values did not have to be averaged because *clock* and *past* appeared only once for each participant. All F1 and F2 values were compared with the F1 and F2 values of American and British native speakers (NSs).

Formant frequencies for RP pure vowels in connected speech as a reference point were found in the study *Vowel quality in the idiolects of four BBC World News presenters* by Wiktor Gonet and Katarzyna Róžańska. The formant values of American NSs were taken from the study *Acoustic characteristics of American English vowels* by James M Hillenbrand. In both studies, differences between male and female formant frequencies were taken into consideration and listed separately.

*Tower* contains the voiced retroflex approximant /r/ in American English and *new* includes the voiced palatal approximant /j/ in British English. Approximants have their own specific formant structures; therefore, it was possible to recognize the difference between the British and American accents in these words. The differences are easily observable in the spectrogram. On that account, it sufficed to obtain screenshots (see Appendix E) of these phonemes measured in the PRAAT program and focus specifically on Formant 3. The approximant /r/ has a distinctive low F3 which can descend close to F2. If F3 decreased when a respondent pronounced the selected phoneme in the word *tower*, it signified that he/she approached the American accent. Conversely, if F3 remained horizontal, the respondent was closer to the British accent in the chosen segment.



The same procedure was followed for the analysis of the word *new*. If F3 of a phoneme /j/ dropped significantly, it was pronounced with the British accent, and if F3 of a phoneme /j/ stayed in a horizontal position, the word was pronounced with the American accent. The screen capture of the words *new* and *tower* (see Appendix E) were also taken from the recordings of the native speakers participating in this study. The screenshots of the NSs and the interviewed students were then compared to ascertain what accent the students approached.

When analysing and comparing the pronunciation of the word *city*, specifically the phonemes /t/ (RP) and /t̚/ (GenAm), the measurement of formants was irrelevant. Plosives /t/ and /d/ are produced with the blade of the tongue pressed against the alveolar ridge; /d/ is voiced and /t/ is voiceless. Therefore, *voice onset time* (VOT) was examined. VOT is a phenomenon of the production of plosives. It is the time that elapses between the burst (release) of a plosive (also known as a stop consonant) and the onset of voicing. In the waveform, voicing onset is the onset of periodicity, which is the vertical marks corresponding with the vowel. This time interval comprises the aspiration, the release burst, and a short frication sound. In GenAm, the word *city* is pronounced with the voiceless unaspirated stop /t̚/. It has a VOT near or at zero (0 to 20 milliseconds after stop release). This signifies that the voicing of the following sound /ɪ/ starts at or near to releasing the stop. On the other hand, in RP, this word is pronounced with the voiceless aspirated stop /t/, which has a positive VOT approaching 60-100 ms (EdUHK, n.d.).

For each respondent, VOT was also measured as many times as the word *city* appeared in the text. The values were measured separately in spontaneous speech when the participants described the picture. The process was the same for every respondent; unlike formants, the setting for the male voice and the female voice did not differ. The

cursor was placed at the point where the release of the plosive occurred and using the left mouse button a light red-marked area was created that ended at the point of the onset of the voicing in the vowel. In such manner, the VOT was marked (see Figure 6), which is the duration of the selected area. In PRAAT, the VOT appears in seconds, which is indicated above the red-marked area in Figure 2. However, for the purposes of this research, the VOT was converted to milliseconds. Therefore, the VOT 0,073615 s in Figure 6 was converted and rounded to 74 ms. Also, two NSs recorded the sample text, which provided reliable data as a reference point for the subsequent VOT comparison of the phonemes /t/ and /t̪/ in the word *city*.

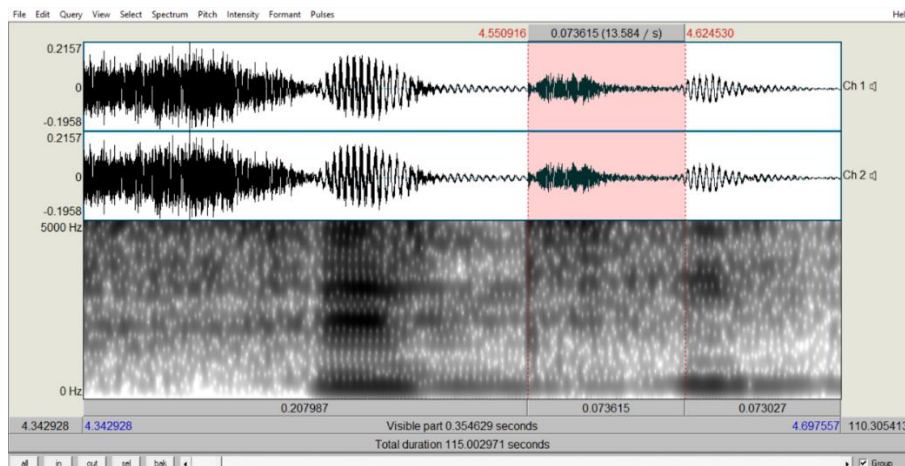


Figure 6: Example of VOT

### 3. Results

#### 3.1 Self-Report

In order to determine accent preferences concerning perception and production, two main questions were inserted into the questionnaire; Question 5: *Which accent do you prefer to listen to?* and Question 7: *Which accent do you generally prefer to emulate in your speech?* Table 5 and Figure 7 illustrate how students rated themselves regarding accent perception and production preferences. All respondents stated that they preferred the same accent in terms of perception and production. 8 respondents indicated RP as their preferred accent, the remaining 4 respondents voted for GenAm.

<b>Participant</b>	<b>Perception preferences</b>	<b>Production preferences</b>
P1	GenAm	GenAm
P2	RP	RP
P3	RP	RP
P4	RP	RP
P5	RP	RP
P6	RP	RP
P7	GenAm	GenAm
P8	GenAm	GenAm
P9	RP	RP
P10	RP	RP
P11	GenAm	GenAm
P12	RP	RP

*Table 5: Self-report of the Ps*

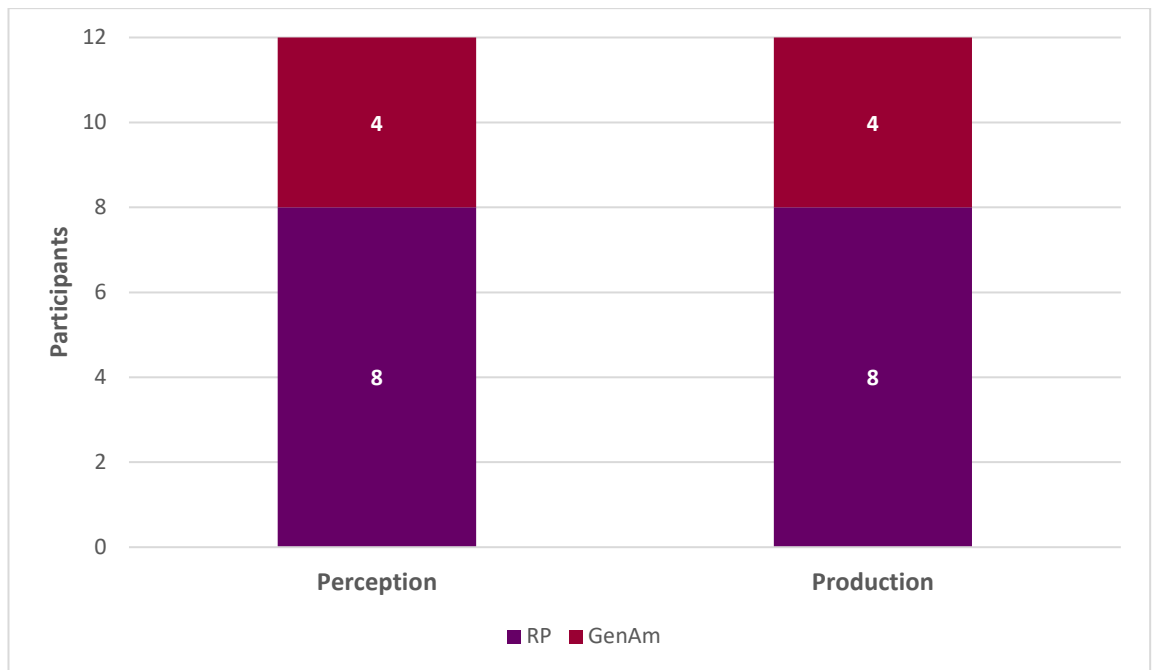


Figure 7: Ps' Self-Report

### 3.2 Segmental Analysis

#### 3.2.1 PRAAT

Due to the absence of some of the selected words in the recordings of spontaneous speech of 4 participants, the analysis had to be adjusted accordingly. These words were considered neutral in this survey and were marked with a cross in the tables that can be found in the appendix B and C. However, for Participant 9, the missing word *tower* was replaced with *center* from the same recording to examine the presence/absence of the voiced retroflex approximant /ɹ/ in its final position. No similar alternatives could be found in the remaining cases.

Regarding careful speech, all words (*clock, past, city, new* and *tower*) appeared at least four times in the given text accounting for ca 80 % of all the examined segments. In contrast, in spontaneous speech, the selected words appeared only once

in each recording. Thus, to reflect this proportion in the data evaluation, different weight was given to careful speech and spontaneous speech using the coefficients 4 and 1, respectively. Firstly, the maximum number of points a participant could receive for either accent was calculated. Five word segments were examined, and thus the respondent could obtain a total of 20 points for careful speech (5x4=20) and a maximum of 5 points for spontaneous speech. A total of 25 points could therefore be acquired as a maximum for each respondent. In order for the respondent to be categorised into either RP (understood as British-like pronunciation) or GenAm (understood as American-like pronunciation), they had to receive at least 18 points (more than 70 %) from one or the other accent.

For the sake of clarity, Participant 1 was used as an example (see Figure 8). Values in blue represent RP, grey values mark GenAm, and neutral results are marked in black. For careful speech, the results came close to RP in only two cases, for spontaneous speech in three cases, thus 2x4 (careful speech) + 3 (spontaneous speech) = 11. The participant therefore received 11 points out of 25 points towards RP. This procedure was repeated for GenAm and neutral values. Participant 1 obtained 11 points for RP, 9 points for GenAm and 5 points for Neutral. This participant was therefore put in the Neutral group (inconclusive evaluation).

P1 (F)	CLOCK	PAST	CITY	*NEW	*TOWER
Careful speech	F1: 514	F1: 857	VOT: 16 ms	/nju:/	/taʊə/
	F2: 1003	F2: 1888			
Spontaneous speech	F1: 470	F1: 529	VOT: x37 ms	/nju:/	/taʊə/
	F2: 996	F2: 1025			
Auditory assessment	AA1: rather RP	AA1: rather GenAm	AA1: native-like GenAm	AA1: rather RP	AA1: native-like GenAm
	AA2: rather RP	AA2: rather GenAm	AA2: rather GenAm	AA2: rather RP	AA2: neutral
	AA3: rather GenAm	AA3: rather GenAm	AA3: rather GenAm	AA3: rather GenAm	AA3: rather GenAm

Figure 8: Phonetic values of P1

Based on the phonetic analysis in PRAAT, 5 students out of 12 were able to correctly identify which accent they approximate in their speech (see Table 6). All 5 respondents had British-like pronunciation.

Accent	Self-report	Accurate Assessment
RP	8	5
GenAm	4	0

*Table 6: Number of Ps who assessed their production accurately (PRAAT)*

Figure 9 shows to what extent participants approach a specific accent based on the analysis of the selected segments in PRAAT. The result values of each accent group (RP/GenAm/Neutral) are expressed as a percentage.

All 5 respondents who assessed their production accurately based on the segmental analysis of the selected word segments in PRAAT had one thing in common – the resulting accent in both self-report and segmental analysis in PRAAT was RP. Only 1 participant approached the American-like accent in her speech. However, this respondent stated in the questionnaire that she preferred and tried to emulate the British accent in her speech. As can be seen in Figure 9, British-like pronunciation was prevalent among the respondents.

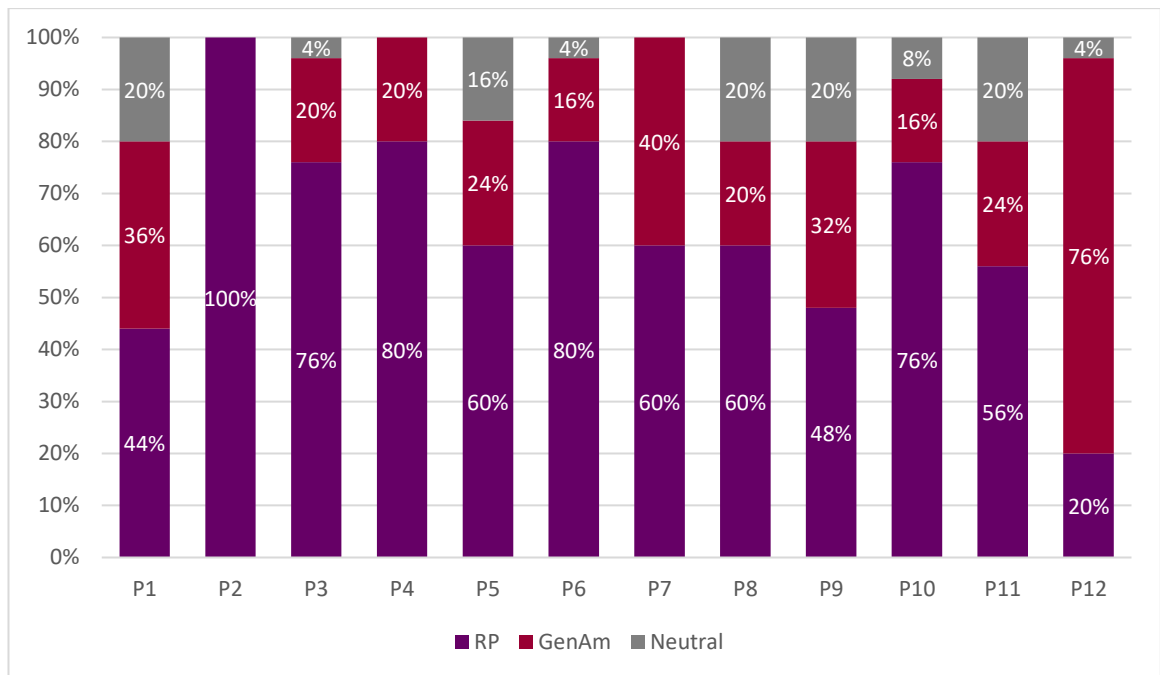


Figure 9: Results of the phonetic analysis in PRAAT

Figure 10 shows the five selected words and their phonemes analyzed in this research. All respondents pronounced the back vowel /ɒ/ in the word *clock* and therefore they approximated the British accent. As for the phoneme in the word *past*, the overwhelming majority of participants approached the British accent, since they pronounced the given segment as a back vowel /ɑ:/.

The measurement results from PRAAT were ambiguous for the word *city*. Voice onset time values often varied between RP and GenAm; therefore, it was impossible to determine exactly to which accent the uttered word belonged. However, the predominant accent in this word was GenAm. 50 % of participants pronounced the word *city* with the flap T /sɪtɪ/, which means that VOT was multiple times shorter than VOT of the British pronunciation /sɪti/. Only a small number of respondents exhibited yod dropping in their speech; the majority pronounced the word *new* with the palatal approximant /j/ and thus again approached RP in this respect. As regards the word *tower*, it divided the respondents into two groups – the participants inclined slightly

more towards the American accent (57 %) and 43 % did not manifested rhoticity in their speech.

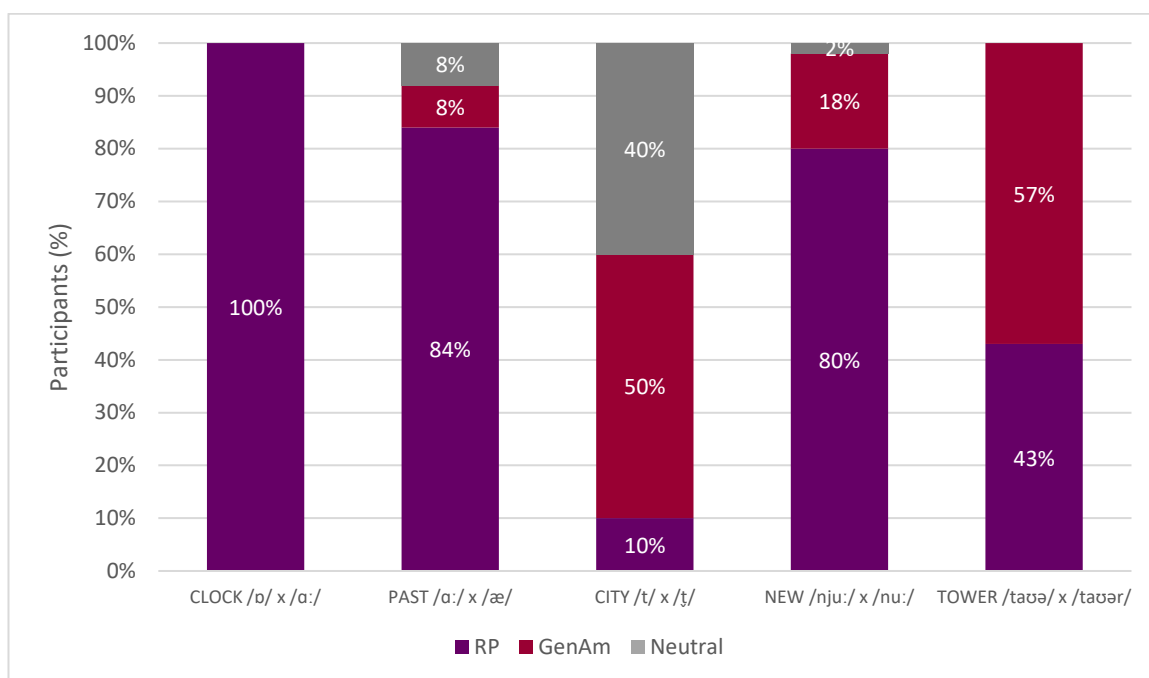


Figure 10: Results of the selected word segments (PRAAT)

### 3.2.2 Auditory Assessment

The auditory assessment (AA) of the selected segments examined careful and spontaneous speech together. Since 3 evaluators assisted in this research (2 NSs and 1 NNS), 3 outcomes were received for each word. The individual word segments pronounced with a specific accent were counted for each accent separately. For example, in Figure 8, P1 obtained 4 points for RP, 10 points for GenAm, and 1 point for Neutral. Since at least 11 points (70 %) were necessary for the student to be categorised into a specific accent group, this participant was put into the "Neutral" group (RP X GenAm = inconclusive evaluation).

Table 7 shows the number of participants who assessed their production accurately based on the auditory assessment. All 4 respondents had one thing in



common, just like the result from the PRAAT measurement – their "self-report" accent and the accent they actually approached was British-like.

Although it was assumed that the evaluators would reach an agreement on a certain accent in most cases, for several words, there was a situation where each respondent indicated a different option. For example, for P4 in the word tower, three opinions were obtained from the assessors - RP, neutral, and GenAm.

Accent	Self-reported	Accurate Assessment
RP	8	4
GenAm	4	0

Table 7: Number of Ps who assessed their production accurately (AA)

Figure 11 illustrates to what extent the participants approached either accent based on the auditory assessment. It was ascertained that the majority had British-like pronunciation. Moreover, Figure 12 presents the pronunciation of the given segments by the participants in the case of all three groups of accents in percentage. Here, the respondents approximated British pronunciation in the selected segments of the words *clock*, *past* and *new*. On the contrary, in the segments of the words *city* and *tower*, the participants manifested rather American-like pronunciation. The procedure was the same as in the case of the previous graph based on the phonetic analysis in the PRAAT program.

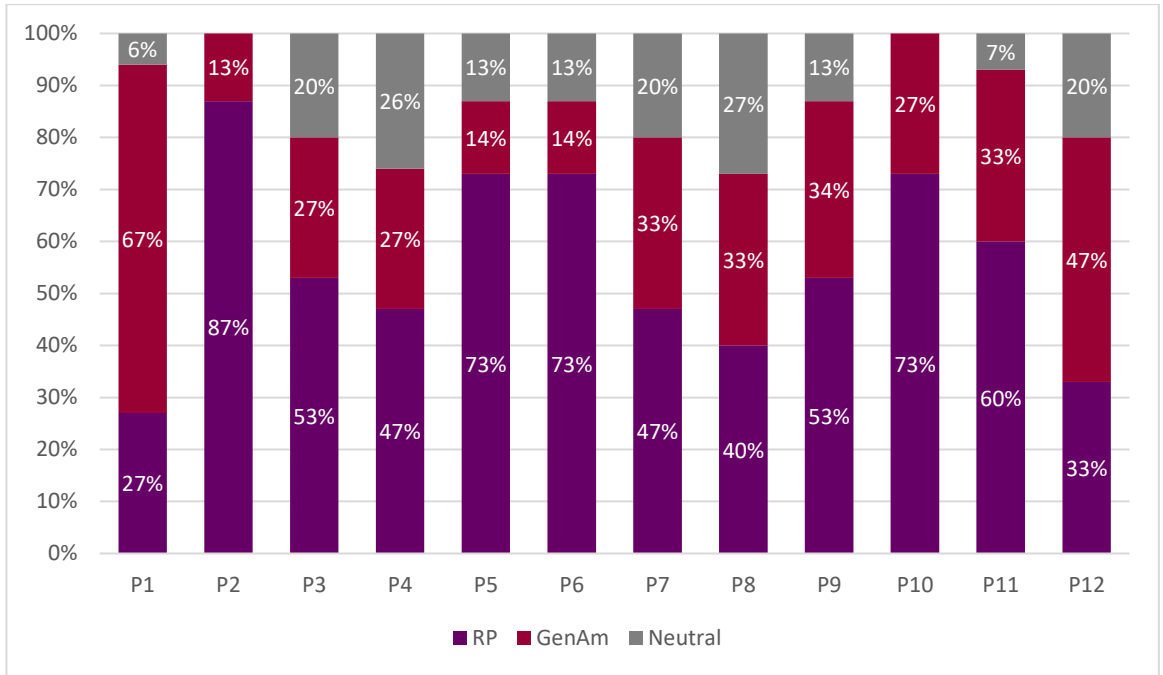


Figure 11: Results of the phonetic analysis according to the AA

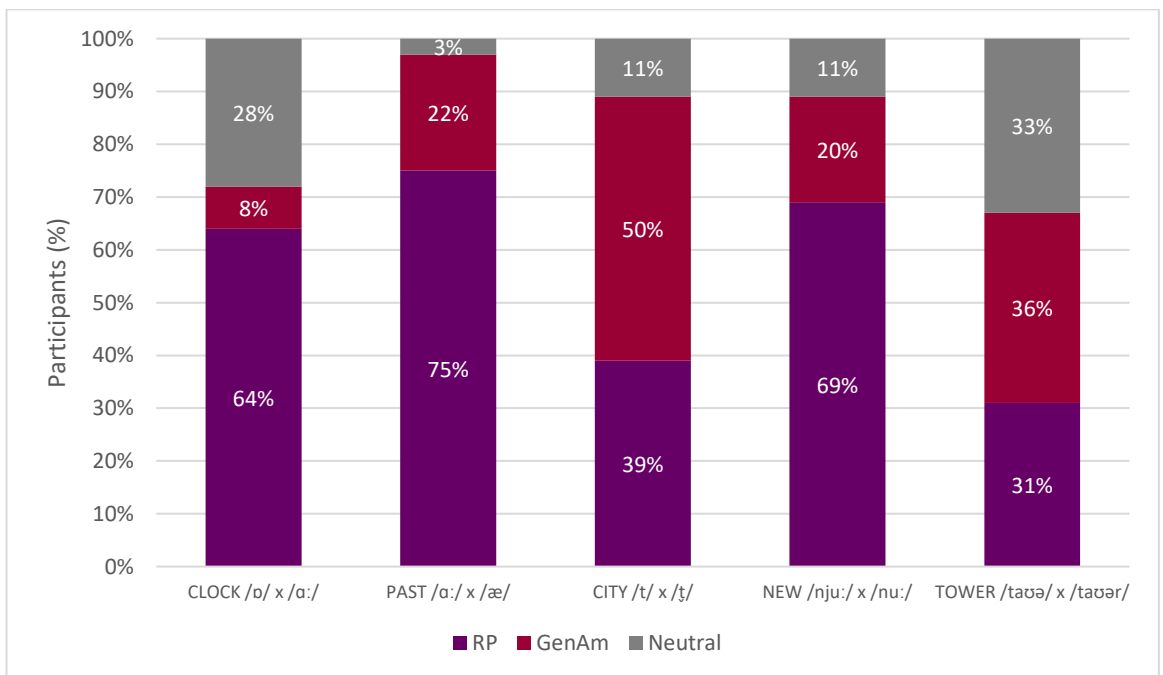


Figure 12: Results of the selected word segments (AA)

### 3.3 Global impression

The author of this bachelor's thesis considered the overall impression to be the most important aspect of the phonetic analysis. From the overall speech, the evaluators were able to better identify which accent the participants approximated in both careful and spontaneous speech. The entire text as well as the description of the picture were evaluated, focusing on all pronounced word segments. Based on the analysis of the global impression conducted by 2 NSs and 1 NNS, 8 participants evaluated their production correctly (see Table 8). Although it was assumed that the assessors would concur in the accents of the participants, 2 participants were determined as neutral because each assessor marked a different option (RP/neutral/GenAm) on the Likert scale. For the remaining number of the interviewed students, no concordance was discovered between the self-report of the respondents and the global impression evaluation provided by the assessors.

Accent	Self-reported	Accurate Assessment
RP	8	7
GenAm	4	1

*Table 8: Global Impression*

The numeral values presented in Figure 13 were obtained from the Likert scale completed by the assessors. Each respondent could receive 3 points from the global impression evaluation, 1 point from each assessor. Participants were categorised into the RP or GenAm group if they obtained at least 2 points from one or the other accent. Three respondents received 1 point for the "Neutral" option indicating that the respondent did not approximate either accent. The result was that 8 participants had British-like pronunciation and 4 of them received all 3 points from the assessors. Only

2 respondents approached American-like pronunciation according to the global impression evaluation.

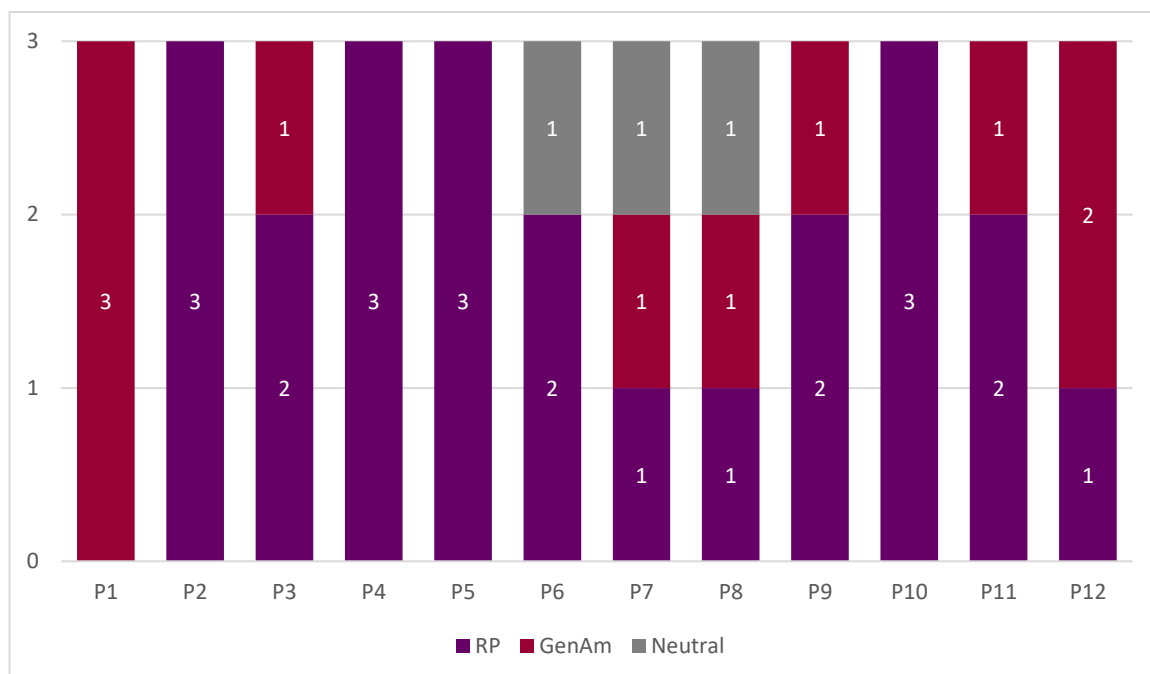


Figure 13: Results of the GI

### 3.4 Questionnaire

Some of the most relevant factors that could affect the respondent's accent were considered in the questionnaire (see Appendix A). As mentioned earlier in this bachelor's thesis, 4 out of 16 respondents had to be excluded from the research.

Out of the 12 participants, 5 answered Question 2, which asked if they had ever been to an English-speaking country. For the 2 participants who stated that they were in England, all results (segmental analysis PRAAT+AA and GI) approached RP, including self-report. The English-speaking countries indicated in the answers of the remaining 3 respondents matched the accent they preferred in the self-report, and which also appeared in the global impression results of the assessors. It can therefore

be said that their stay in English-speaking countries might have contributed to the participants' preferences for the perception and production of a particular accent.

Regarding Question 5, which asked what accent the interviewed students preferred in terms of perception, 8 participants, at least partially, approximated in their speech the accent they indicated as their preferred one in terms of perception. P2, P6 and P10 corresponded with their preferred accents in all respects - self-report, segmental analysis (PRAAT+AA), and in global impression. Probably the most critical was Question 7, which asked what accent the respondents try to emulate in their speech. For more than half of the respondents, the answers coincided with the results of the global impression evaluation of NSs and NNS.

All 12 participants indicated in the questionnaire that they watch movies/TV shows/TV series in English, and 10 stated that they mostly watch American ones. Moreover, listening to American songs was popular with most respondents. It might be therefore concluded that the participants of this research were not influenced by the American mass media in terms of accent, as only two respondents approached the American accent in their speech and not even in all areas of this research. The reason may be that even though they watched movies and listen to songs in American English, it is only a matter of perception. At school, however, they repeated words spoken with a certain accent after the teacher and thus developed the given accent the most. This was also confirmed in the following questions, which asked which accent was preferred and taught by the respondents' teachers in secondary school and university.

In terms of the school environment, all participants were of the opinion that students should be familiar with English accents and should be able to recognize them. An important factor from the school environment influencing the accent of the

participants was the teachers who taught them English in secondary school and university. Indeed, the vast majority asserted that their English teachers preferred the British accent, and the results for the majority of respondents were more inclined towards RP (see Figure 14 and 15). The questions that can be seen in the graphs include respondents who were excluded from the research after completing the questionnaire. Moreover, 3 respondents stated that they tried to use the British accent at school but preferred the American accent outside the school environment. One of these participants even stated that, in his opinion, it is difficult to speak a different accent than the British one in the Czech Republic because this accent is taught in schools.

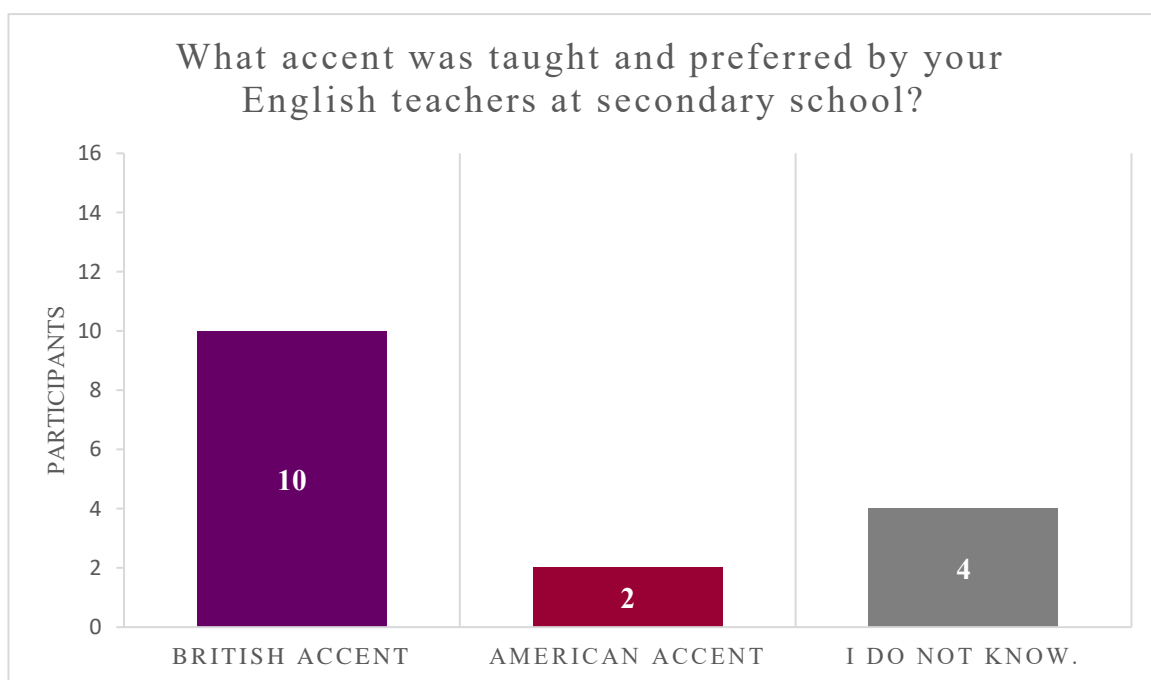


Figure 14: Question 16

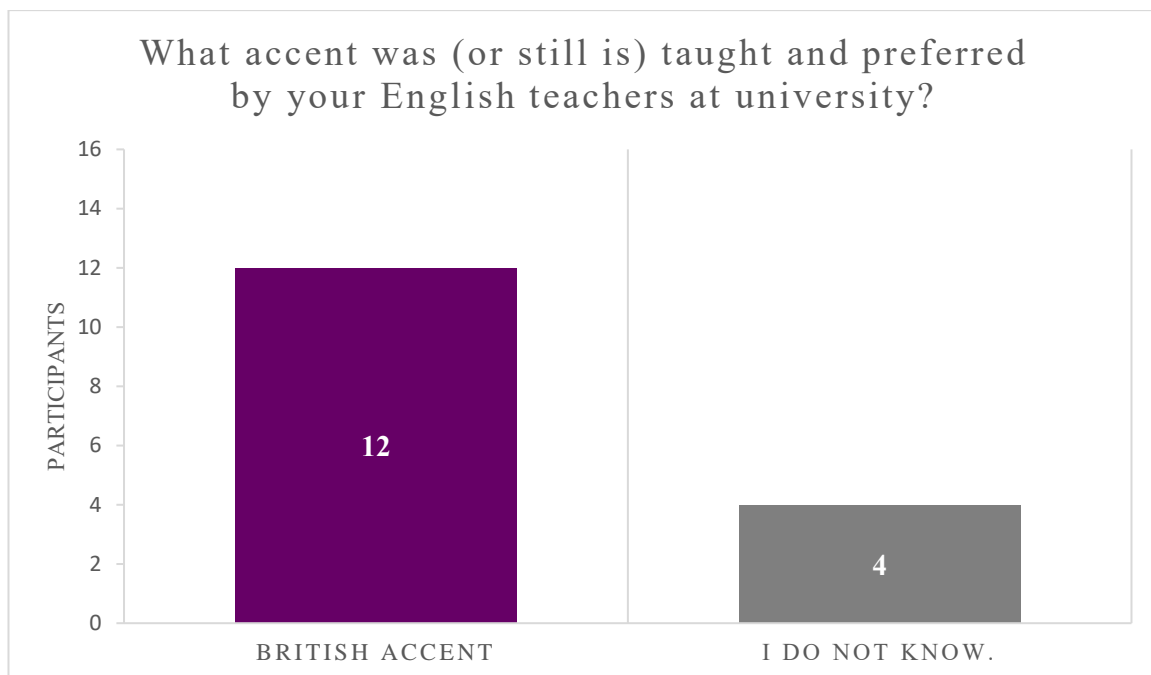


Figure 15: Question 17

### 3.4 Summary of Results

For the overall summary of the obtained results, 2 graphs (Figure 16 and Figure 17) were created presenting an overview of the results of each respondent in all 3 investigated areas – PRAAT, AA and global impression. It can therefore be clearly read from the graphs to what extent the participants approximated either accent in terms of production. Most of the participants approached rather RP in their speech. If a global impression assessment is to be considered the most important of all three investigated areas in this thesis, 8 participants assessed their production accurately. All of these respondents identified the British accent as their preferred one in terms of perception and production, except for participant 1, who preferred and approximated the American accent in her speech.

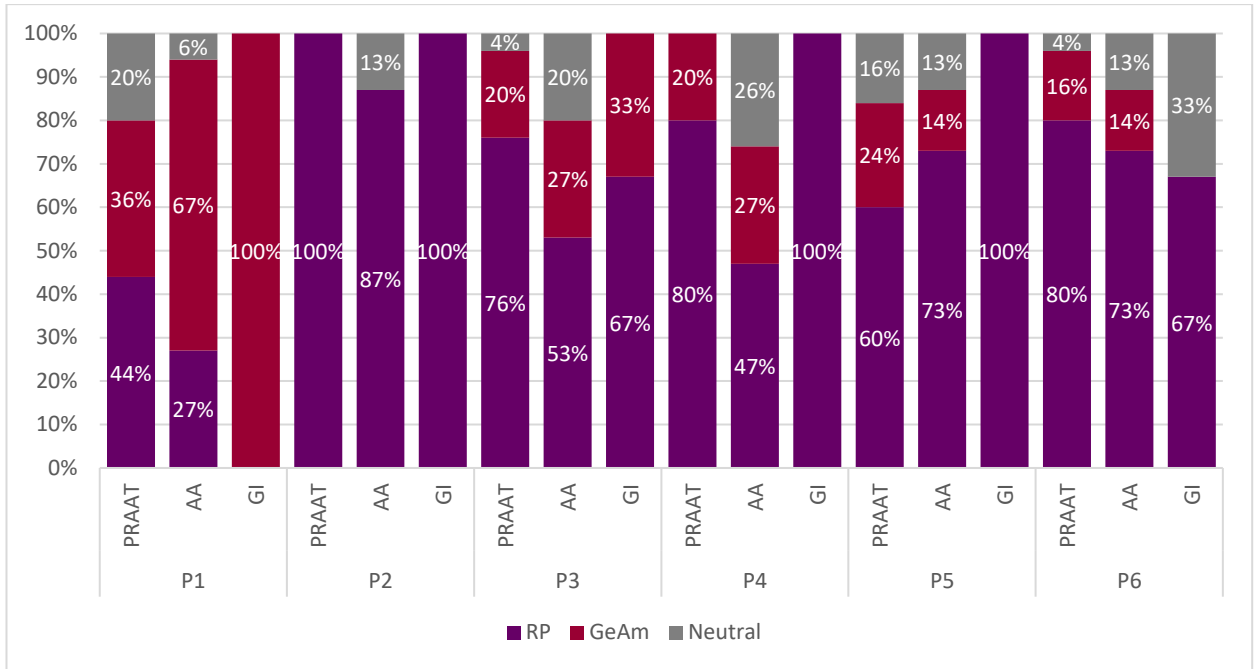


Figure 16: Summary of Results (P1-P6)

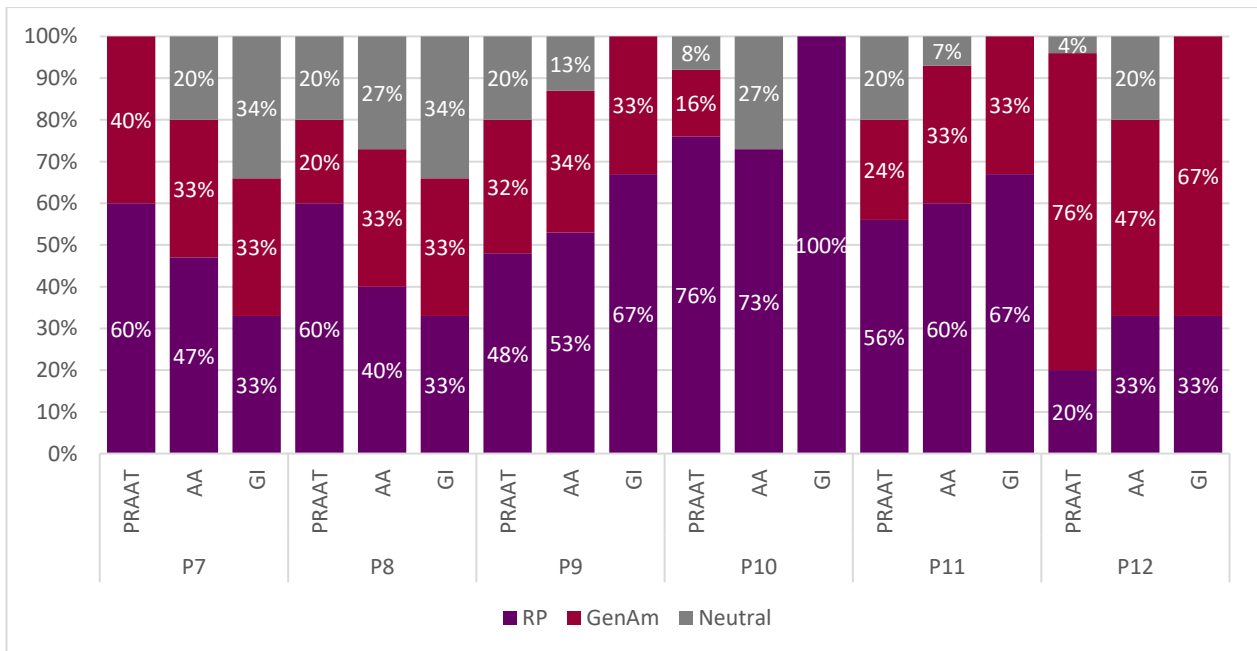


Figure 17: Summary of Results (P7-P12)

Figure 18 shows the number of participants who were able to correctly evaluate their accent production, as regards the individual areas PRAAT, AA and GI separately. According to the phonetic analysis in PRAAT, a total of 5 participants approached the



preferred accent in their speech. The lowest concordance was detected in the AA, where only 4 participants came close to the accent they self-reported to emulate in their speech. 8 participants evaluated their accent correctly according to the GI. The last column in the graph shows how many participants' self-report coincided with the results of all analyzed areas (PRAAT+AA+GI). In respect of the overall summary of the examined areas, only 3 participants assessed their production accurately. It is essential to mention that all these respondents approached RP.

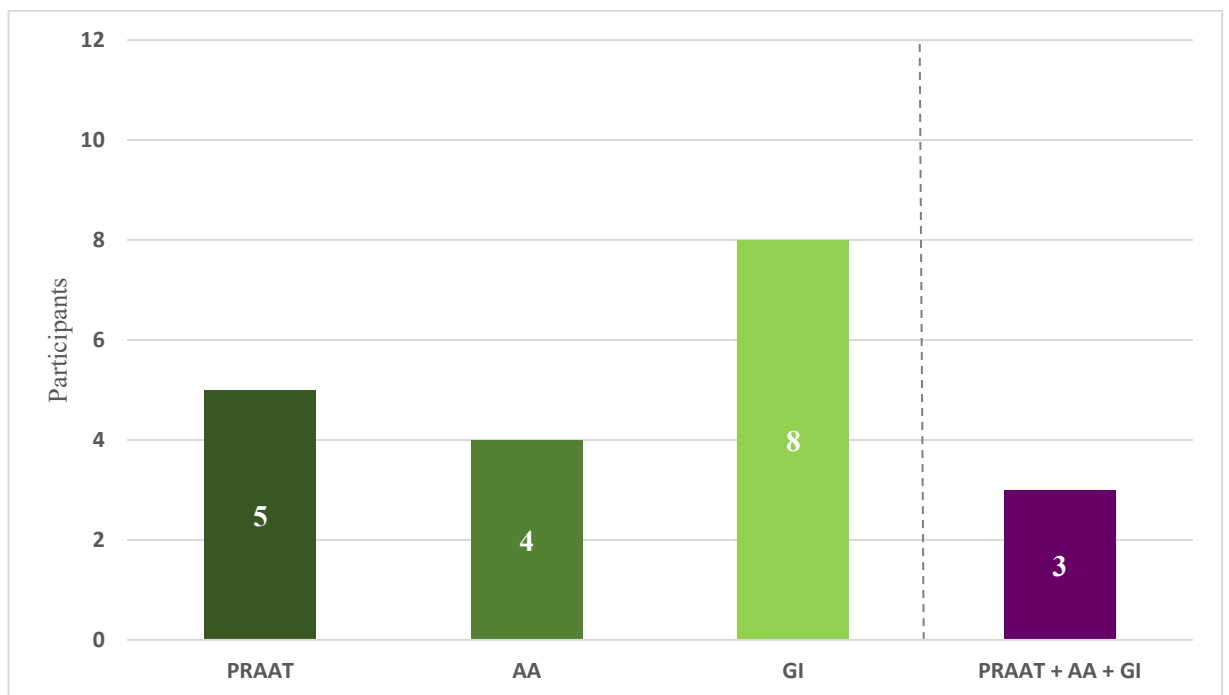


Figure 18: Results of all investigated areas

## Conclusion

The theoretical part of this bachelor's thesis examined the differences in the vowel and consonant systems between the two major accents of English - Received Pronunciation and General American English. As for the practical part, this thesis aimed to identify which of these two English accents TUL students of English for Education in the third year prefer in terms of both perception and production. Subsequently, through phonetic analysis, the thesis intended to examine which accent, and to what extent, the students actually approximate in their speech.

The necessary data were collected by means of two tasks – a questionnaire and recordings. The questionnaire examined the linguistic background of the participants. 4 respondents were unable to determine which accent they prefer with regard to perception and production and were excluded from the research. The questionnaire revealed that 8 respondents out of 12 preferred RP in terms of perception and production, while the remaining 4 favored GenAm.

The recorded material was used as the basis for segmental analysis of the selected phonemes as well as for obtaining the global impression of the participants' production. The segmental analysis was conducted by means of two methods: acoustic analysis and auditory assessment. The acoustic examination of the selected segments was performed using PRAAT. The values of the selected phonemes in the words *city*, *new* and *tower* pronounced by the respondents were measured, and subsequently compared with the values of the phonemes of English native speakers. Based on the segmental analysis in PRAAT, a concordance between the participants' self-report and their actual production was found in 5 respondents. All of them had rather British-like pronunciation. The results of the auditory assessment conducted by 2 NSs and 1 NNS

showed that 4 participants were able to accurately assess their pronunciation in favor of the British-like accent.

The global impression evaluation concentrated on the overall impression of the participants' production in both careful speech and spontaneous speech. The results of the global impression assessment revealed that the respondents approached British English pronunciation in 8 cases, which concurs with their self-report. Only 1 respondent who indicated in the questionnaire that he attempts to emulate the American accent in his speech actually approximated the said accent.

Based on the data obtained from the questionnaire, it can be speculated that the accent of the examined participants was influenced by the school environment. 10 of them said that their teachers preferred the British accent at both secondary school and university. In addition, half of the respondents opined that the British accent should be taught in schools in Europe. Moreover, it is not unreasonable to assume that a stay (long or short) in English-speaking countries might have influenced the participants' accent preference as all 5 participants who stated that they had visited Great Britain or the USA, their preferred accent in terms of both perception and production coincided with the accent of the country they had visited. 2 of these participants matched the accent of the country they visited in all investigated areas (PRAAT, AA, GI) in favor of the British accent. Although the vast majority of the respondents stated in the questionnaire that they watch movies/series and listen to songs in American English, none of them approximated American-like pronunciation in all the investigated areas.

In summary, the phonetic analysis revealed that a quarter of the participants approximated British-like pronunciation in all investigated segments as well as in their overall production level. Nevertheless, the global impression showed that most of the

participants had British-like pronunciation. None of the participants approached GenAm in all investigated areas. Regarding the accent preferences, most respondents stated that they preferred the British accent in terms of perception and production. In addition, the majority of the participants demonstrated their ability to accurately assess their accent. This thesis is also in accordance with earlier studies in that RP seems to be the most popular accent among European students. The comparison of the questionnaire results with the phonetic analysis showed that the majority of participants inclined towards RP in their speech, which is in accordance with the previous studies.

In addition to being limited by the low number of respondents, this research also examined students of only one age group at one university. Moreover, only 3 evaluators participated in the research. Another significant limitation of this thesis was the size of the analysed data. Therefore, the author of this bachelor's thesis would recommend future researchers who decide to study this topic to include a more significant number of participants in their study. A greater number of assessors... consider including more assessors in their survey in order to obtain more opinions. Finally, the author of this thesis would advise the PRAAT program for phonetic analysis, which served as a great helper in this study. In addition, English accents other than RP and GenAm can also be incorporated into further research, as English is a rich language with a large number of accents.

Among other things, this bachelor's thesis ascertained to what extent the students are able to evaluate themselves within the English accent. More importantly, however, despite the limitations this thesis provided a microcosmic insight into the accent preferences of students of English at the Technical University of Liberec. Also, it demonstrated that, for these students, aiming at a particular native accent, whether it

be RP or GenAm, still plays an important role in studying the English language. As this thesis examined future English teachers, it showed what accent might be preferred in English teaching in a few years.

## References

Brabcová, Kateřina, and Radek Skarnitzl. 2018. "Foreign or Native-like? The Attitudes of Czech EFL Learners Towards Accents of English and Their Use as Pronunciation Models." Charles University.

Brown, Adam. 1991. *Pronunciation Models*. Singapore: Singapore University Press.

Carrie, Erin. 2017. "'British is professional, American is urban': attitudes towards English reference accents in Spain." *International Journal of Applied Linguistics* 27, Iss. 2: 427-447. <https://doi.org/10.1111/ijal.12139>

Core Languages. 2022. "The Difference Between ESL and EFL". Last modified March 8, 2022. <https://www.corelanguages.com/blog/the-difference-between-esl-and-efl>

Crystal, David. 2003. *English as a Global Language*. 2nd ed. Cambridge: Cambridge University Press.

Cruttenden, Alan. 2014. *Gimson's Pronunciation of English*. 8th ed. London: Routledge, Taylor & Francis Group.

Dziubalska-Kolaczyk, Katarzyna, and Joanna Przedlacka. 2008. *English Pronunciation Models: A Changing Scene*. 2nd ed. Bern: Peter Lang

EdUHK. n.d. "Acoustic Aspects of Consonants." Accessed July 7, 2022. 3.2. Acoustic Aspects of Consonants – Phonetics and Phonology (eduhk.hk)

Giegerich, Heinz J. 1992. *English Phonology: An Introduction*. Cambridge Textbooks in Linguistics. Cambridge: Cambridge University Press.

Gonet, Wiktor. n.d. "Vowel quality in the idiolects of four BBC World News presenters." Accessed July 9, 2022. Vowel quality in the idiolects of four BBC World News presenters | Wiktor Gonet - Academia.edu

Henderson, Alice, Dan Frost, Elina Tergujeff, Alexander Kautzsch, Deirdre Murphy, Anastazija Kirkova-Naskova, Ewa Waniek-Klimczak, David Levey, Una Cunningham, and Lesley Curnick. 2012. "The English Pronunciation Teaching in Europe Survey: Selected Results". *Research in Language* 10, no. 1 (March): 5-27. <https://doi.org/10.2478/v10015-011-0047-4>.

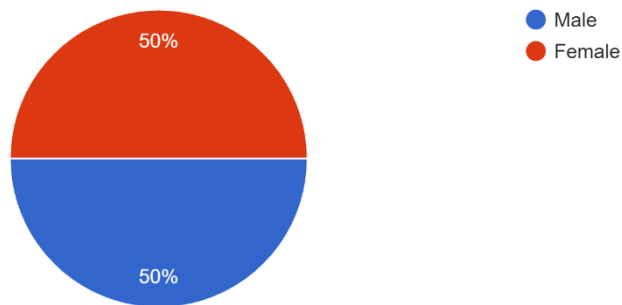
- Hillenbrand, James, Laura Getty, Michael Clark, and Kimberlee Wheeler. 1994. "Acoustic characteristics of American English vowels." *The Journal of the Acoustical Society of America* 95, 2875-2875. <https://doi.org/10.1121/1.409456>
- Hughes, Arthur, Peter Trudgill, and Dominic James Landon Watt. 2013. *English accents & dialects*. 5th ed. London: Routledge, Taylor & Francis Group.
- Kretzschmar, William A., Jr. 2004. "Standard American English pronunciation". In *A Handbook of Varieties of English: Phonology*, edited by Bernd Kortmann and Edgar W. Schneider, 257–269. Berlin: Mouton de Gruyter.
- Ladegaard, Hans J., and Itesh Sachdev. 2006. "'I Like the Americans... But I Certainly Don't Aim for an American Accent': Language Attitudes, Vitality and Foreign Language Learning in Denmark". *Journal of Multilingual and Multicultural Development* 27:2, 91-108. <https://doi.org/10.1080/01434630608668542>.
- Mather, Patrick-André. 2011. "The Social Stratification of /r/ in New York City: Labov's Department Store Study Revisited." *Journal of English Linguistics* 40, no. 4: 338–56. <https://doi.org/10.1177/0075424211431265>.
- Rogers, Henry. 2000. *The Sounds of Language: An Introduction to Phonetics*. London: Routledge, Taylor & Francis Group.
- Van Riper, William R. 1986. "General American: An Ambiguity." In *Dialect and Language Variation*, edited by Harold B. Allen, Michael D. Linn, 123-135. Orlando: Academic Press.
- Wells, J. C. 1982. *Accents of English: Volume I: An Introduction*. Cambridge: Cambridge University Press.
- Wells, J. C. 1982. *Accents of English: Volume II: The British Isles*. Cambridge: Cambridge University Press.
- Wells, J. C. 1982. *Accents of English: Volume III: Beyond the British Isles*. New York: Cambridge University Press.
- Wright, David. 2018. Idiolect. *Oxford Bibliographies*. Last modified November 29, 2018. <https://www.oxfordbibliographies.com/view/document/obo-9780199772810/obo-9780199772810-0225.xml>

# Appendix

## Appendix A: The Questionnaire

1. Are you a male or a female?

16 responses



2. Have you ever been to an English-speaking country? If so, please specify in which country and for how long. (If not, do not fill in.)

5 responses

Yes, I have been to England for a week.

London, UK and Brighton, UK for 2 weeks

USA - I went to the USA for a roadtrip through the west part. It took one month. I visited countries like: California, Oregon, Idaho, Montana, Colorado, Arizona, Nevada, Texas. I also spend 1 week in London.

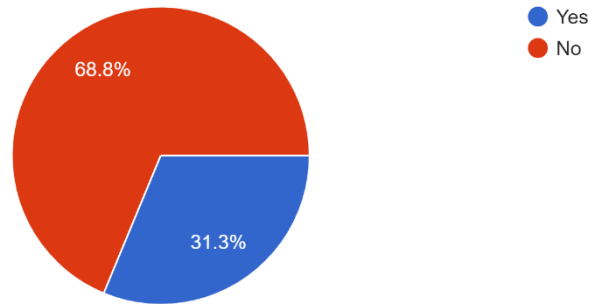
Great Britain - holiday, student exchange

Yes, I have been to England for one week. We've stayed in a typical English family. Besides, I've visited Egypt, Greece, Italy, and Croatia, but these countries are not English-speaking countries.



3. Do you speak English regularly with someone outside the school environment?

16 responses



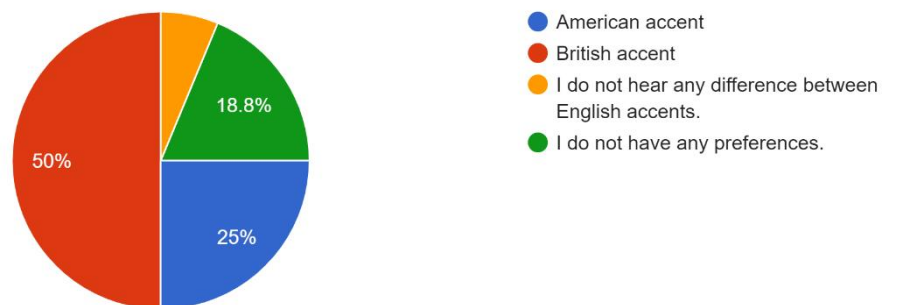
4. If your answer to the previous question was "yes", what is this person's nationality?

6 responses



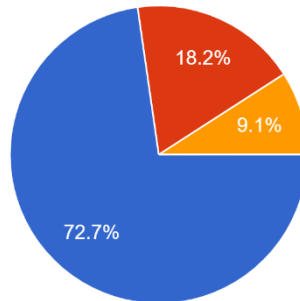
5. Which accent do you prefer to listen to?

16 responses



6. If your answer to the previous question was a), b) or e), please state the reason for your answer (you can choose more than one option).

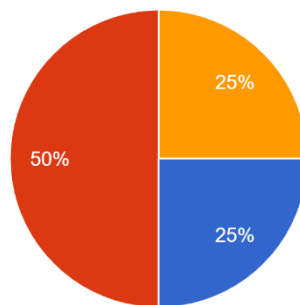
11 responses



- I like how this accent sounds.
- It is easier for me to understand this accent than other English accents.
- I like each of the ways these accents sound. American english is easier to pronounce and British english is sounds prettier.

7. Which accent do you generally prefer to emulate in your speech?

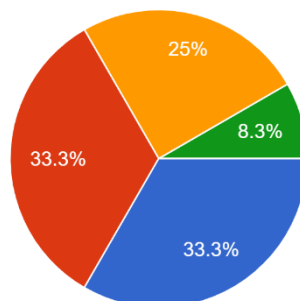
16 responses



- American accent
- British accent
- I do not generally attempt to emulate any specific accent in my speech.

8. If your answer to the previous question was a), b) or d), please state the reason for your answer (you can choose more than one option).

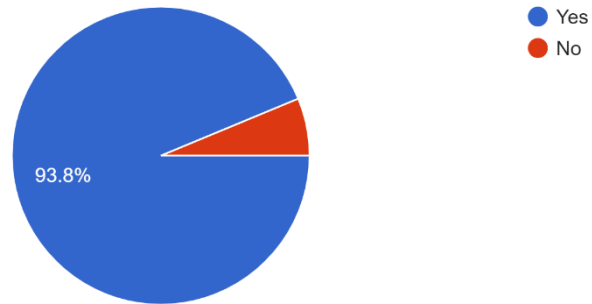
12 responses



- I like how this accent sounds.
- I think the accent has generally higher prestige.
- It is easier for me to pronounce this accent rather than any other English accents.
- Well, in this question, I would like to choose all options, but it doesn't work. :)

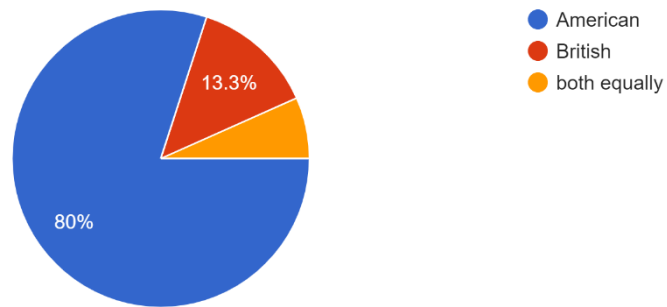
9. Do you watch movies / TV shows / TV series in English?

16 responses



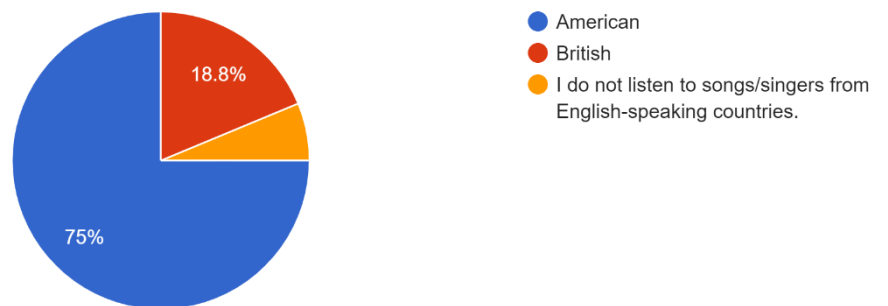
10. If your answer to the previous question was "yes", what movies / TV shows / TV series do you watch most often? Please choose only one answer.

15 responses



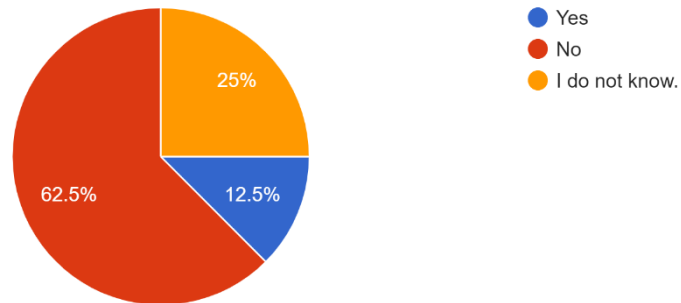
11. What songs/singers from English-speaking countries do you listen to most often? Please choose only one answer.

16 responses



12. Do you use a different accent in English classes and a different accent outside the school environment (for example, with an English-speaking friend)?

16 responses



13. If your answer to the previous question was "yes", please specify which accent you prefer at school in English classes and which accent you prefer outside the school environment.

3 responses

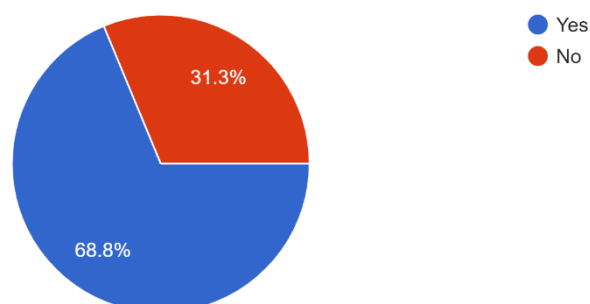
I prefer British accent at school but I tend to speak with American accent outside the school environment.

British accent at school, American accent outside the school environment

In my opinion, in the Czech republic is difficult to speak different accent than British one. Because we are taught this accent at schools.

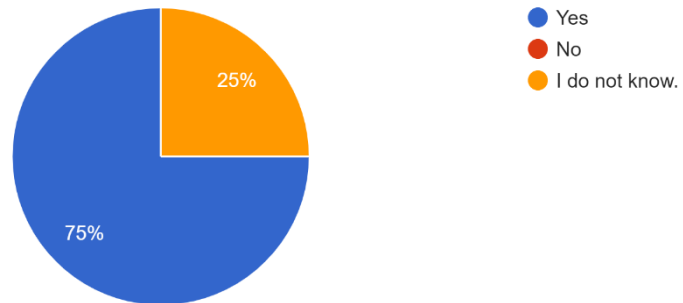
14. Are you aiming at native-like pronunciation in your English?

16 responses



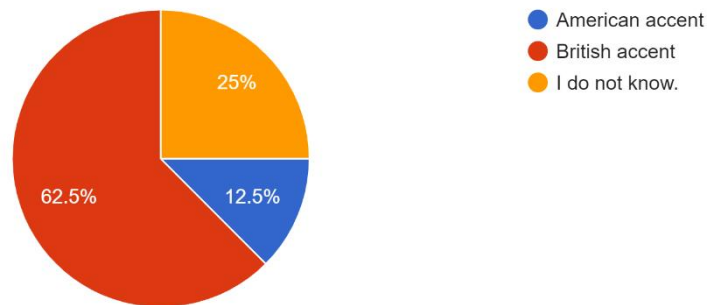
15. Do you think it is important for students to be familiar with English accents and to recognise them?

16 responses



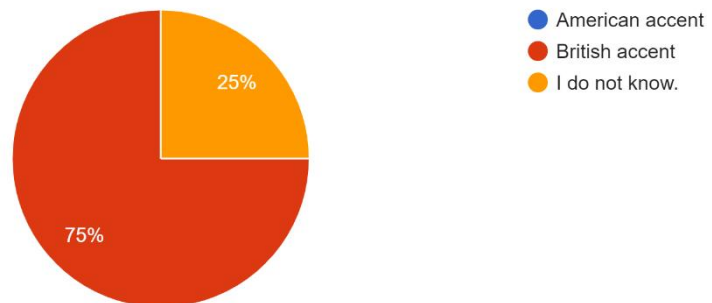
16. What accent was taught and preferred by your English teachers at secondary school?

16 responses



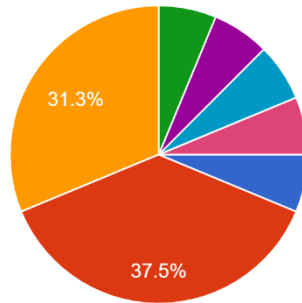
17. What accent was (or still is) taught and preferred by your English teachers at university?

16 responses



18. Do you think that a specific accent should be preferred in English language teaching in Europe?  
If so, which one?

16 responses



- American accent
- British accent
- I do not know.
- I do not think so
- I think students should be exposed to both accents, neither of them should b...
- I do not know which one is better but I heard that British english is more gra...
- I think that students should be familiar with both accents and that they should...

**Appendix B:** Measurement results in PRAAT (*clock-city*)

<b>Careful Speech</b>													
	<b>CLOCK</b>												<b>MEAN</b>
<b>P1</b>	F1	434	376	377	452	551	673	459	502	493	659	675	<b>514</b>
	F2	1021	917	907	1126	988	1180	959	925	901	967	1145	<b>1003</b>
<b>P2</b>	F1	625	406	445	556	633	497	650	609	620	500	562	<b>555</b>
	F2	1073	786	1013	981	1200	1047	1007	1117	743	789	827	<b>962</b>
<b>P3</b>	F1	293	355	371	381	461	362	458	368	360	491	342	<b>386</b>
	F2	1268	1182	1193	1269	1215	1212	1195	1315	1213	1125	1223	<b>1219</b>
<b>P4</b>	F1	656	575	430	521	519	682	677	629	623	463	516	<b>572</b>
	F2	818	817	823	893	875	853	837	969	1063	872	911	<b>885</b>
<b>P5</b>	F1	459	427	421	423	427	432	453	463	510	462	427	<b>446</b>
	F2	1098	956	945	971	926	893	796	927	1528	850	823	<b>974</b>
<b>P6</b>	F1	582	642	602	419	549	470	523	630	491	506	578	<b>545</b>
	F2	921	1003	898	918	980	1011	845	945	833	818	950	<b>920</b>
<b>P7</b>	F1	280	461	709	571	605	625	607	397	673	460	663	<b>550</b>
	F2	635	768	727	730	703	689	651	848	649	650	789	<b>713</b>
<b>P8</b>	F1	345	296	323	320	321	356	354	296	298	278	363	<b>323</b>
	F2	1171	1022	1077	1029	1099	1170	1009	1135	1032	1055	1128	<b>1084</b>
<b>P9</b>	F1	642	548	643	775	637	596	671	513	618	520	590	<b>614</b>
	F2	1403	981	1055	815	970	1062	1043	1015	1145	1052	860	<b>1036</b>
<b>P10</b>	F1	471	469	472	443	490	496	505	530	510	566	530	<b>498</b>
	F2	967	813	869	848	869	882	973	1125	1155	2633	569	<b>1064</b>
<b>P11</b>	F1	497	492	453	488	333	485	439	425	399	475	479	<b>451</b>
	F2	655	1163	971	623	813	1336	1050	958	1125	735	1027	<b>951</b>
<b>P12</b>	F1	578	533	457	520	523	483	541	539	467	539	478	<b>514</b>
	F2	711	813	1328	1105	1015	1113	1122	1058	1006	1075	1153	<b>1045</b>

	<b>PAST</b>					<b>MEAN</b>
<b>P1</b>	F1	893	850	825	861	<b>857</b>
	F2	1898	1892	1789	1971	<b>1888</b>
<b>P2</b>	F1	583	615	583	693	<b>619</b>
	F2	1085	1115	1050	917	<b>1042</b>
<b>P3</b>	F1	240	167	325	428	<b>290</b>
	F2	1485	1418	1651	1350	<b>1476</b>
<b>P4</b>	F1	595	601	357	703	<b>564</b>
	F2	1011	966	1153	995	<b>1031</b>
<b>P5</b>	F1	732	779	537	595	<b>661</b>
	F2	987	923	953	1300	<b>1041</b>
<b>P6</b>	F1	686	652	545	577	<b>615</b>
	F2	965	979	969	1024	<b>984</b>
<b>P7</b>	F1	632	703	605	678	<b>655</b>
	F2	2050	819	1115	1402	<b>1347</b>
<b>P8</b>	F1	397	535	467	510	<b>477</b>
	F2	1237	1183	1287	1156	<b>1216</b>
<b>P9</b>	F1	757	538	739	557	<b>648</b>
	F2	961	1061	997	921	<b>985</b>
<b>P10</b>	F1	901	871	853	577	<b>801</b>
	F2	1122	1083	919	929	<b>1013</b>
<b>P11</b>	F1	469	595	439	563	<b>517</b>
	F2	1069	1207	1065	1068	<b>1102</b>
<b>P12</b>	F1	917	547	835	775	<b>769</b>
	F2	2160	2001	1961	2199	<b>2080</b>



	<b>CITY (participants)</b>							<b>MEAN</b>
<b>P1</b>	VOT	13	35	10	32	3	2	<b>16 ms</b>
<b>P2</b>	VOT	67	46	65	45	35	26	<b>47 ms</b>
<b>P3</b>	VOT	21	12	27	5	5	2	<b>12 ms</b>
<b>P4</b>	VOT	15	16	18	13	19	6	<b>15 ms</b>
<b>P5</b>	VOT	24	29	27	32	28	41	<b>30 ms</b>
<b>P6</b>	VOT	20	10	5	15	35	9	<b>16 ms</b>
<b>P7</b>	VOT	20	10	5	1	15	2	<b>9 ms</b>
<b>P8</b>	VOT	28	49	27	25	22	22	<b>29 ms</b>
<b>P9</b>	VOT	43	32	26	36	13	22	<b>29 ms</b>
<b>P10</b>	VOT	16	14	23	25	17	19	<b>19 ms</b>
<b>P11</b>	VOT	39	38	29	36	39	37	<b>36 ms</b>
<b>P12</b>	VOT	16	10	8	9	24	19	<b>14 ms</b>

<b>CITY (NATIVE SPEAKERS)</b>								<b>MEAN</b>
<b>NS (GenAm)</b>	VOT	74	62	55	70	56	58	<b>63 ms</b>
<b>NS (RP)</b>	VOT	0	2	1	0	0	1	<b>0,7 ms</b>

<b>Spontaneous Speech</b>								
	<b>CLOCK</b>			<b>PAST</b>			<b>CITY (Participants)</b>	
<b>P1</b>	F1	470	<b>P1</b>	F1	529	<b>P1</b>	VOT	37
	F2	996		F2	1025			
<b>P2</b>	F1	461	<b>P2</b>	F1	403	<b>P2</b>	VOT	81
	F2	913		F2	928			
<b>P3</b>	F1	395	<b>P3</b>	F1	X	<b>P3</b>	VOT	10
	F2	1168		F2	X			
<b>P4</b>	F1	713	<b>P4</b>	F1	676	<b>P4</b>	VOT	13
	F2	817		F2	1245			
<b>P5</b>	F1	418	<b>P5</b>	F1	418	<b>P5</b>	VOT	45
	F2	683		F2	803			
<b>P6</b>	F1	527	<b>P6</b>	F1	595	<b>P6</b>	VOT	X
	F2	894		F2	990			
<b>P7</b>	F1	436	<b>P7</b>	F1	451	<b>P7</b>	VOT	19
	F2	892		F2	1197			
<b>P8</b>	F1	368	<b>P8</b>	F1	421	<b>P8</b>	VOT	30
	F2	1037		F2	1489			
<b>P9</b>	F1	332	<b>P9</b>	F1	515	<b>P9</b>	VOT	31
	F2	908		F2	986			
<b>P10</b>	F1	455	<b>P10</b>	F1	639	<b>P10</b>	VOT	28
	F2	898		F2	967			
<b>P11</b>	F1	475	<b>P11</b>	F1	537	<b>P11</b>	VOT	33
	F2	1005		F2	1125			
<b>P12</b>	F1	568	<b>P12</b>	F1	973	<b>P12</b>	VOT	25
	F2	1211		F2	2060			

Appendix C: Segmental Analysis Chart

Segmental Analysis					
RV	CLOCK /ɑ:/ /ɒ/	PAST /æ/ /ɑ:/	CITY /t/ /t/	*NEW	*TOWER
GenAm (M)	F1: 768 F2: 1333	F1: 588 F2: 1952	VOT: 0,7 ms	/nu:/	/taʊər/
GenAm (F)	F1: 936 F2: 1551	F1: 669 F2: 2349			

RP (M)	F1: 646 F2: 1047	F1: 646 F2: 1155	VOT: 63 ms	/nju:/	/taʊə/
	F1: 751 F2: 1215	F1: 910 F2: 1316			

P1 (F)	CLOCK	PAST	CITY	*NEW	*TOWER
Careful speech	F1: 514 F2: 1003	F1: 857 F2: 1888	VOT: 16 ms	/nju:/	/taʊər/
Spontan eous speech	F1: 470 F2: 996	F1: 529 F2: 1025	VOT: x37 ms	/nju:/	/taʊər/
Auditory assessm ent	AA1: rather RP	AA1: rather GenAm	AA1: native-like GenAm	AA1: rather RP	AA1: native-like GenAm
	AA2: rather RP	AA2: rather GenAm	AA2: rather GenAm	AA2: rather RP	AA2: neutral
	AA3: rather GenAm	AA3: rather GenAm	AA3: rather GenAm	AA3: rather GenAm	AA3: rather GenAm

P2 (F)	CLOCK	PAST	CITY	*NEW	*TOWER
Careful speech	F1: 555 F2: 962	F1: 619 F2: 1042	VOT: 47 ms	/nju:/	/taʊə/
Spontan eous speech	F1: 461 F2: 913	F1: 403 F2: 928	VOT: 81 ms	/nju:/	/taʊə/
Auditory assessm ent	AA1: rather RP	AA1: rather RP	AA1: rather RP	AA1: rather RP	AA1: native-like RP
	AA2: neutral	AA2: rather RP	AA2: native-like RP	AA2: rather RP	AA2: neutral
	AA3: rather RP	AA3: rather RP	AA3: rather RP	AA3: rather RP	AA3: rather RP

P3 (F)	CLOCK	PAST	CITY	*NEW	*TOWER
Careful speech	F1: 386	F1: 290	VOT: 12 ms	/nju:/	/taʊə/
	F2: 1219	F2: 1476			
Spontaneous speech	F1: 395	F1: X	VOT: 10 ms	/nju:/	/taʊə/
	F2: 1168	F2: X			
Auditory assessment	AA1: rather RP	AA1: rather GenAm	AA1: rather GenAm	AA1: rather RP	AA1: rather RP
	AA2: neutral	AA2: rather GenAm	AA2: native-like GenAm	AA2: neutral	AA2: neutral
	AA3: native-like RP	AA3: native-like RP	AA3: native-like RP	AA3: native-like RP	AA3: native-like RP

P4 (F)	CLOCK	PAST	CITY	*NEW	*TOWER
Careful speech	F1: 572	F1: 564	VOT: 15 ms	/nju:/	/taʊə/
	F2: 885	F2: 1031			
Spontaneous speech	F1: 713	F1: 676	VOT: 13 ms	/nju:/	/taʊə/
	F2: 817	F2: 1245			
Auditory assessment	AA1: rather RP	AA1: rather RP	AA1: rather GenAm	AA1: rather RP	AA1: rather RP
	AA2: rather RP	AA2: rather RP	AA2: rather GenAm	AA2: neutral	AA2: neutral
	AA3: neutral	AA3: rather RP	AA3: rather GenAm	AA3: neutral	AA3: rather GenAm

P5 (M)	CLOCK	PAST	CITY	*NEW	*TOWER
Careful speech	F1: 446	F1: 661	VOT: 30 ms	/nju:/	/taʊər/
	F2: 974	F2: 1041			
Spontaneous speech	F1: 418	F1: 418	VOT: 45 ms	/nu:/	/taʊər/
	F2: 683	F2: 803			
Auditory assessment	AA1: rather RP	AA1: rather RP	AA1: rather RP	AA1: rather RP	AA1: rather GenAm
	AA2: neutral	AA2: native-like RP	AA2: rather RP	AA2: rather RP	AA2: neutral
	AA3: native-like RP	AA3: native-like RP	AA3: native-like RP	AA3: native-like RP	AA3: rather GenAm

<b>P6 (M)</b>	CLOCK	PAST	CITY	*NEW	*TOWER
Careful speech	F1: 545	F1: 615	VOT: 16 ms	/nju:/	/taʊə/
	F2: 920	F2: 984			
Spontaneous speech	F1: 527	F1: 595	VOT: X	/nju:/	/taʊə/
	F2: 894	F2: 990			
Auditory assessment	AA1: rather RP	AA1: rather RP	AA1: rather GenAm	AA1: rather RP	AA1: rather RP
	AA2: neutral	AA2: rather RP	AA2: rather GenAm	AA2: rather RP	AA2: neutral
	AA3: native-like RP	AA3: native-like RP	AA3: native-like RP	AA3: rather RP	AA3: rather RP

<b>P7 (F)</b>	CLOCK	PAST	CITY	*NEW	*TOWER
Careful speech	F1: 550	F1: 655	VOT: 9 ms	/nju:/	/taʊər/
	F2: 713	F2: 1347			
Spontaneous speech	F1: 436	F1: 451	VOT: 19 ms	/nju:/	/taʊər/
	F2: 892	F2: 1197			
Auditory assessment	AA1: rather RP	AA1: rather RP	AA1: rather GenAm	AA1: rather RP	AA1: rather RP
	AA2: rather RP	AA2: rather RP	AA2: rather GenAm	AA2: rather RP	AA2: neutral
	AA3: native-like GenAm	AA3: rather GenAm	AA3: neutral	AA3: rather GenAm	AA3: neutral

<b>P8 (F)</b>	CLOCK	PAST	CITY	*NEW	*TOWER
Careful speech	F1: 323	F1: 477	VOT: 29 ms	/nju:/	/taʊər/
	F2: 1084	F2: 1216			
Spontaneous speech	F1: 368	F1: 421	VOT: 30 ms	/nju:/	/taʊər/
	F2: 1037	F2: 1489			
Auditory assessment	AA1: rather RP	AA1: rather RP	AA1: rather RP	AA1: rather RP	AA1: rather GenAm
	AA2: neutral	AA2: rather RP	AA2: neutral	AA2: rather RP	AA2: rather GenAm
	AA3: neutral	AA3: neutral	AA3: rather GenAm	AA3: rather GenAm	AA3: native-like GenAm

<b>P9 (F)</b>	CLOCK	PAST	CITY	*NEW	*CENTER
Careful speech	F1: 614	F1: 648	VOT: 29 ms	/nu:/	/taʊər/
	F2: 1036	F2: 985			
Spontaneous speech	F1: 332	F1: 515	VOT: 31 ms	/nju:/	/sentə/*
	F2: 908	F2: 986			
Auditory assessment	AA1: rather RP	AA1: rather RP	AA1: rather GenAm	AA1: rather GenAm	AA1: rather GenAm
	AA2: rather RP	AA2: rather RP	AA2: rather GenAm	AA2: rather GenAm	AA2: neutral
	AA3: rather RP	AA3: native-like RP	AA3: neutral	AA3: rather RP	AA3: rather RP

<b>P10 (M)</b>	CLOCK	PAST	CITY	*NEW	*TOWER
Careful speech	F1: 498	F1: 801	VOT: 19 ms	/nju:/	/taʊə/
	F2: 1064	F2: 1013			
Spontaneous speech	F1: 455	F1: 639	VOT: 28 ms	X	/taʊə/
	F2: 898	F2: 967			
Auditory assessment	AA1: rather RP	AA1: rather RP	AA1: rather RP	AA1: rather RP	AA1: rather RP
	AA2: rather RP	AA2: rather RP	AA2: rather RP	AA2: rather RP	AA2: neutral
	AA3: neutral	AA3: rather RP	AA3: neutral	AA3: rather RP	AA3: neutral

<b>P11 (M)</b>	CLOCK	PAST	CITY	*NEW	*TOWER
Careful speech	F1: 451	F1: 517	VOT: 36 ms	/nju:/	/taʊər/
	F2: 951	F2: 1102			
Spontaneous speech	F1: 475	F1: 537	VOT: 33 ms	/nu:/	/taʊər/
	F2: 1005	F2: 1125			
Auditory assessment	AA1: rather RP	AA1: rather RP	AA1: rather RP	AA1: rather RP	AA1: rather GenAm
	AA2: rather RP	AA2: rather RP	AA2: rather RP	AA2: rather RP	AA2: rather GenAm
	AA3: neutral	AA3: rather RP	AA3: rather GenAm	AA3: rather GenAm	AA3: rather GenAm

<b>P12 (F)</b>	CLOCK	PAST	CITY	*NEW	*TOWER
Careful speech	F2: 514	F1: 769	VOT: 14 ms	/nu:/	/taʊər/
	F2: 1045	F2: 2080			
Spontaneous speech	F1: 568	F1: 973	VOT: 25 ms	/nu:/	/taʊər/
	F2: 1211	F2: 2060			
Auditory assessment	AA1: rather RP	AA1: rather RP	AA1: rather RP	AA1: rather RP	AA1: rather RP
	AA2: neutral	AA2: rather GenAm	AA2: rather GenAm	AA2: neutral	AA2: neutral
	AA3: native-like GenAm	AA3: native-like GenAm	AA3: native-like GenAm	AA3: native-like GenAm	AA3: native-like GenAm

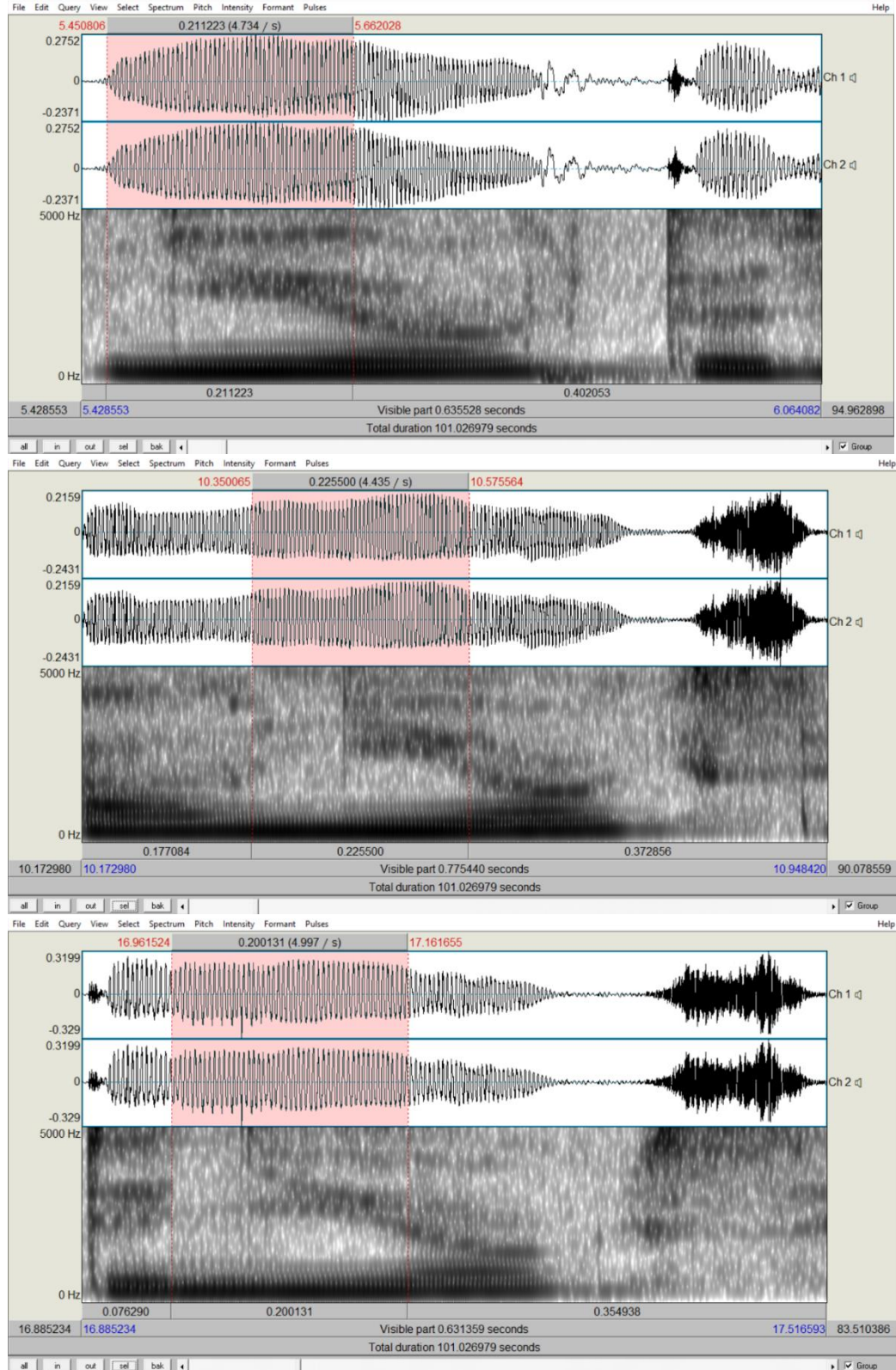
## Appendix D: Results Chart

Results					
P1	Self-report	RP→GenAm	P7	Self-report	RP→GenAm
	Segmental analysis (Praat)	RP X GenAm		Segmental analysis (Praat)	RP X GenAm
	Segmental analysis (AA)	RP X GenAm		Segmental analysis (AA)	RP X GenAm
	Global impression	RP→GenAm		Global impression	RP X GenAm
P2	Self-report	RP←GenAm	P8	Self-report	RP→GenAm
	Segmental analysis (Praat)	RP←GenAm		Segmental analysis (Praat)	RP X GenAm
	Segmental analysis (AA)	RP←GenAm		Segmental analysis (AA)	RP X GenAm
	Global impression	RP←GenAm		Global impression	RP X GenAm
P3	Self-report	RP←GenAm	P9	Self-report	RP←GenAm
	Segmental analysis (Praat)	RP←GenAm		Segmental analysis (Praat)	RP X GenAm
	Segmental analysis (AA)	RP X GenAm		Segmental analysis (AA)	RP X GenAm
	Global impression	RP←GenAm		Global impression	RP←GenAm
P4	Self-report	RP←GenAm	P10	Self-report	RP←GenAm
	Segmental analysis (Praat)	RP←GenAm		Segmental analysis (Praat)	RP←GenAm
	Segmental analysis (AA)	RP X GenAm		Segmental analysis (AA)	RP←GenAm
	Global impression	RP←GenAm		Global impression	RP←GenAm
P5	Self-report	RP←GenAm	P11	Self-report	RP→GenAm
	Segmental analysis (Praat)	RP X GenAm		Segmental analysis (Praat)	RP X GenAm
	Segmental analysis (AA)	RP←GenAm		Segmental analysis (AA)	RP X GenAm
	Global impression	RP←GenAm		Global impression	RP←GenAm
P6	Self-report	RP←GenAm	P12	Self-report	RP←GenAm
	Segmental analysis (Praat)	RP←GenAm		Segmental analysis (Praat)	RP→GenAm
	Segmental analysis (AA)	RP←GenAm		Segmental analysis (AA)	RP X GenAm
	Global impression	RP←GenAm		Global impression	RP→GenAm

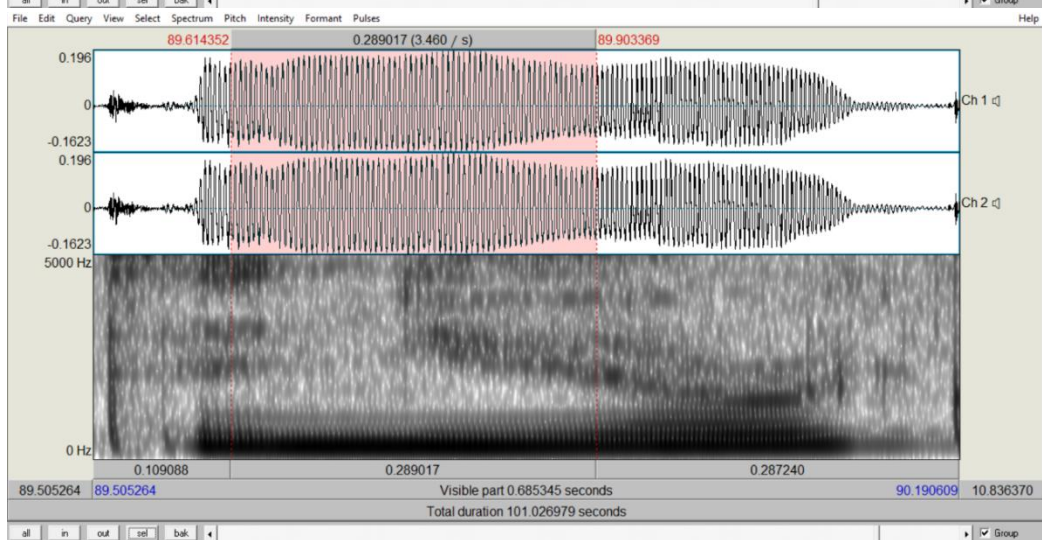
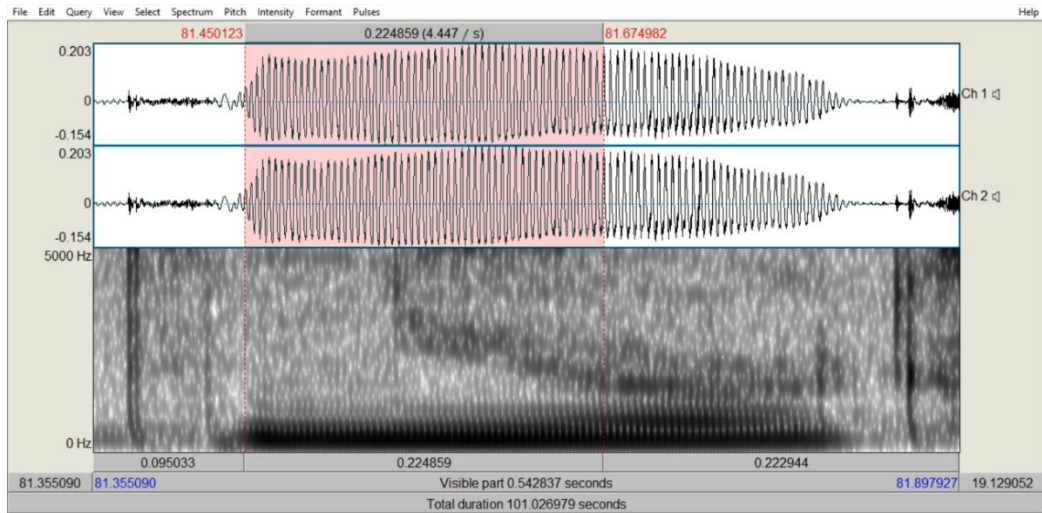
## Appendix E: Results of the PRAAT measurement (*new* and *tower*)

### PARTICIPANT 1 (female)

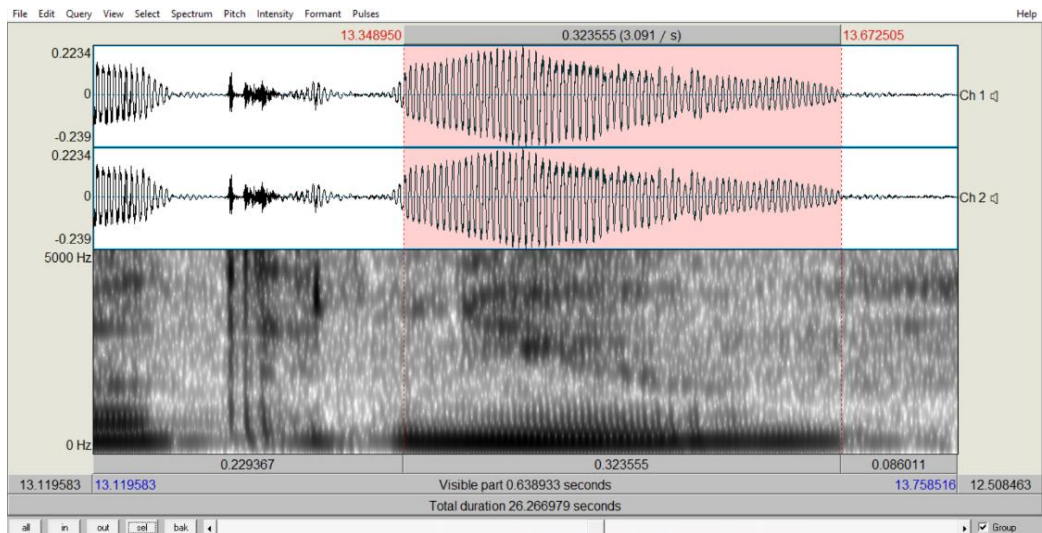
#### *New* (careful speech)



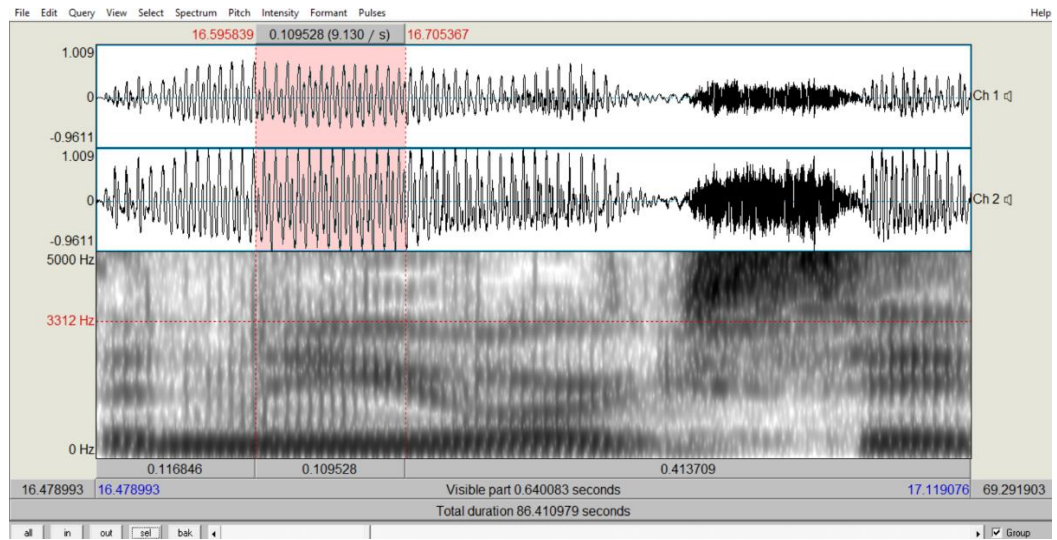




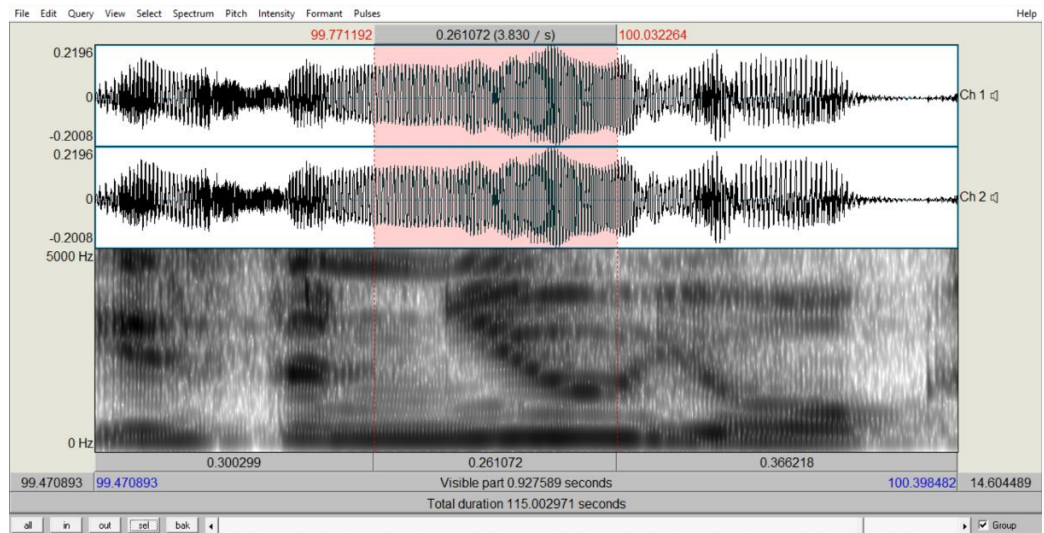
**New (spontaneous speech)**



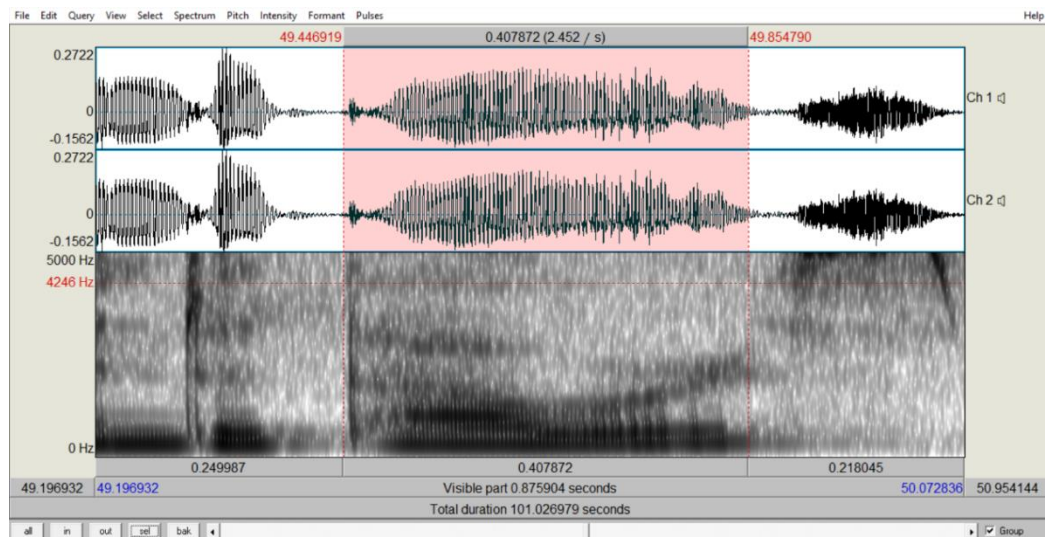
## GenAm /nu:/



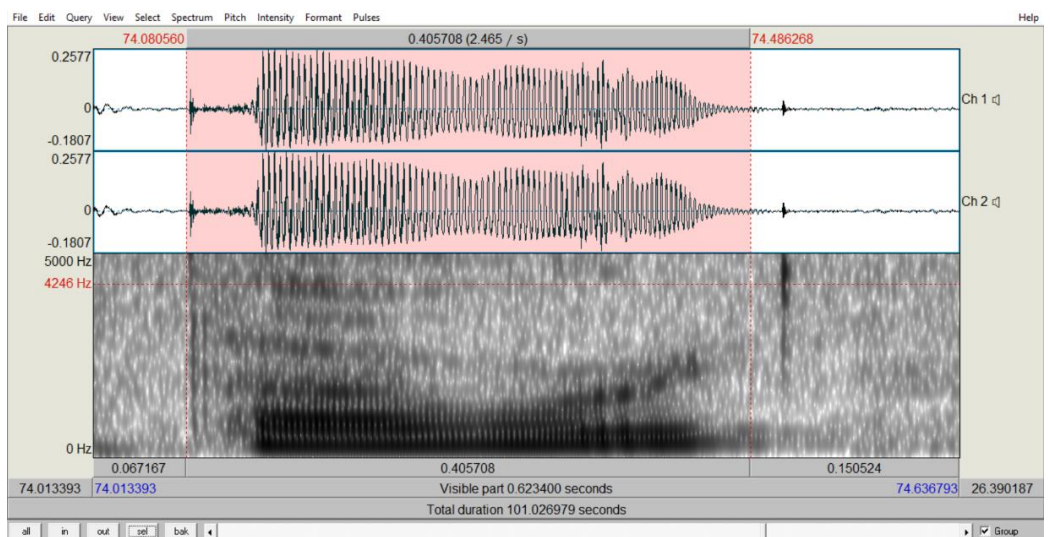
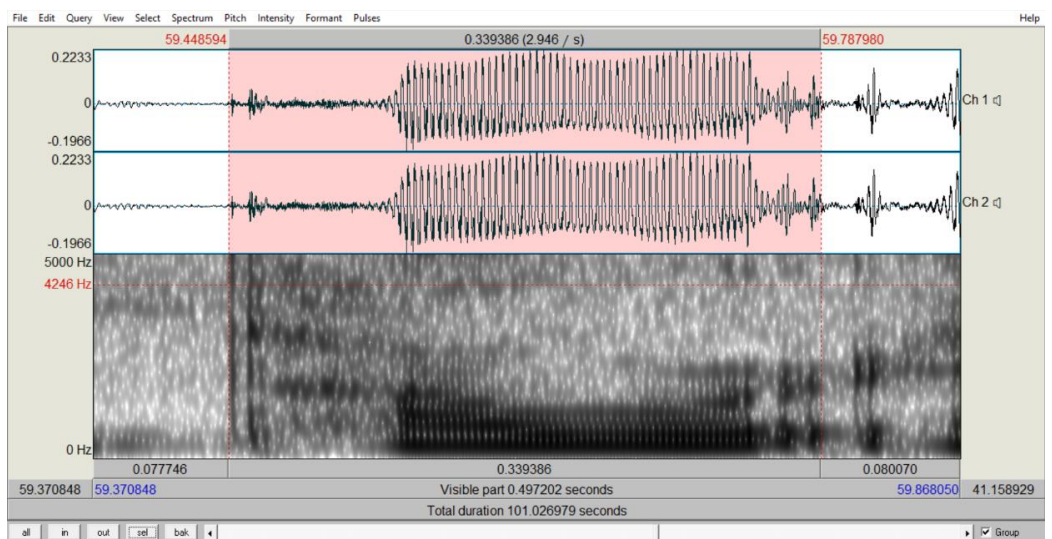
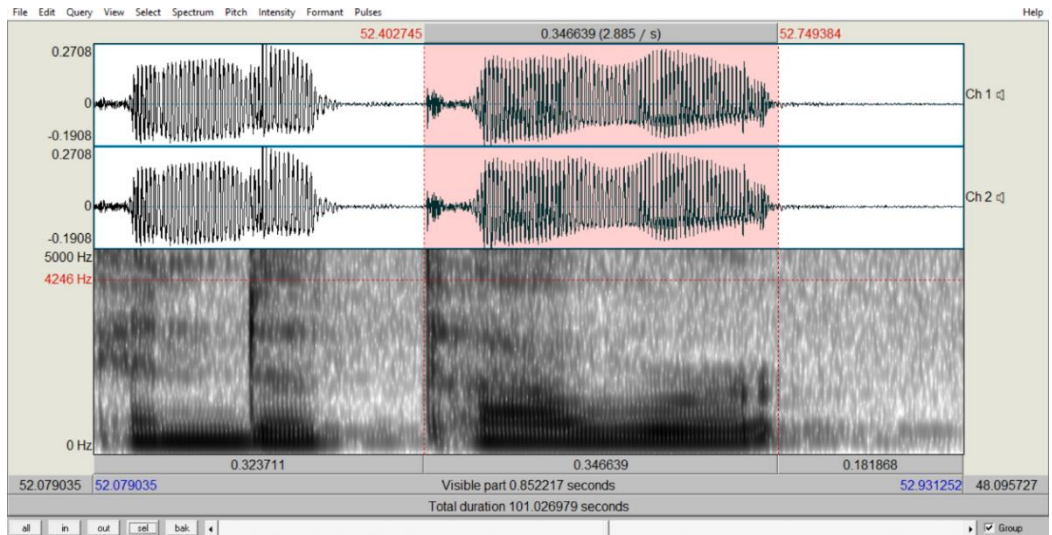
## Standard British /nju:/



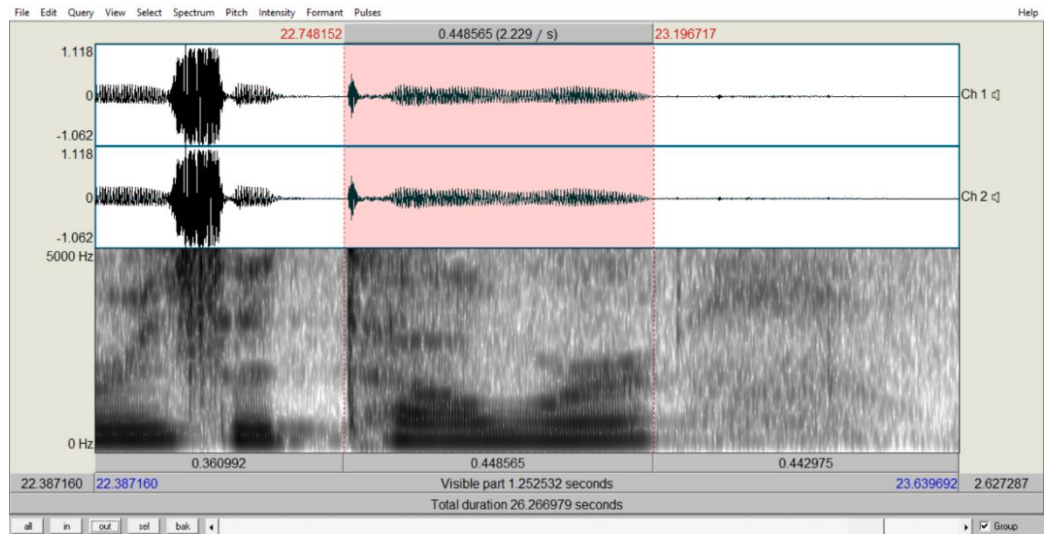
## Tower (careful speech)



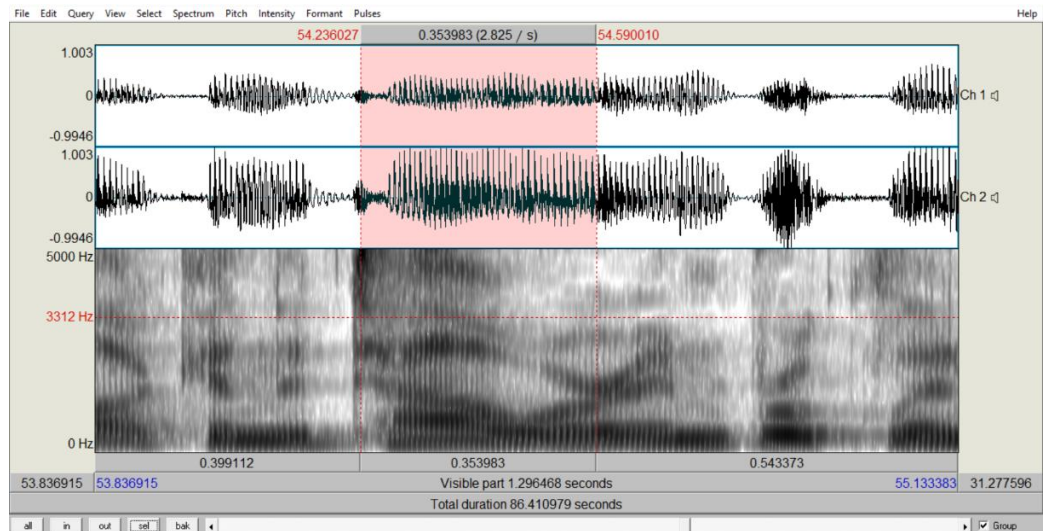




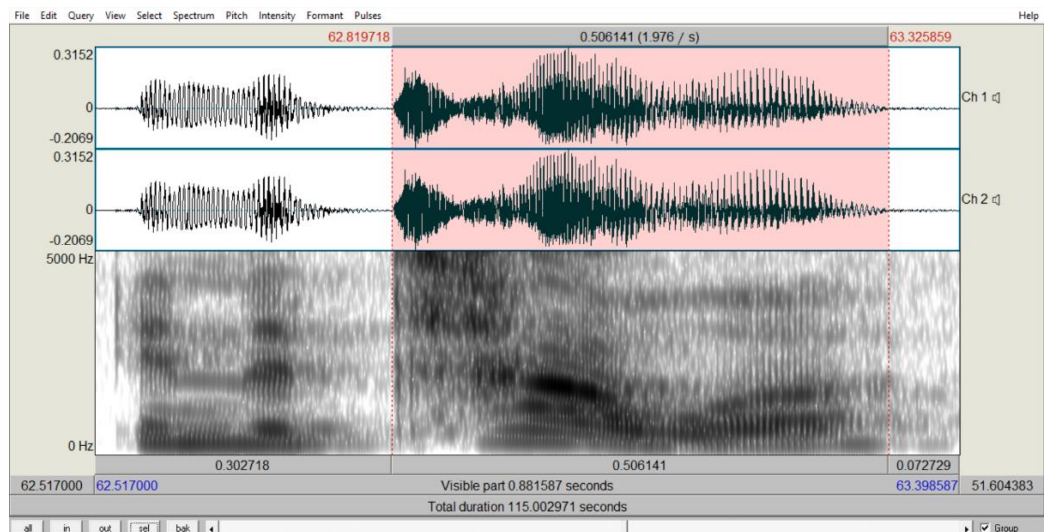
*Tower (spontaneous speech)*



GenAm /taʊər/

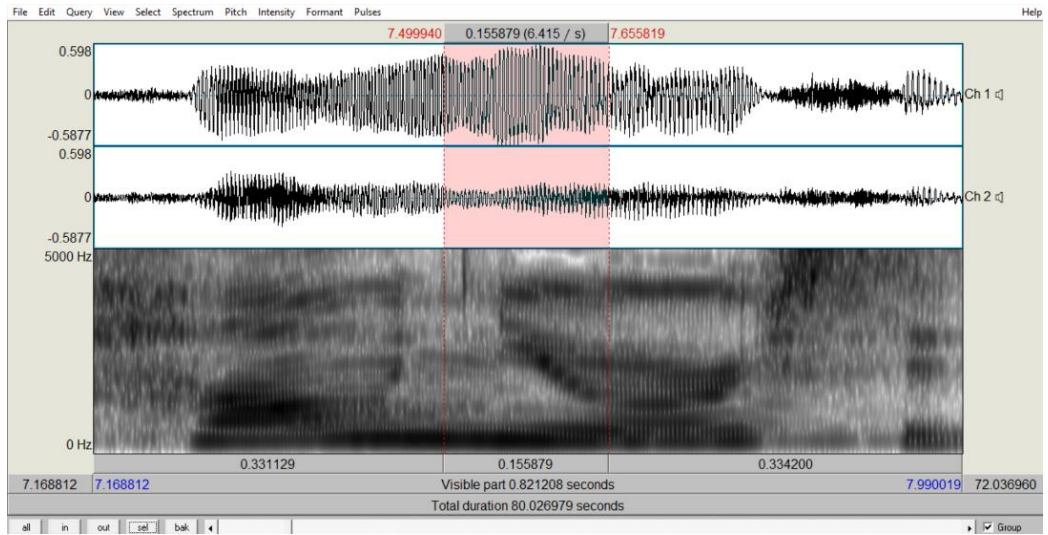
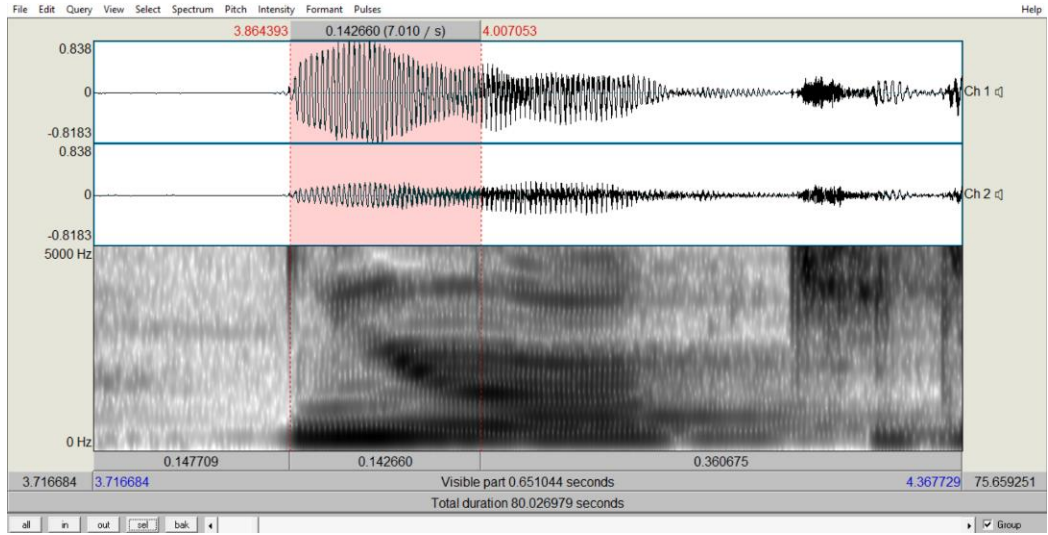


Standard British /taʊə/

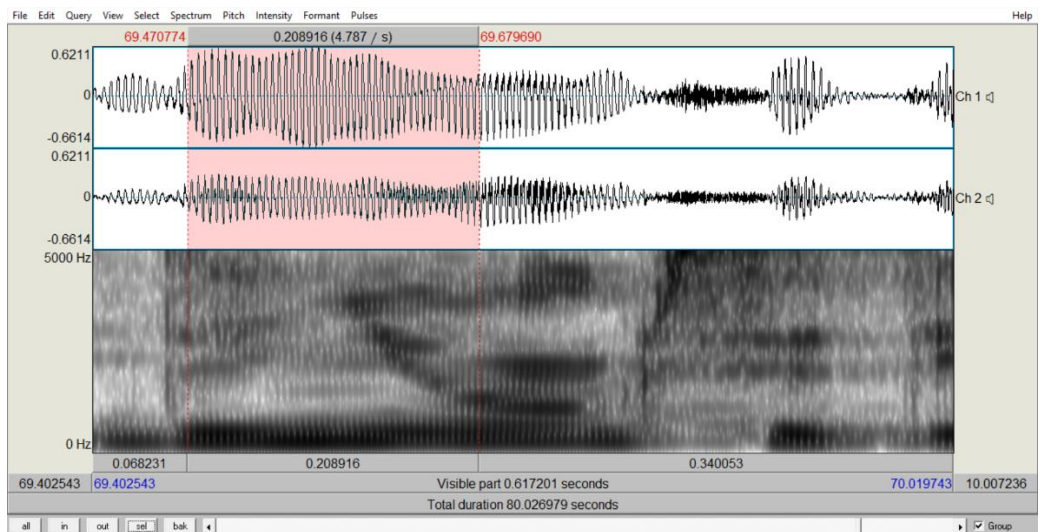
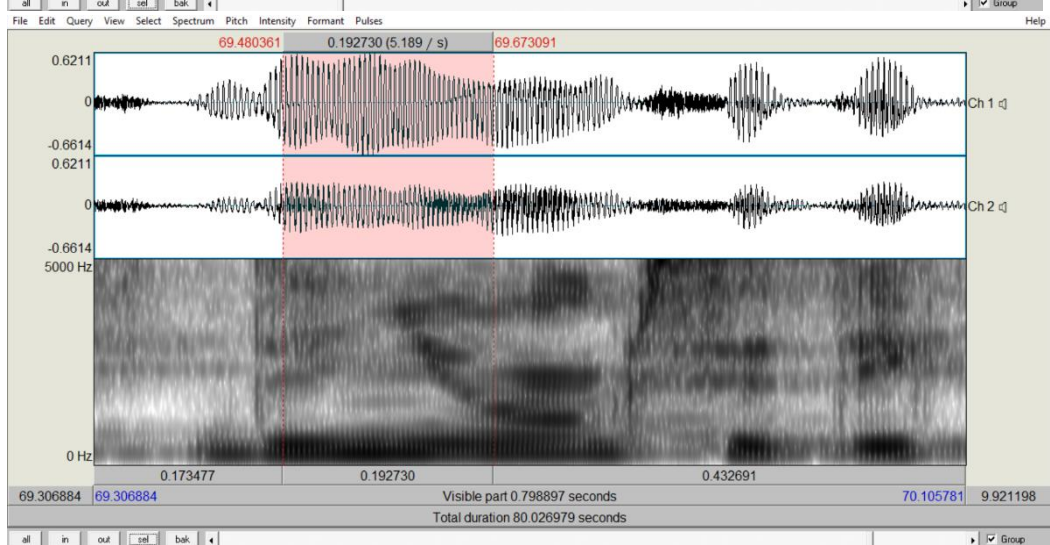
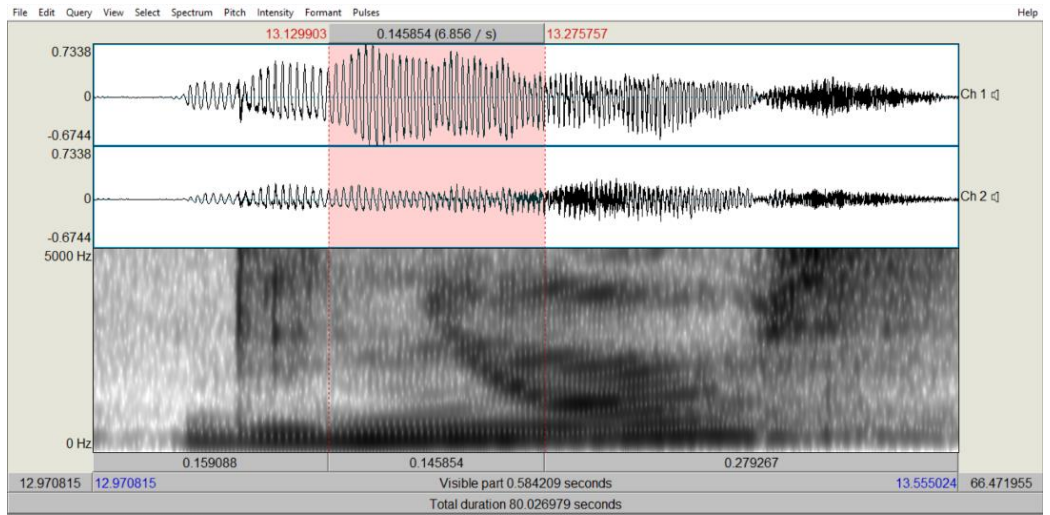


## PARTICIPANT 2 (female)

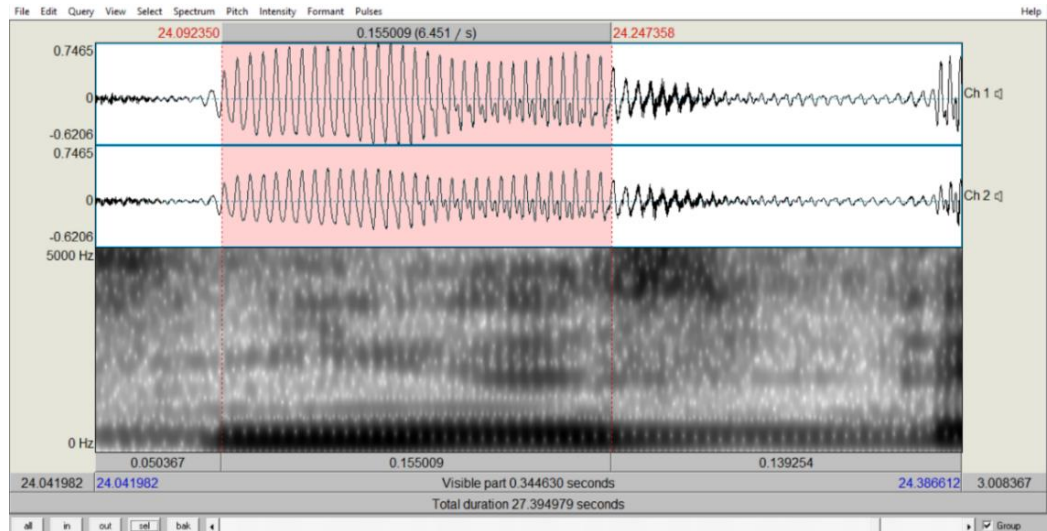
### New (careful speech)



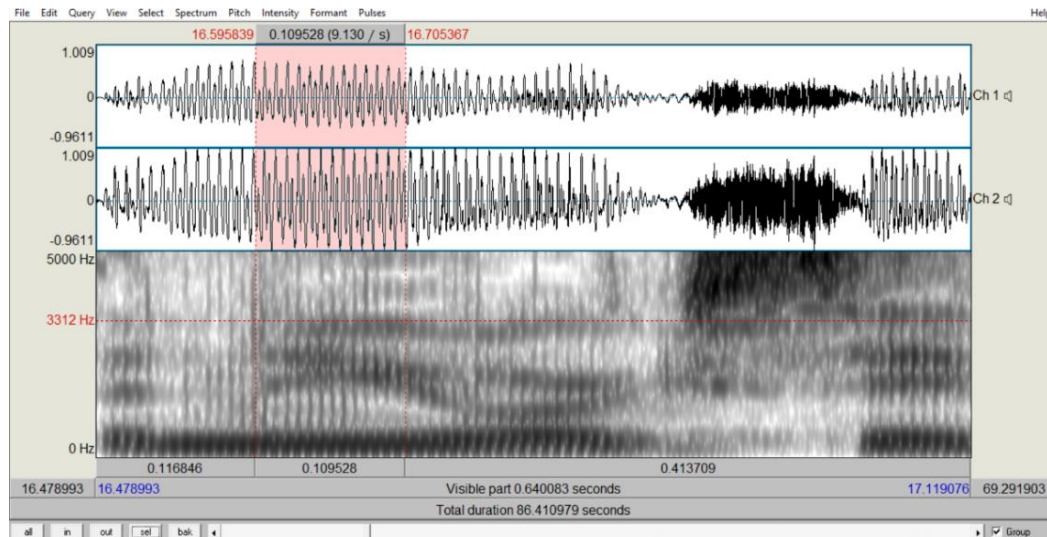




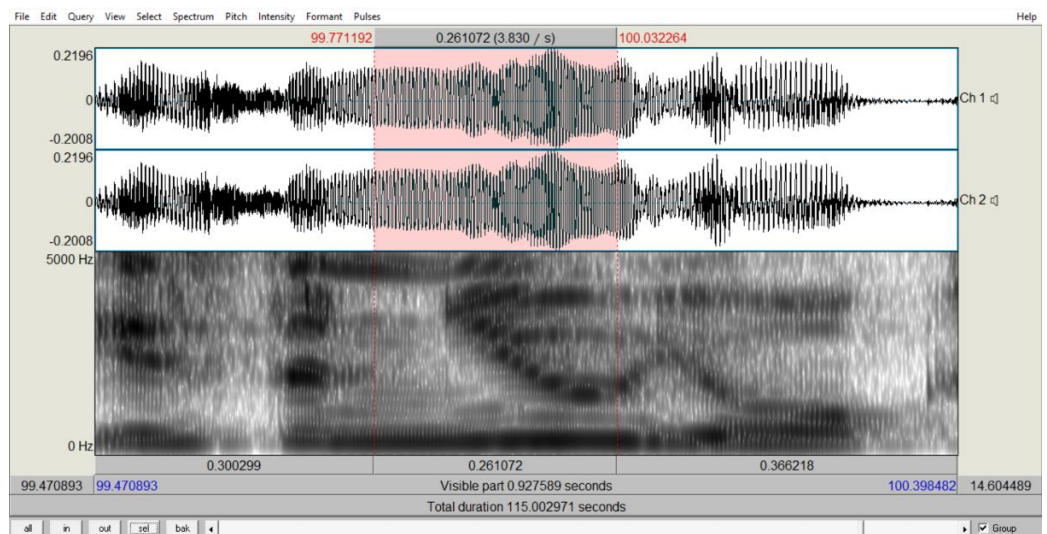
**New (spontaneous speech)**



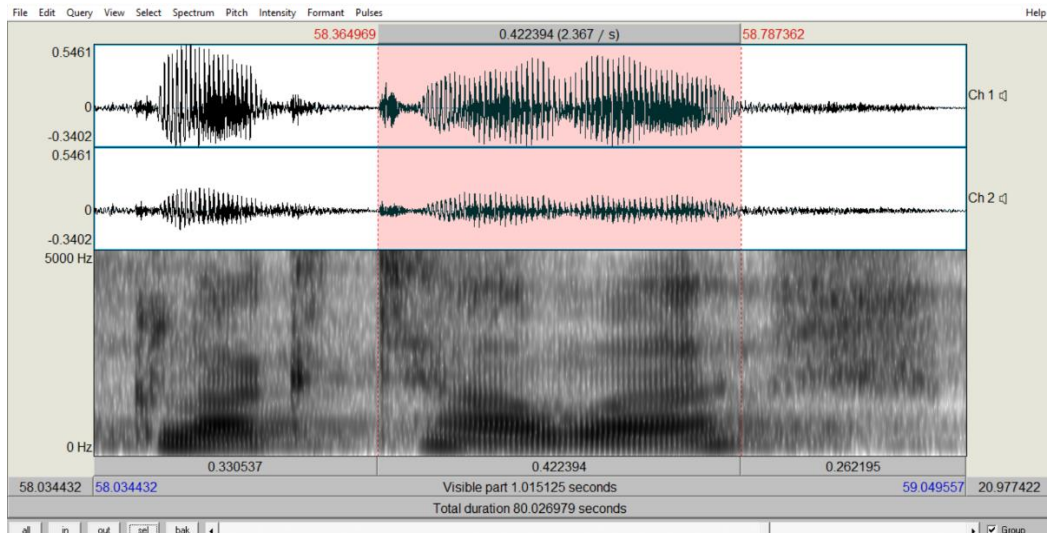
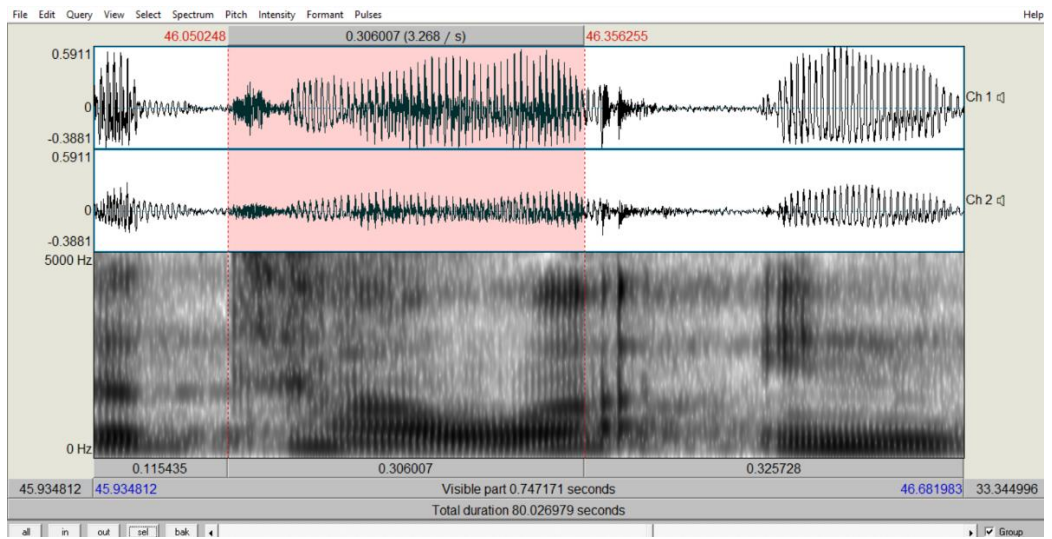
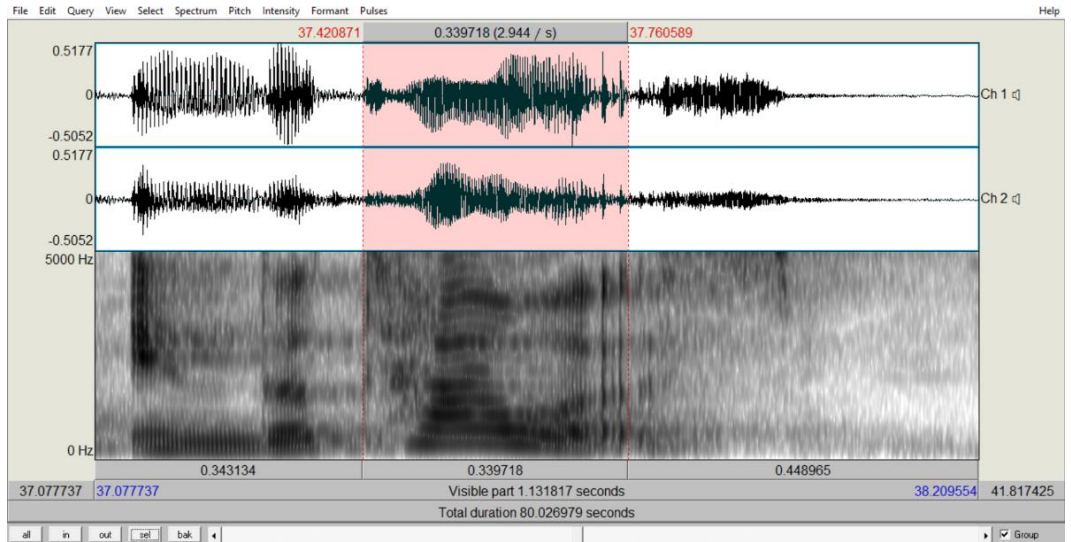
GenAm /nu: /



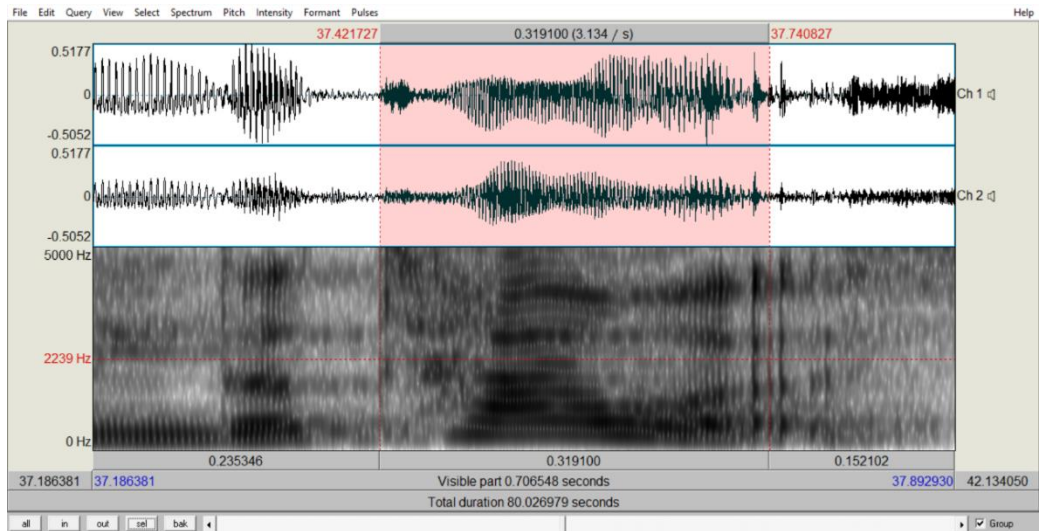
Standard British /nju: /



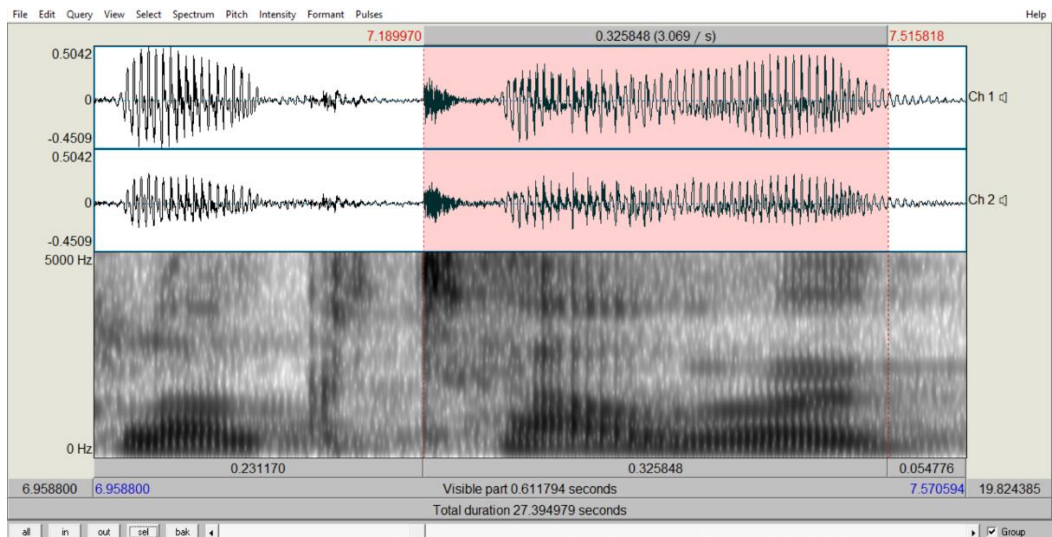
Tower (careful speech)



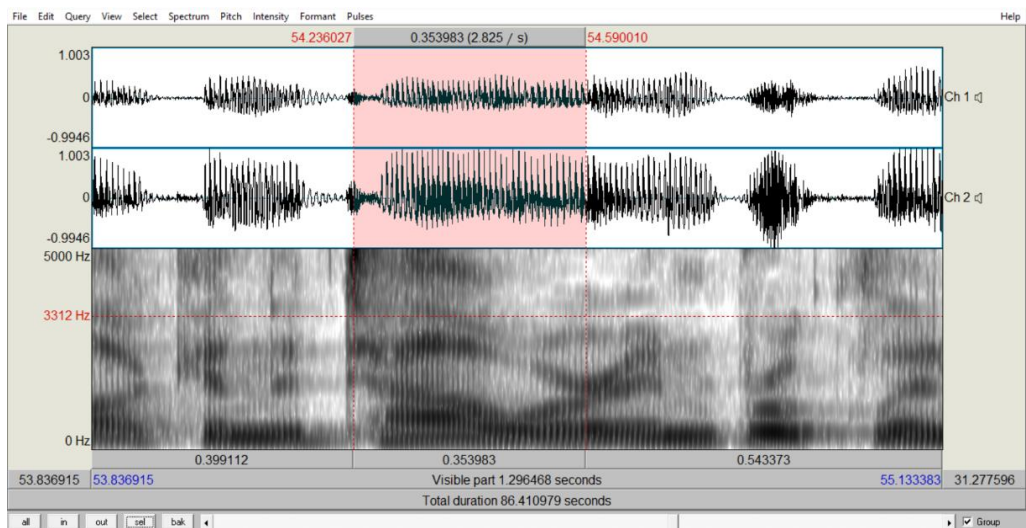




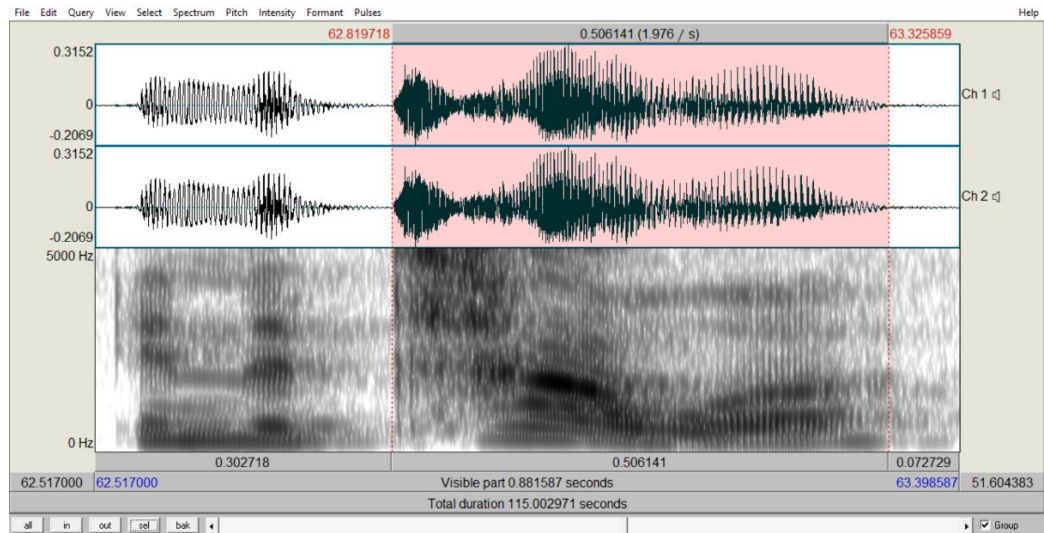
### Tower (spontaneous speech)



### GenAm /taʊər/

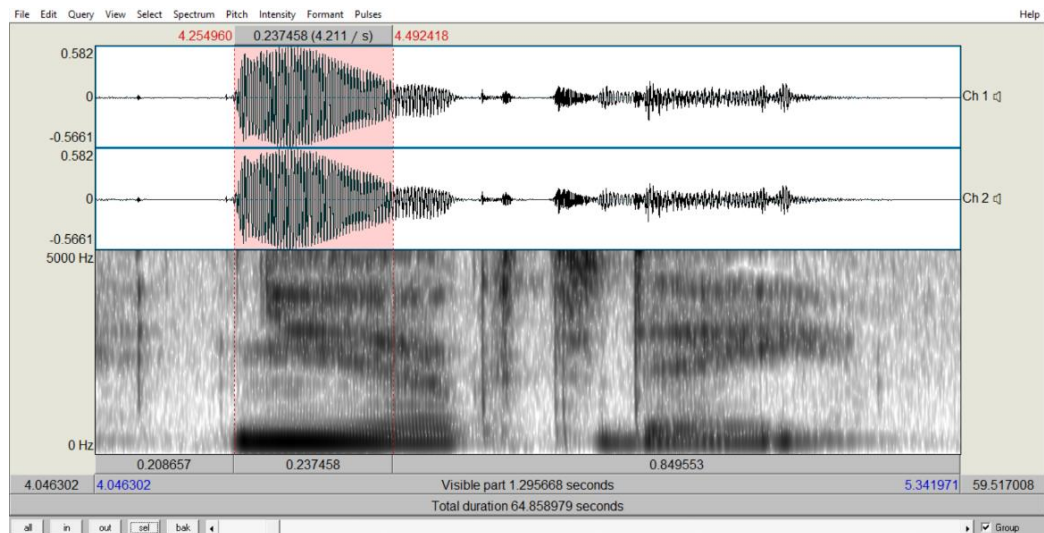


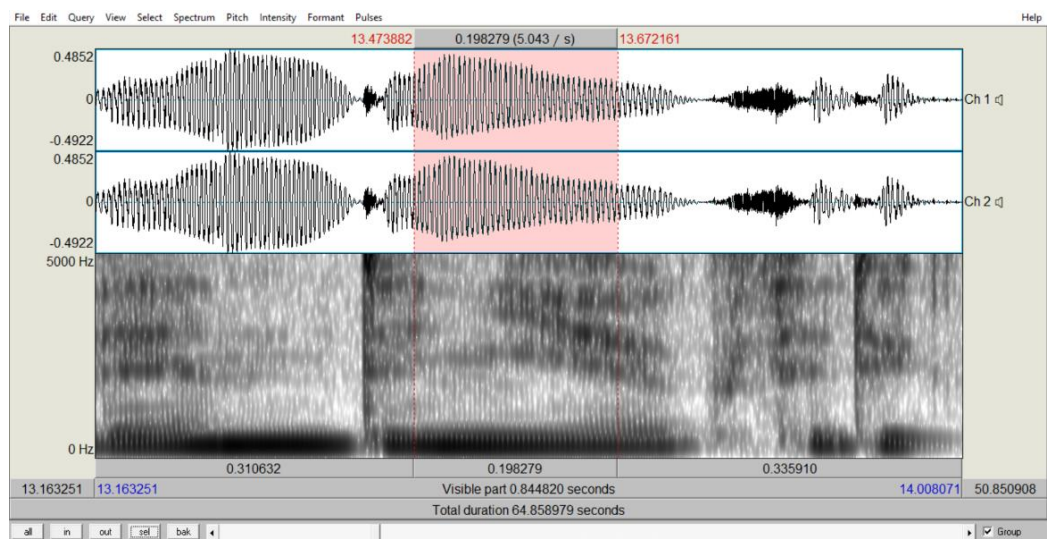
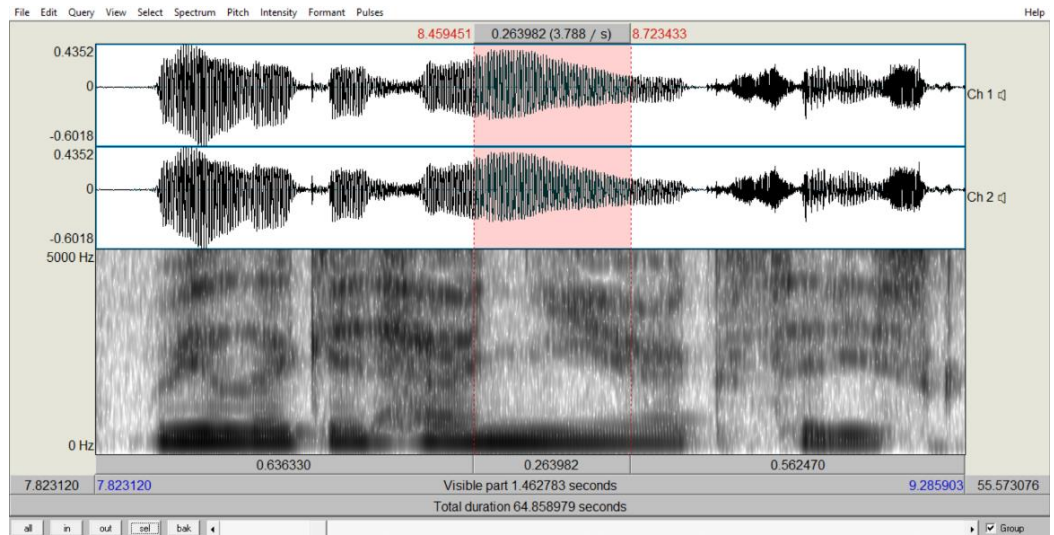
## Standard British /taʊə/



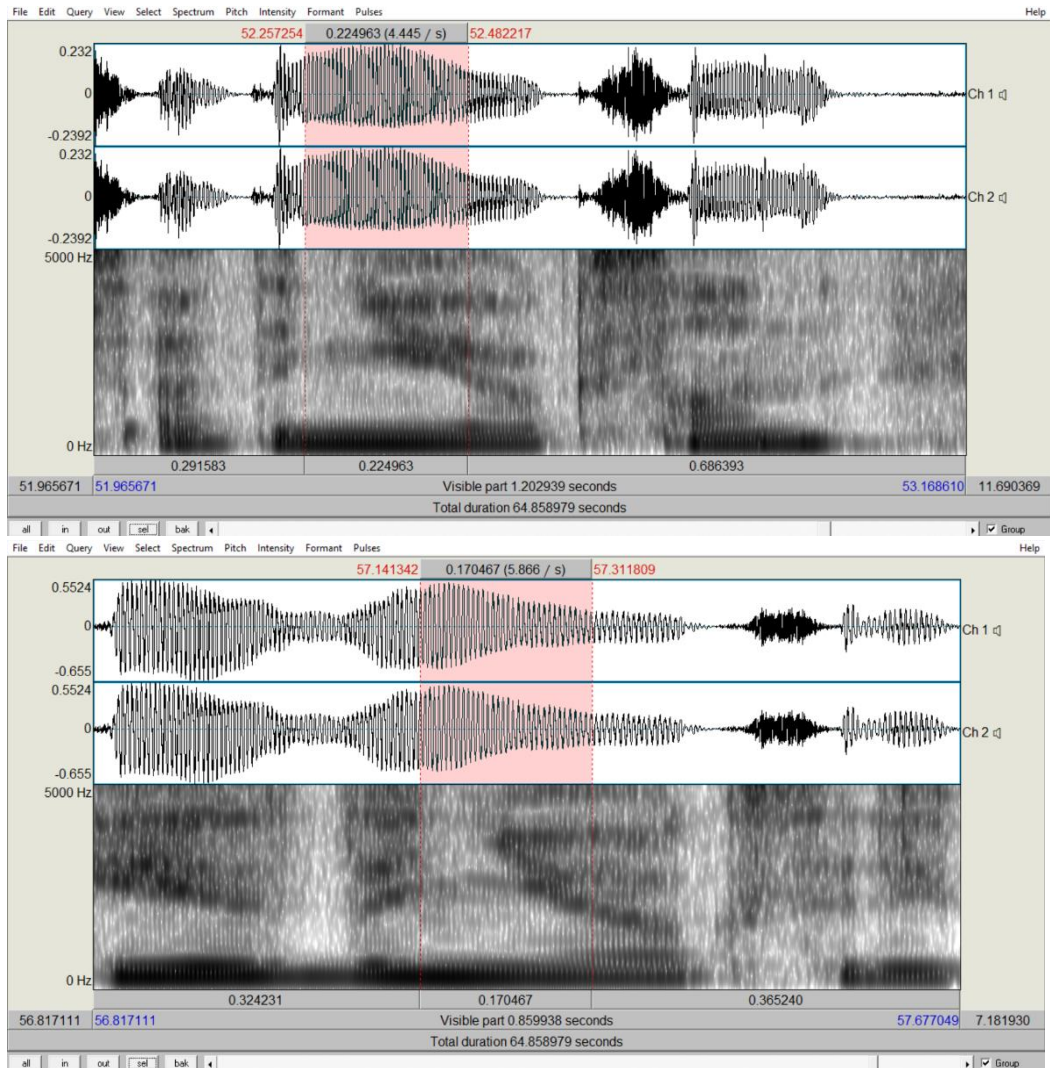
## PARTICIPANT 3 (female)

### *New (careful speech)*

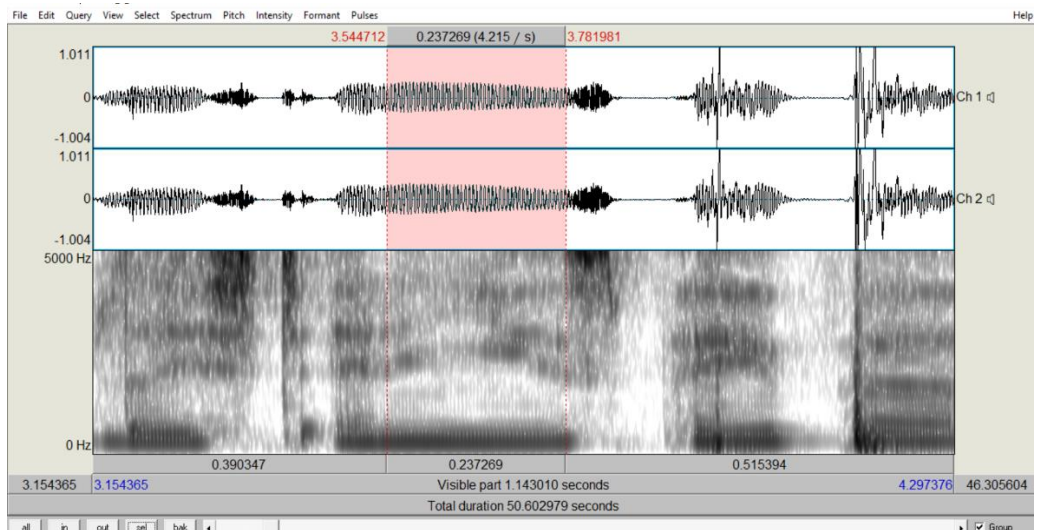




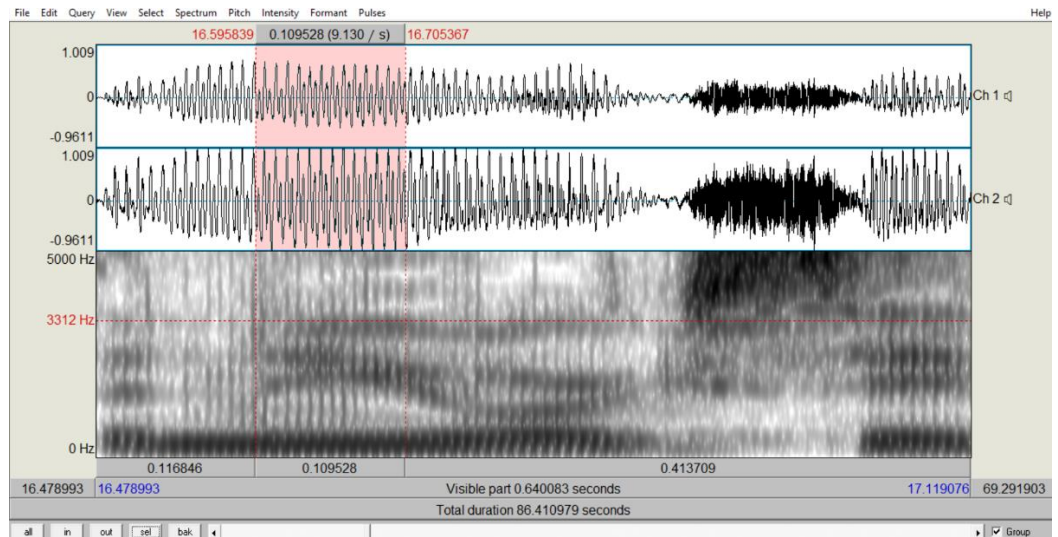




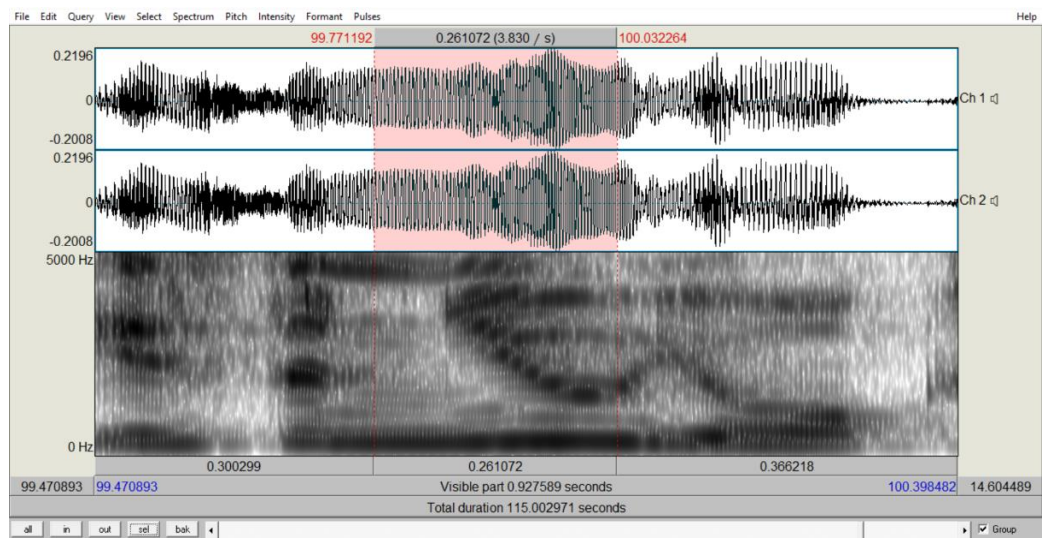
*New (spontaneous speech)*



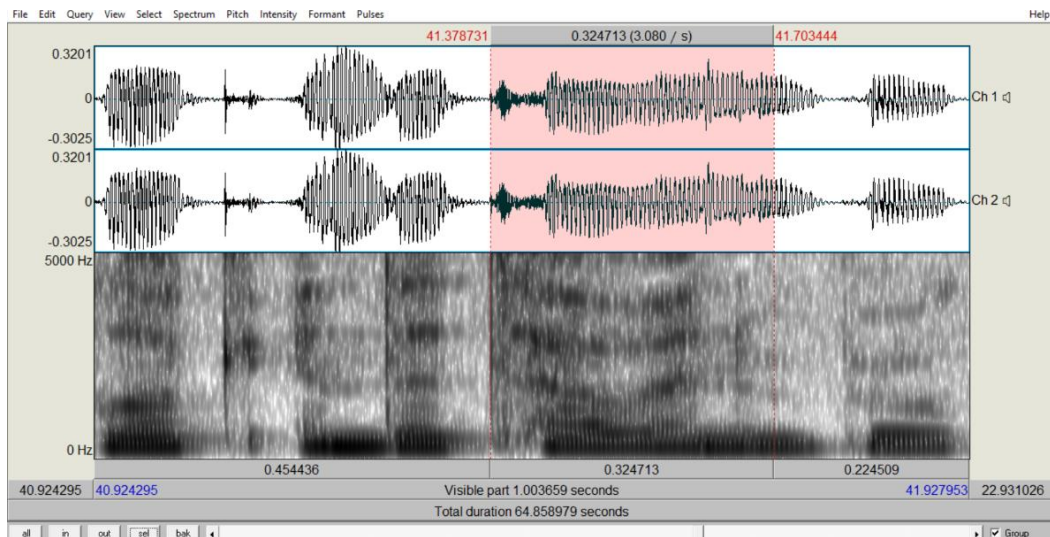
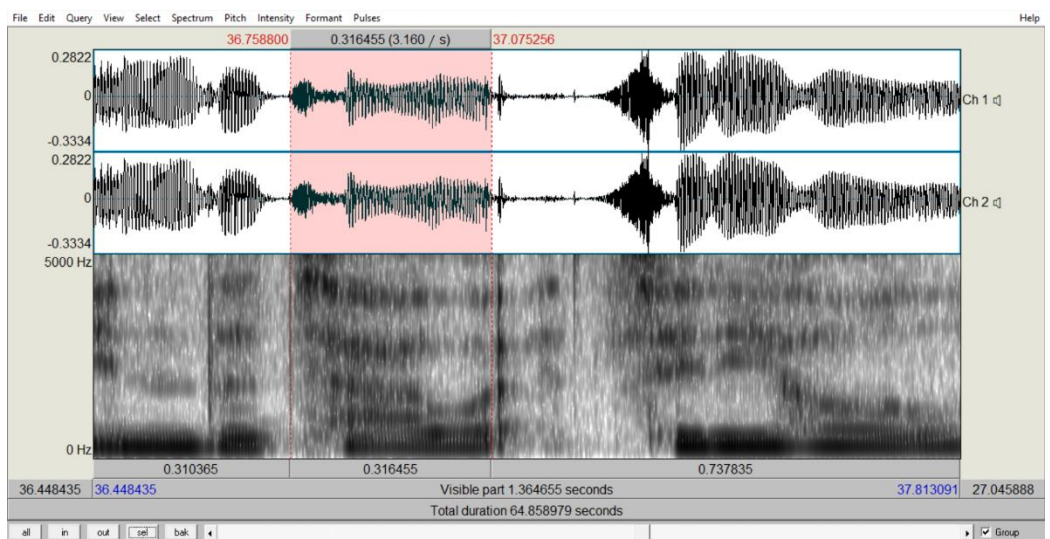
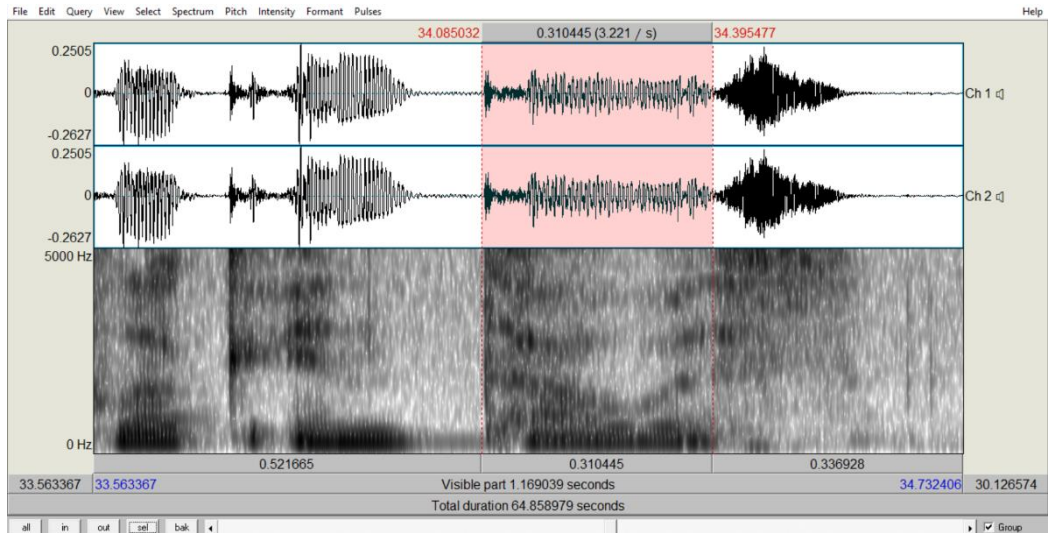
GenAm /nu:/



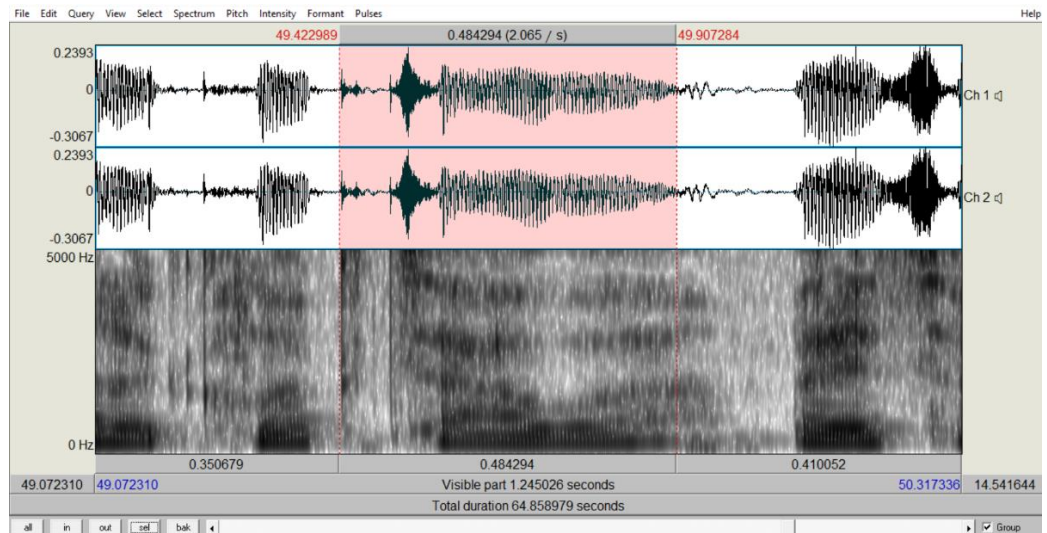
Standard British /nju:/'



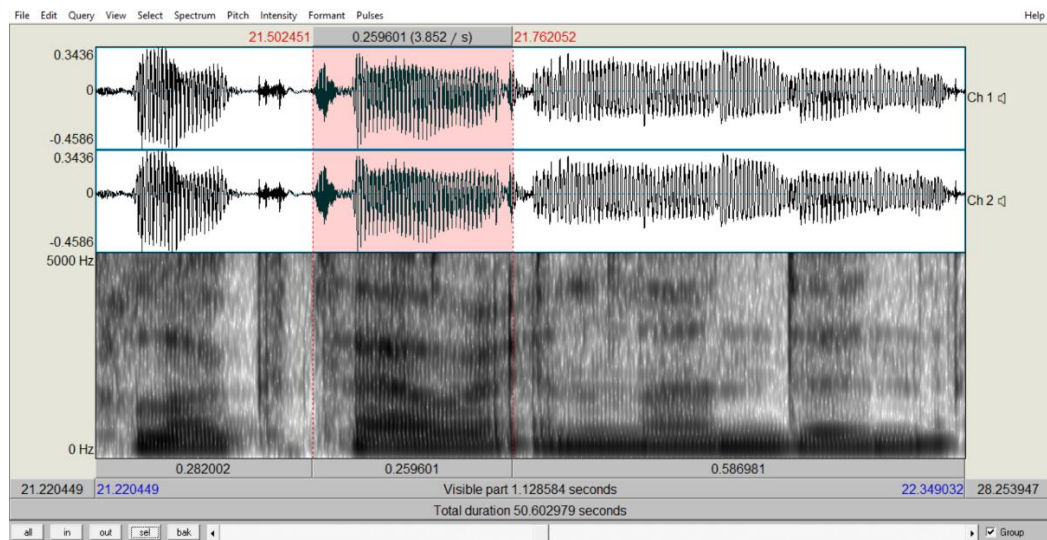
*Tower (careful speech)*



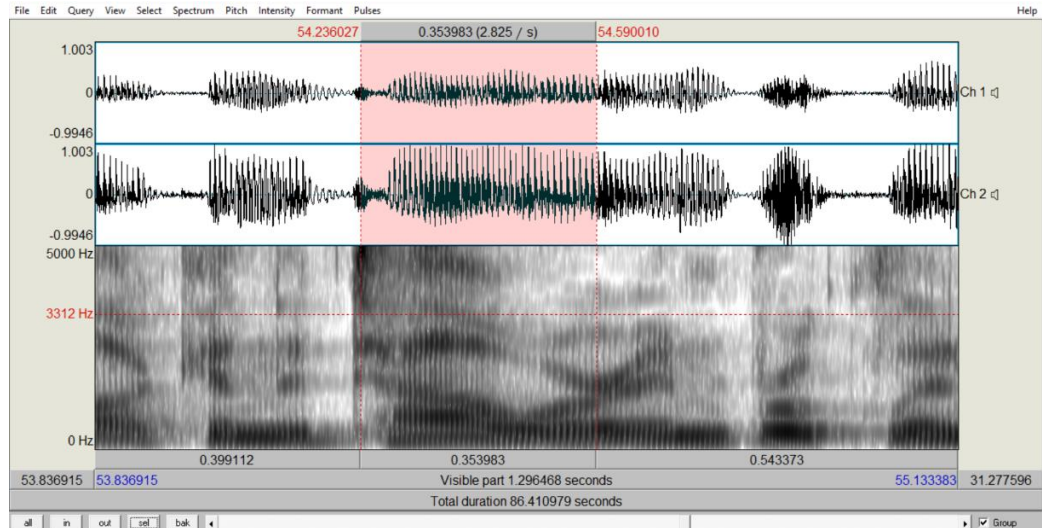




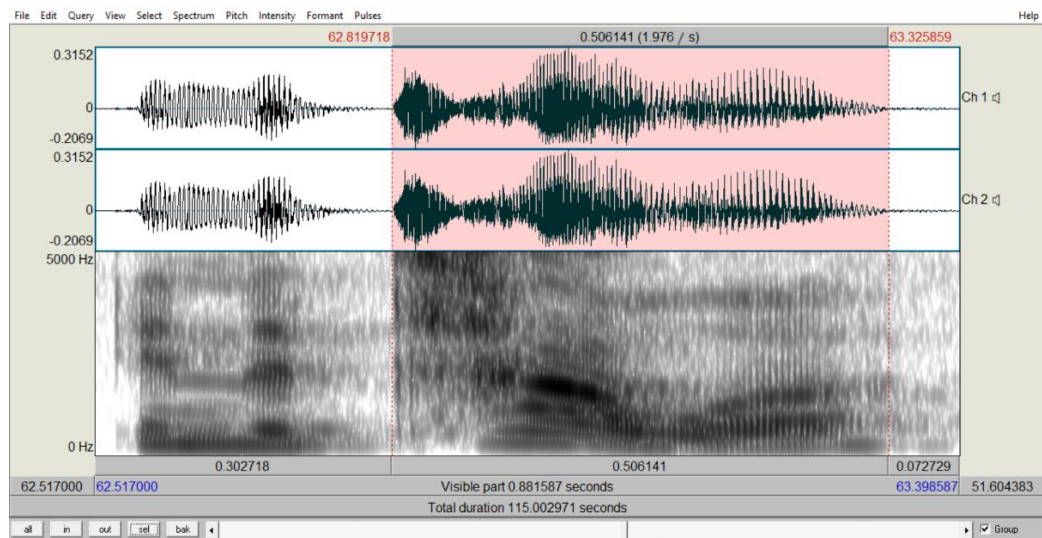
*Tower (spontaneous speech)*



GenAm /taʊər/



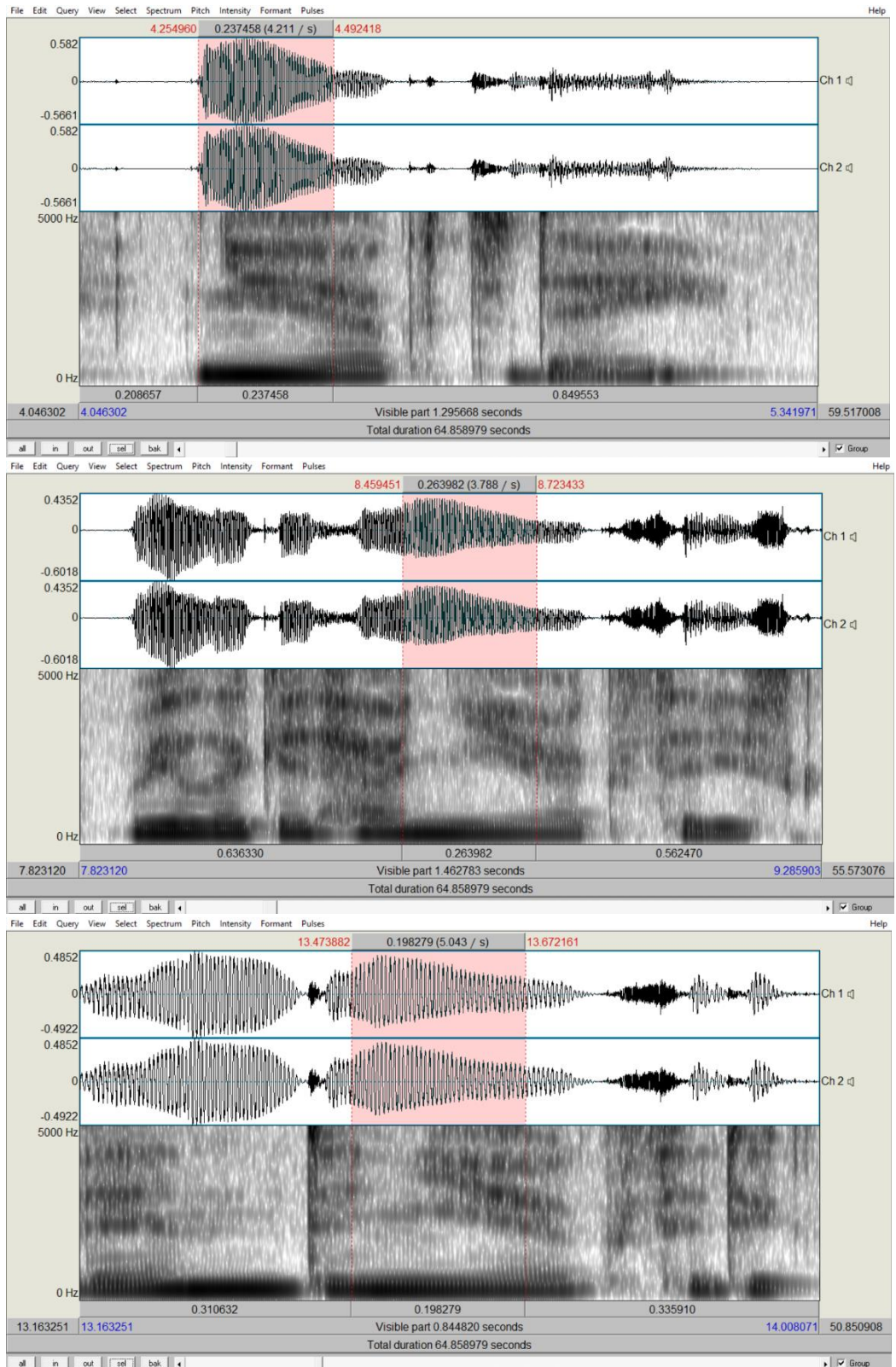
**Standard British /təʊə/**

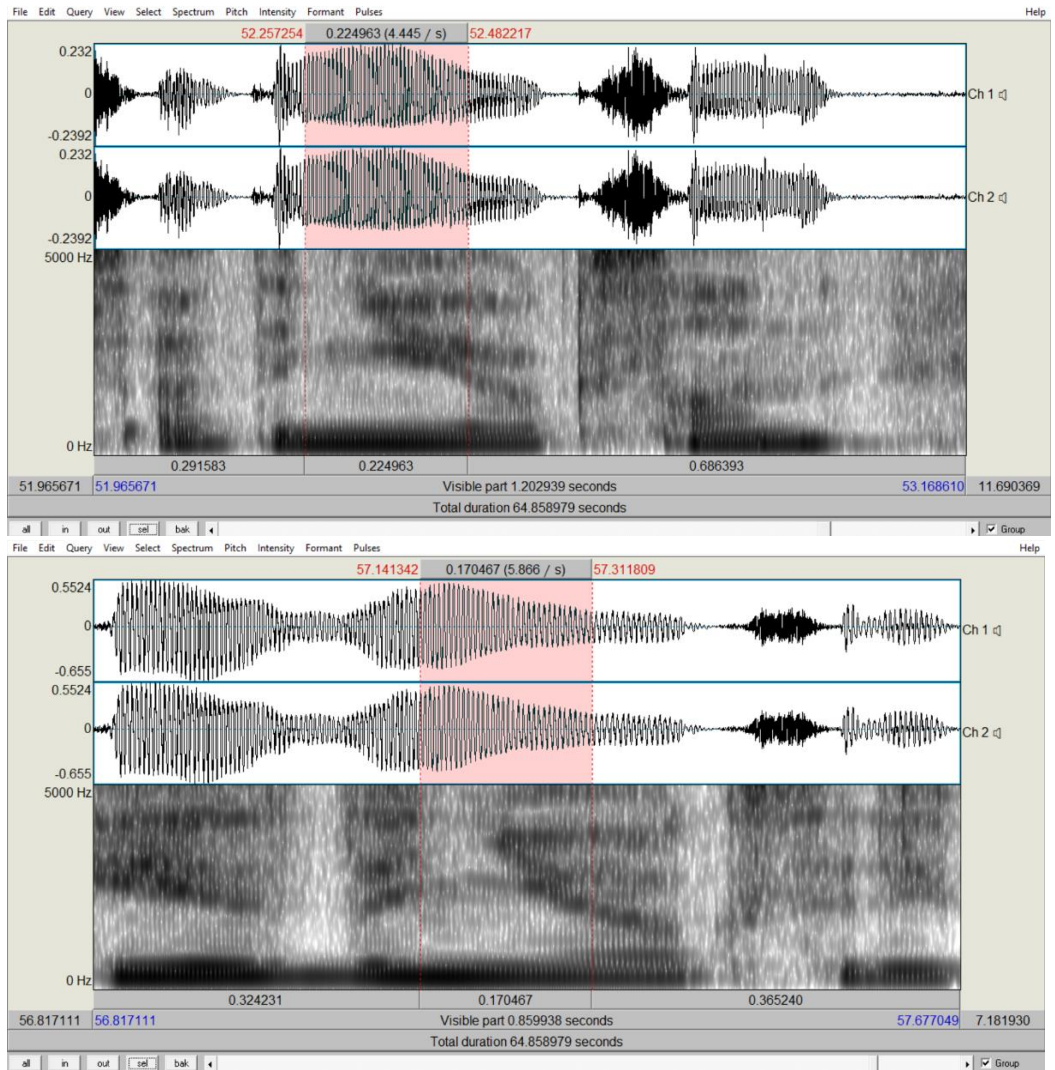


**PARTICIPANT 4 (female)**

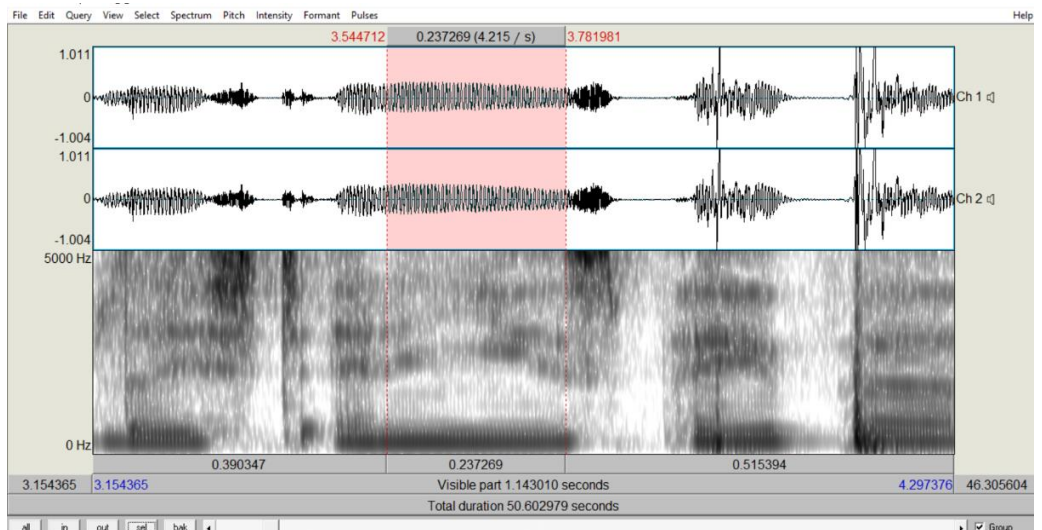
*New (careful speech)*



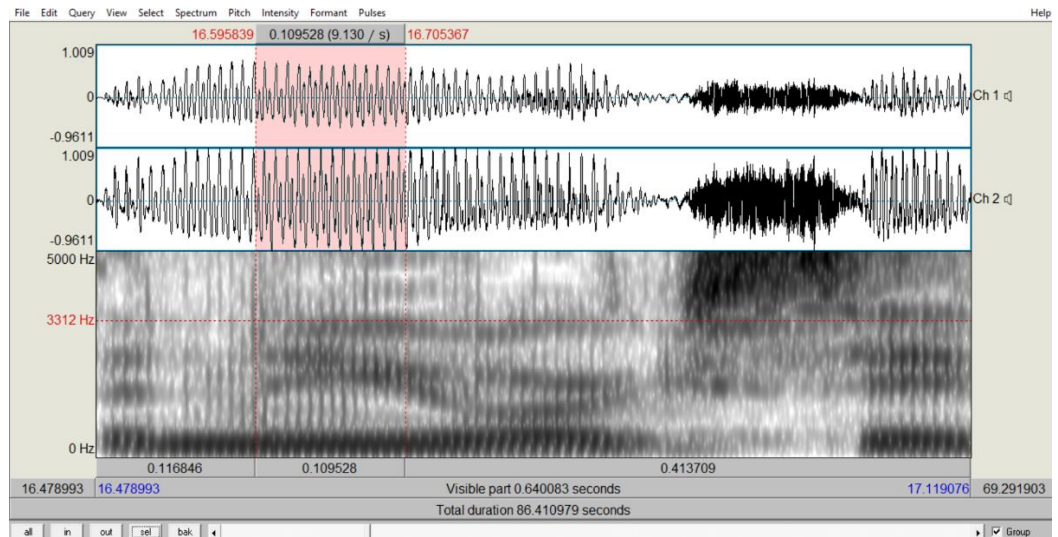




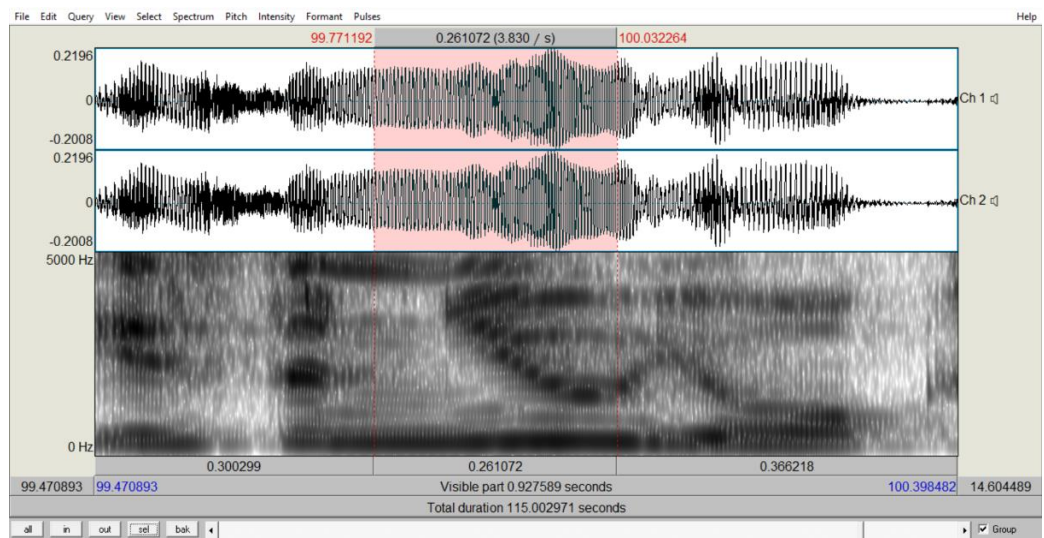
*New (spontaneous speech)*



GenAm /nu:/

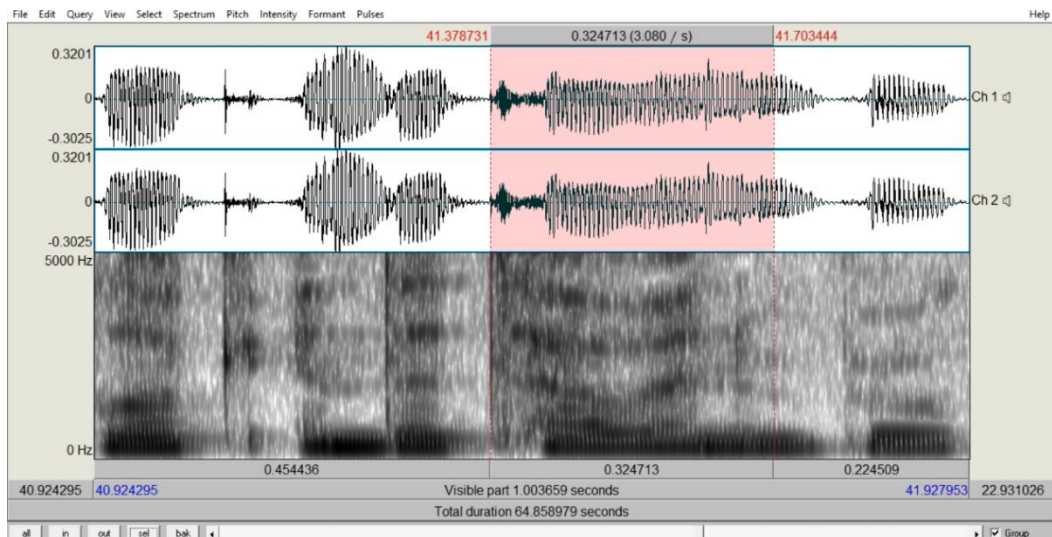
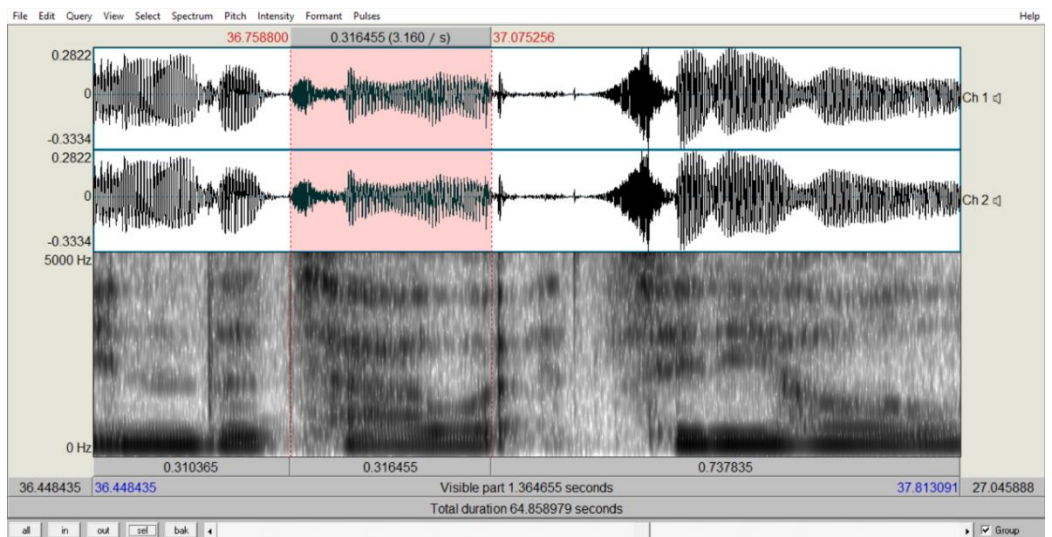
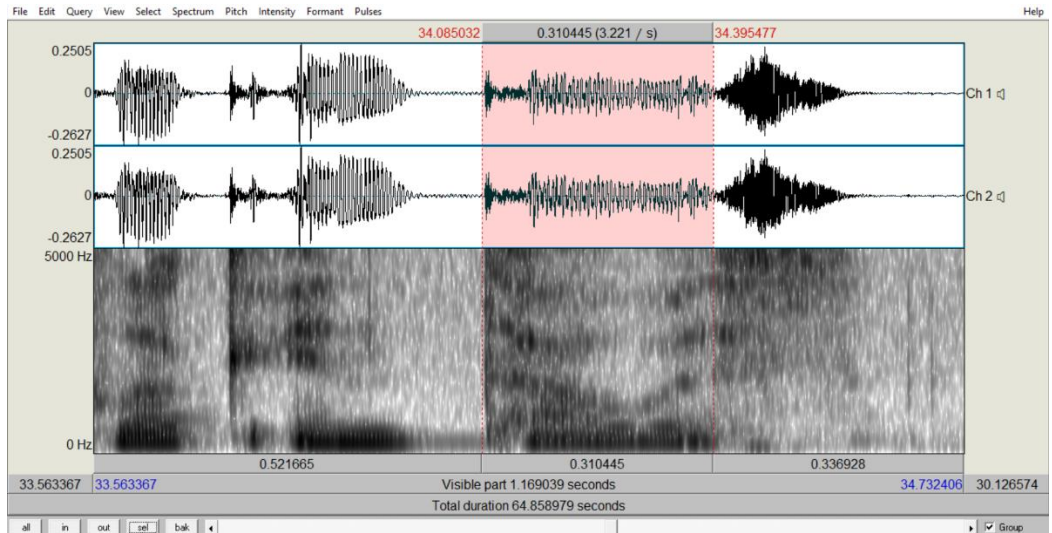


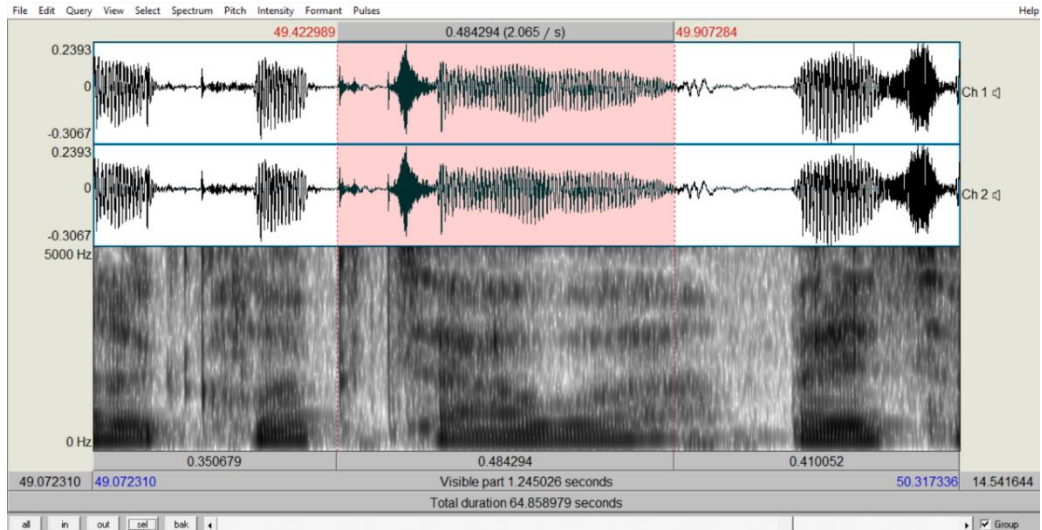
Standard British /nju:/'



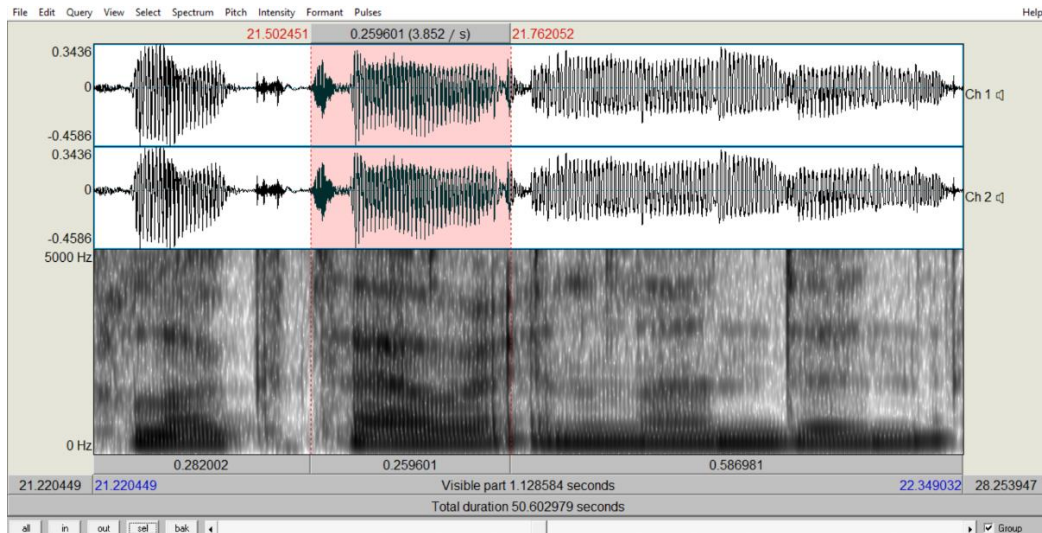
*Tower (careful speech)*



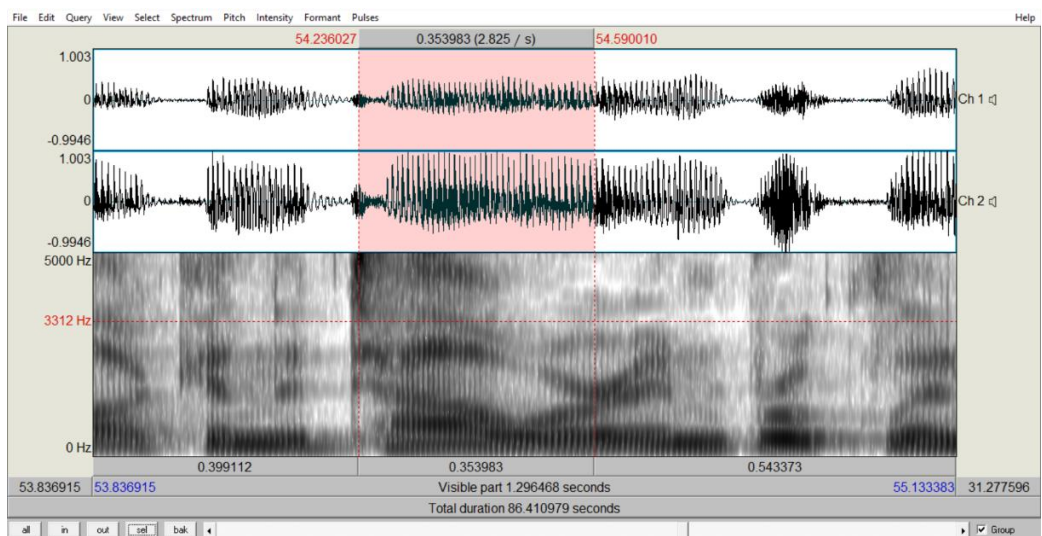




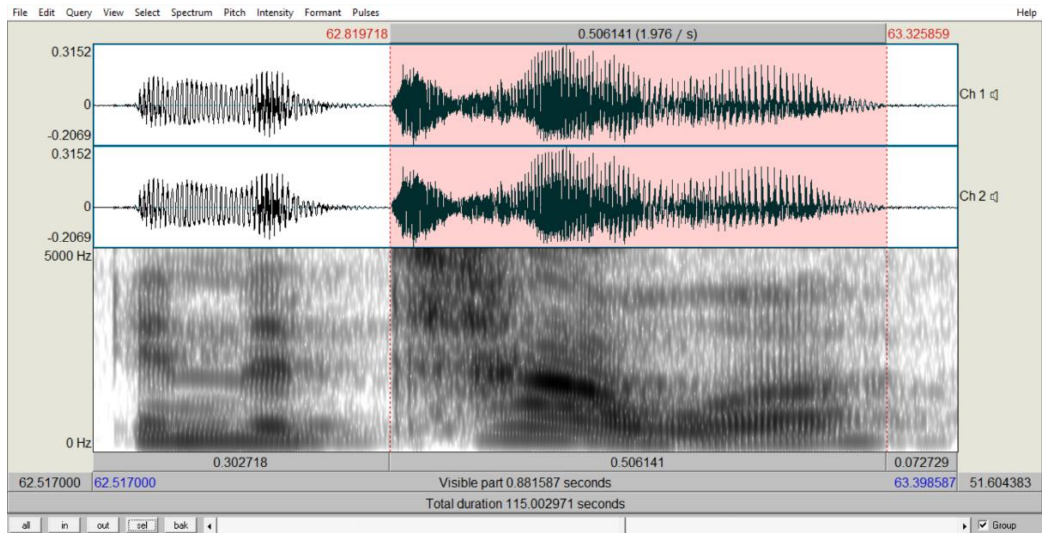
*Tower (spontaneous speech)*



GenAm /taʊər/

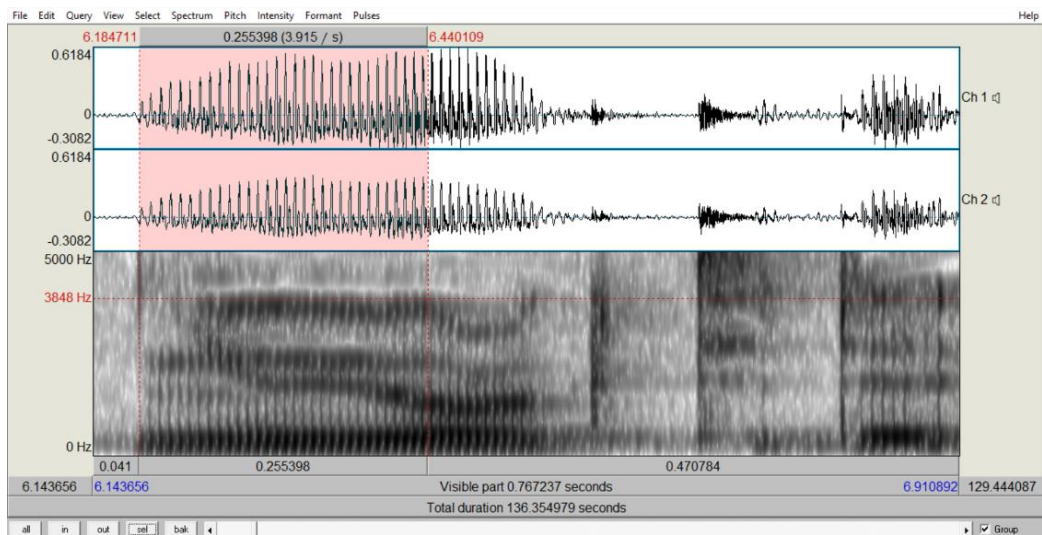


Standard British /taʊə/

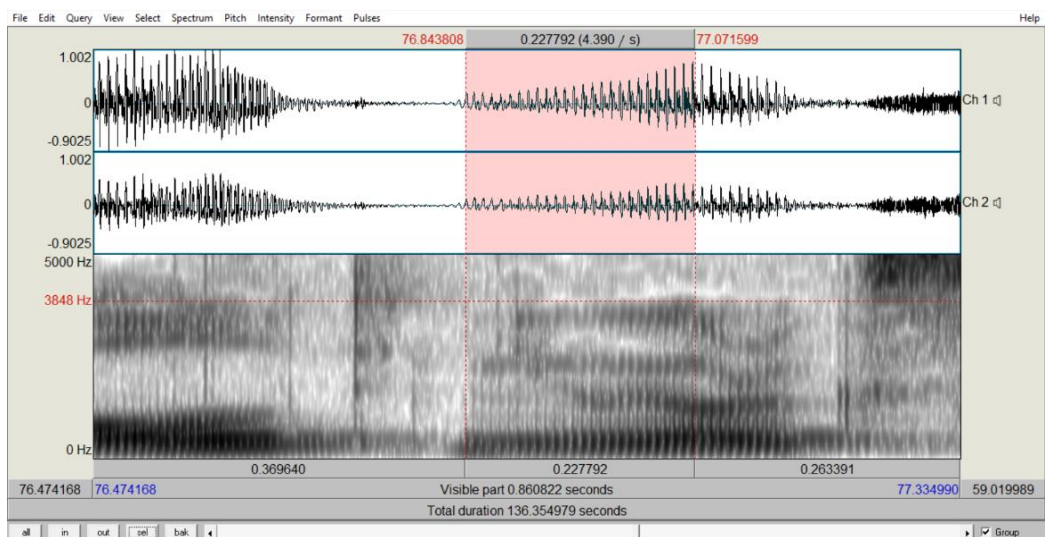
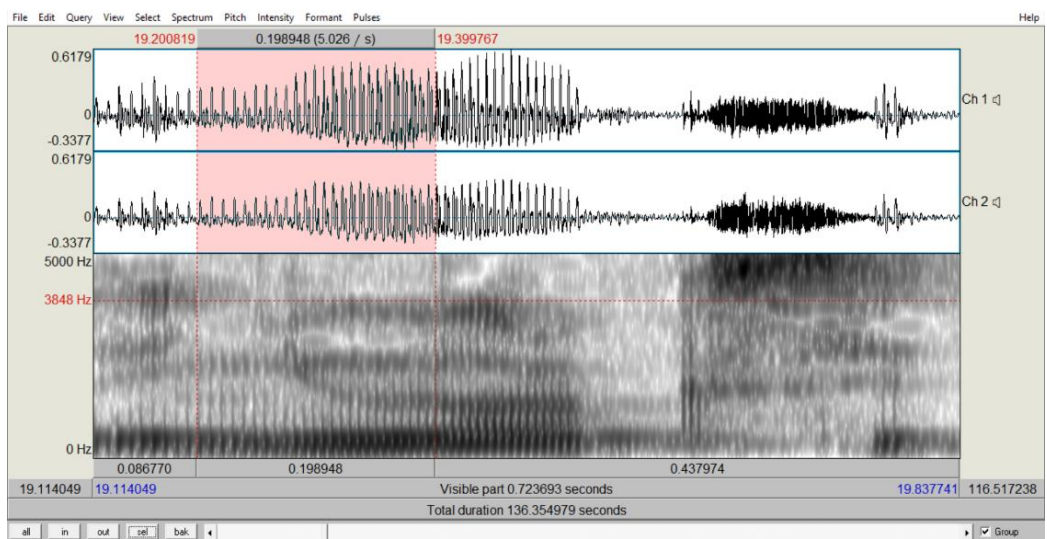
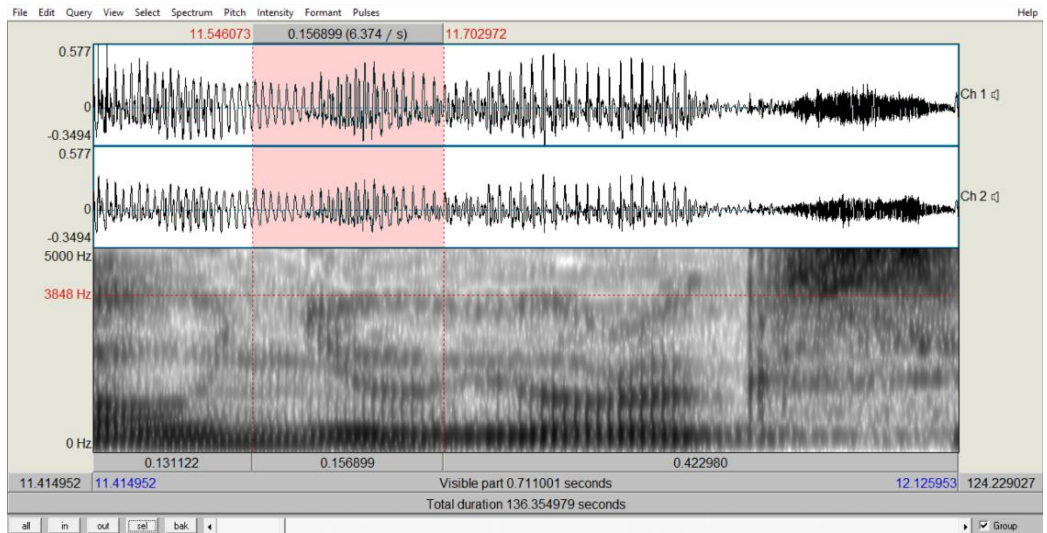


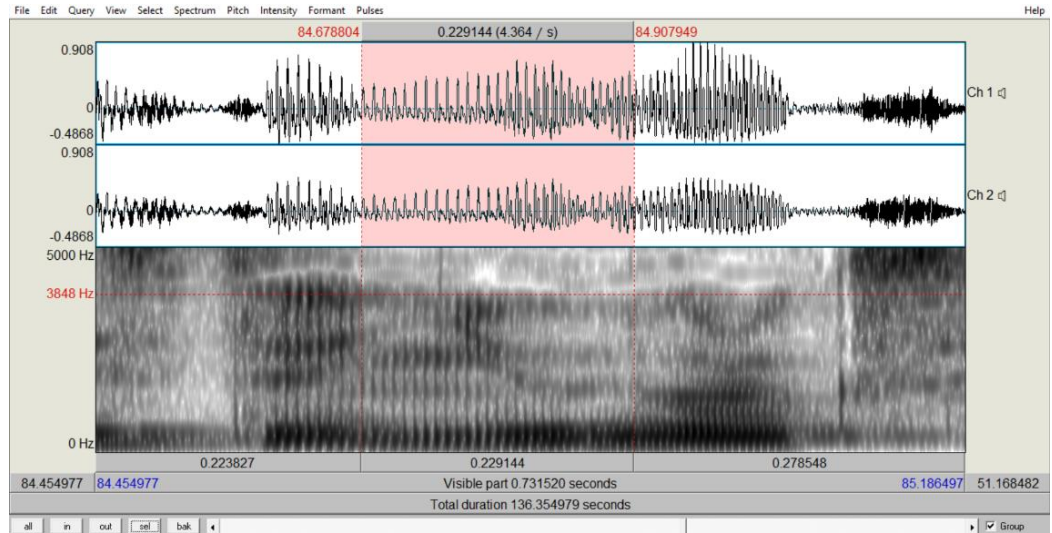
## PARTICIPANT 5 (male)

### *New (careful speech)*

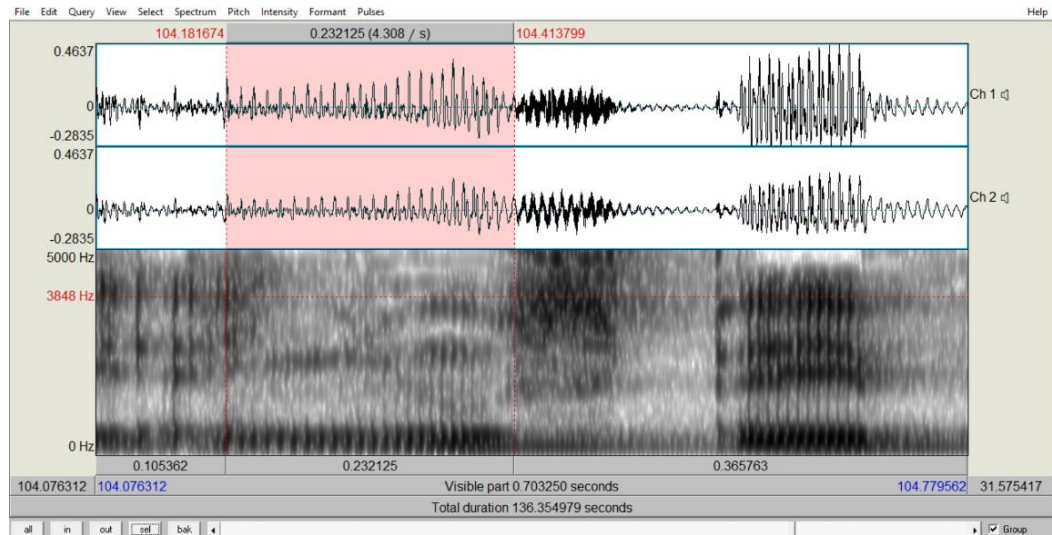




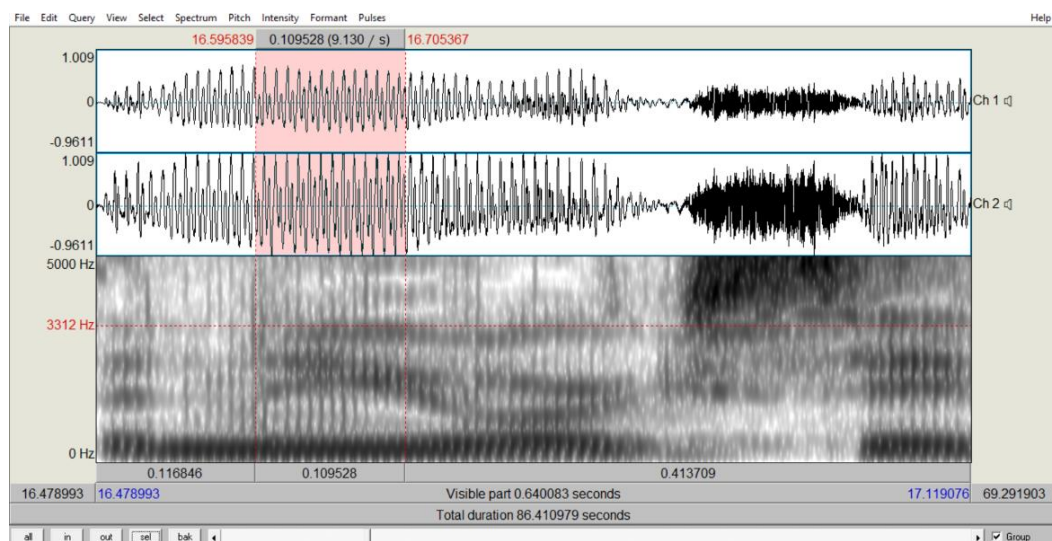




*New (spontaneous speech)*

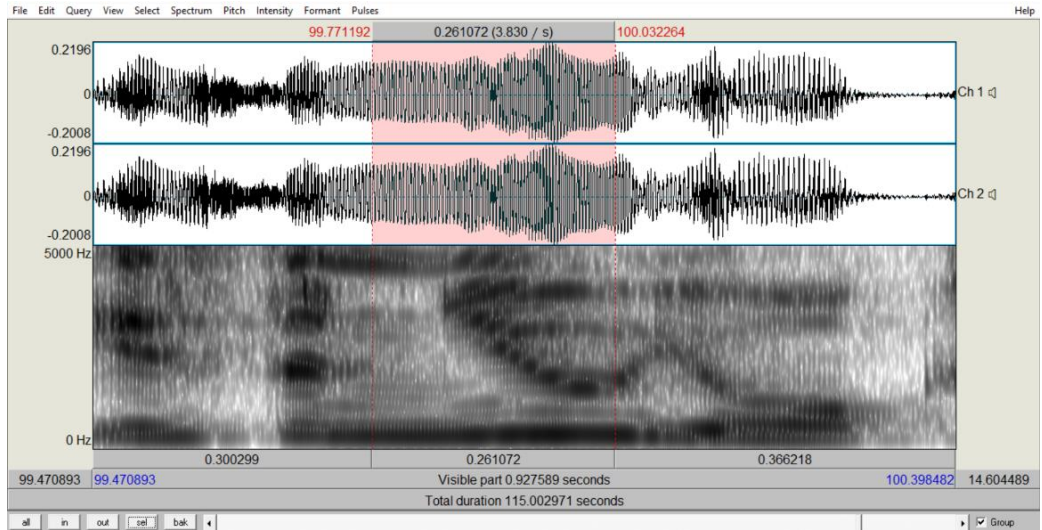


GenAm /nu:/

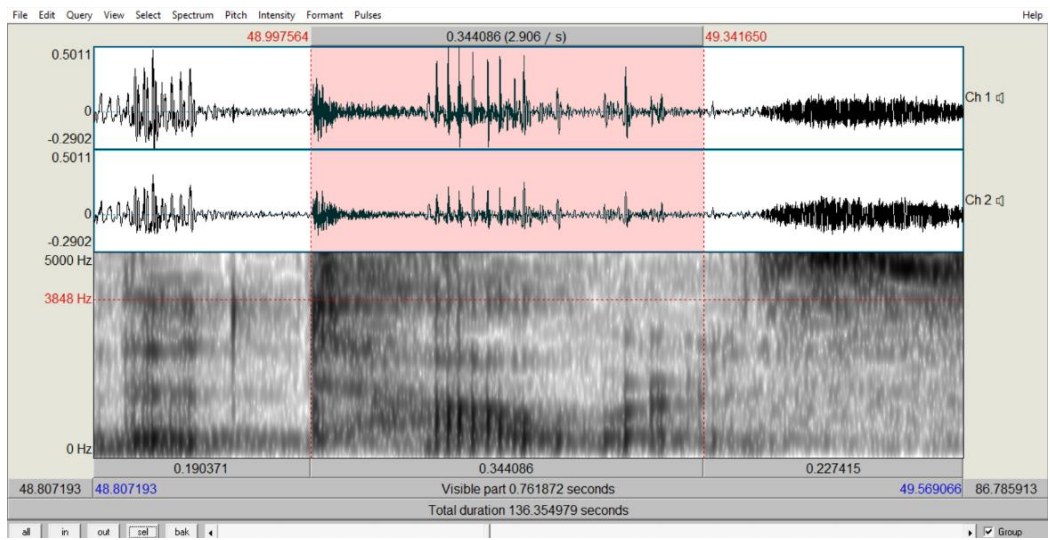


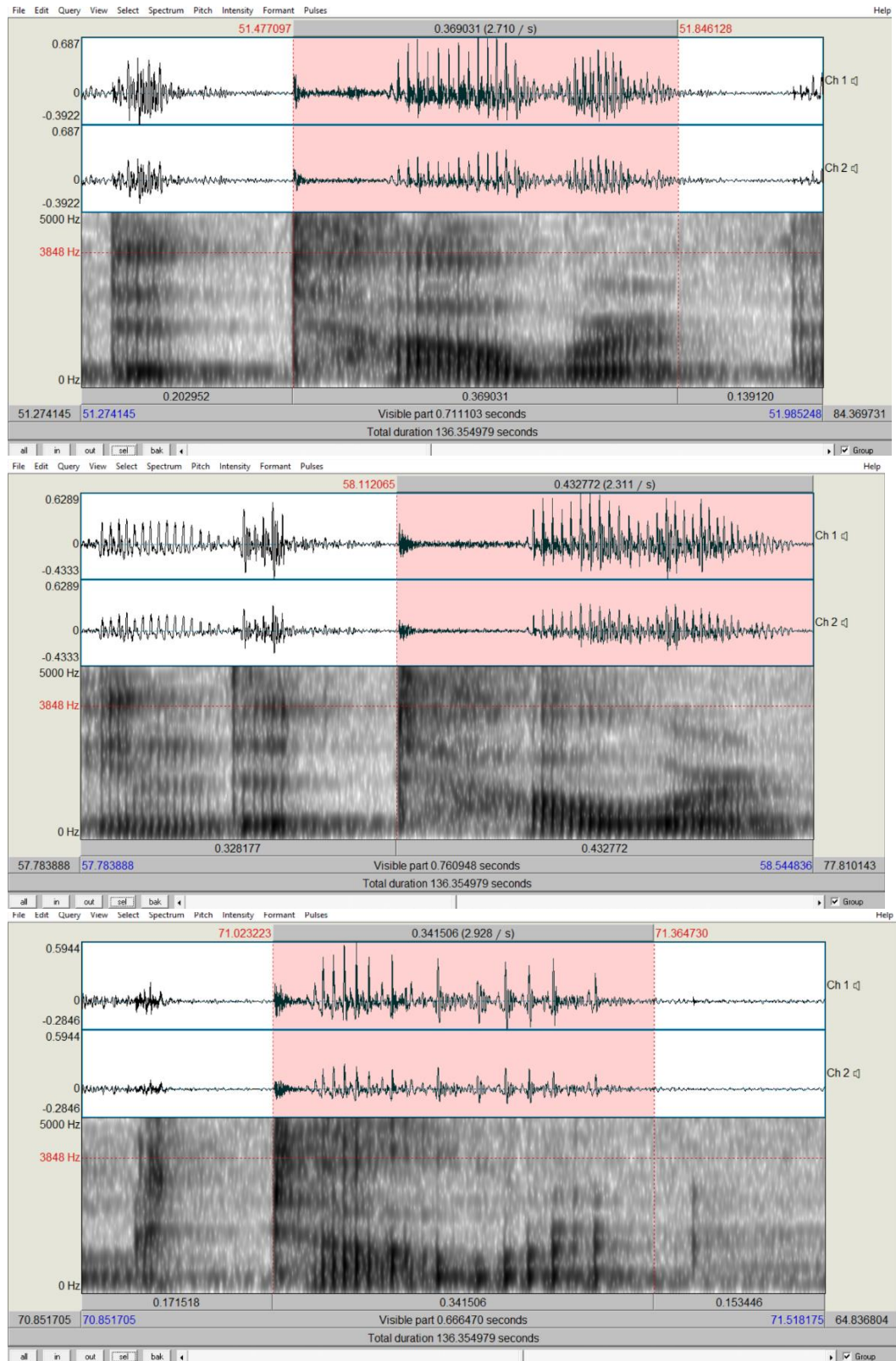
Standard British /nju:/



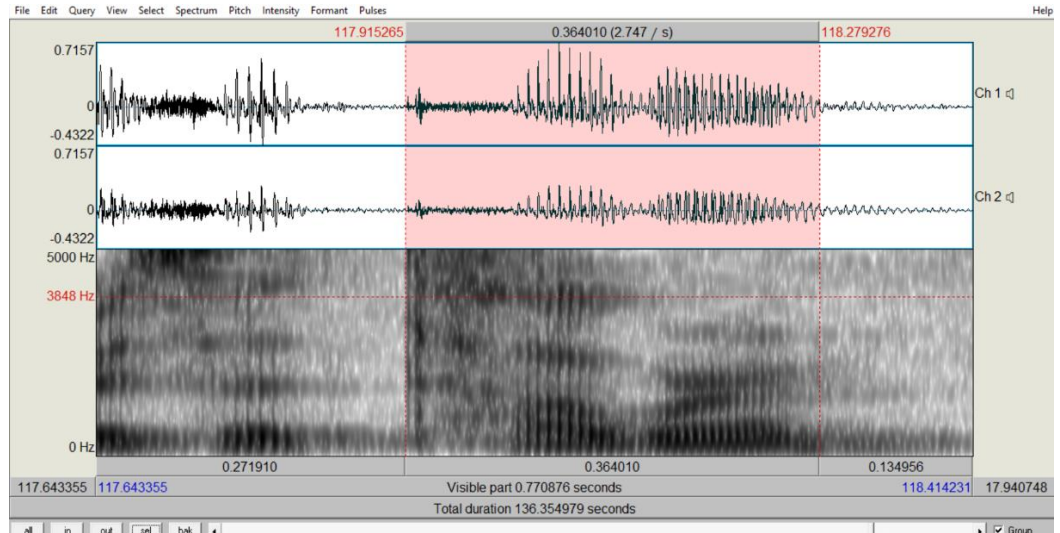


*Tower (careful speech)*

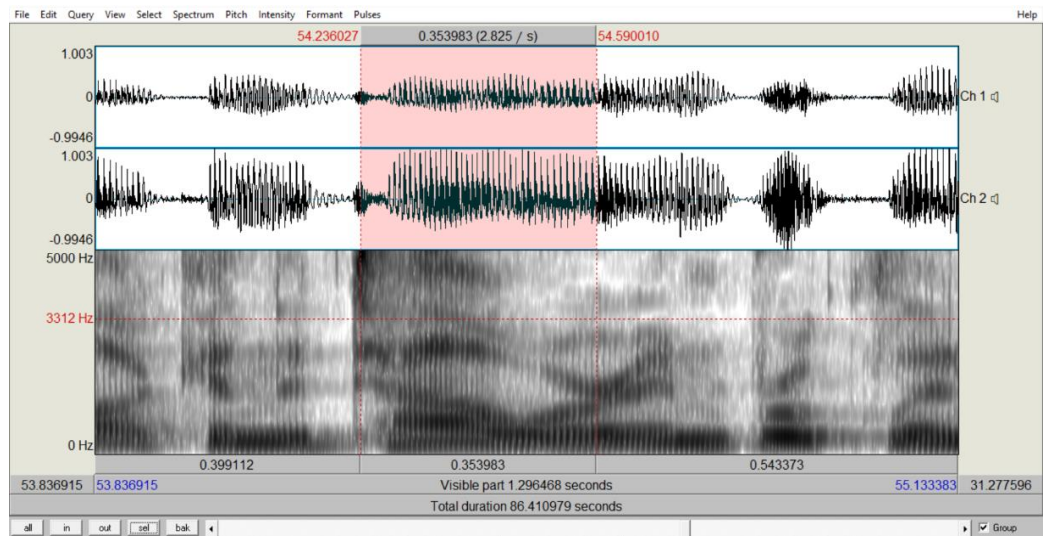




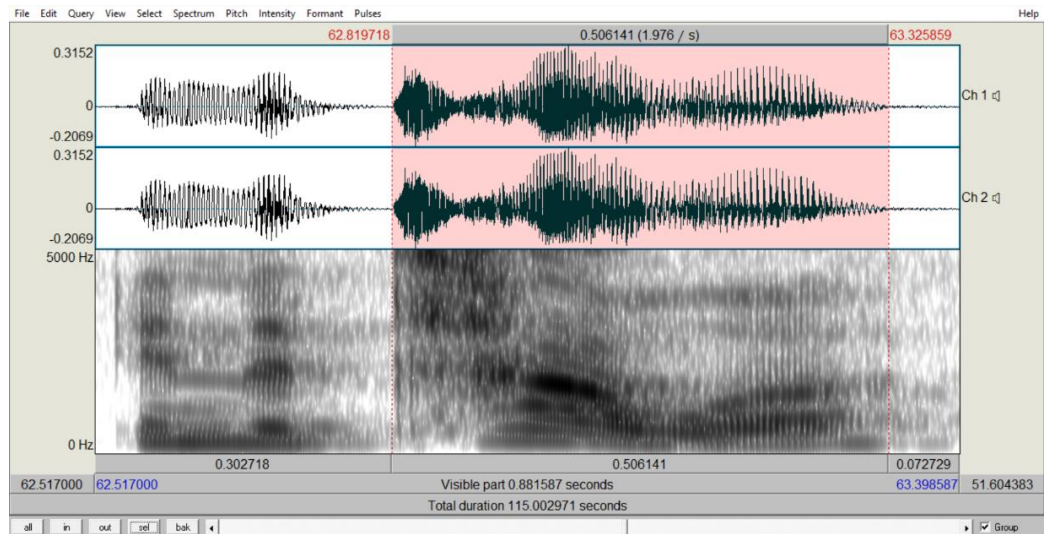
*Tower (spontaneous speech)*



### GenAm /taʊər/



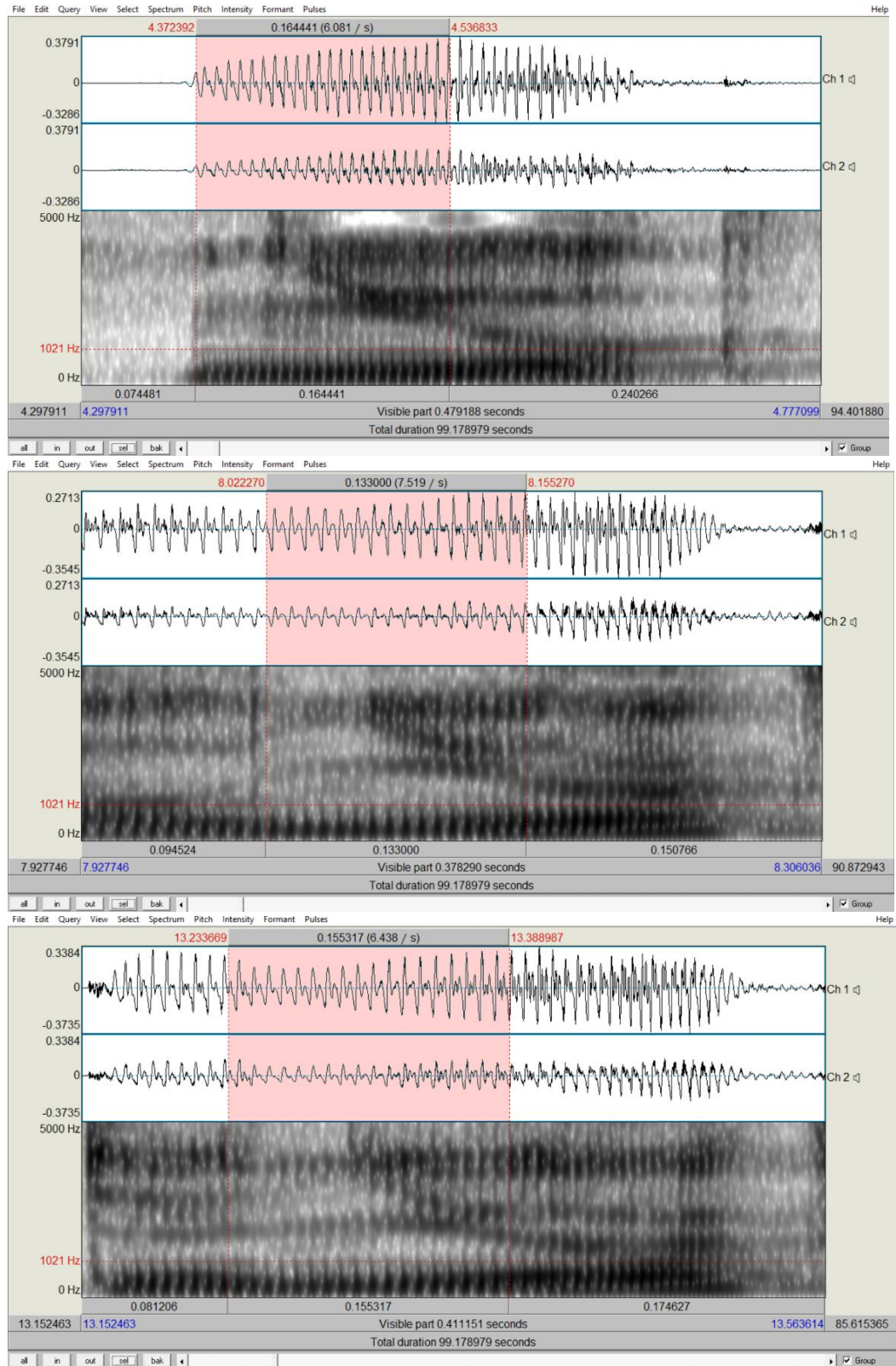
### Standard British /taʊə/

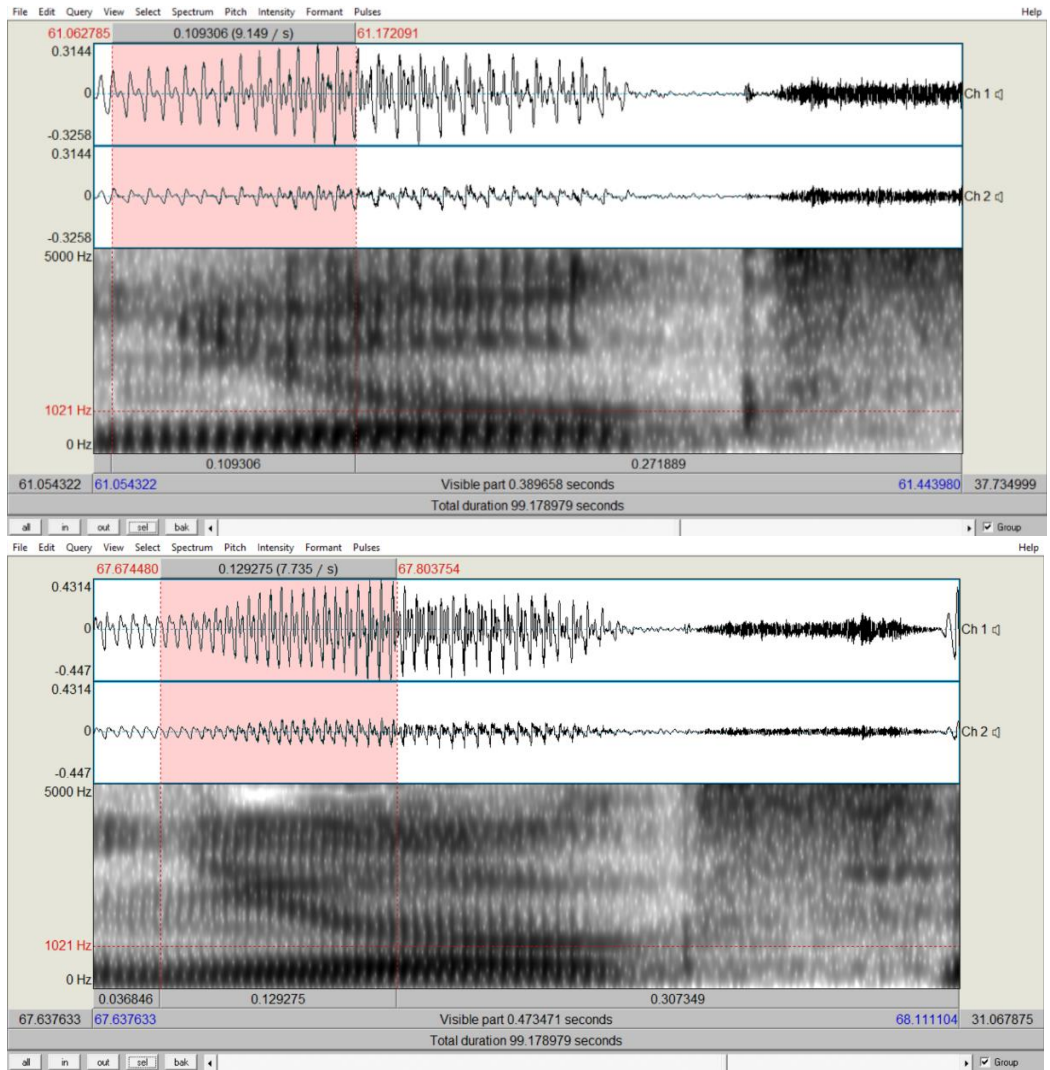




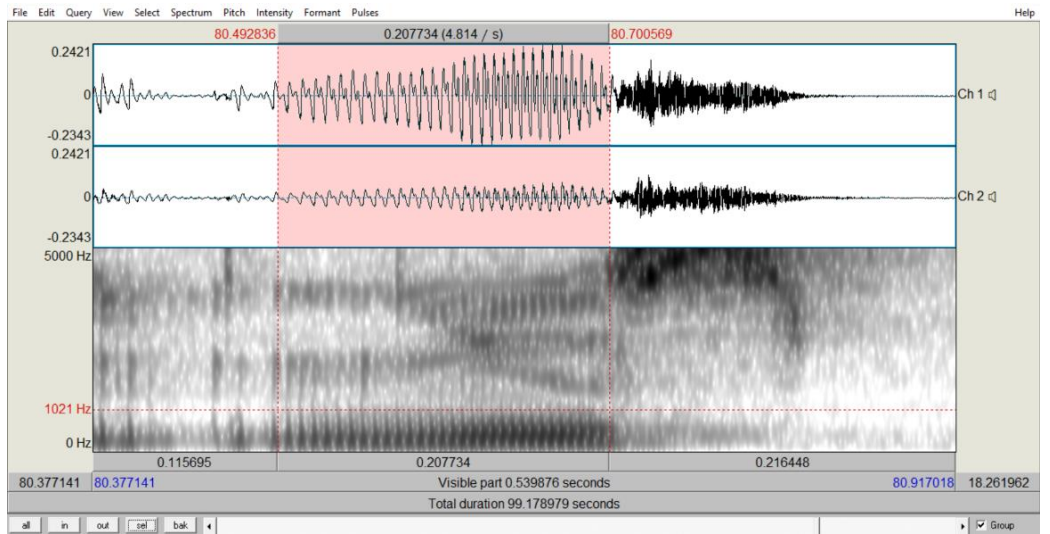
# PARTICIPANT 6 (male)

## *New (careful speech)*

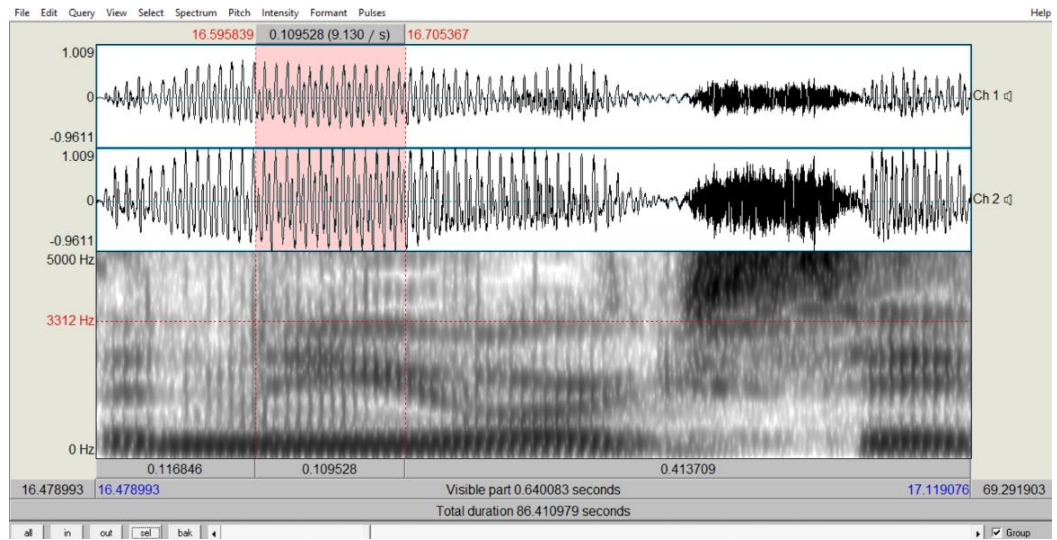




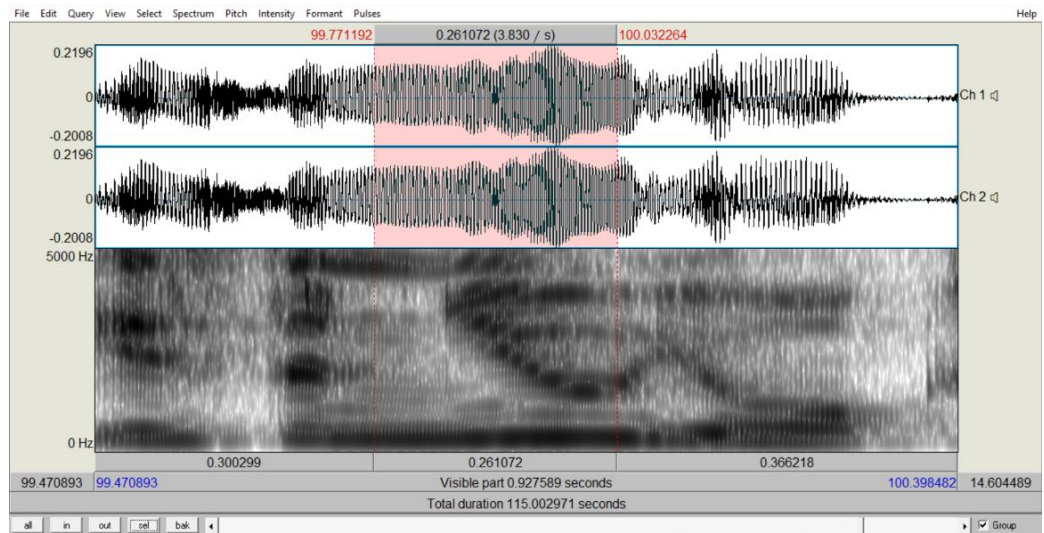
*New (spontaneous speech)*



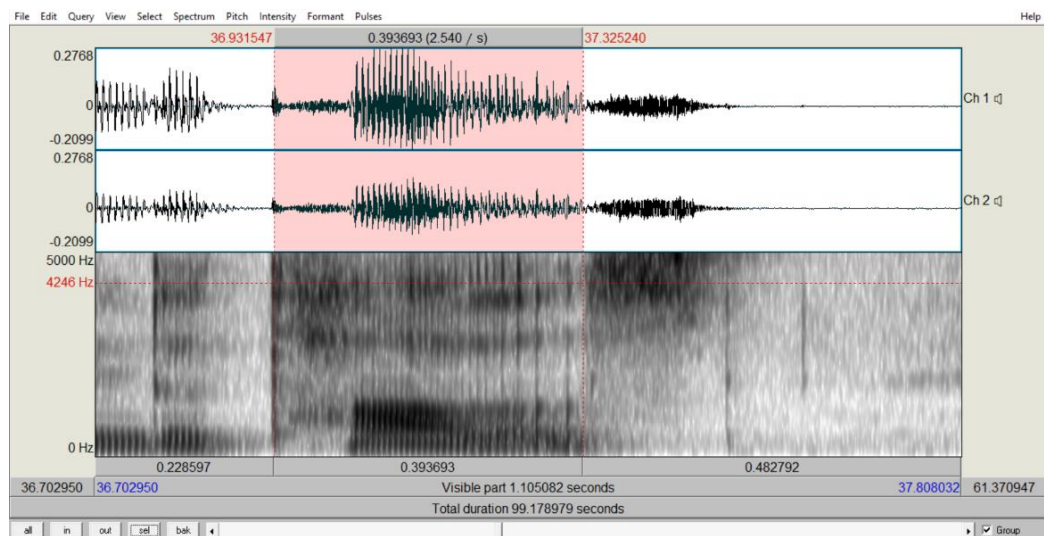
## GenAm /nu:/



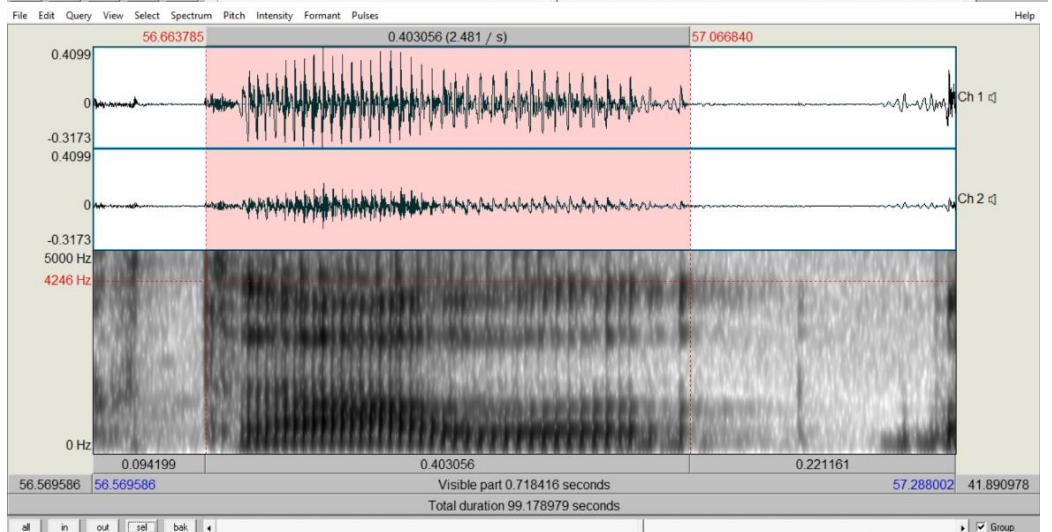
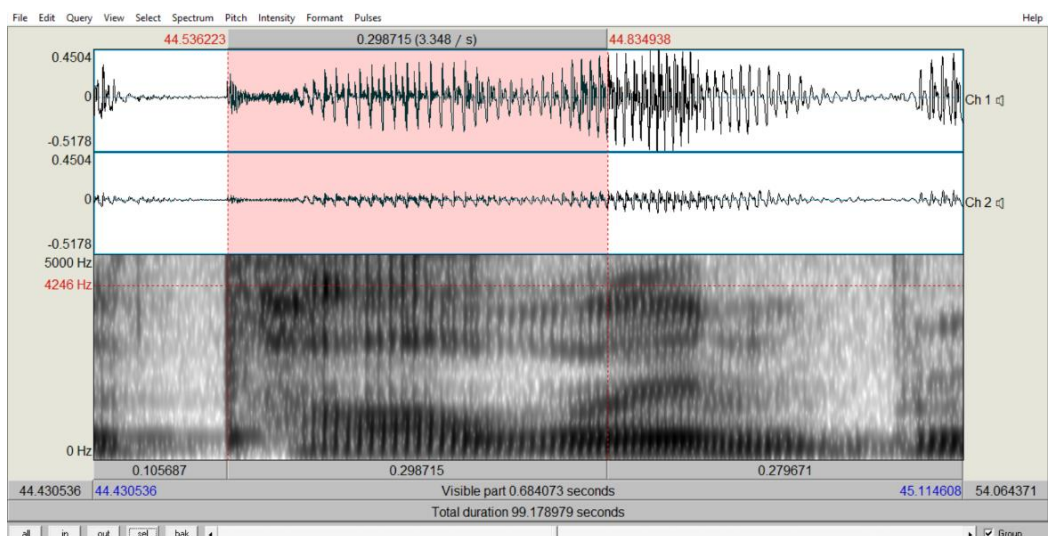
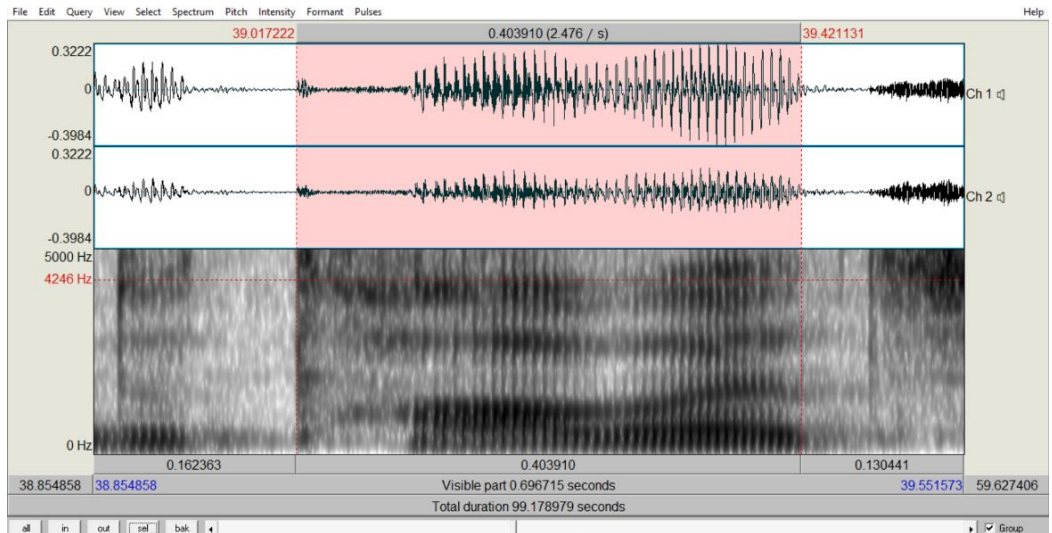
## Standard British /nju:/



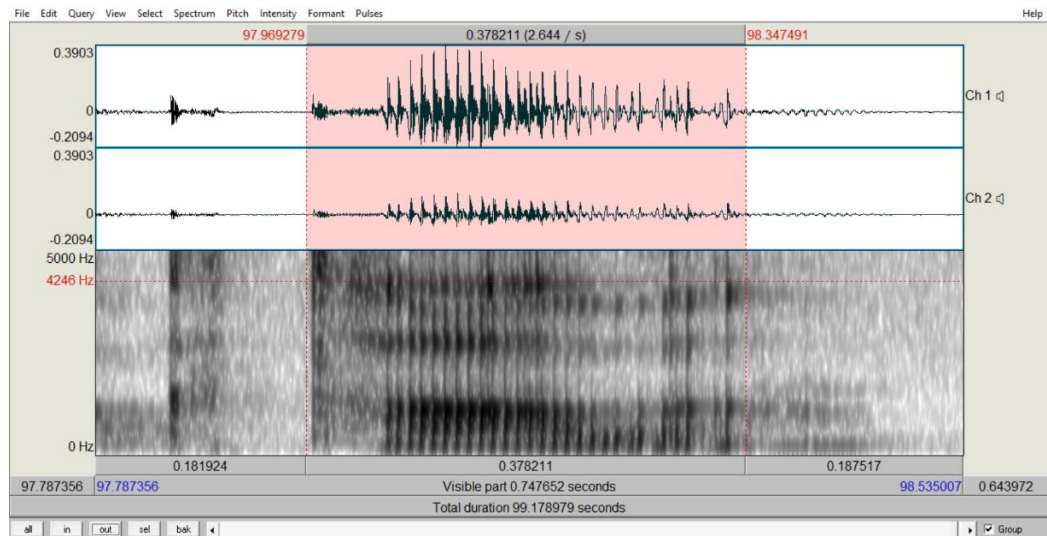
## Tower (careful speech)



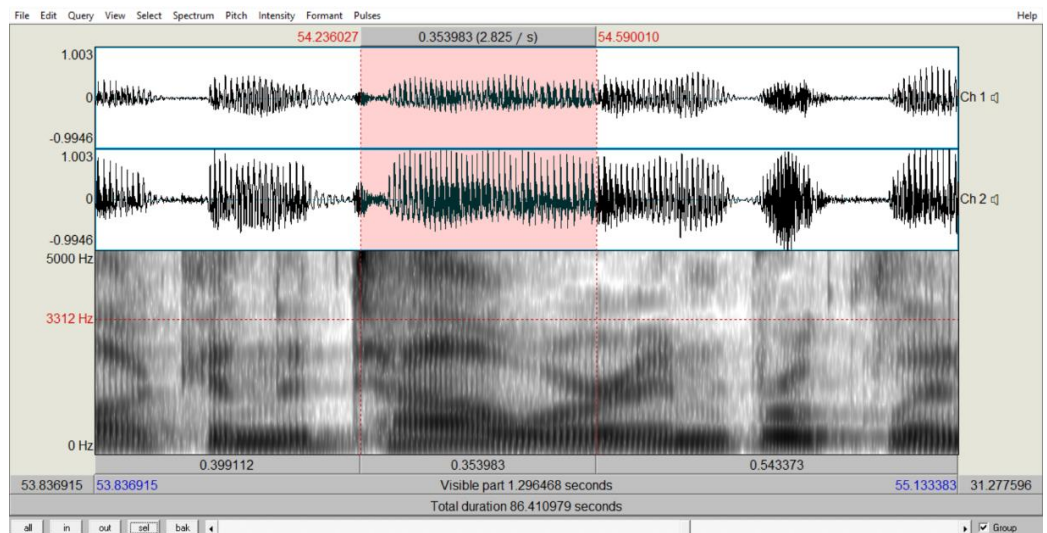




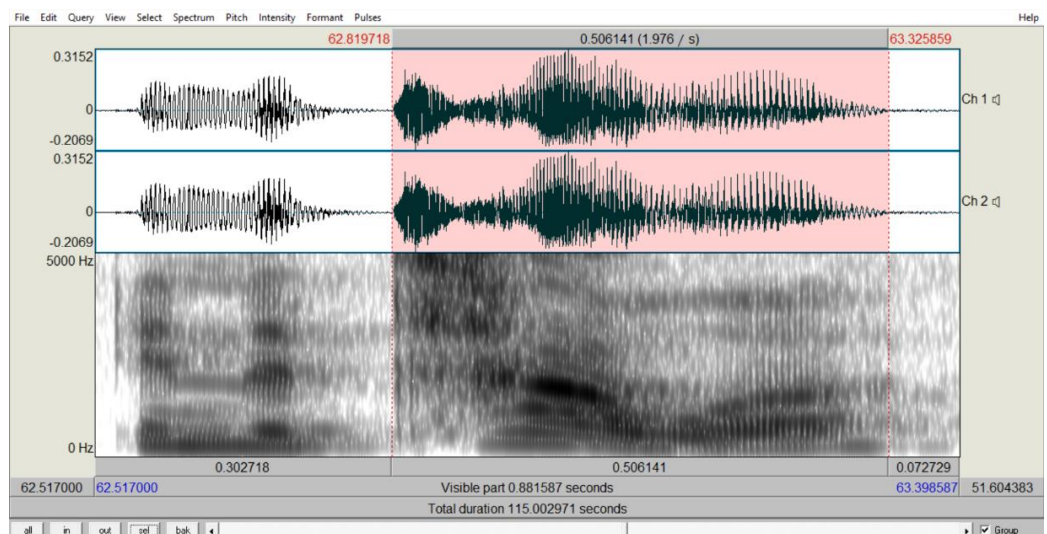
*Tower (spontaneous speech)*



GenAm /taʊər/



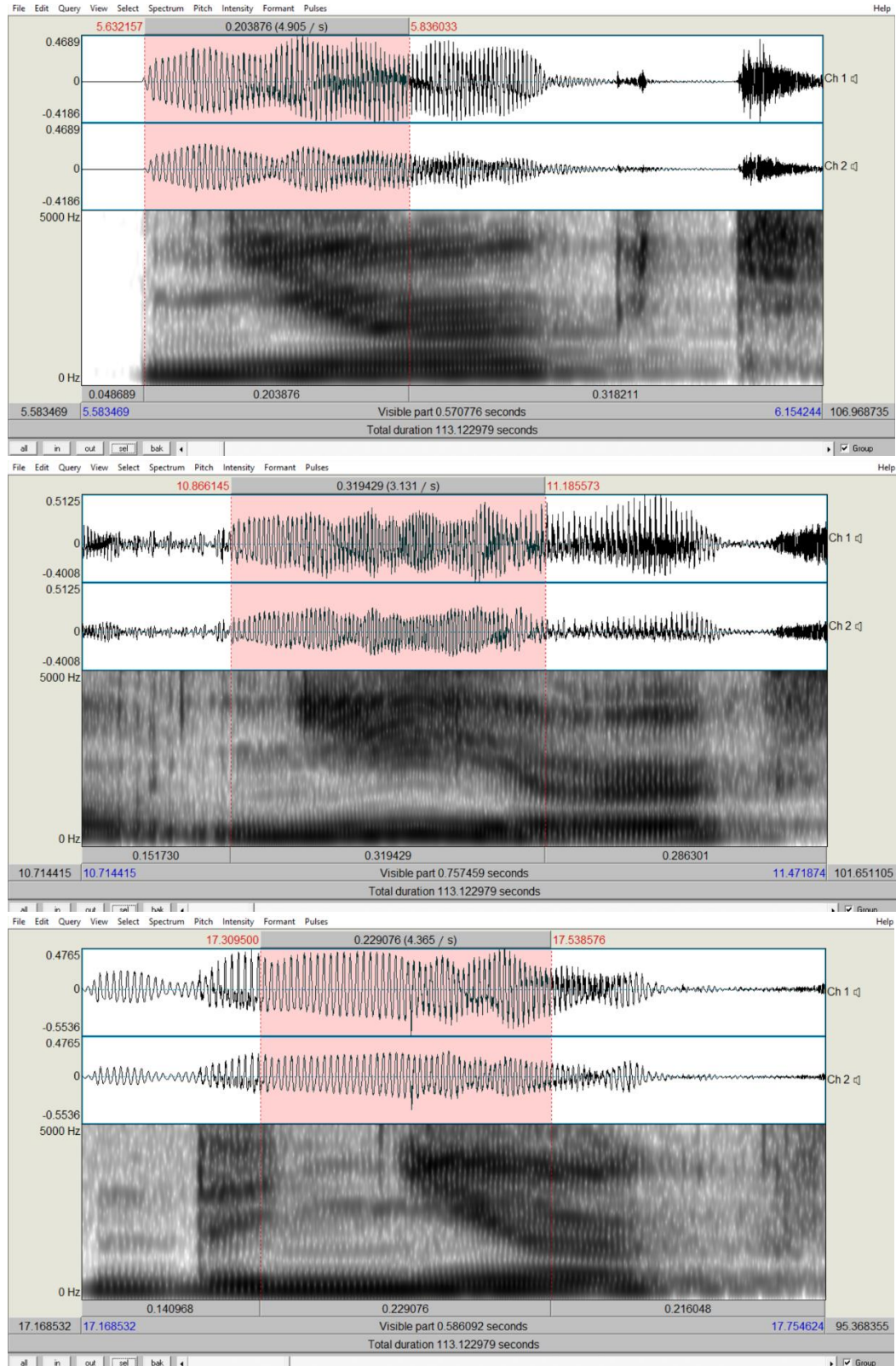
Standard British /taʊə/

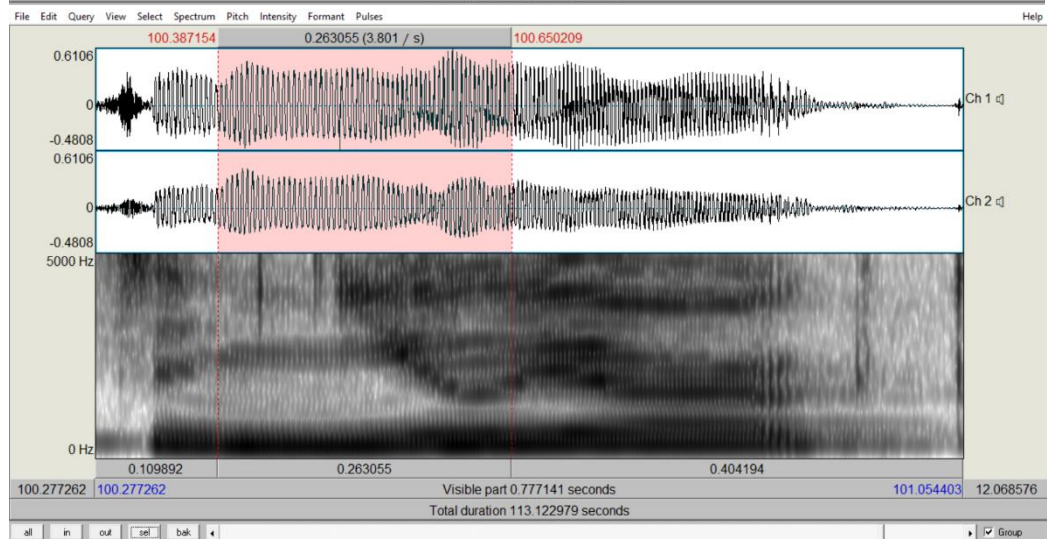
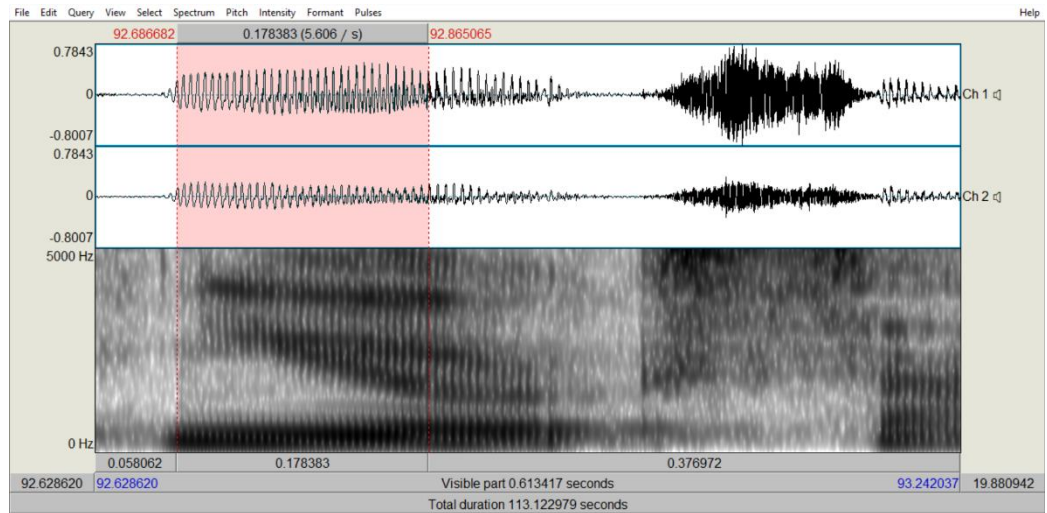




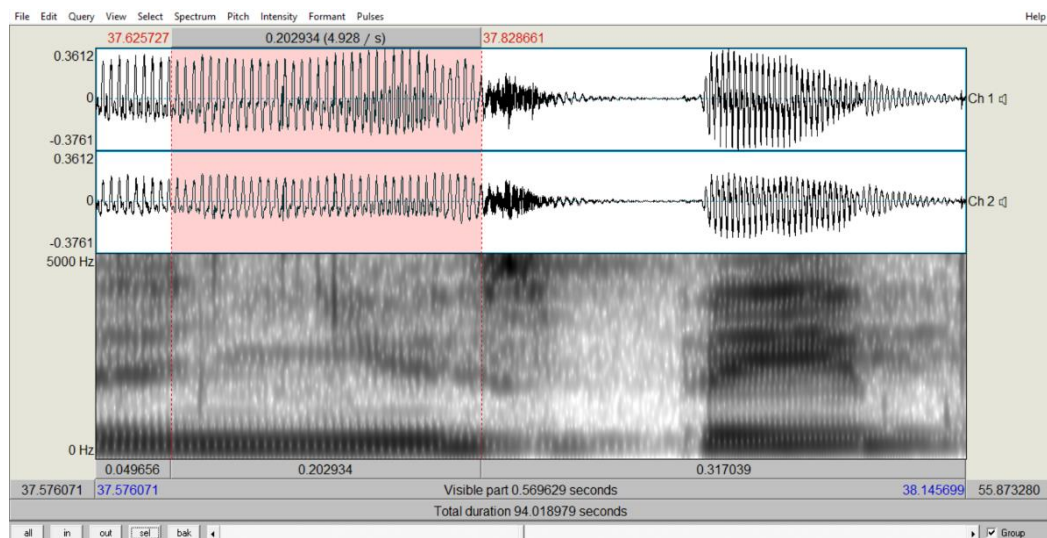
# PARTICIPANT 7 (female)

## *New (careful speech)*

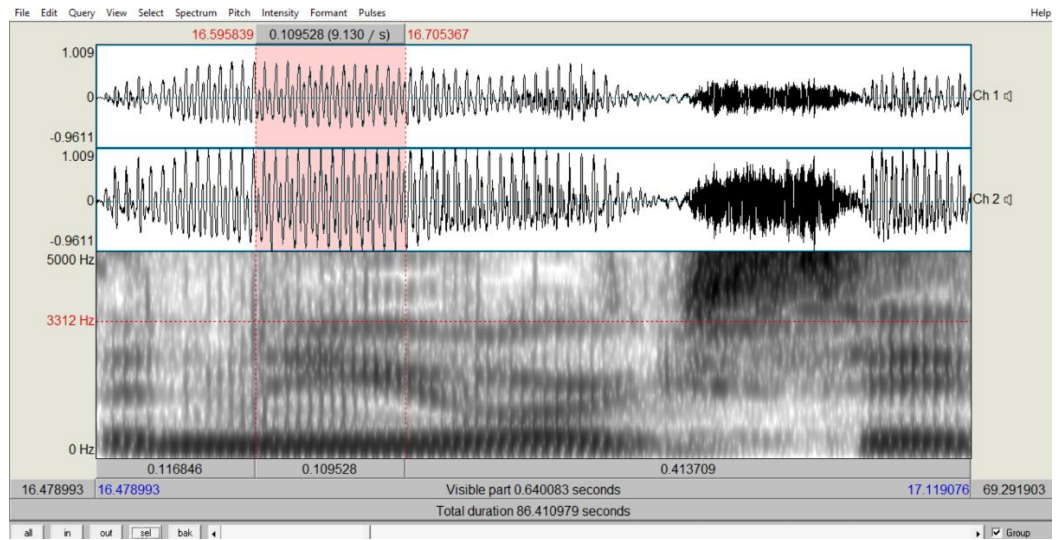




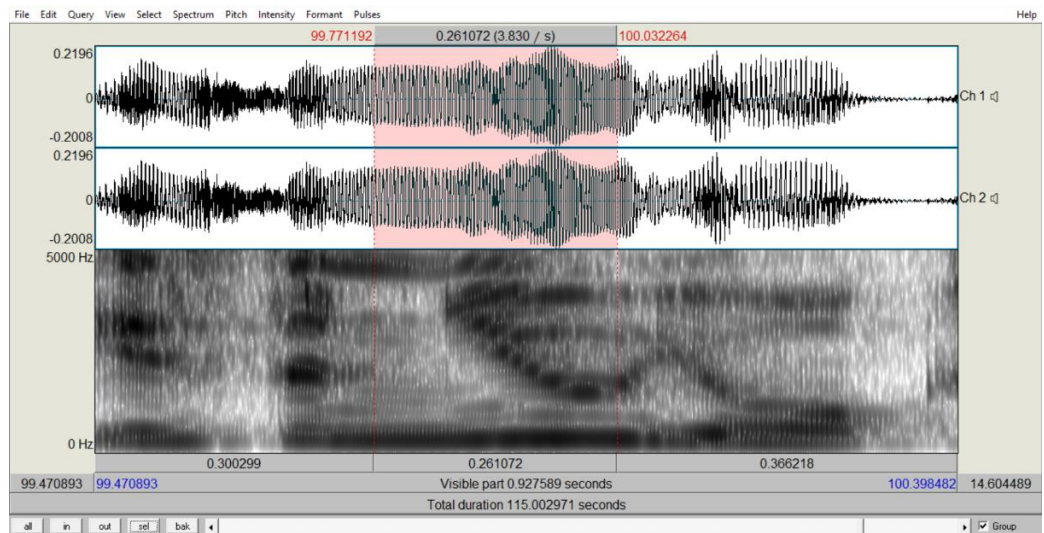
*New (spontaneous speech)*



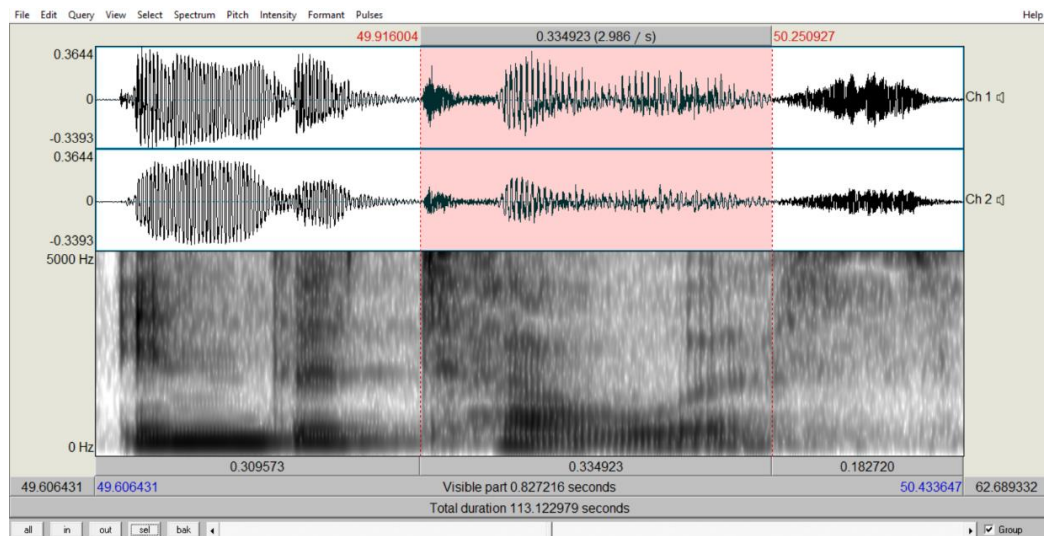
## GenAm /nu:/



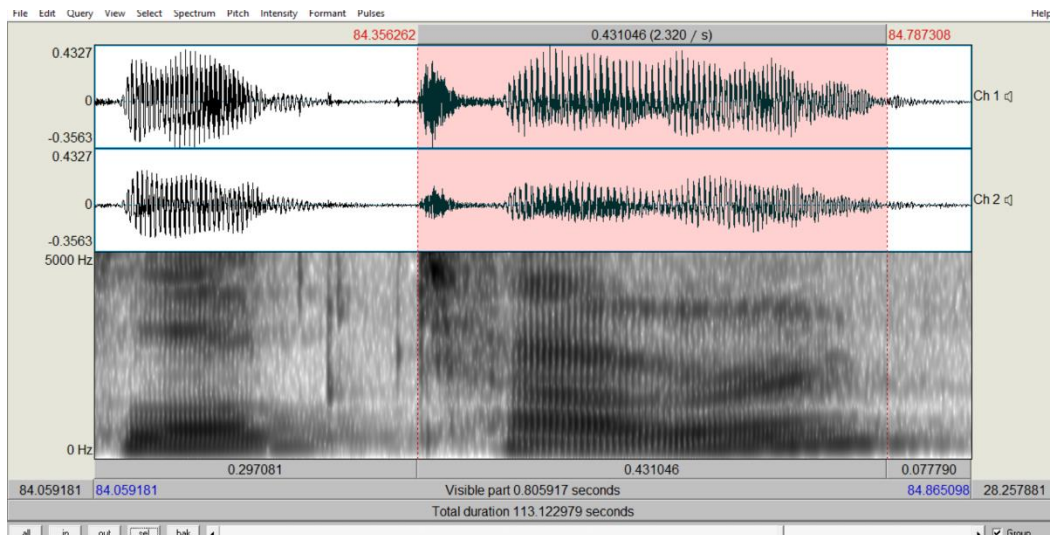
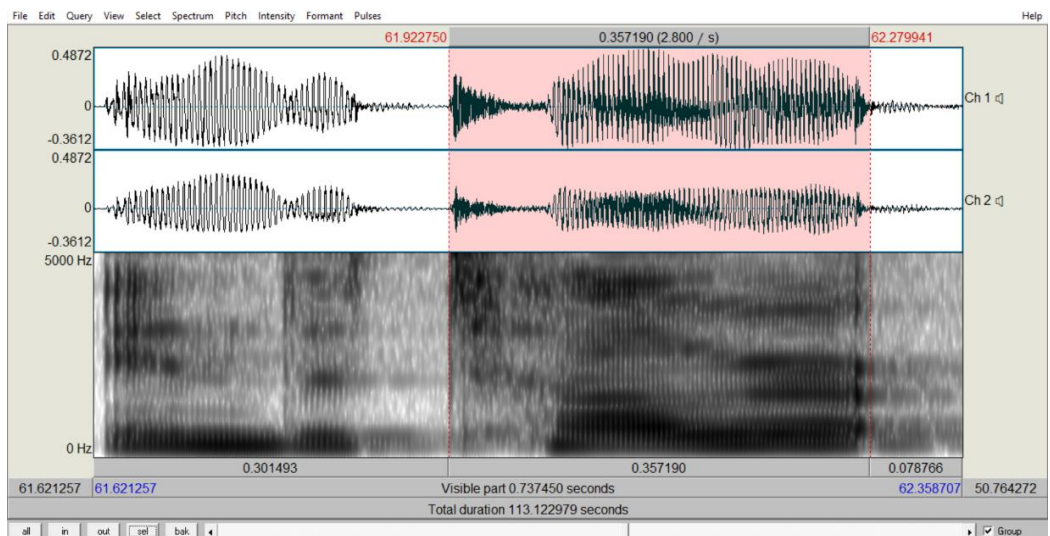
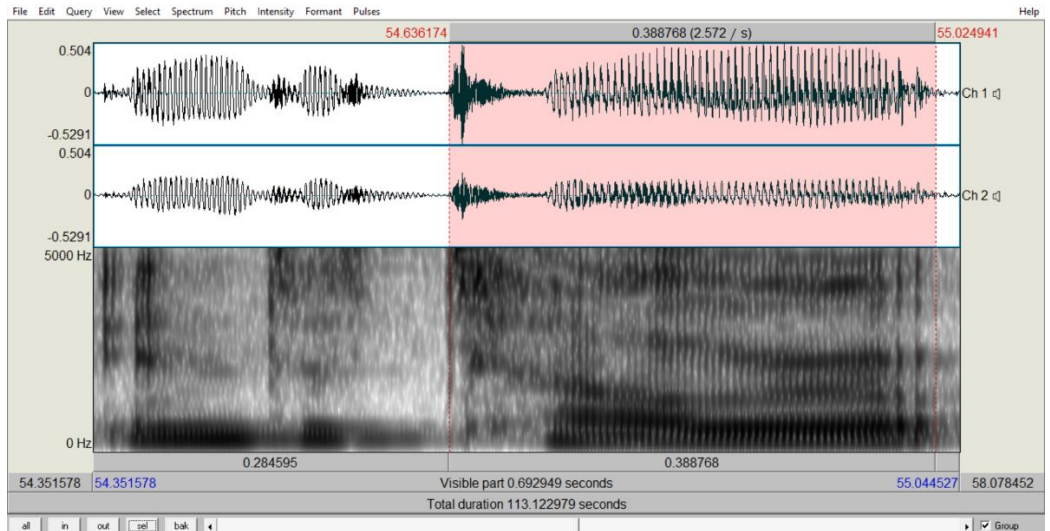
## Standard British /nju:/



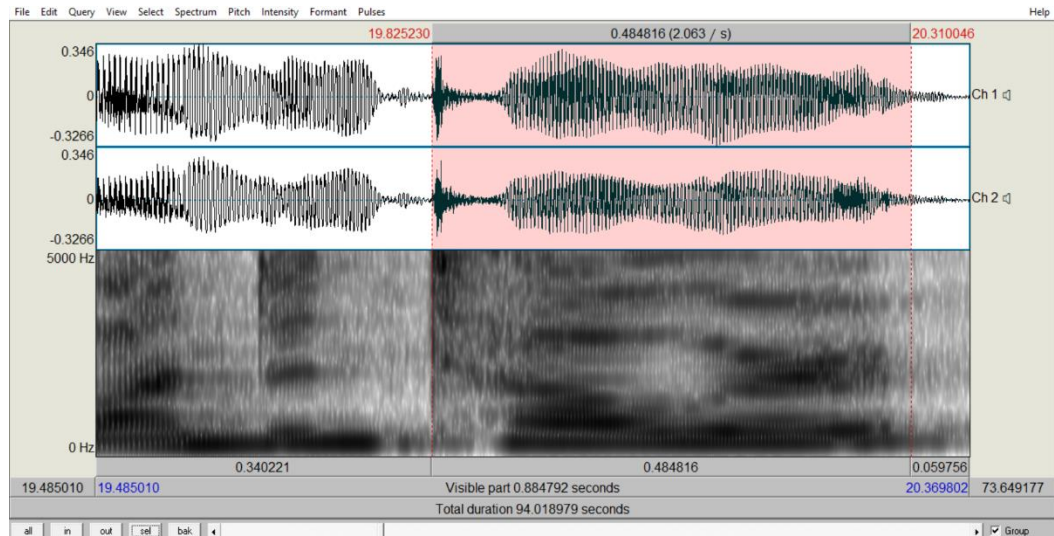
## Tower (careful speech)



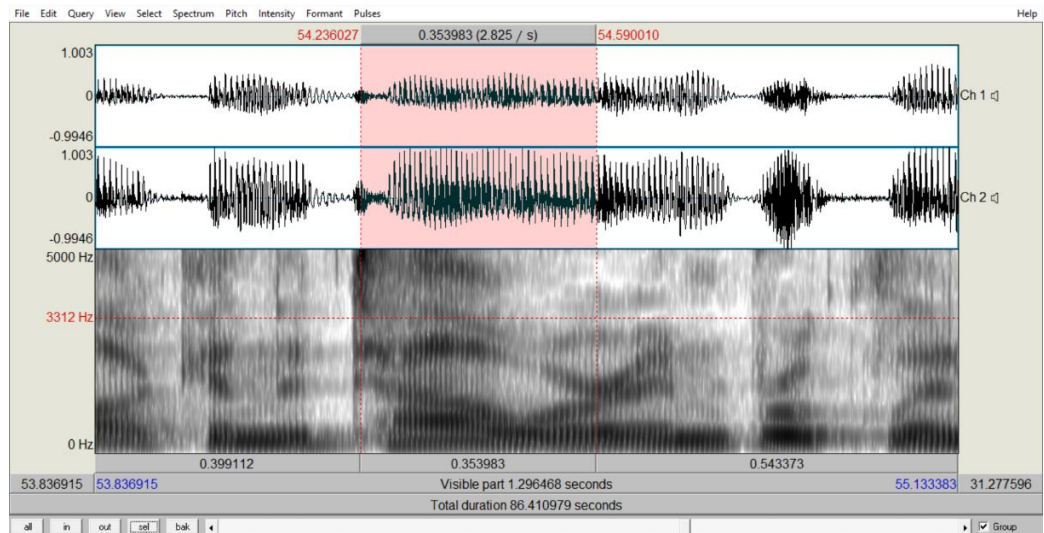




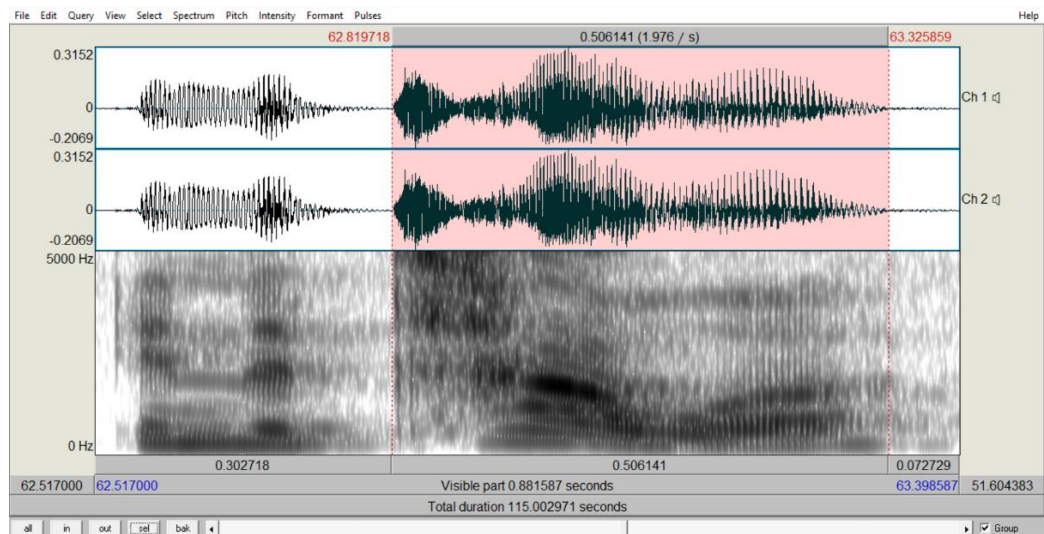
### Tower (spontaneous speech)



### GenAm /taʊər/

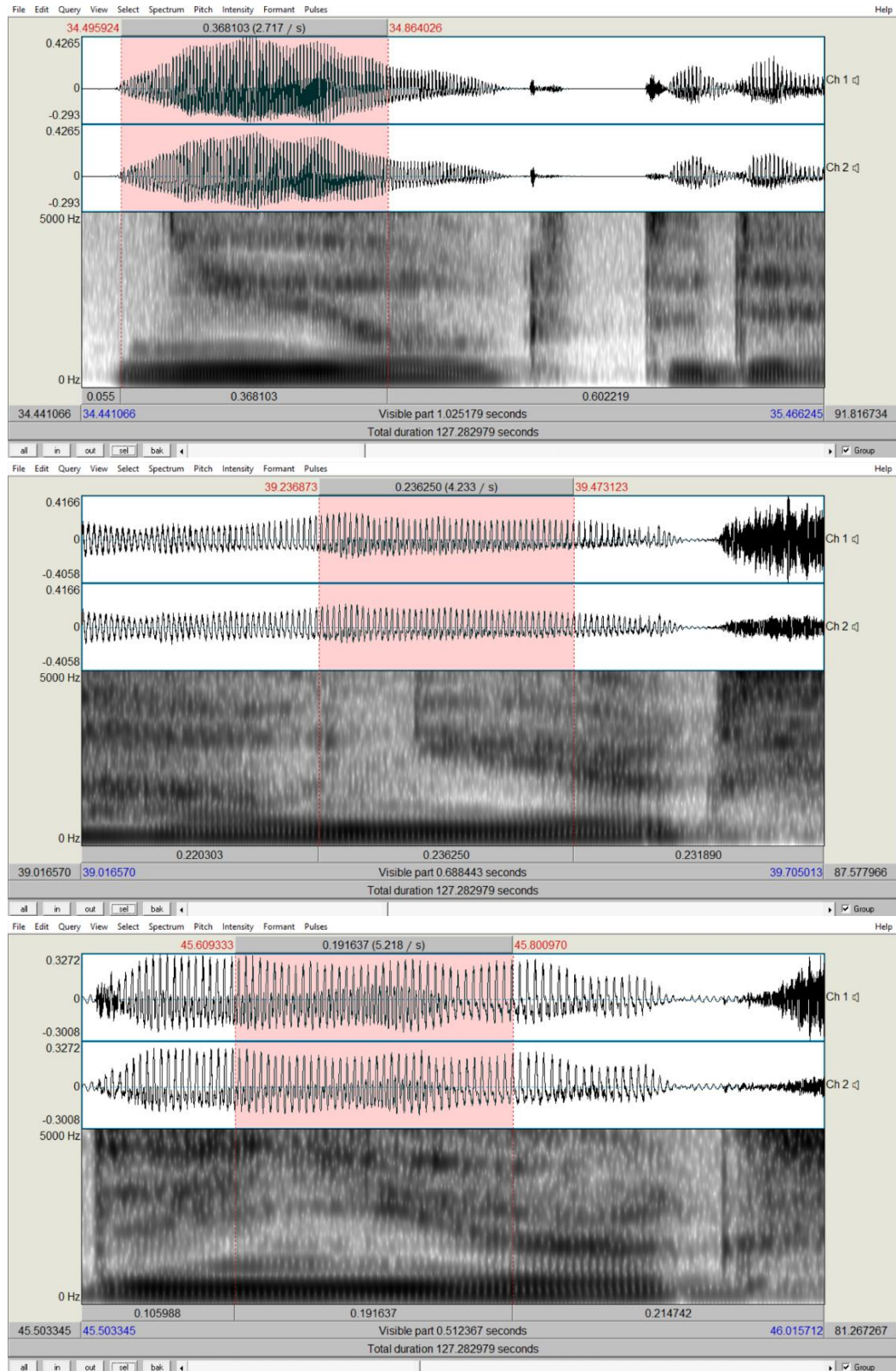


### Standard British /taʊə/

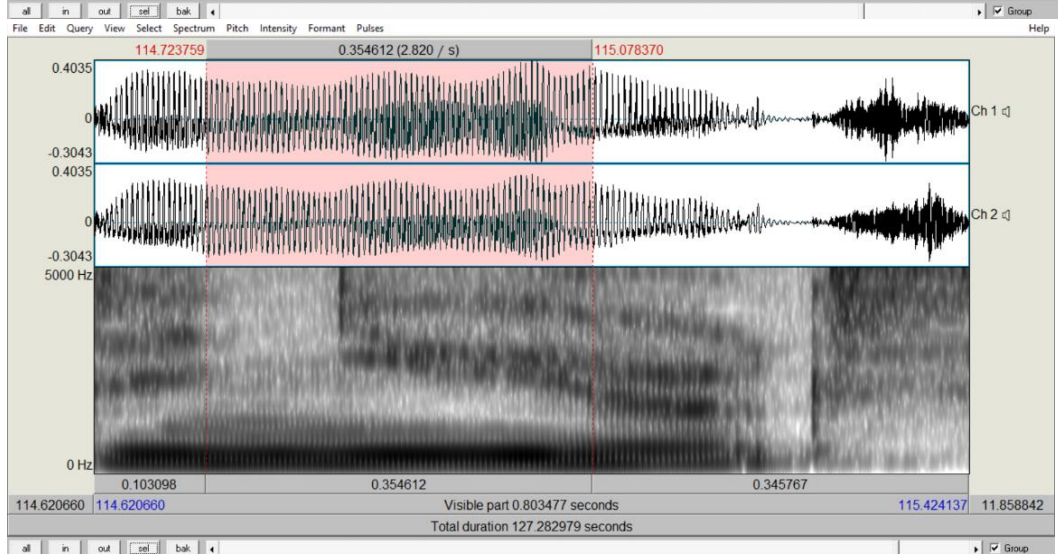
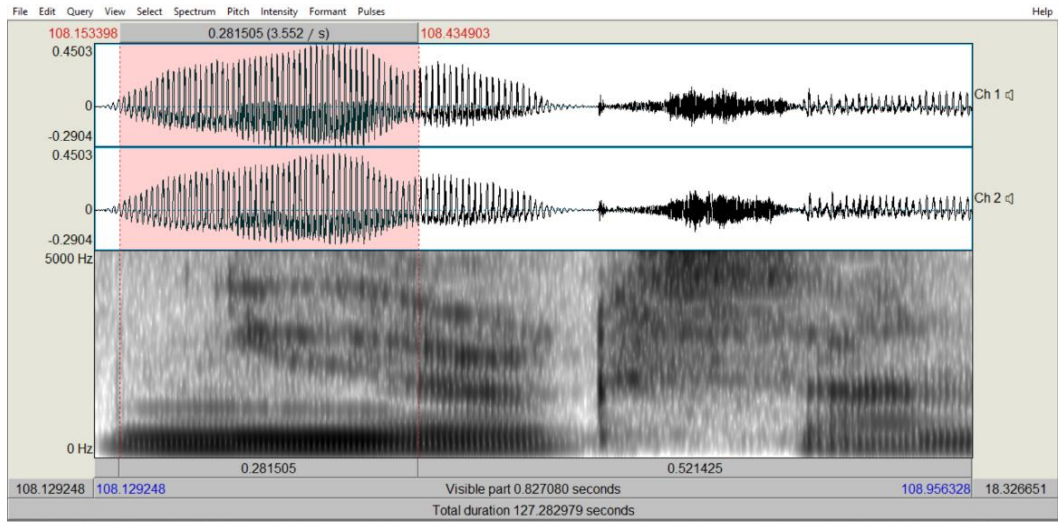


# PARTICIPANT 8 (female)

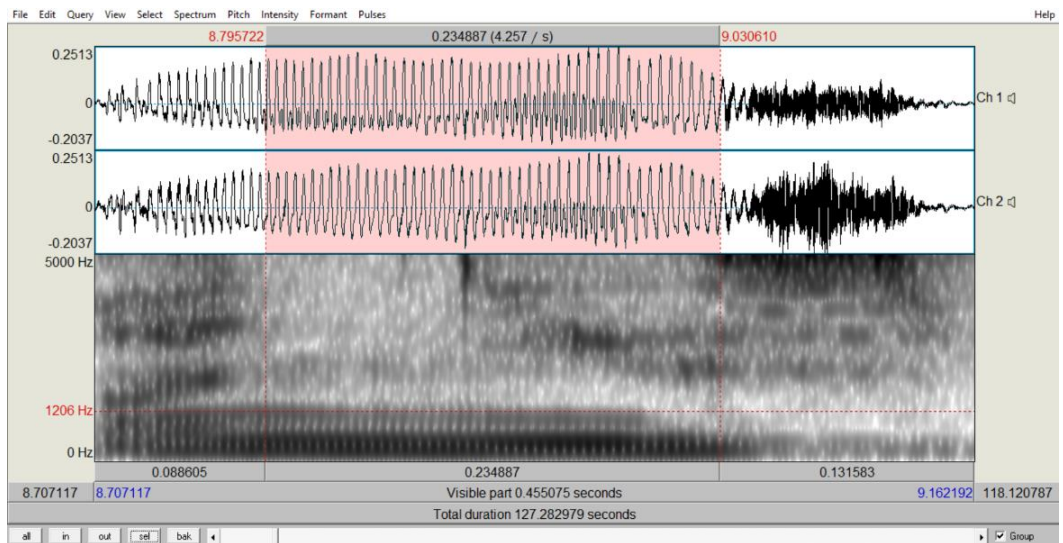
## *New (careful speech)*



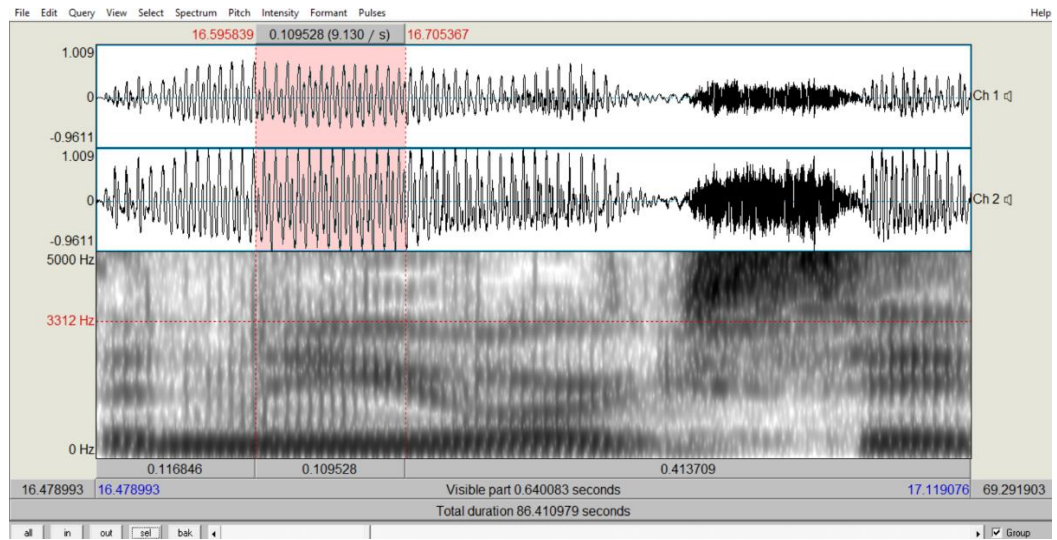




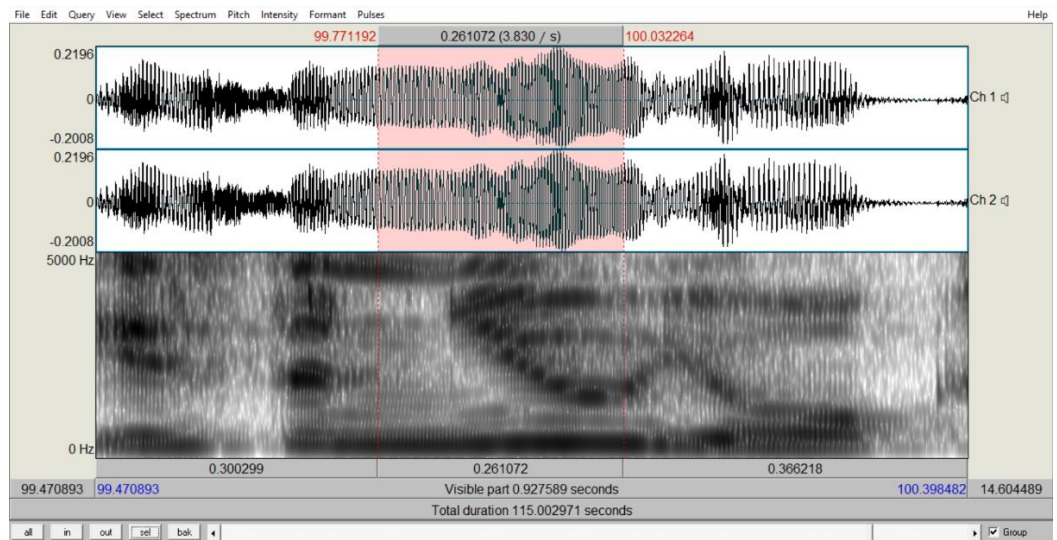
*New (spontaneous speech)*



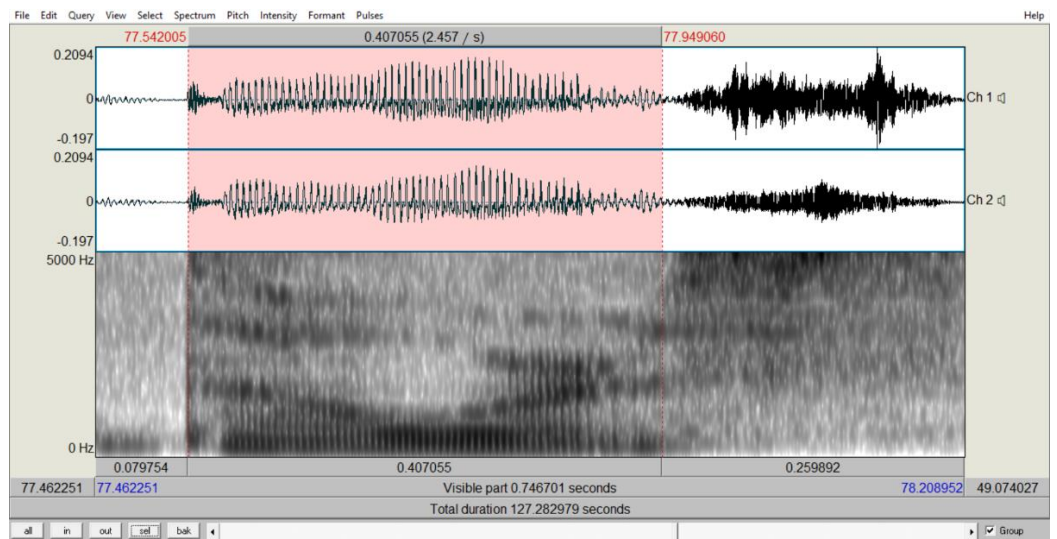
## GenAm /nu:/



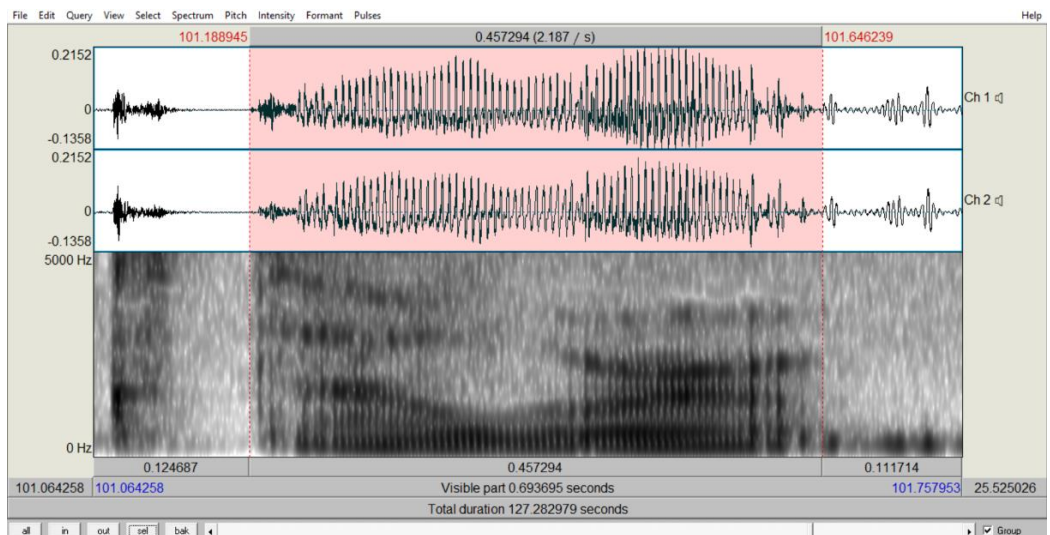
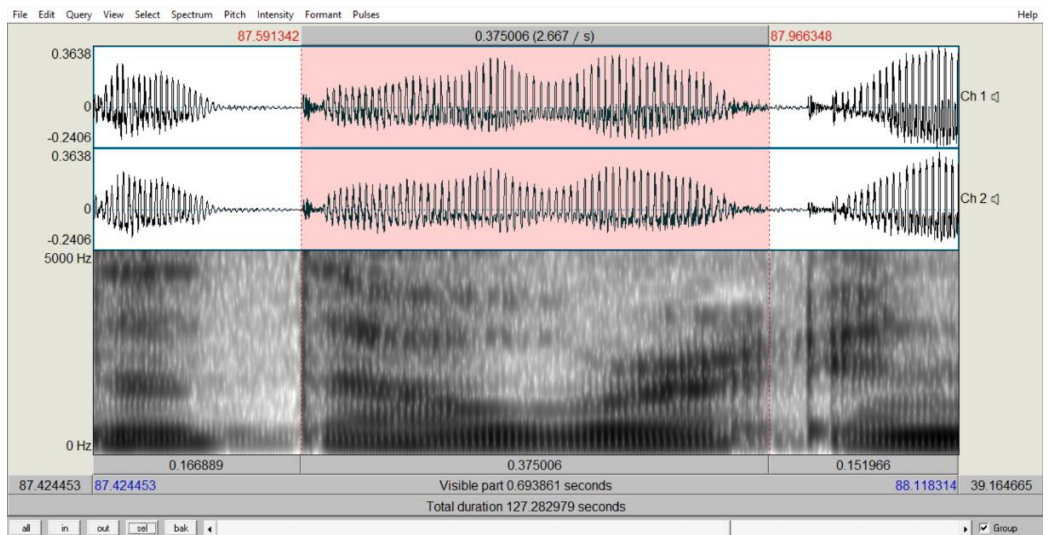
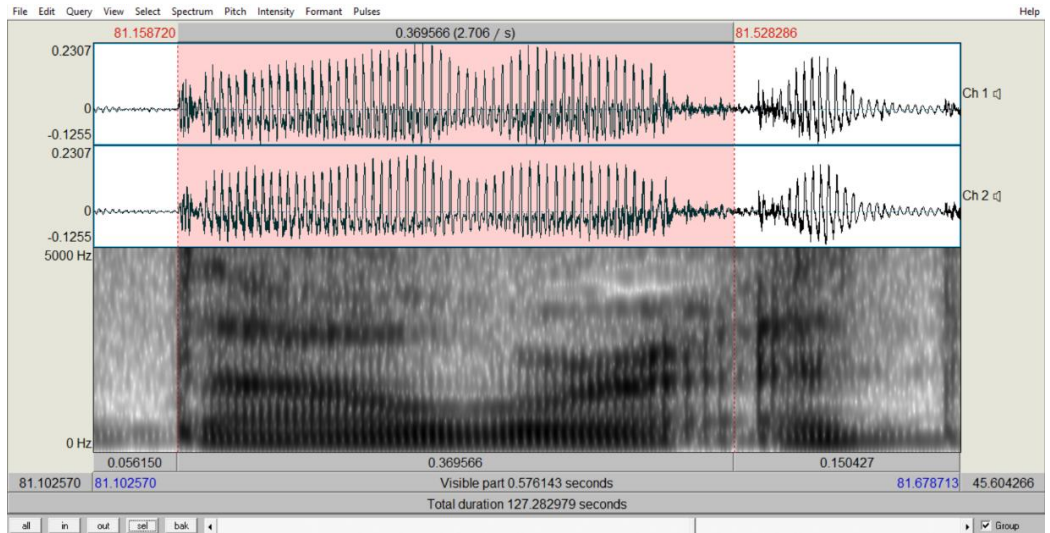
## Standard British /nju:/



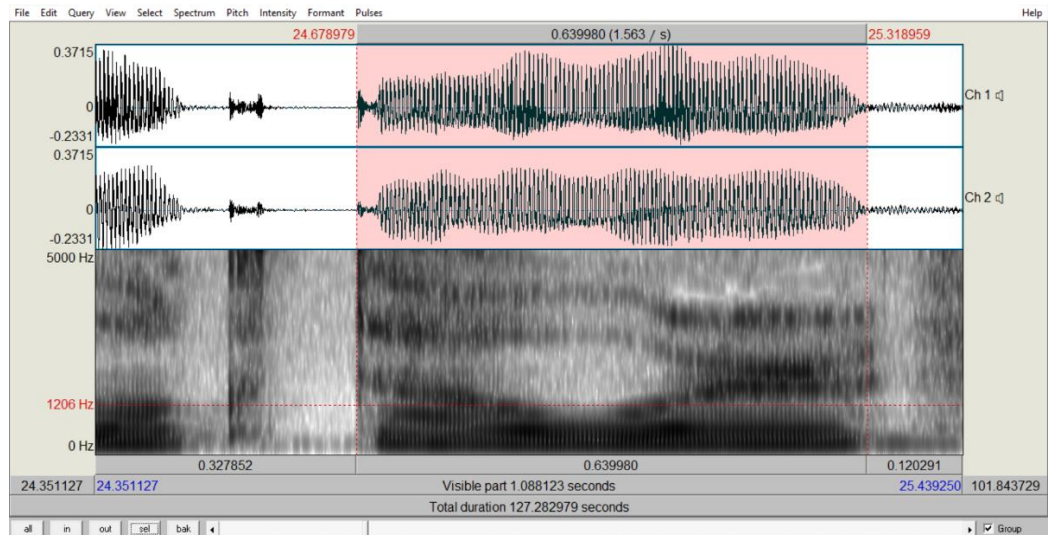
## Tower (careful speech)



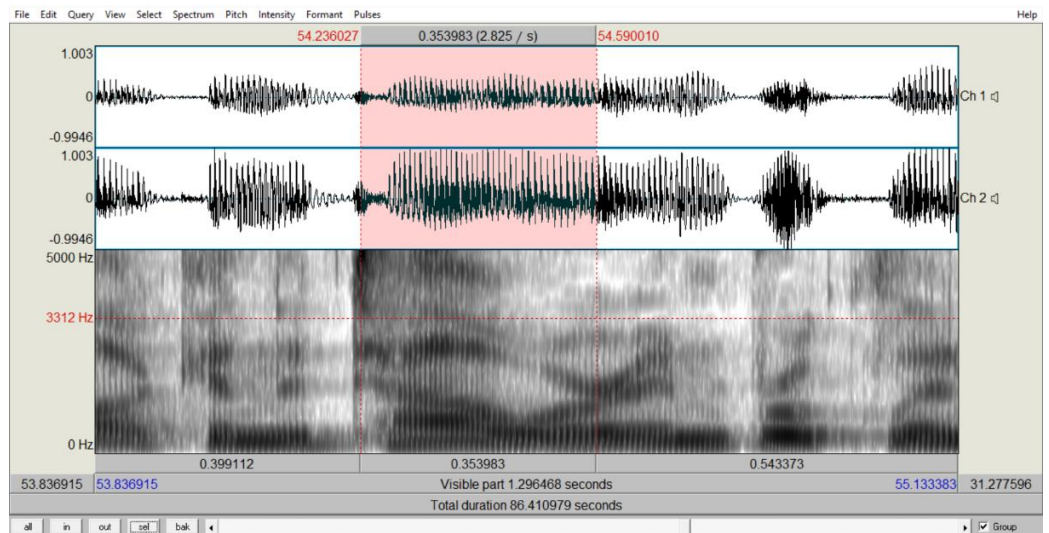




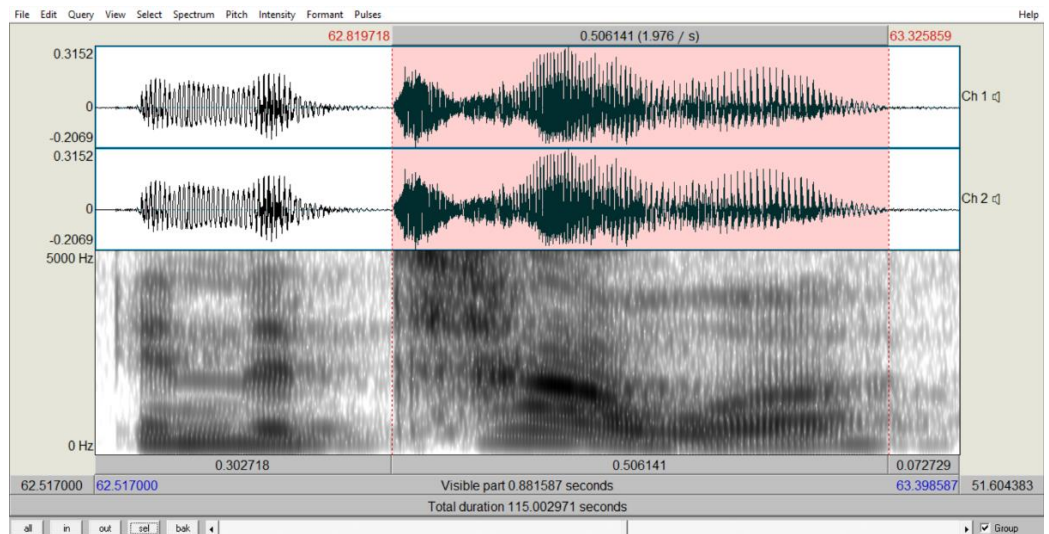
*Tower (spontaneous speech)*



*GenAm /taʊər/*



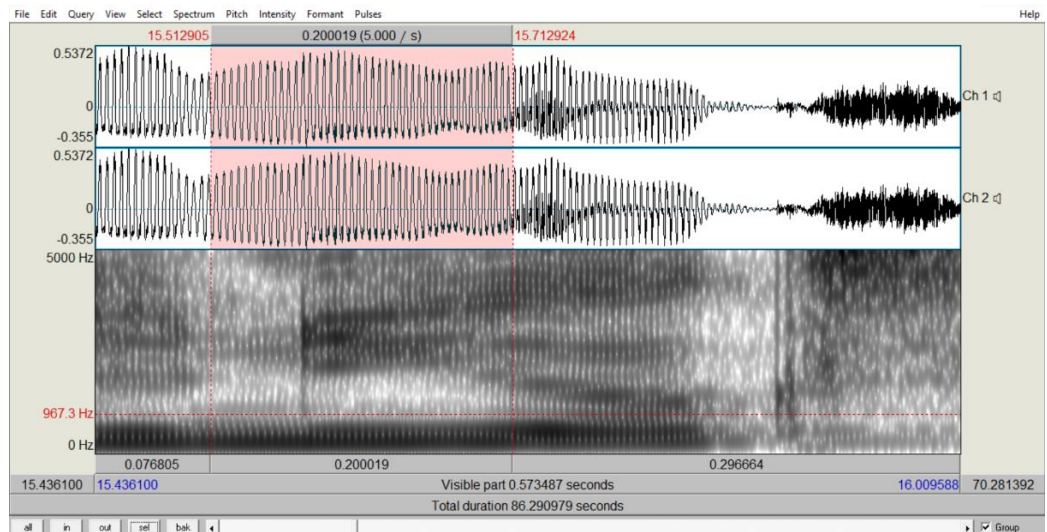
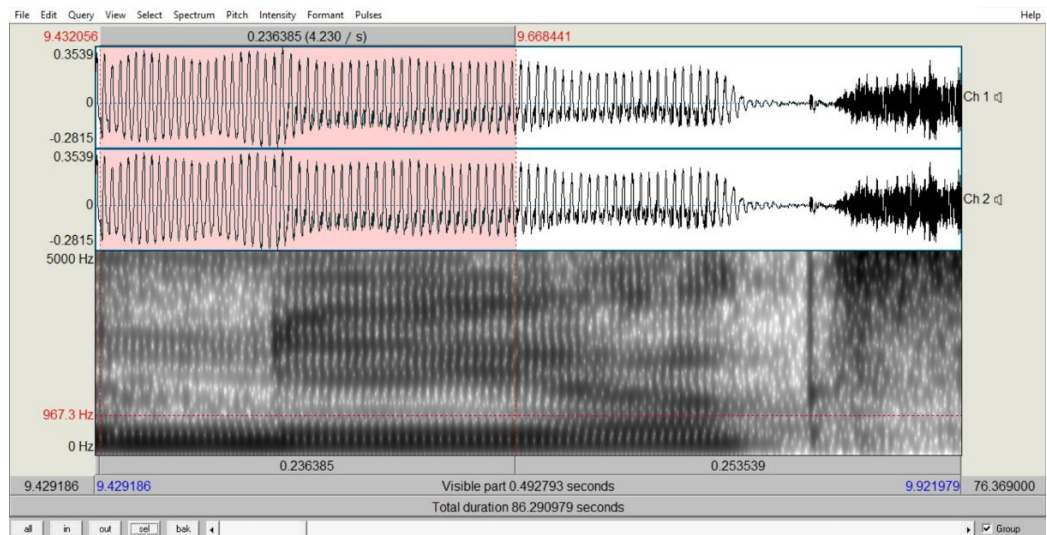
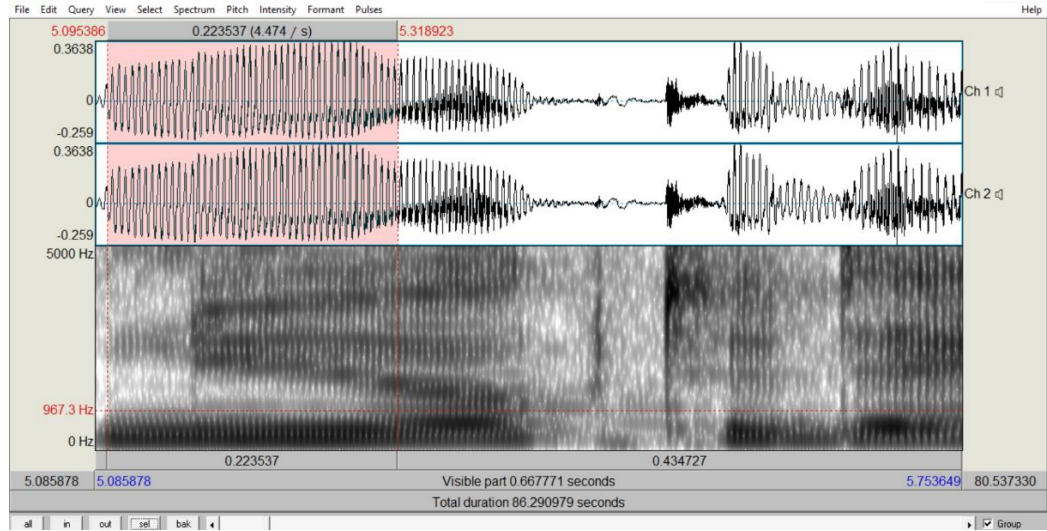
*Standard British /taʊə/*

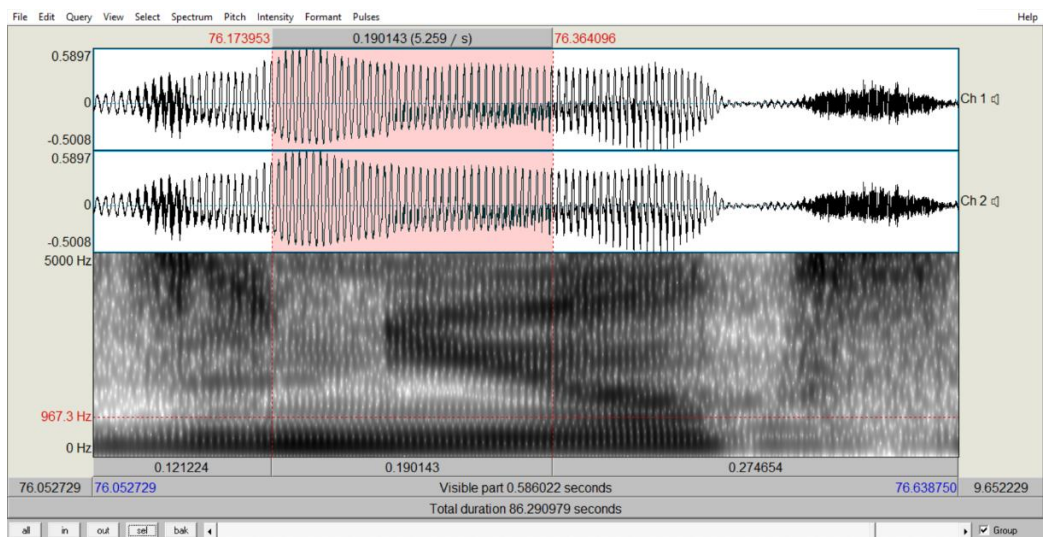
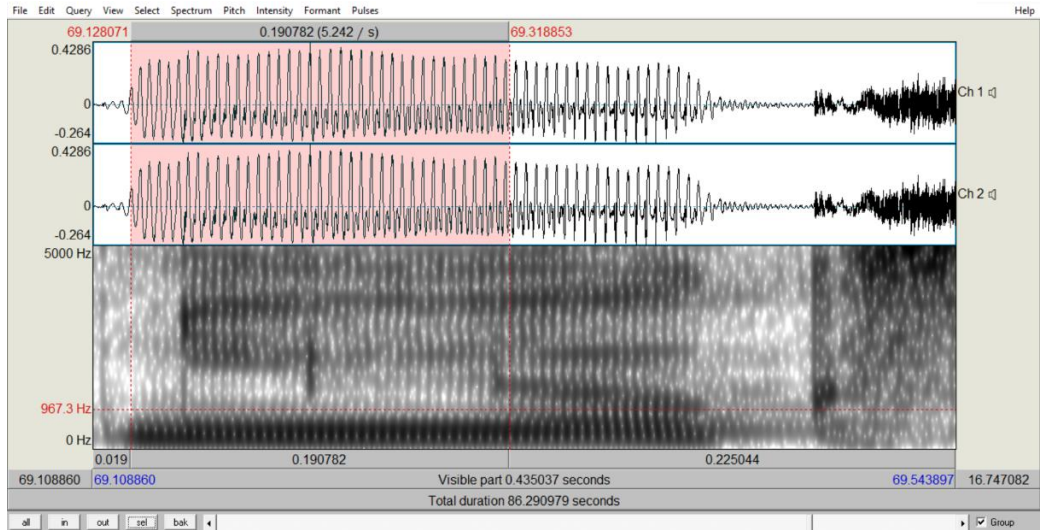




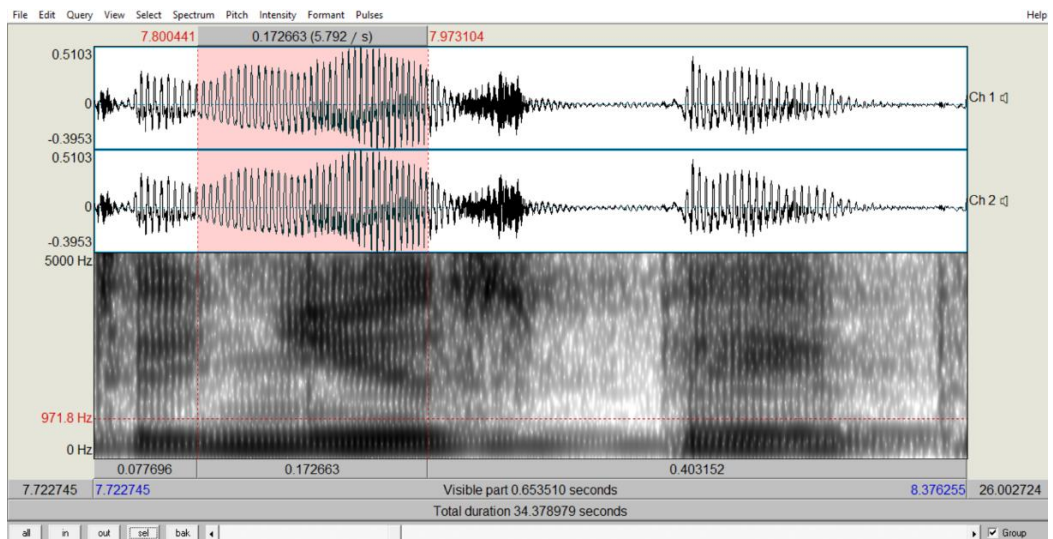
# PARTICIPANT 9 (female)

## *New (careful speech)*



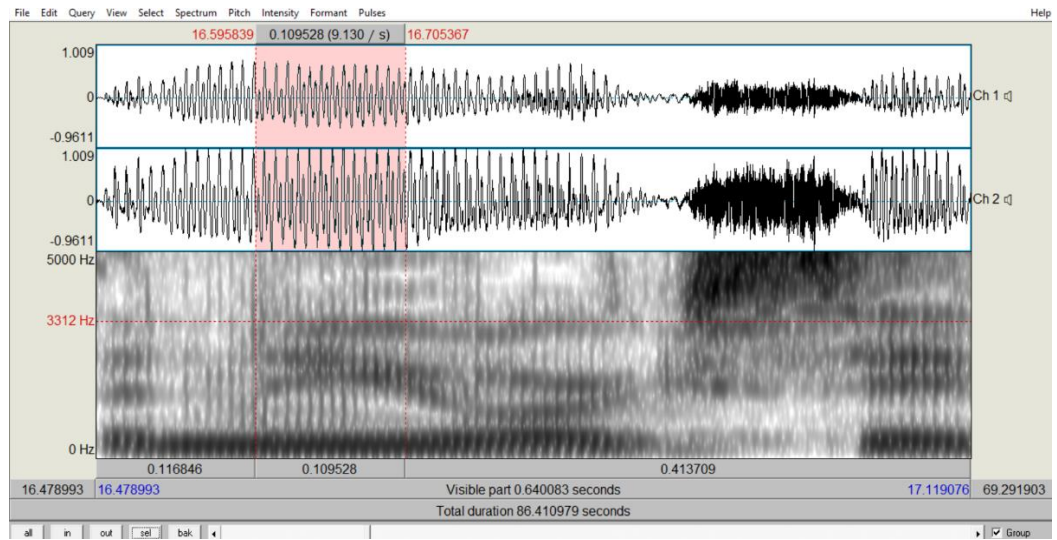


*New (spontaneous speech)*

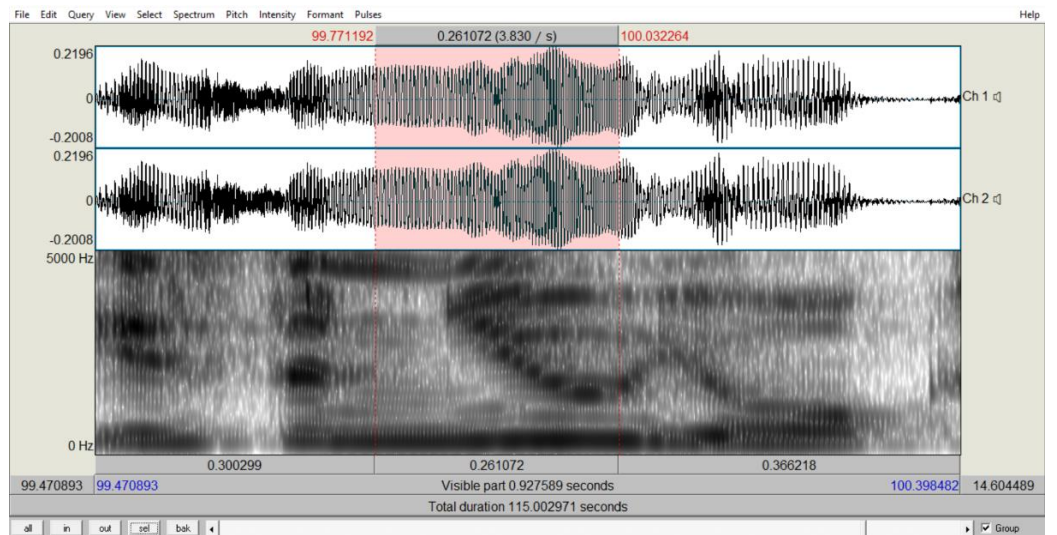




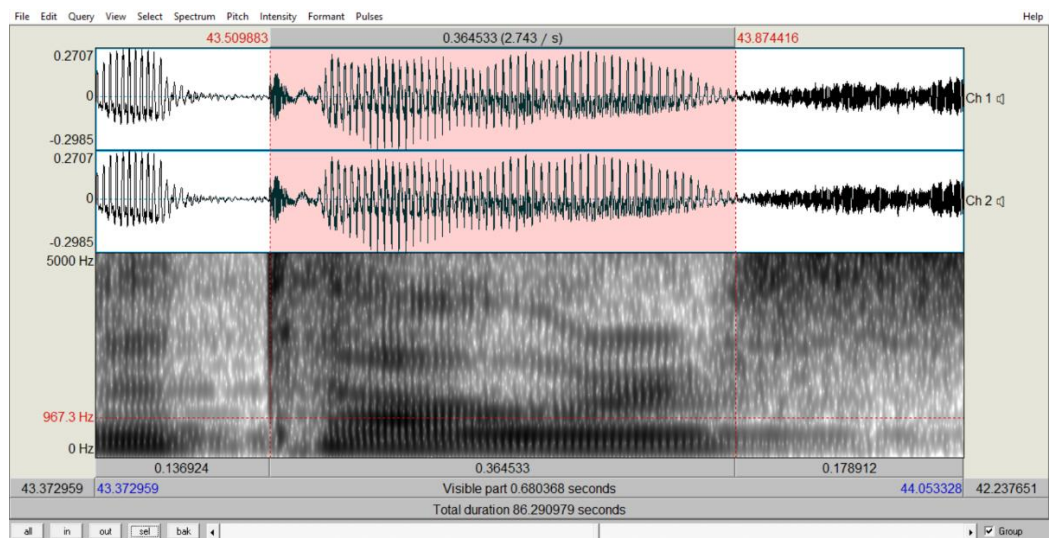
## GenAm /nu:/

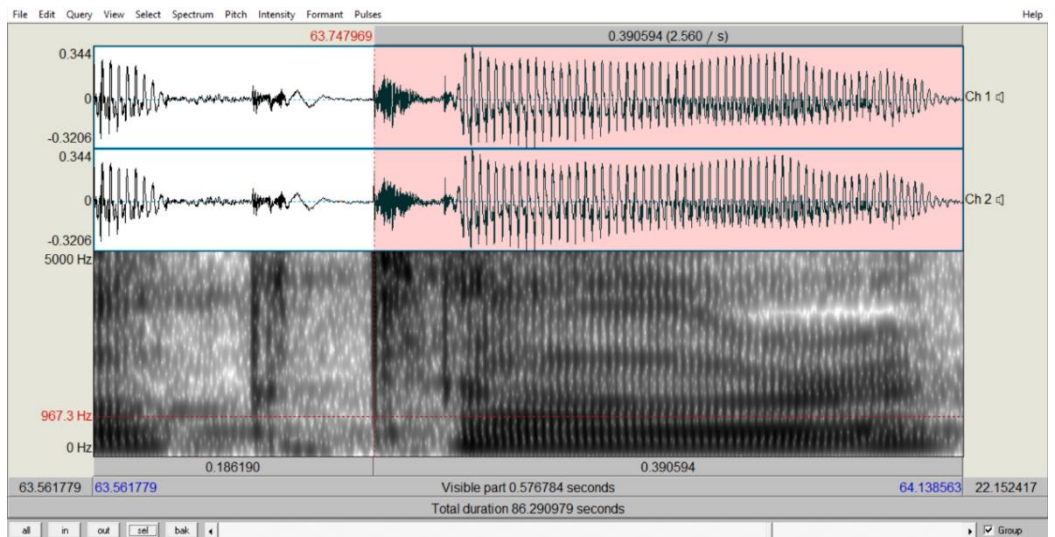
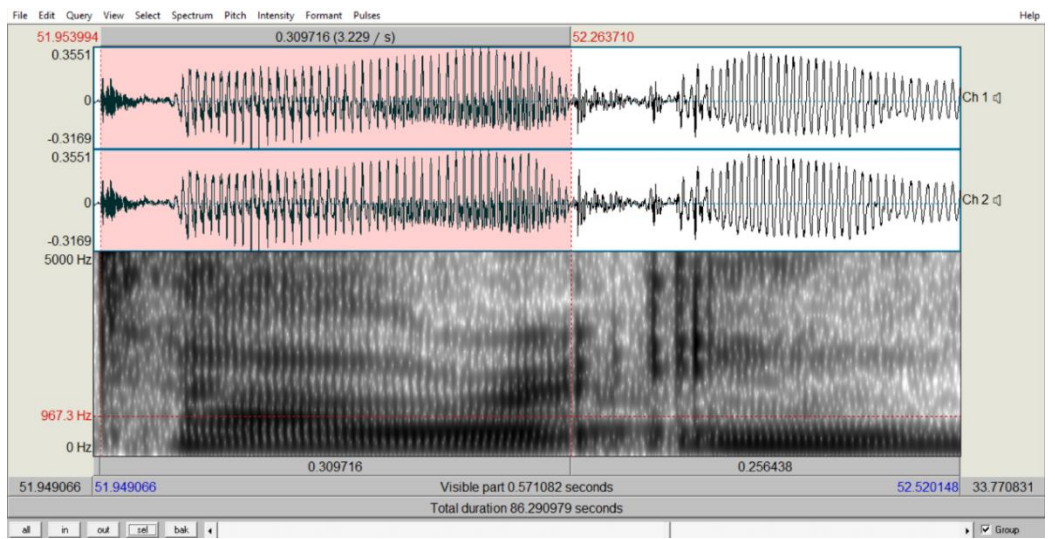
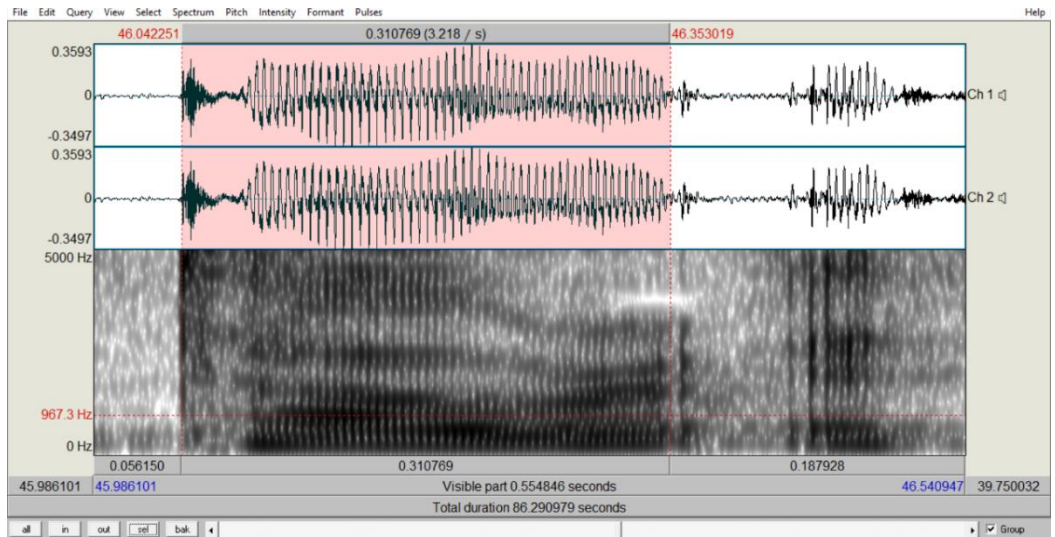


## Standard British /nju:/



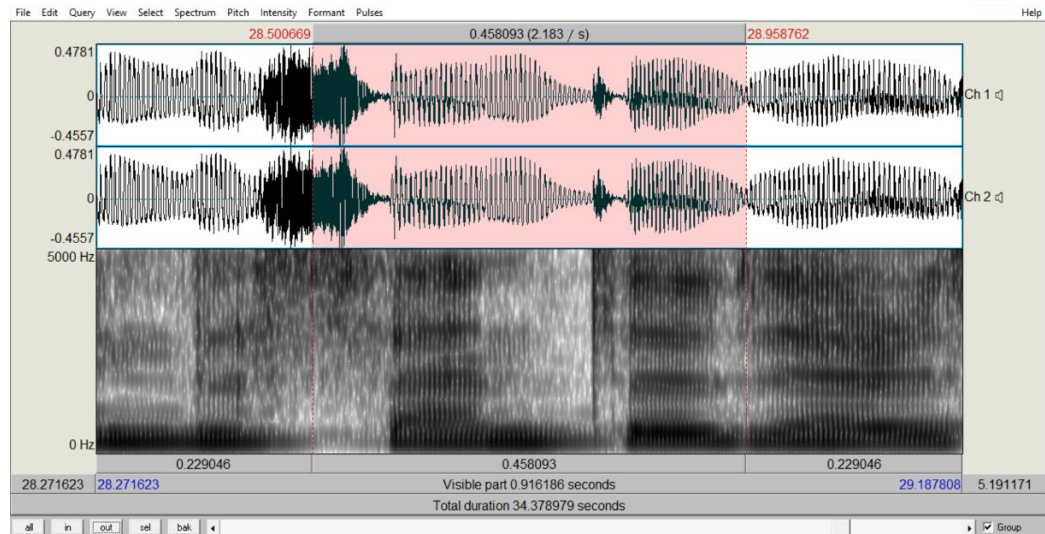
## Tower (careful speech)



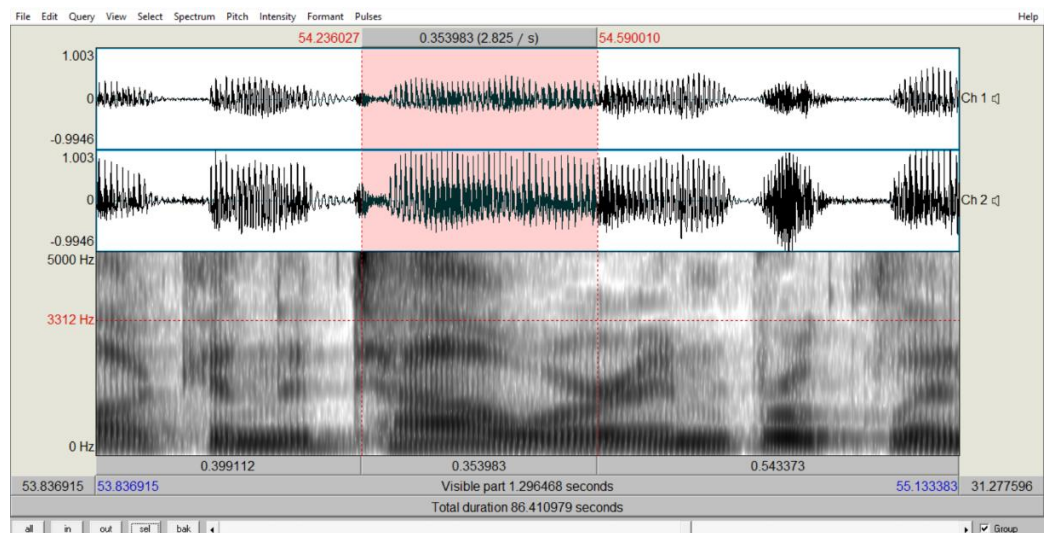




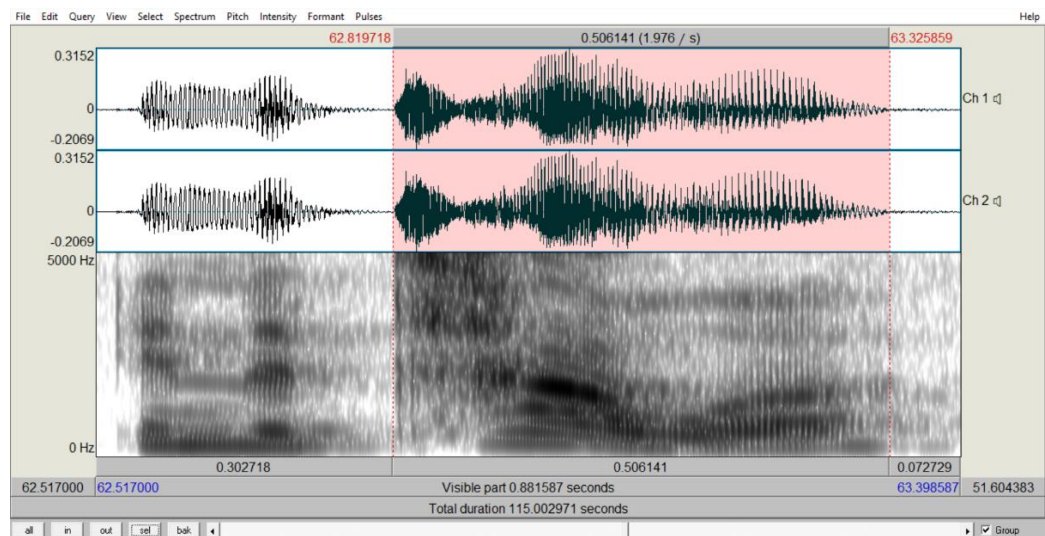
*\*Center (spontaneous speech)*



GenAm /təʊər/

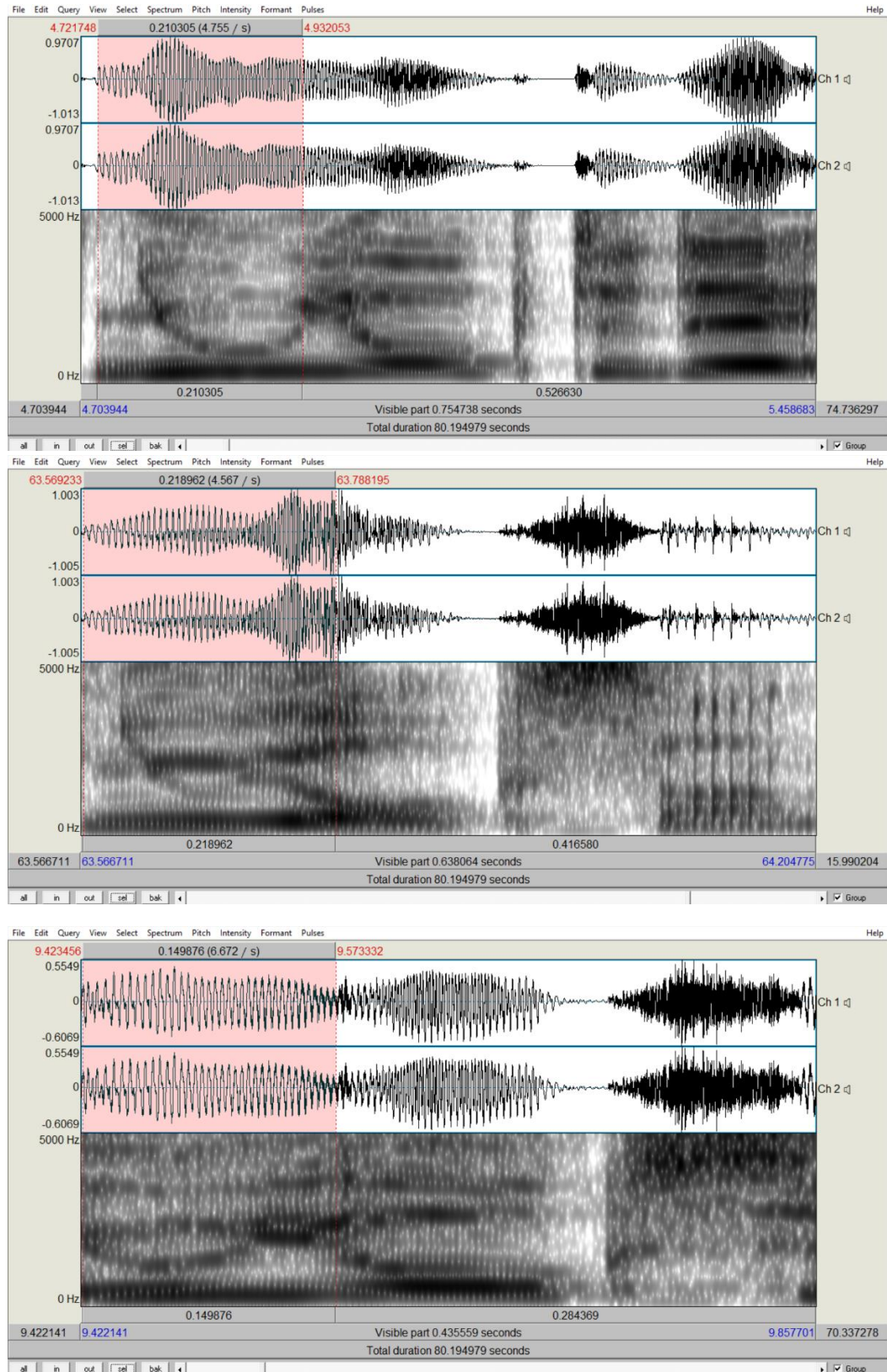


Standard British /təʊə/

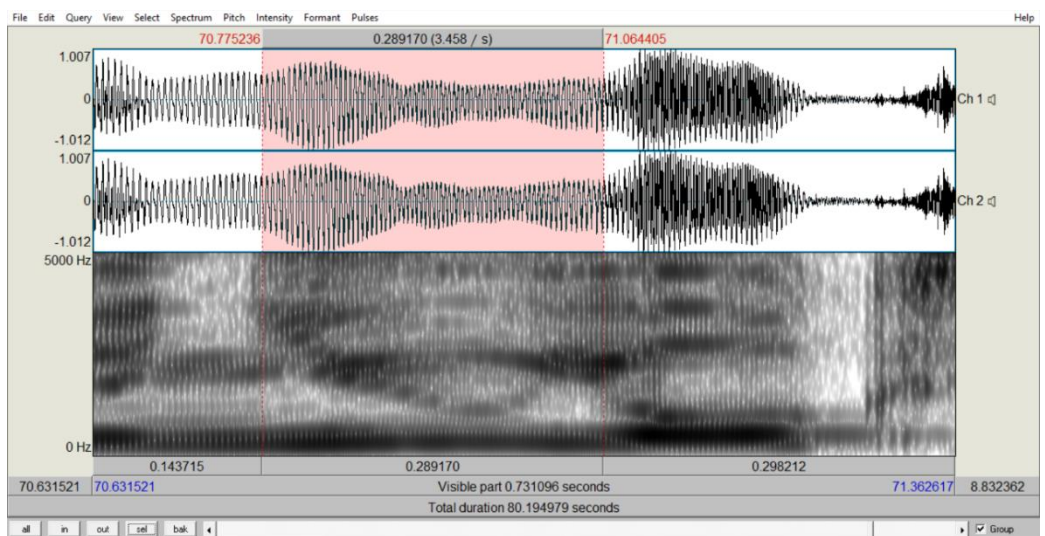
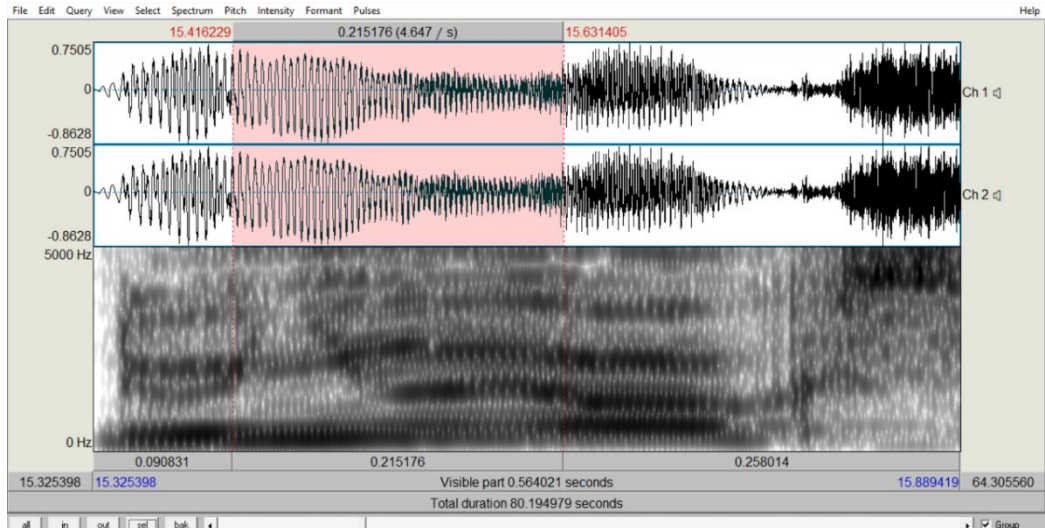


# PARTICIPANT 10 (male)

## *New (careful speech)*

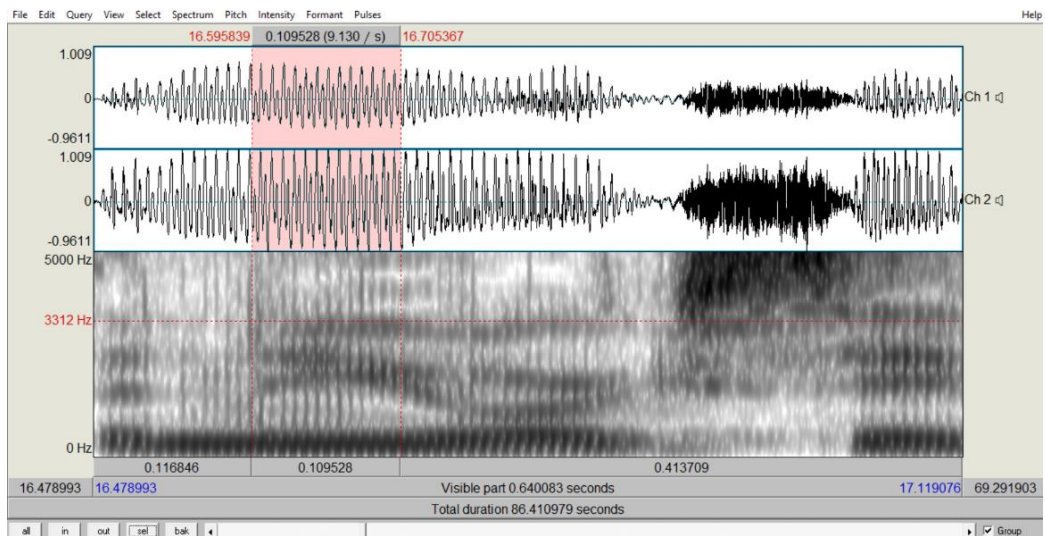




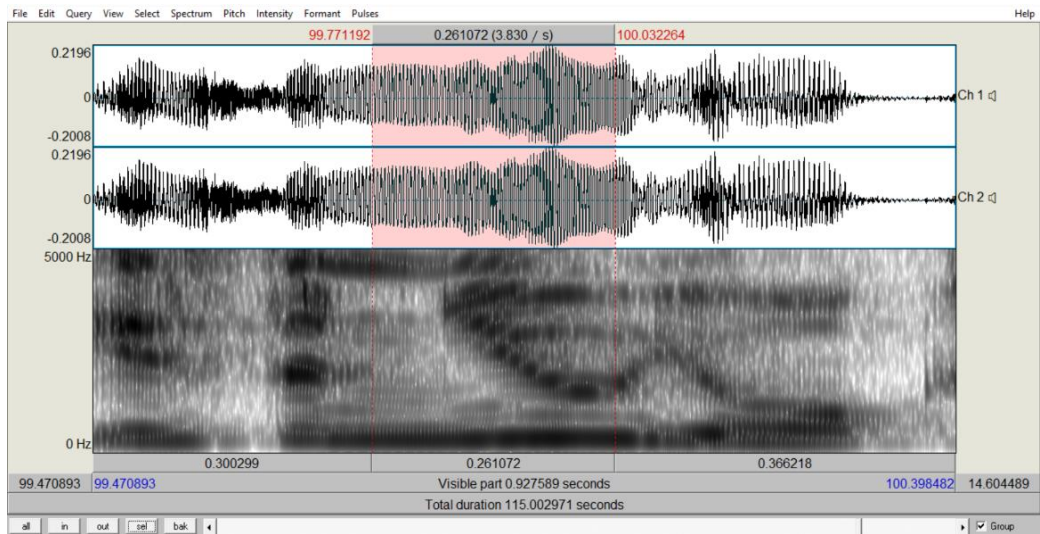


*New (spontaneous speech) - X*

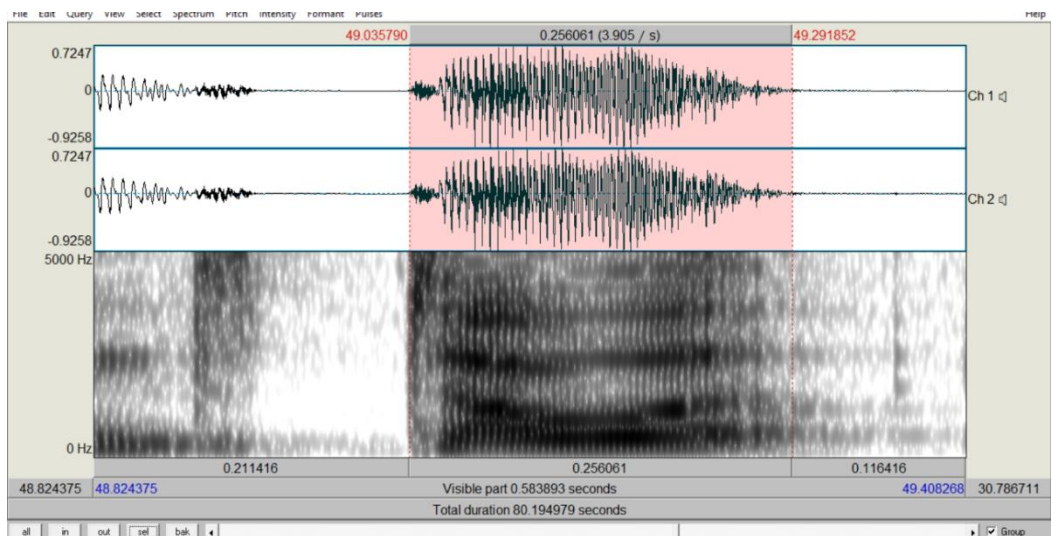
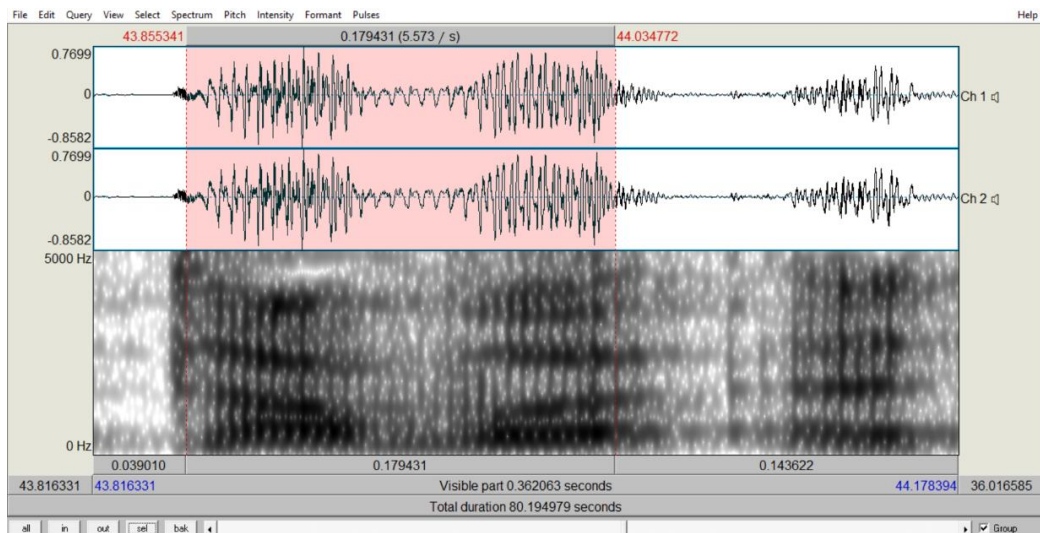
GenAm /nu:/

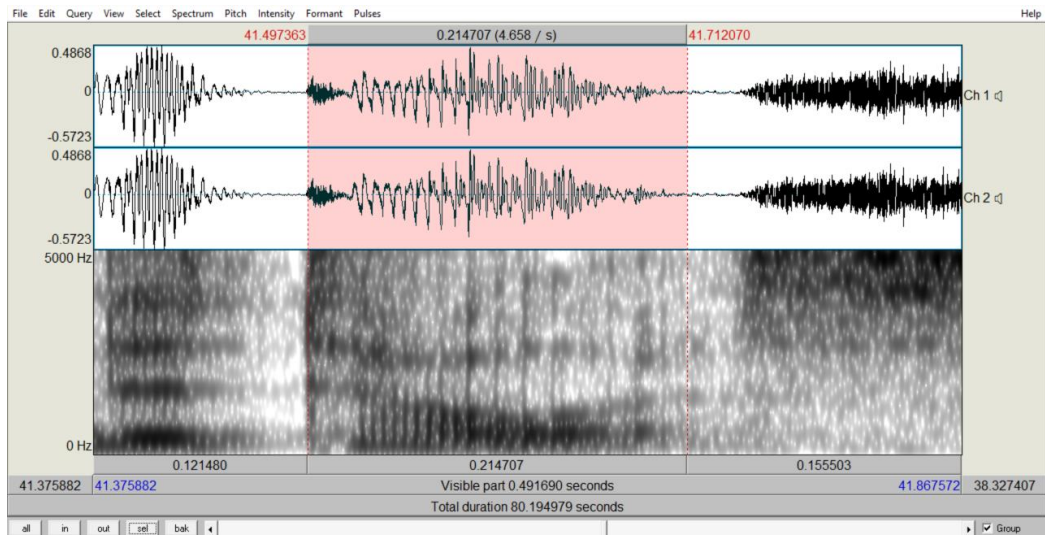
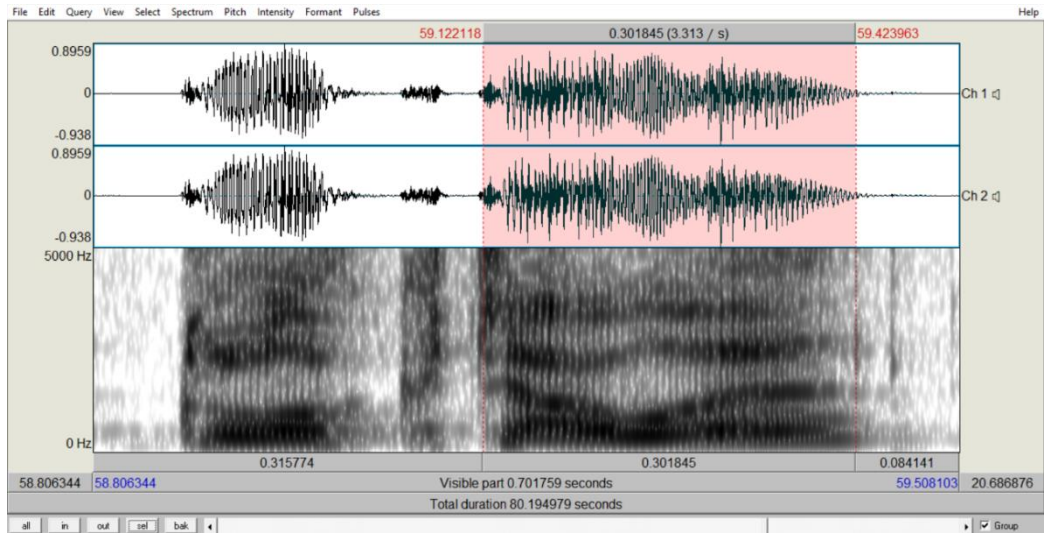


## Standard British /nju:/

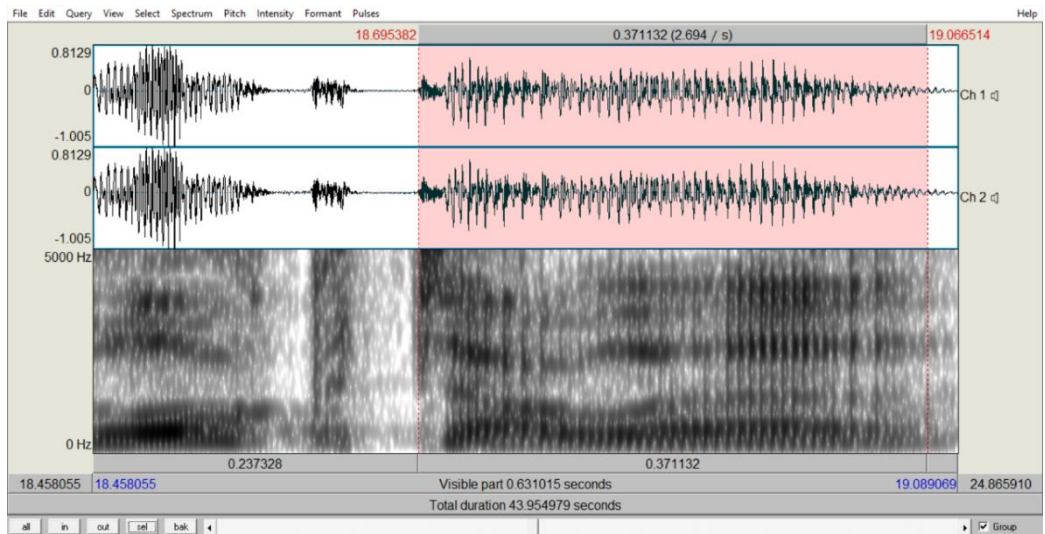


## Tower (careful speech)



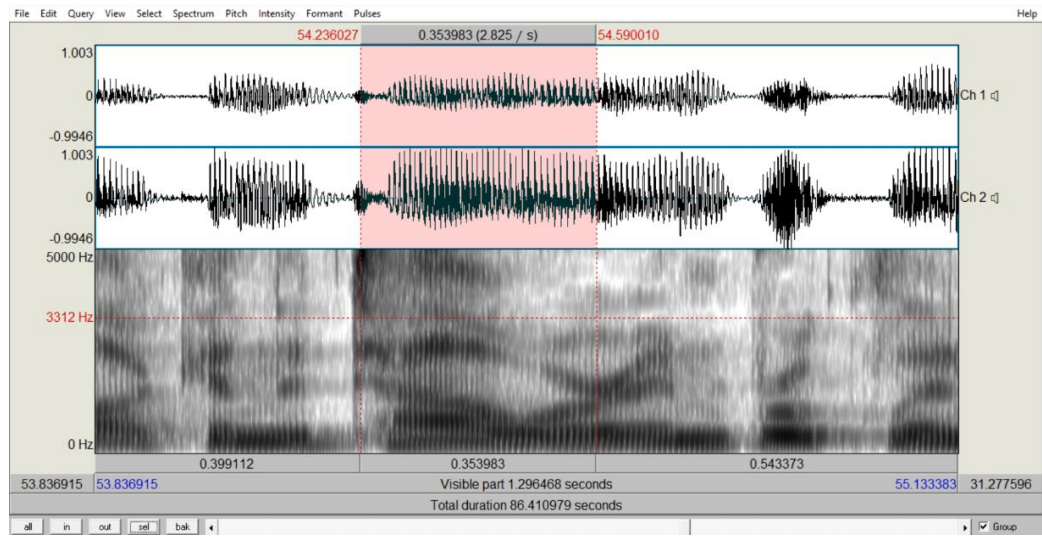


***Tower (spontaneous speech)***

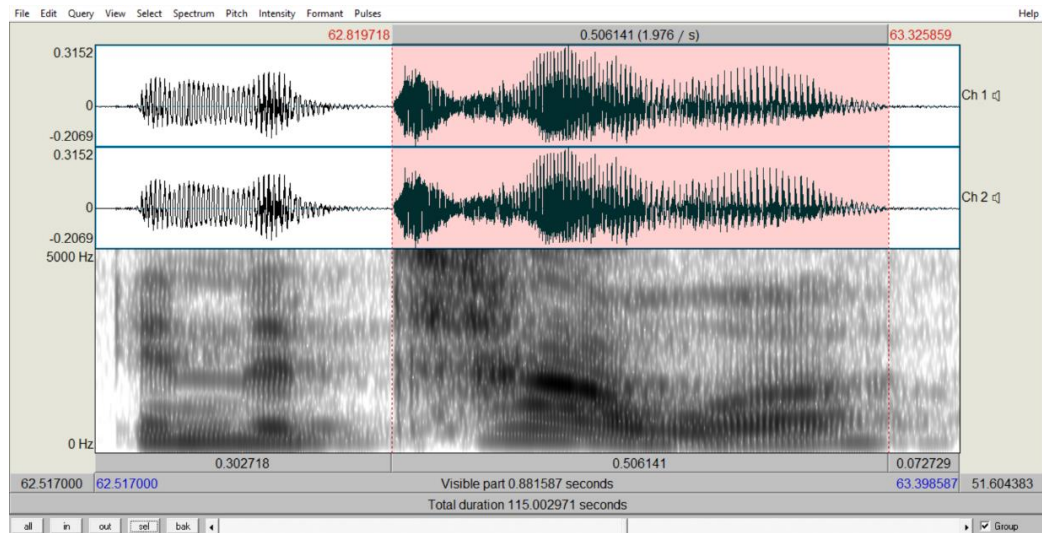




# GenAm /taʊər/

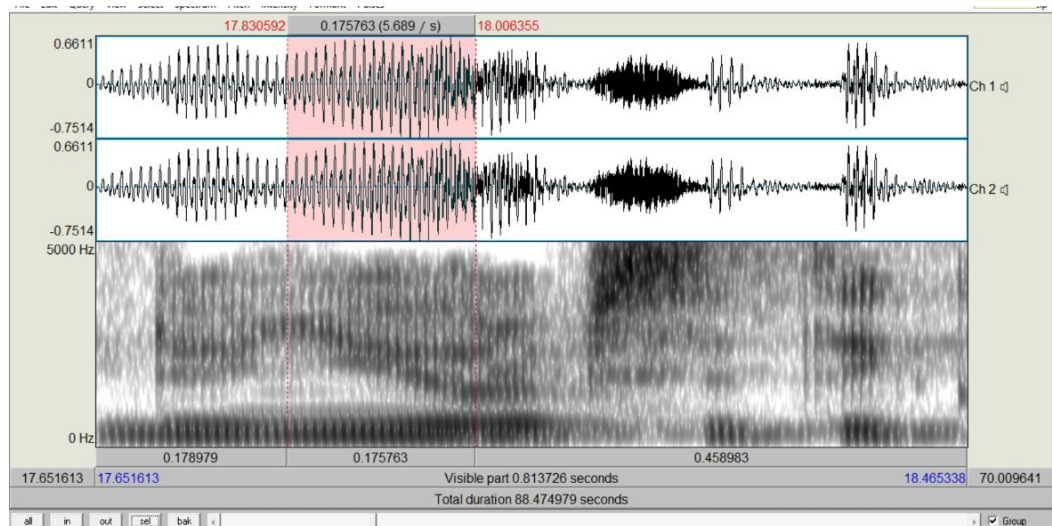
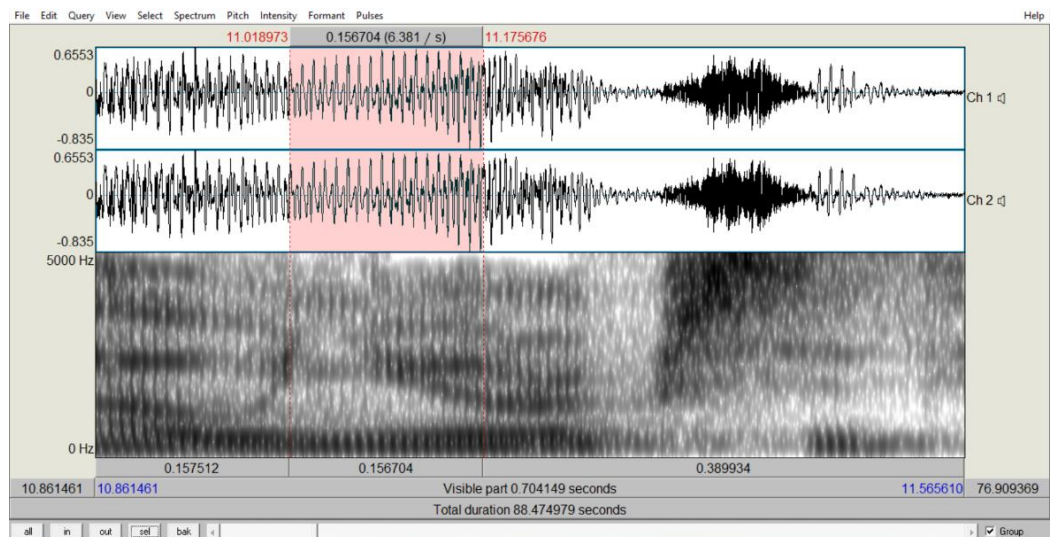
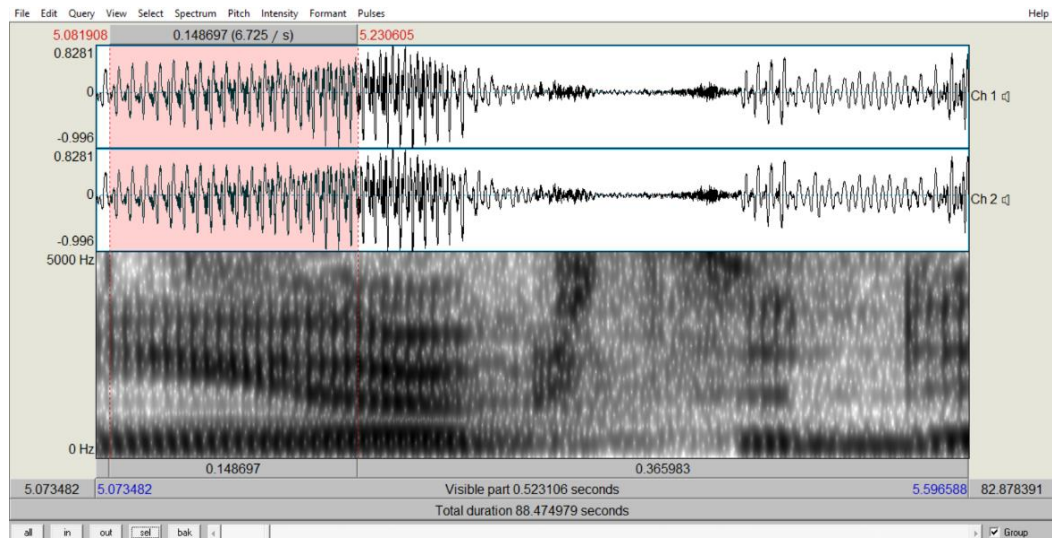


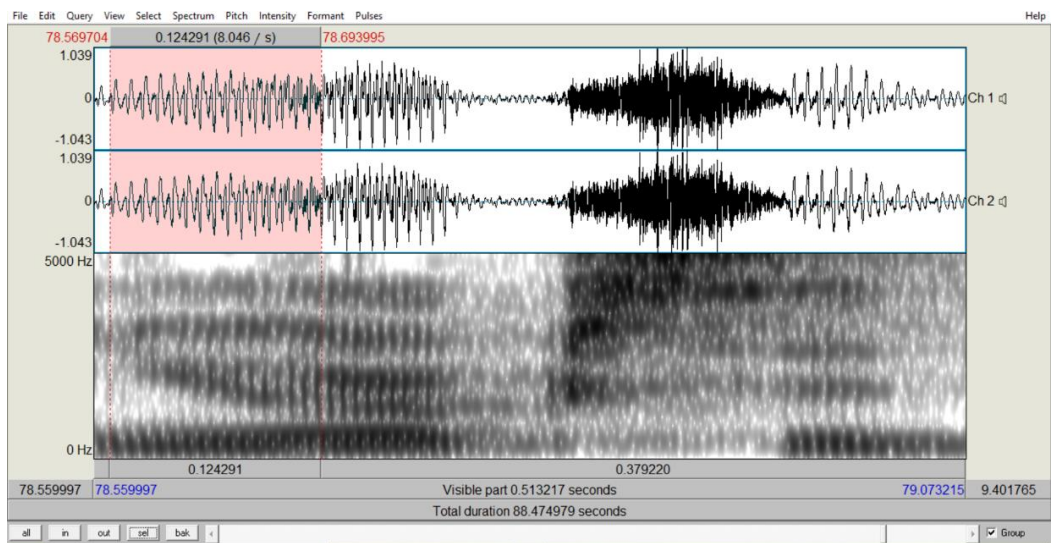
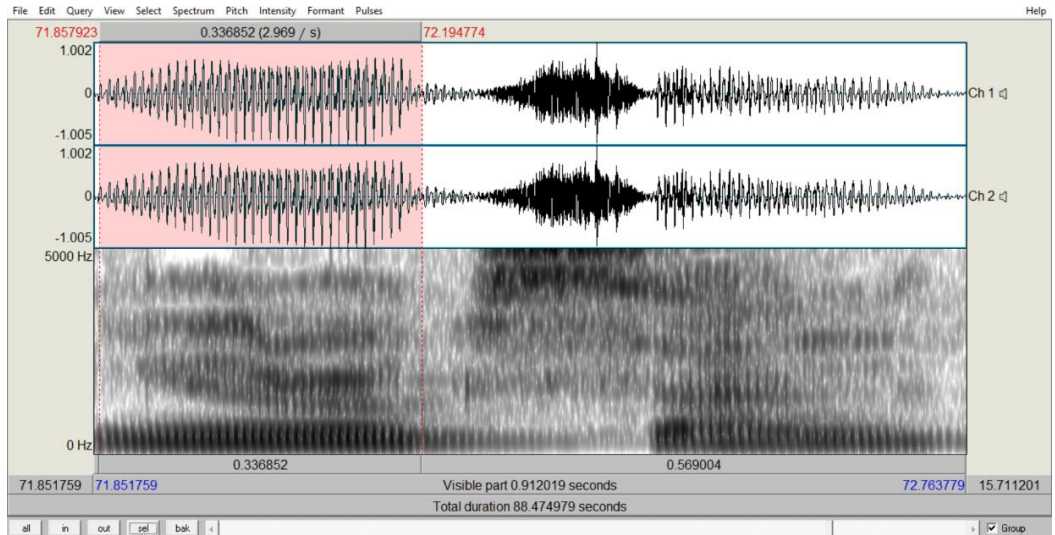
# Standard British /taʊə/



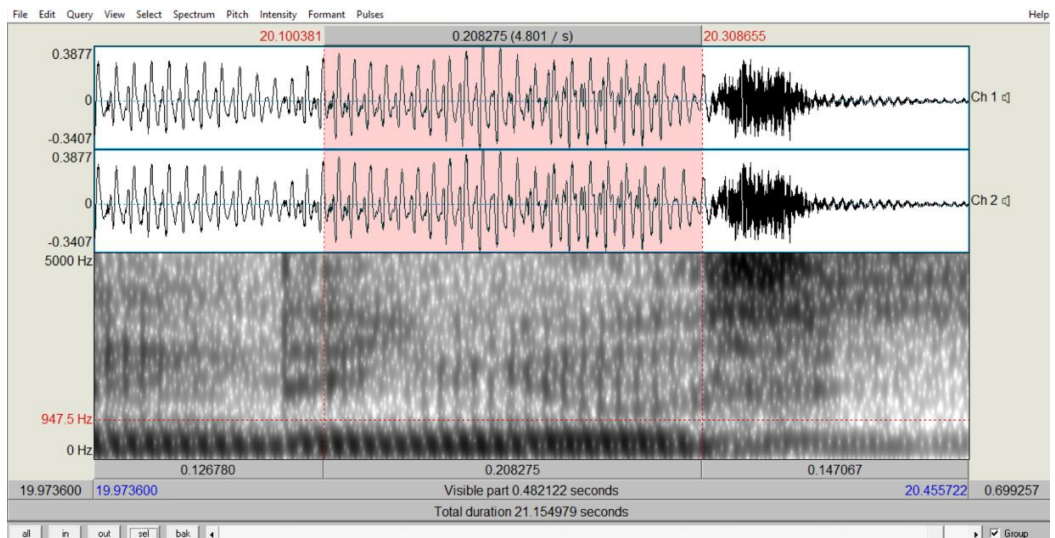
# PARTICIPANT 11 (male)

## *New (careful speech)*



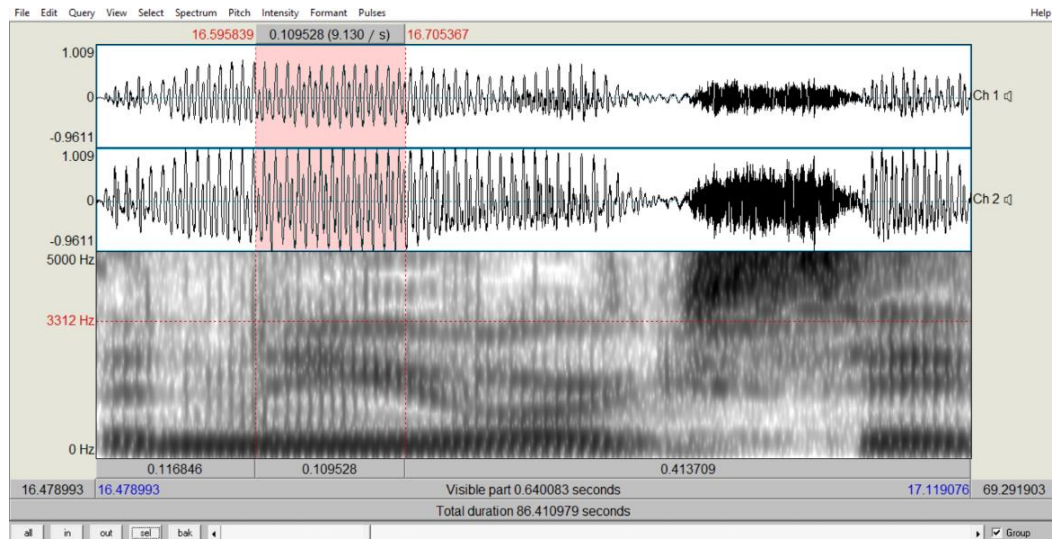


*New (spontaneous speech)*

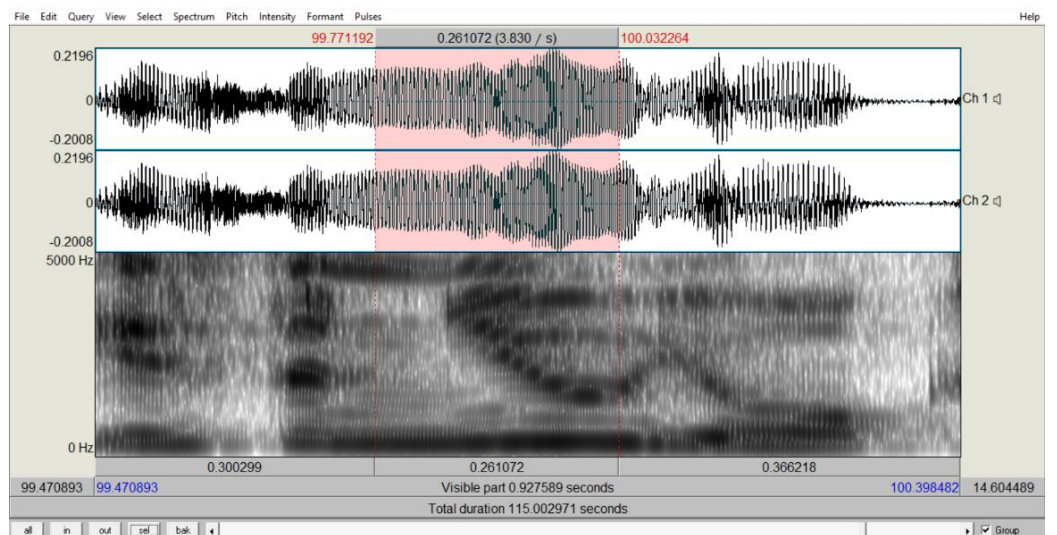




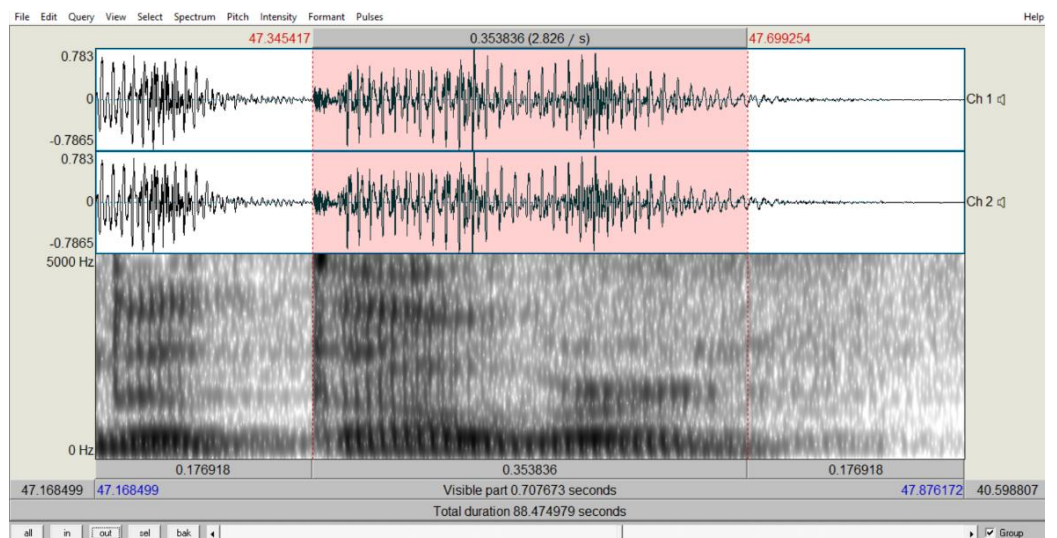
## GenAm /nu:/

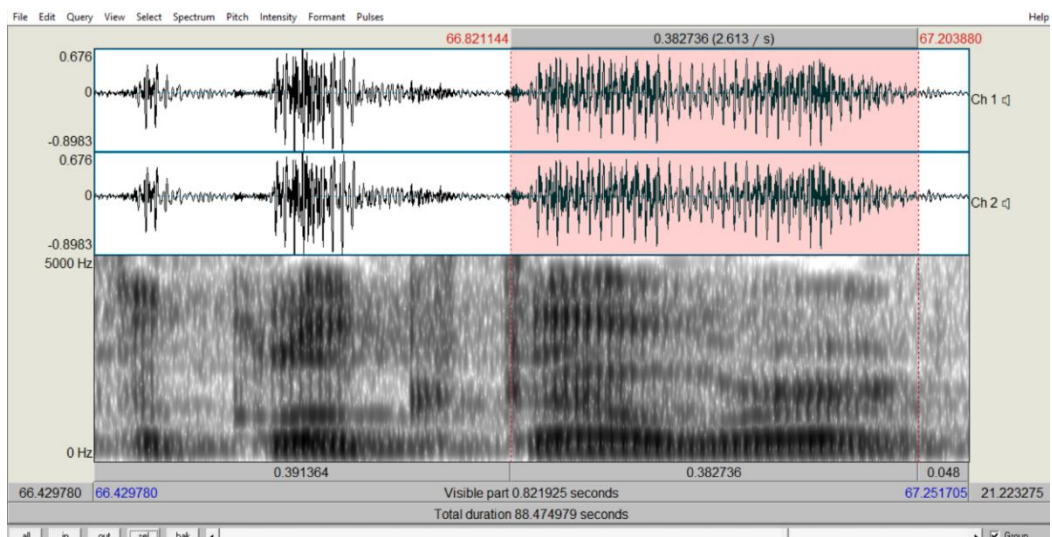
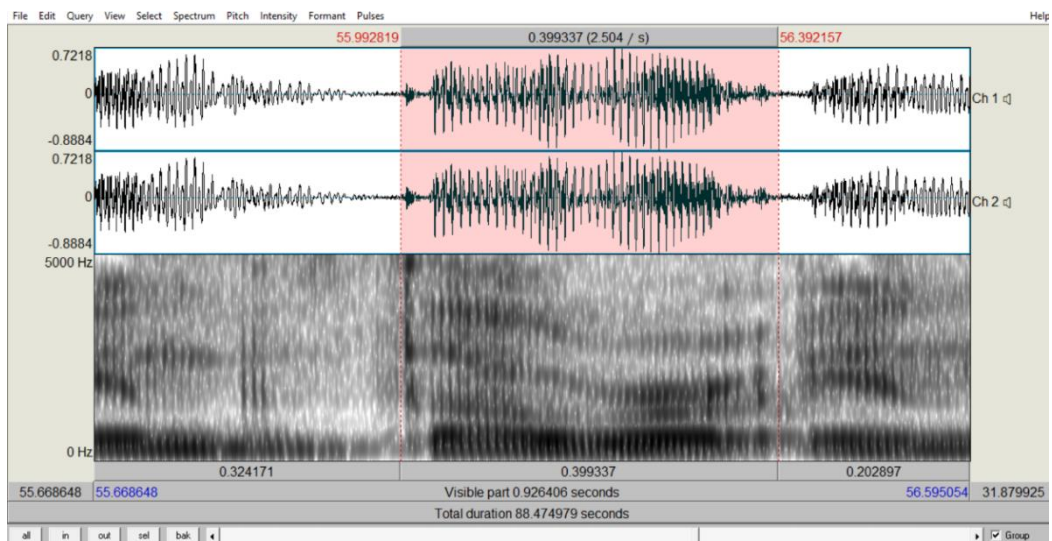
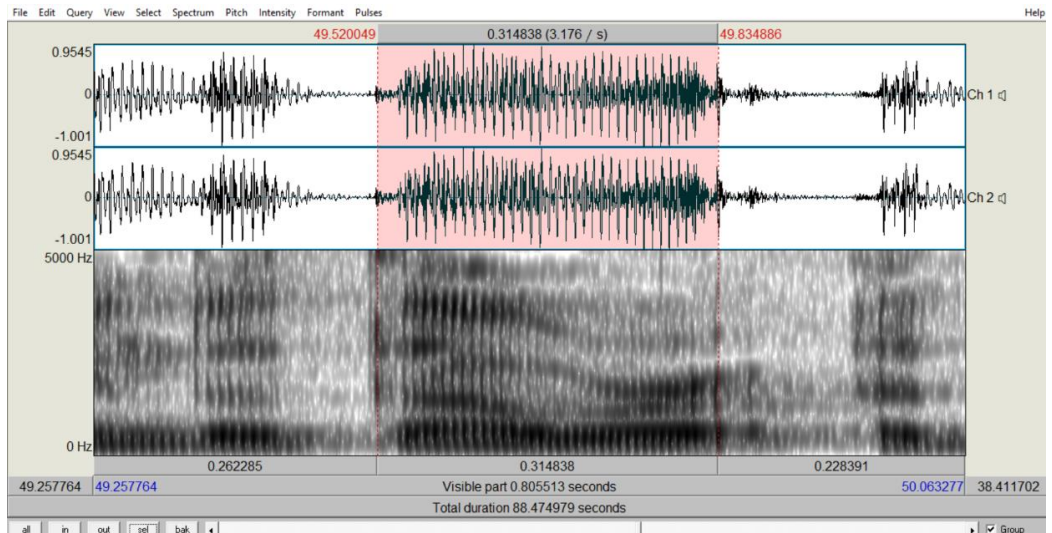


## Standard British /nju:/



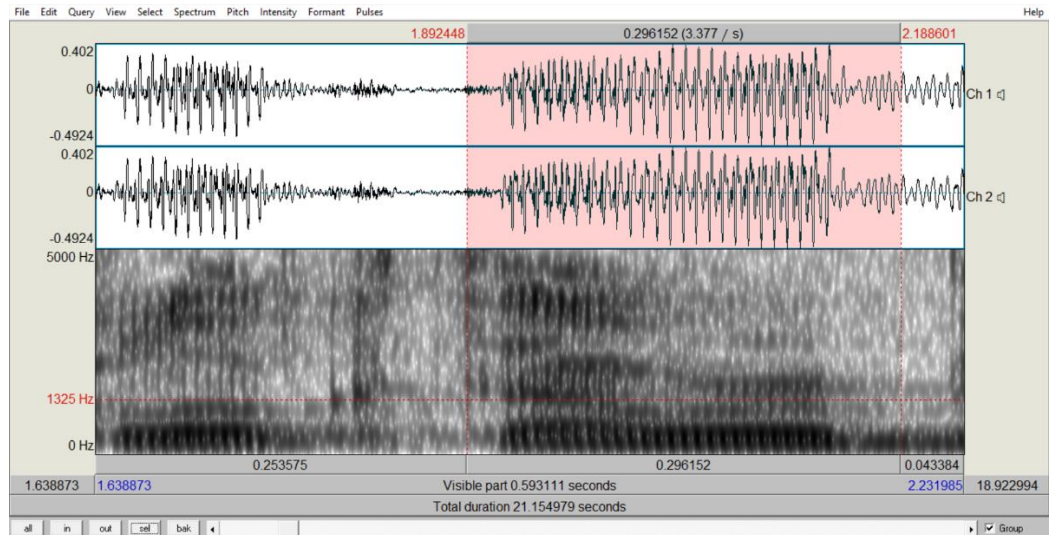
## Tower (careful speech)



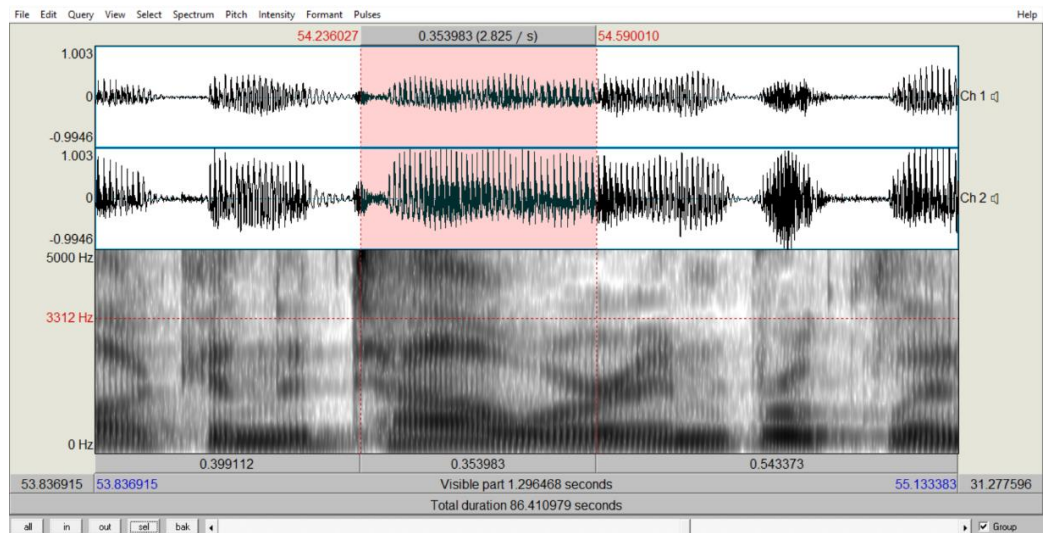




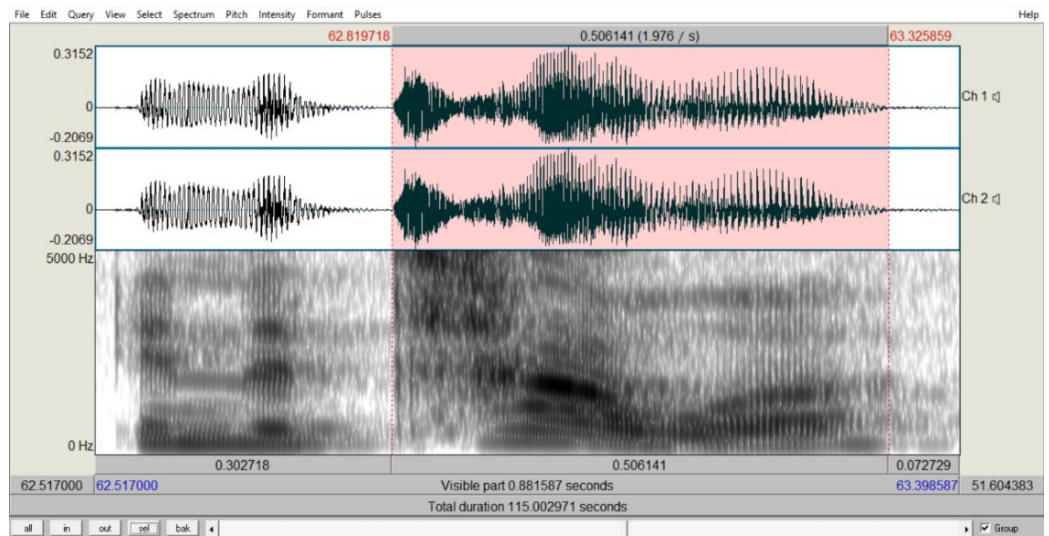
### Tower (spontaneous speech)



### GenAm /təʊər/

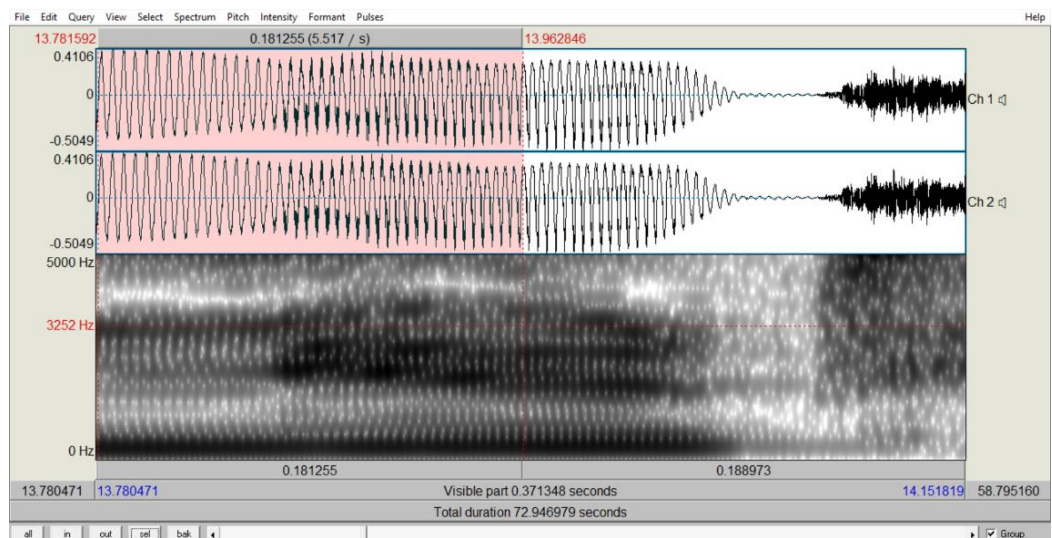
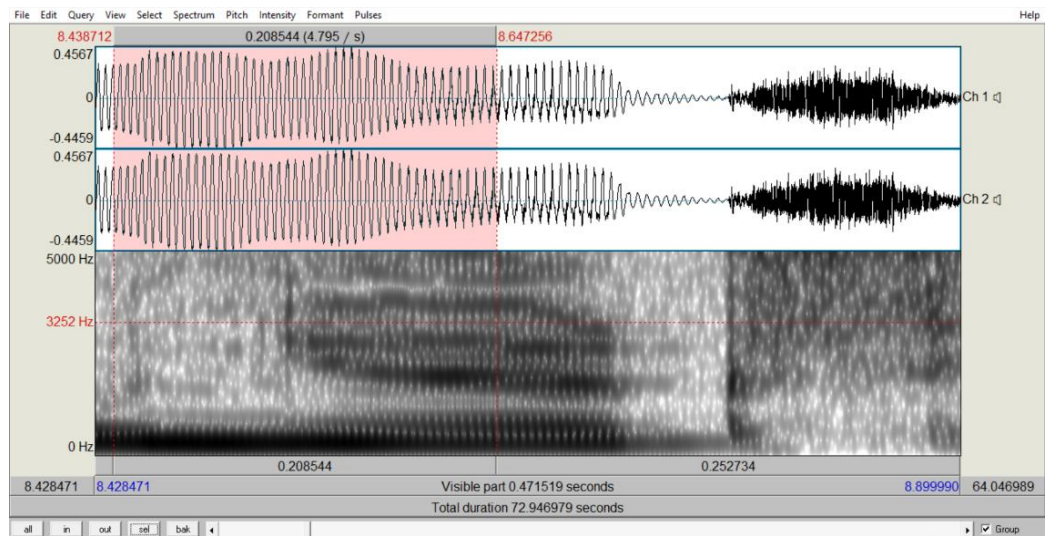
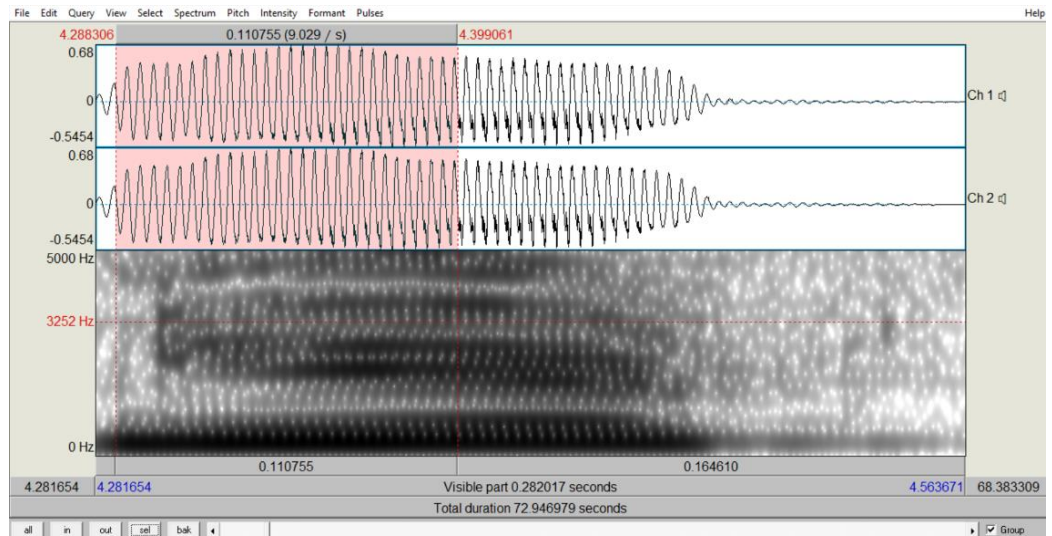


### Standard British /təʊə/

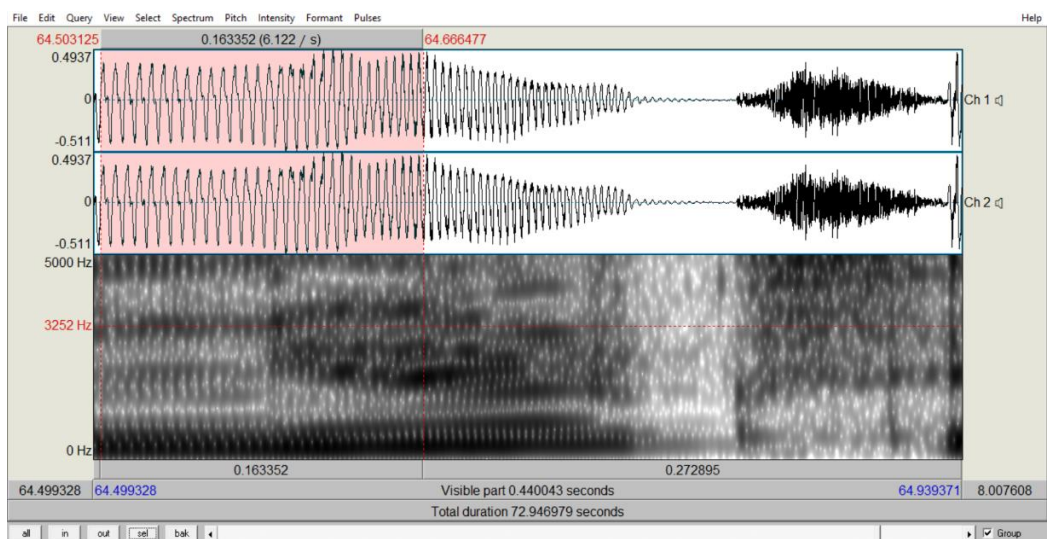
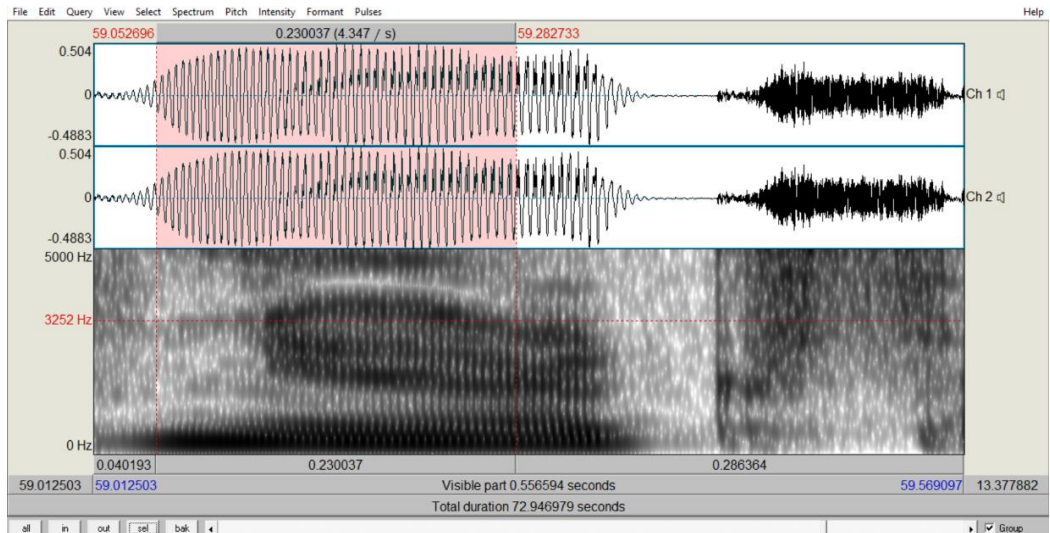


# PARTICIPANT 12 (female)

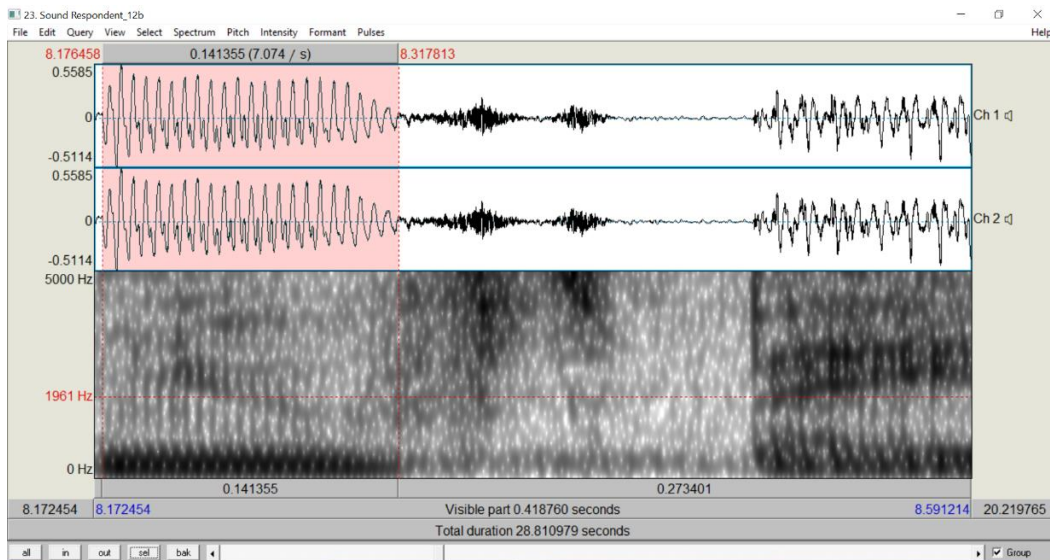
## *New (careful speech)*



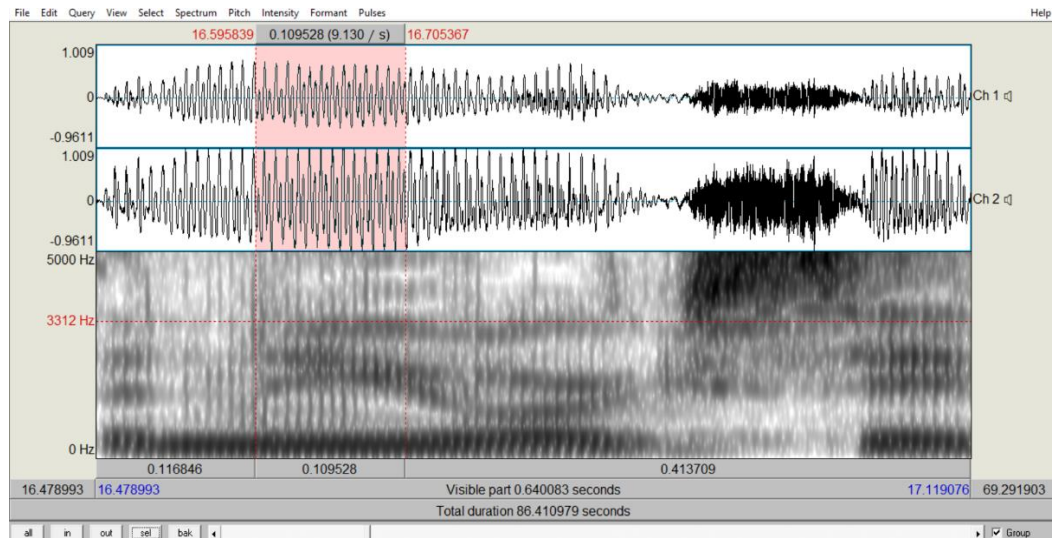




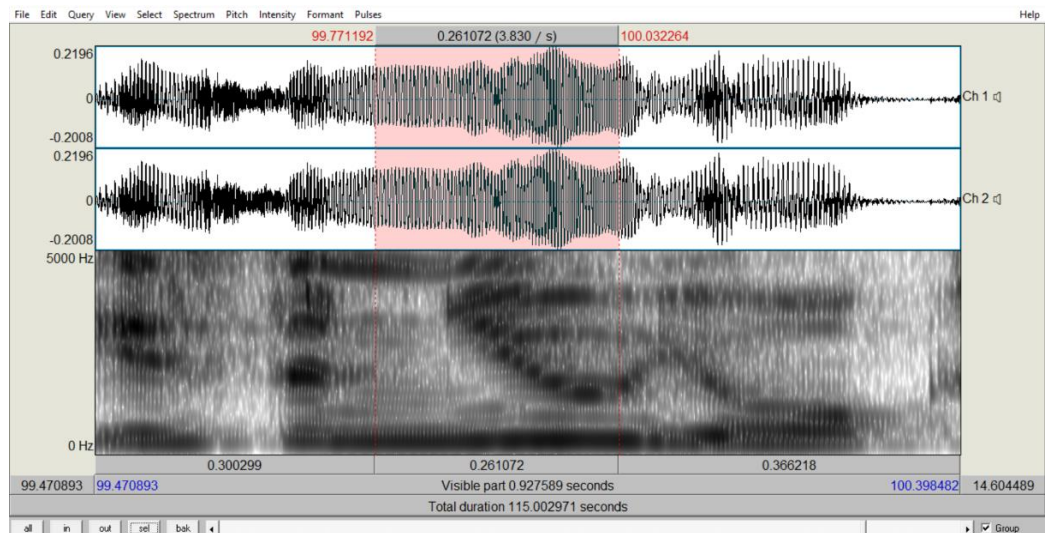
*New (spontaneous speech)*



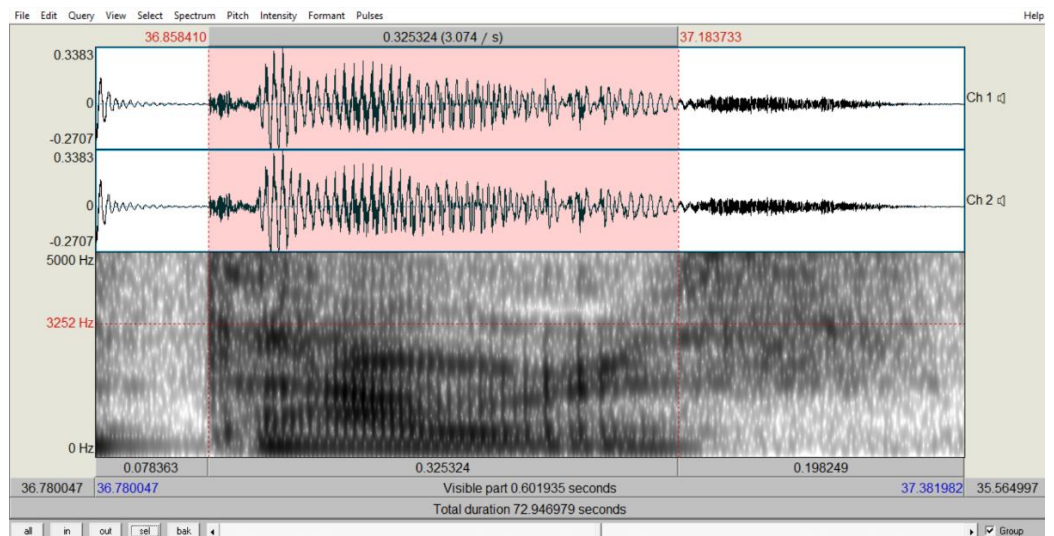
GenAm /nu:/



Standard British /nju:/



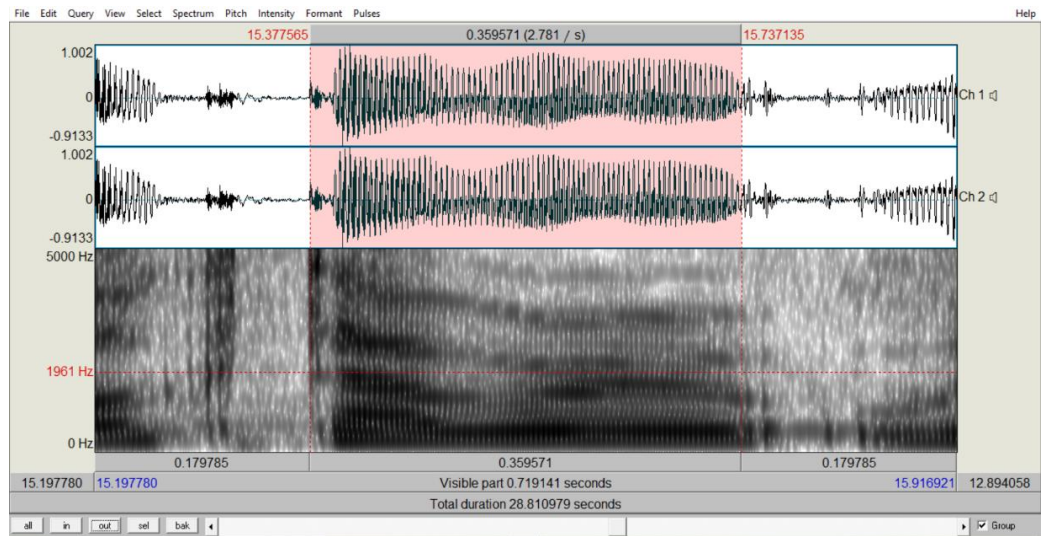
*Tower (careful speech)*



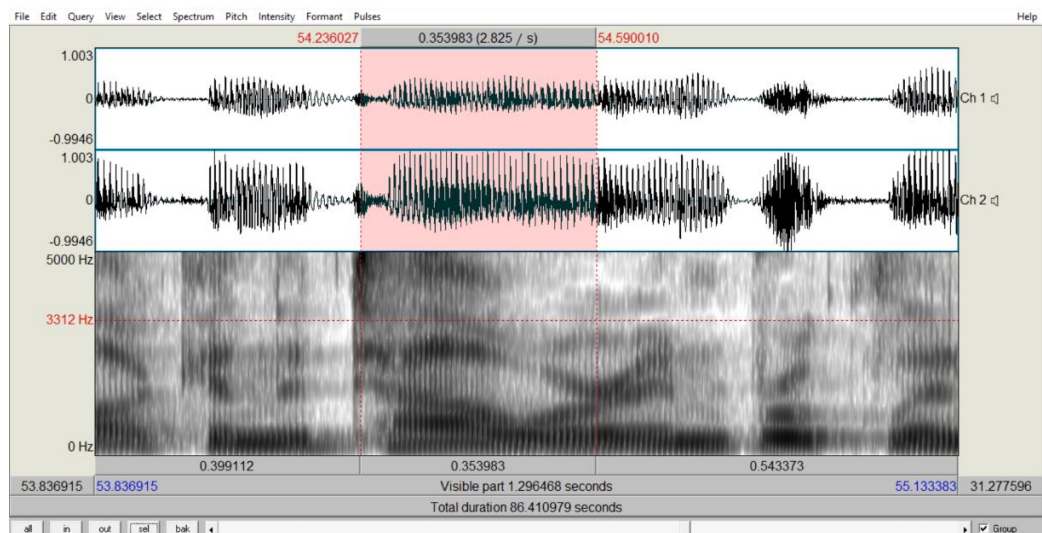




### Tower (spontaneous speech)



### GenAm /taʊər/



### Standard British /taʊə/

