

**Univerzita Karlova
Filozofická fakulta**

Bakalářská práce

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**Fonetická realizace vybraných obstruentů
v irské angličtině**

*Phonetic realisation of selected obstruents
in Irish English*

Praha, 2018

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Prohlášení

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Abstrakt a klíčová slova

Tato práce si klade za cíl zmapovat použití alofonů /t/, /θ/ a /ð/ v irské angličtině v porovnání s původní varietou standardní britské angličtiny a prezentovat současné tendence v používání těchto alofonů v irské angličtině. Současně prezentuje alofony nové, dosud nepopsané ve zdrojové literatuře. V úvodu jsou prezentovány základní poznatky o fonémech /t/, /θ/ a /ð/ standardní britské angličtiny a o jejich alofonech v irské angličtině. V praktické části je prezentován výzkum, který byl proveden ve městě Limerick v Irsku na jaře 2016 a při němž bylo nahráno 21 rodilých mluvčích irské angličtiny. Nahrávky zachycují jak čtení vybraného textu “The Boy Who Cried Wolf”, tak i spontánní rozhovor. Nahrávky byly posléze zpracovány ortografickým přepisem a fonetickou segmentací a cílové alofony byly vyznačeny v programu Praat a zanalyzovány. Výsledky výzkumu jsou prezentovány v praktické části, kde je tento výzkum rovněž porovnán s dosud známými poznatky.

Klíčová slova: irská angličtina, explozivy, frikativy, akcent, alofony

Abstract and key words

This thesis aims to map the use of /t/, /θ/ and /ð/ allophones in Irish English in comparison to Standard British English and to present the contemporary tendencies in the use of these allophones in the Irish English accent. Similarly, the thesis presents information on new allophones that have not yet been described. The existing research on Standard British English /t/, /θ/ and /ð/ phonemes and on their Irish English allophonic counterparts is summarised in theoretical part; the practical part deals with the research carried out in Limerick, Ireland in spring 2016 where 21 native Irish English speakers were recorded using both reading (a story “The Boy Who Cried Wolf”) and spontaneous speech to obtain data. The recordings were then processed using an orthographic transcription and phonetic segmentation, the allophones were labelled in Praat and analysed. The results are presented in practical part, together with their relation to the already existing research on the /t/, /θ/ and /ð/ allophones in Irish English.

Key words: Irish English, accent, plosives, fricatives, allophones

Acknowledgements

I would like to thank my supervisor, doc. Mgr. Radek Skarnitzl, Ph.D for his kind help, advice and guidance he provided me with in the course of making the recordings and writing the thesis; the thesis could not have been written without his support. I was very fortunate to work with doc. Skarnitzl and I value this experience very much.

Then I wish to thank my friends in the Republic of Ireland and the members of the University of Limerick staff who kindly consented to have their voices recorded and thus enabled me to gather the material I needed for my thesis in Limerick. I should like to express my immense gratitude namely to Mr Peter Dooley, member of the UL's Disability Department, who helped me with the paperback materials for my thesis and helped to secure both the space and the device for the recordings. The process of recording the Irish speakers would have been very much jeopardised had not Mr Dooley been willing to help with anything I needed. Thank you.

Last but not least, I would like to thank my Czech friends and family for all the help and support they provided me with.

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List of abbreviations

Co. – county

IE – Irish English

ModI – Modern Irish

NI – Northern Ireland

ON – Old Norse

SBE – Standard British English

1. Introduction

In spring 2016 I had the opportunity of participating in the Erasmus programme in Ireland. What I noticed immediately upon my arrival in Limerick was that there was a strong accent of English, something that an ESL speaker like me who was up to that time concerned primarily with Standard British English would not be used to hear on a daily basis. As time went by, I started to notice that some features of the accent were more prominent than others, mainly the rhoticity, the shift in the pronunciation of some vowels, a slightly different rhythm of speech and last but not least, that /t/ was fronted and sometimes very aspirated. I was also aware of the fact that the original native language of the Irish population was, of course, Irish. There were many signs, names and places written in Irish and people were using those words naturally while talking in English, so it was not unusual to hear sentences like: “I grew up in the *Gaeltacht* area.” “Have you read the *An Fhocal* newspaper?” or “We’ll go to *Cupán Tae* to have some craic.” Seeing the liberal mixture of English and Irish words, it was to be expected that the presence of Irish has influenced the way people speak English in Ireland, although today, Irish is not the first language of the majority anymore. The above-stated specific words were truly used very frequently in everyday speech, because the majority of geographic names and the names of institutions and political parties were in Irish, as well as personal names and surnames – however, the latter two offered some choice to their user, since it was possible to write one’s name either in Irish or in English, the name thus having two feasible variations (Siobhán O’Donovan – *Siobhán Ó Donnabháin*); furthermore, there were some teachers and members of the University of Limerick staff who used only the Irish version and if I wanted to speak to them, I had to get accustomed to another totally different system of pronunciation besides English. This was rather challenging but at the same time a great fun to learn, so my interest in all the differences that were to be found in Ireland in terms of languages grew bigger and bigger. This is the reason why I decided to dedicate my BA thesis to the Irish English accent and, specifically, to the differences between selected plosives and fricatives in Standard British English accent and in Irish English accent.

Apart from the Introduction, this thesis contains the following parts: Theoretical background, Method and Results and discussion.

In Theoretical part, the two terms “accent” and “dialect” are differentiated from one another; also, a brief summary of Irish history is provided with special focus on the linguistic

situation and political influence in the area. Consequently, /t/, /θ/ and /ð/ are described first in the context of SBE and then their distinct allophonic realisations in IE are provided as found in the source literature. At the end of the Theoretical background there is a paragraph summarising the differences between the SBE consonants and their IE counterparts.

In Method we describe the way our research was conducted and the process of making the recordings; 21 native IE speakers were recorded (6 men and 15 women) speaking in two different styles: Firstly they were asked to read a short story “The Boy Who Cried Wolf”, and consequently they were asked to talk about a topic of interest and their speech was guided as a form of an interview if the situation required it. Then the recordings were processed both by an orthographic transcription and by phonetic segmentation. The target allophones were then identified in Praat and subjected to examination by an auditory analysis supported by visual inspection of the spectrogram. Then the data were processed in the R software (R Core Team, 2015) and the frequency of occurrence of individual variants of the target sounds was plotted using the R package ggplot2 (Wickham, 2009). The results are presented in Results and discussion section, supported by bar diagrams and Praat images, together with their relation to the previous research. A short summary of the results is presented in Conclusion, together with the way this research relates to the previous research and any other researches in the future. Finally, this thesis contains a part in Czech called Resumé and a list of Sources.

2. Theoretical background

2.1. Accent vs. Dialect

In his multivolume publication *Accents of English*, Wells (1982) provides an explanation of the terms “accent” and “dialect”. He differentiates “accent” as “a pattern of pronunciation used by an English speaker to whom English is a native language, or rather used by the community into which he belongs [...]” (p. 1) and he asserts that “[dialect] involves syntax, morphology, lexicon and pronunciation” (p. 1). Therefore, this distinction shall be used and referred to in this thesis when the different speaking patterns of the English language are described; this thesis is primarily concerned with Irish English pronunciation, therefore we are using the term “accent” while describing the respective varieties of consonants.

2.2. Historical background to and current situation of the language strata in the Republic of Ireland

“The language situation in Ireland today has been shaped by three principal sources: the English language as introduced from England, and perhaps particularly from the west of England (Anglo-Irish); the Scots dialect, and the Scottish-type accent related to it, introduced into the northern part of the island from Scotland (Scotch-Irish); and the indigenous Irish language itself [...]” The discussion about Irish English could not begin better than by quoting the introductory paragraph from Wells’ *Accents of English* (Wells, 1996, p. 417). We shall, therefore, proceed with a brief historical description of all the competing strata.

The first inscriptions in Irish were written in the ogham writing system, which is based on “a system of lines and notches made along a central axis” (Kallen, 2012, p. 5). Found in the 4th century AD in Munster, the ogham writing system presumably originated in Ireland and was introduced to Wales, Cornwall and Scotland afterwards (Ibid.).

The author of the first properly written documents was St Patrick who provides the contemporary account of the Irish conversion to Christianity in the 5th century AD. The language spoken in Ireland at that time was Old Irish (Ibid. p. 6). Moody & Martin (1994) state that there must have been some Christians on the island before due to the trade connections with Roman Britain and Gaul (p. 41). This contact allowed for the increased

influence of Latin in the society which endured even the collapse of the Roman Empire in Britain. One such recorded example of the Latin influence on the Irish language is listed by Moody & Martin (1994) as part of an Irish law tract produced by lawyers. The character appearing in the tract was *Cenn Fáelad* whose wounds were being tended to in a house which stood between the houses of three professors:

And there were three schools in the place; a place of Latin learning, a school of Irish law, and a school of Irish poetry. And everything that [Cenn Fáelad] would hear of the recitations of the three schools every day, he would have it by heart every night. And he fitted a pattern of poetry to these matters and wrote them on slates and tablets, and set them in a vellum book (Ibid. p. 55).

In the 7th century, the division between the use of Latin and the use of Irish became less distinct when Irish started to be used at clerical schools (Ibid. p. 57). At the end of the 9th century, a full diglossia developed in the country: Latin was used for education and religion, influencing the Irish lexicon with new borrowings and Classical Old Irish was developing into Modern Irish, leaving only a limited number of texts behind: These were mostly short passages and glosses on Latin grammatical and religious works. The production of important Latin manuscripts in Ireland took place between the 9th and the 12th century, then their production ended (Kallen, 2013, p. 7).

Ireland was also subjected to the Norse influence. The first invaders, who came in 795 AD, ransacked the monastic villages and took slaves as well as the jewelled decorations at Christian altars; they had no respect for Christian values, because they were pagan and illiterate (Moody & Martin, 1994, p. 67). The end of the 9th century saw the establishment of what would later become Ireland's biggest cities: Dublin, Wicklow, Wexford, Waterford, Cork and Limerick (Kallen, 2013, p. 7). The linguistic influence of the Vikings on Ireland is best perceivable in the following story which those who studied the Irish placenames are well acquainted with: The old name for the Irish capital, Dublin, was *Baile Átha Cliath*, meaning the "ford of the hurdles" (Flanagan & Flanagan, 1994, p. 170), and it was given to the place by the native Celtic population. *Baile Átha Cliath* was an important area of the native Irish population since it was the crossing point of the river Liffey and had a ready access to the sea.

When the Vikings invaded Ireland in 795, they seized *Baile Átha Cliath* and created a stronghold called *Duiblinn*. The area became an important trading point and was referred to as *Duiblinn* from that time on. When the Anglo-Normans came to be in charge of Ireland, the place was already well known on the continent; therefore, it would have been inconvenient to rename it (Dublin, the history of the placename, n.d.), so it remained being called *Dublin* in English but *Baile Átha Cliath* in Irish. The influence of Old Norse spread deep into the Irish vocabulary, especially in the registers of trade and seafaring (ON *margaðr* → ModI *margadh*, “market”; ON *fuindeóc* → ModI *fuinneog* “window”; ON *þorskr* → ModI *trosca* “cod”; ON *bátr* → ModI *bád* “boat”). Irish elites in the 11th and 12th century probably spoke Old Norse as well (Kallen, 2013, p. 5-9). The defeat of the Vikings in 1044 weakened the Scandinavian position, although the Scandinavian influence did not disappear.

The Irish king Diarmait Mac Murchada asked the English king Henry II for assistance, because his position was weakened by Ruaidrí Ua Conchobair. The English king arrived in 1171, having sent his troops of 400 soldiers two years earlier. Some of the Irish nobility swore loyalty to Henry II as an Irish king and the period of English colonisation began (Ibid. p. 10-12).

A great number of immigrants came from Wales and southwest Midlands of England. By the time of late Middle Irish (the end of the 12th century), Latin was widely used and Irish developed a superior variety for its use in religion, law, education and literature. Moreover, same as in England at that time, French was also used as a form of prestige language in Ireland. Lower immigrant classes spoke English and also possibly Welsh or Flemish. However, the Anglo-Norman society could not provide the economic basis for a self-sufficient economy, and thus the Old Irish and the Anglo-Norman societies retained their distinct identity and boundaries (Ibid. p. 12-14). Until 1600, the language of the Old English (as they are called in the Irish context), who were living in Ireland and thus were coming under the influence of the Irish, was completely absorbed by Irish as a superstratum, had “succumbed to Irish”, as Hickey (2004) calls it (p. 52). The Old-English attempted to reinforce their language by increasing their population, for the language nearly disappeared from the island; this attempt was unsuccessful (Ibid. p. 26; Wells, 1996, p. 417). The rise of the prestige of the English language occurred paradoxically when the Anglo-Norman society in Ireland declined; the decline was mainly caused by their failure in managing their

communities, by their ongoing battles with the native Gaelic population, by preferring English military and political aims in Britain to the local economy, and by the outbreak of plague which came to Ireland in 1348. The question of why the English wanted to increase their influence in Ireland has a clear answer: The island of Ireland held a crucial position in the western waters of Europe and could offer a point of interest in the sphere of commerce, communication, population movement and political allegiance, notwithstanding the fact that the Irish were still seen as “enemies”. The question of languages now became a question of political allegiance because Ireland was seen as a colony of the British Empire. It was now proposed “that no difference of allegiance henceforth be made between the English born in Ireland, and the English born in England, by calling them English hobbe, or Irish dog, but that all be called by one name, the English lieges of our lord the King” (Berry, 1907, p. 437 in Kallen, 2013, p. 16), also, a fine could be charged “if ony man dwelling within the lyberte of the same citie shal curse, diffame, or dispice ony citsayn of the saide citie in calling him Yrishman” (Gilbert, 1885, p. 292 in Kallen, 2013, p. 16). In the legislation of the 15th century, the division between the two communities is still maintained, however, more to the advantage of the English – only the fact that the Irish merchants had to know Latin in order to communicate by hand with the English or the fact that when the Irish stood trial together with the English, Irish could not be used speaks volumes (in support of the latter argument, the following quote by Gilbert appearing in Kallen can be presented: “no manere man [...] of the citie or suburbes duellers [...], shall enpleade nor defende in Yrish tong ayenste ony man in the court, but that all they that ony maters shall have in courte [...] shall have a man that can spek English to declare his matier, excepte one party be of the countre; then every such dueller shalbe att liberte to speke Yrish”) (Gilbert, 1885, p. 323 in Kallen, 2013, p. 17; Kallen, 2013, p. 3, 14-16).

Due to these forcible language restrictions, no Irish English existed, because English was spoken only in cities and the areas held firmly under British control: These were parts of the counties of Louth, Meath, Dublin, Kildare and Wexford. Outside these areas, the English people were “of Iryshe habyt, of Iryshe langage, and of Iryshe condytions, except the cyties and wallyed tounes” (*State Papers*, 1834, p. II, iii: 8 in Kallen, 2013, p. 19); cities and walled towns were reserved for the English. Henry VIII initiated changes that aimed to erase the division and to make the entire country a subject to the king. Although his attempts were

unsuccessful, the suppression of the Irish people and Irish language continued: The parliament directed that “the said English tongue, habite and order, may be from henceforth continually (and without ceasing or returning at any time to Irish habite or language) used by all men that will knowledge themselves according to their duties of allegiance” (*Statutes*, 1786, p. 120 in Kallen, 2013, p. 19). Although the legislation still allowed the possibility of separate political societies, the danger of a possible rebellion of the native Irish inhabitants and the uncertain loyalty of the English were still present. Henry VIII was also the first king to hold the official title of the King of Ireland, all his predecessors used the title of the Lord of Ireland as a result of the common practise. Curiously enough, the bill proclaiming Henry VIII as the Irish king was written and read in Irish, for the Irish nobility present did not have any knowledge of English. However, the Gaelic nobility was present in the parliament for the first time in 1541, and possessed English titles. English thus became a new elite language for the nobility. (Kallen, 2013, p. 18-22).

In 1556, Queen Mary initiated a plan to settle 160 English families in Co. Offaly and Co. Laois, renamed for the purpose “Queen’s County” and “King’s County”; this attempt was also unsuccessful (Ibid. p. 22). The immigration of English speakers finally encountered a greater success due to the defeat of the Irish by Queen Elizabeth I and later under the reign of King James I (Hickey, 2004, p. 26). Queen Elizabeth I followed up with Queen Mary’s effort by confiscating lands in Munster and giving them as plantations to English administrators who were expected to replace the Irish population on the given land with English settlers. In the 16th and 17th century, English was widely used, but letters were often written in both Irish and English. From this period comes the first noted mixture of “Chaucer English” and Irish, stating that the speakers of the old variety of English “have so acquainted themselves with the Irishe, as they have made a mingle mangle, or gallamaulfrey of both the languages” (Stanihurst, 1577, p. 2v in Kallen, 2013, p. 23). In the 17th century, it was reported that the Irish population “disdayned to learne or speake the English tounge” (Kew, 1998, p. 50 in Kallen, 2013, p. 24); the account given by an Englishman living in Ireland was more surprising, “the English Irish and the very Cittizens [...] though they could speake English as well as wee, yet Commonly speake Irish among themselves” (Ibid.), and, although the “wemen of the meere Irish but also of the old English Irish” in “Watterford and Corcke” could speak English as well as the English themselves, “[they] durst not speake it with [the English]

if their husbands or their Fathers were present” (Ibid.). Religion became a point of conflict, with Catholic opposition of plantations resulting in a rebellion in 1641, and land being confiscated from the Catholics and given to “adventurers and soldiers” loyal to Oliver Cromwell (Kallen, 2013, p. 22-25).

The second period of Irish history as differentiated by Hickey (2004), from 1600 onwards, saw new forms of English brought to Ireland after the Cromwellian campaigns (p. 26). After the victory of William III in 1691, new type of laws started being enacted; these were known as “penal laws”. The penal laws aimed to restrict the influence of the Catholics and Catholic Church in Ireland and destabilised the Gaelic society. Manifestations of resistance against the spreading of English as a low language could be seen in the works of Irish writers such as Brian Mac Gíolla Phádraig, Conell Ma Geoghagan or Seán Ó Neachtain, lamenting the decline of Gaelic high culture (Ibid. p. 28-29). In the *Narrenschiff* manuscript written by Sebastian Brant, fun is being made of Tomás an Trumpa, where Tomás “speaks a kind of broken English that is only humorous to those whose English is good enough to appreciate the poor quality of Tomás’s English: ‘What the bigg great órdlach for the what so penny for is the la yourselfe for me?’ says Tomás in asking how much tobacco he can buy for a penny” (Williams, 1981, p. 40, 97 in Kallen, 2013, p. 29). Ireland’s submission to England under the Act of Union in 1800 (Brinton & Arnovick, 2011, p. 463) elevated English even more; Bush (1769) reported in 1769 that “English is the universal language of the country among people of any fortune, and very few of the lowest class are met with that cannot speak it” (p. 34 in Kallen, 2013, p. 30). Bush also reported the ability of the lowest classes to speak both Irish and English “with equal ease” (p. 34-35 in Kallen, 2013, p. 30). The Act of Union abolished the Irish parliament and united Ireland together with Great Britain into one country, making Ireland the subject of the English parliament. Another shift of the Irish society towards the English language was not the result of any newly-introduced policy in favour of the English but the Great Famine itself, starting in 1845 “after the loss of potato crop due to the potato blight” (Kallen, 2013, p. 34); the famine hit the Irish-speaking areas much harder than the rest of the country and was greatly responsible for the sudden rocketing emigration numbers of the period (Ibid. p. 34). After six years of famine, the population dropped by about 2 million, one million emigrating to Liverpool and North America, one million passing away. The devastated Irish people blamed Great Britain responsible for the catastrophe, since it

withdrew the help it was initially offering and left the impoverished country high and dry (Moody & Martin, 1994, p. 228-229). In 1919, an Anglo-Irish war broke out and, together with the Easter Rising of 1916, gave rise to the establishment of the Irish Free State in 1921 (Kallen, 2013, p. 31, 34).

When Ireland split into two countries, the two varieties of English started to develop differently: The one of Northern Ireland (Ulster-Scots, Scots-English) is much more similar to Scottish English than to the Irish English of the newly formed Republic of Ireland which retained its dissimilarity, being the result of the immigration from the West Country and the West Midlands of England to Dublin (Brinton & Arnovick, 2011, p. 463). Today, English is the common vernacular superstratum for the majority of the inhabitants (Wells, 1996, p. 417); however, there are different variations within Irish English itself, ranging from the urban, more English-like varieties and the rural, Irish-language influenced ones (Brinton & Arnovick, 2011, p. 463). Irish English is today described as an accent with conservative tendencies and many of the later developments of Standard British English do not appear in the traditional Irish English (Kolárik, 2013, p. 11). Furthermore, it can be said that the distinctiveness of the Irish English accent as compared to the Standard British accent is something to be preferred with the Irish, probably due to the many wrongs inflicted upon the nation by the British: A Dublin speaker whose speech resembles the Standard British accent rather than the Irish English accent is called a “traitor” (Hickey, 2007, p. 20 in Kolárik, 2013, p. 11) and would be even classified as a “West Brit”, which, according to Hickey (2007), is a derogative term (p. 21 in Kolárik, 2013, p. 12). And yet, the Irish lack an appropriate amount of linguistic self-awareness: Hickey (2007) claims that the Irish English accent is not supposed to be taken seriously as a legitimate variety of English, because it lacks a proper name (opposed to accents called “Cockney”, “Scouse”, etc.) (p. 23 in Kolárik, 2013, p. 12). Therefore, why do the Irish not hold their own language accent in higher regard? There are several possible reasons: Firstly, the process of supraregionalisation introduced in the 19th century carried a linguistic prejudice against the more “vernacular” features of Irish English and secondly, the citizens in the post-colonial era considered everything homegrown as inferior (Hickey, 2007, p. 23 in Kolárik, 2013, p. 12). There is no “standard” variety of the Irish English accent since the accent itself is not codified; however, the variety to be aspired

for is Dublin Irish English, which is becoming a norm for Irish English speakers today (Hickey, 2007, p. 23 in Kolárik, 2013, p. 13).

Just as much as English was in the ascendant, Irish was declining. At the beginning of the 19th century only half of the population spoke the language and by the half of the 19th century it was only a quarter. Irish was lost as the language of prestige and English was deeply rooted within Irish people as the language of the first contact. However, Irish was artificially brought to rise again by the nationalist movement which associated the language with the national identity of the citizens (Kallen, 2013, p. 31). Nowadays, Irish is still preserved in fragments in Gaeltacht areas which receive a financial support from the government in order to discourage the local people from moving away, which, by extension, would result in losing the language; the government also established Irish as the official language of Ireland and favours its education at schools (Wells, 1996, p. 417). Irish as a first language is spoken by less than 5% of Irish population and monolingual speakers of Irish are “virtually non-existent” (Kallen, 2013, p. 42). Today, even if Irish English speakers have negligible or no knowledge of Irish at all, its phonetic influence on their spoken English is still perceivable – although it must be said that with Irish language education now being compulsory at schools, it is almost impossible not to be somehow acquainted with the language (Wells, 1996, p. 417).

The Ulster-Scots area located in Co. Donegal is different from all others by showing features which are related to the influence of Scottish immigrants in that area. For the purposes of this thesis, it must be stated that this is the only area in Ireland which prefers alveolar /t/ to fricative /t/ (Hickey, 2004, p. 38) and is not taken into account due to the vast differences between Ulster-Scots and Irish English.

2.3. Target sounds in Standard British English accent

2.3.1. Plosives

A plosive is a type of a stop consonant sound, mostly pulmonic egressive (which means that it is produced mainly as a part of human exhalation) (Crystal, 2008, p. 372). The classification of plosives is based upon their manner of articulation: Air pressure is accumulated below the obstruction formed by the articulatory organs, their opening releases the plosion which by the help of other parts of the tract makes an explosive sound

(Cruttenden, 2014, p. 162), hence the term “plosives”. The plosive on which this thesis is focused is the voiceless (fortis) /t/; its lenis counterpart /d/ is going to be mentioned in passing together with the explanation why it was not included in the analysis. The fortis-lenis distinction is based on the degree of breath and effort of muscles with which they are pronounced, fortis consonants are voiceless consonants and must show greater degree of breath and more muscular energy than voiced in order to be perceivable. In British English pronunciation system, even voiced consonants can sometimes lose their voicing (Ibid. p. 31).

To look at this in more detail, the production of /t/ has three stages: The first stage is *the closing stage*, the articulating organs in the oral cavity close in order to obstruct the vocal tract (Ibid. p. 162). The second stage takes place when the lung action holds the air behind the closure and this phase is known as *the hold stage* or *the compression stage*; the vocal folds are not vibrating (in order to create a fortis plosive) and the soft palate is raised. The last stage is called *the release stage*, the organs forming the obstruction part allow the accumulated air to travel rapidly through the oral cavity and by the help of the tongue blade (or the tip and blade) touching the alveolar ridge create a [t] sound – the alveolar ridge is the place of primary articulation of /t/ in SBE (Ibid. p. 162). The third stage can be aspirated and after the release stage is finished, there is either silence (when the plosive occurs at the end of an utterance or phoneme (as in *I have a cat.*) or there is a short voice onset time period following right after the release (when vowel follows) or simultaneously with it (if it goes with it, there is no aspiration and there is an off-glide associating the unaspirated plosive with the following sound, as in *Tuesday* ['tju:zdeɪ]) (Ibid. p. 162-3).

2.3.1.1. Production of /t/ in SBE

The place of primary articulation of /t/ in SBE was already mentioned to be *alveolar*, however, this contact is extremely sensitive to the place of articulation of the following consonant. Thus if /r/ follows, /t/ may be *post-alveolar*, and if /θ/ or /ð/ follow, the contact may be *dental* (Ibid. p. 177).

Nevertheless, the release stage (when the air is suddenly released) can be missing in some instances of the pronunciation of English plosives. There are several possible realisations of this phenomenon:

(a) When /t/ is located in syllable-final positions, particularly when a pause follows (as in *mat*, *shot*), there may be no audible release, the plosive is released either by an inaudible opening of the oral closure or nasally. In both cases, the plosive may be called “incomplete” (Ibid. p. 169).

(b) In some other cases /t/ may be glottally reinforced (reinforced by a glottal closure [ʔ]) or the glottal stop can be directly replacing the plosive (Ibid. p. 171), unless it is followed by a vowel or syllabic [ŋ] or [l] (Ibid. p. 178).

(c) When /t/ is located as the first stop in a stop-cluster, it has no audible release as well (examples: *white post* [waɪ̯t̪ pəʊst], *great joke* [greɪ̯t̪ dʒəʊk]). No separate release occurs when the cluster is made of two identical stops (this phenomenon is called *gemination*); thus in our case the two /t/ sounds are joined together into one “long” /t/ sound (Crystal, 2008, p. 206); it would be the examples of *white tree* [waɪ̯t̪ tri:], *great trick* [greɪ̯t̪ trɪk], but also *white dog* [waɪ̯t̪ dɒg] and *great deal* [greɪ̯t̪ di:l], since *gemination* occurs even with two homorganic plosives which are different in voicing (therefore not only /t/ + /t/, but also /t/ + /d/). If /t/ would occur in larger stop-clusters, for instance *wept bitterly* (/p/ + /t/ + /b/), it would either be “manifested only by a silence of certain duration” which corresponds to the length of the second stage, or would drop out entirely. (Cruttenden, 2014, p. 170), the resulting pronunciation would be [wɛp̪ 'bɪtəlɪ].

(d) When /t/ is followed by a homorganic nasal consonant, either in a following syllable or across the word boundary, the oral closure is maintained but the compressed air escapes nasally (examples: *chutney* [tʃʌt̪ni], *cotton* ['kɒt̪n], *button* ['bʌt̪n], *not now* [nɒt̪ nɔː], *hot meal* [hɒt̪ miəl]) (Ibid. p. 171). Cruttenden (2014) mentions an interesting fact that the absence of nasal release is characteristic of British English-speaking children; however, there is a trend amongst adults to pronounce /t/ fully before nasals ([tʃʌt̪hni], *cotton* ['kɒt̪hən], *button* ['bʌt̪hən], *not now* [nɒt̪ nɔː], *hot meal* [hɒt̪ miəl]) (p. 171).

(e) When /t/ is followed by alveolar /l/ which is either in syllabic position (*cattle* ['kæt̪l]) or initial (*atlas* ['æt̪ləs], *at last* [æt̪ 'lɑːst]), lateral release occurs: Tongue tip makes an alveolar contact and one or both sides of the tongue are lowered for the air to escape (Ibid. p. 172).

(f) When the closure of the release stage of forming the /t/ is not released rapidly, an alveolar fricative sound is created; in these instances we say that /t/ is *fricative* (more

about fricative /t/ in 2.4.1.1.). Cruttenden (2014) uses the [s] symbol to indicate fricative /t/: According to him, a fricative /t/ may sound as [t^s] in both strongly and weakly accented positions in Standard British English (*time* [t^saim], *waiting* [ˈweɪt^sɪŋ], *hat* [hæt^s], *important* [ɪmpɔːsənt]) (p. 178); although we do not see this as very suitable, see also the discussion in sections 3.2.3.2., 3.2.3.4., 3.2.3.8.

2.3.1.2. Aspiration of /t/

Aspiration is “a voiceless interval consisting of strongly expelled breath between the release of the plosive and the onset of a following vowel” (Ibid. p. 164). When /t/ occurs as the initial consonant in an accented syllable (as in *take* [t^heɪk] or *photographer* [fəˈtɒɡ.rə.fə]), it is usually aspirated. When /t/ does not appear at the beginning of a stressed syllable, aspiration may still be present, but it will be much less apparent. Aspiration is also very weak when this initial unaspirated t-containing syllable precedes a stressed vowel (Ibid. p. 164), i.e. *together* [təˈɡeðə].

The only exception to the seemingly regular placement of aspiration of /t/ is the situation when /t/ is preceded by /s/ as in *street* [stri:t] or *style* [stɑɪl]: in such case, /t/ is never aspirated. When /t/ is followed by /l, r, j, w/, for instance in *prattling* [ˈprætlɪŋ], *tree* [tri:], *Tuesday* [tjuːzdeɪ], *twang* [twæŋ], the approximants are devoiced and thus indicate the aspiration of /t/. (Ibid. p. 164). With plosives, it is the aspiration which makes a difference between voiced and voiceless plosives in the acquisition of English as a native language, although it is frequently used incorrectly by British English speaking children (Ibid. p. 167). When /t/ is followed by a homorganic alveolar /l/, it should not be aspirated or else it would be stigmatised as a childish pronunciation; however, an increasing number of adults started recently started following this trend (Ibid. p. 172).

2.3.1.3. Ejective /t/

There is one specific realisation of SBE /t/ which has to be paid attention to for the purposes of this thesis: That is ejective /t/ (transcribed as [tʰ] in IPA [Ibid. p. 32]). Cruttenden (2014) describes ejective /t/ as an “egressive glottalic consonant” (p. 32). Regarding the way ejective /t/ is created, Cruttenden describes the process in the following manner:

A closure or narrowing is made at some point above the glottis (the soft palate being raised) and the air between this point and the glottis is compressed by a general muscular constriction of the chamber and a raising of the larynx. (Ibid.)

Due to the fact that the glottis is completely and tightly closed, this type of closure is possible with voiceless sounds only (Ibid.). Cruttenden mentions [t'] as occurring “in some dialects of English sometimes in final positions” (he mentions an instance in south-east Lancashire) (Ibid.). Cruttenden specifically points out the necessary caution as [t'] may be confused with other reinforced variants of /t/ (Ibid.), such as with t-glottaling (see 2.4.1.3.) or with spirantisation (see 2.4.1.1.). Ejective /t/ may be alveolar or dental in SBE (Ibid. p. 33).

2.3.2. Fricatives

Similarly to plosives, even fricatives are accompanied by noise when they are created (Ibid. p. 192), that noise varying from 1,400 to 8,000 Hz (Ibid. p. 195). In this thesis only dental fricatives /θ/ and /ð/ are examined and described, for together with /t/, those two are undergoing major change in Irish English as shall be demonstrated later. At this point it is desirable to present a description of /θ/ and /ð/ in SBE.

Cruttenden (2014) says that “[i]n the articulation of a fricative consonant, two organs are brought and held sufficiently close together for the escaping airstream to produce local air turbulence” (p. 192). The turbulence can be accompanied by voice (as with /ð/), or it can be voiceless (as with /θ/) (Ibid. p. 192); the air escapes through a slit between the tip and rim of the flat tongue and the edge and inner surface of the upper incisors creating *friction* or *frication* (Ibid. p. 192, 199; Crystal, 2008, p. 199). There is not a complete closure between the organs (as with plosives), there is only a *stricture*, a narrowing (Crystal, 2008, p. 199). It is interesting to observe that both /θ/ and /ð/ are graphically represented by -th-: *father* [fɑːðə], *throw* [θrəʊ] (Cruttenden, 2014, p. 198). /θ/ is susceptible to be pronounced with greater muscular energy and breath force than /ð/. In final positions (*with* [wɪð]) or initial positions (*there* [ðeə]) (Ibid. p. 198), /ð/ may lose its voicing partially or completely, even though it is lenis (Ibid. p. 193); /θ/ always remains voiceless (Ibid. p. 194). When both of them are occurring in a final position, the voiceless or voiced quality is perceived in compliance with the length of the preceding sound (Ibid. p. 194), for example *loath* [ləʊθ] x *loathe* [ləʊð].

2.3.3. Comparison of plosives with fricatives

In SBE, there is usually no need to distinguish the difference between /t/ and /θ/ since the two phonemes have different places of articulation (/t/ is alveolar and /θ/ and /ð/ are dental). Therefore, provided that the standard rules of pronunciation are kept, there is a vast difference between *tin* [tʰɪn] and *thin* [θɪn], *taught* [tʰɔ:t] and *thought* [θɔ:t], *fort* [fɔ:t] and *fourth* [fɔ:θ], *tree* [tʰri:] and *three* [θri:] (Ibid. p. 176).

2.4. Target sounds in Irish English accent

Wells (1996) describes Irish English as “remarkably conservative”, for neither British nor American innovations are, apart from minor exceptions, encountered in the English spoken in Ireland (p. 418); therefore, the variety spoken in Celtic countries preserves one of the oldest forms of spoken English. Furthermore, he states that Irish English is influenced neither by RP nor by any other popular accents of English, except for educated people in Dublin who wanted to adopt the RP way of speaking (Wells, 1996, p. 418). With regard to the typology of all languages, Gordon (2016) distinguishes /t/ as “denti-alveolar” for of all the 317 languages examined, only few languages distinguish between dental and alveolar place of articulation (Gordon, 2016, p. 45), which is the discrepancy resulting from the contact of English and Irish. English was initially learned as a second (foreign) language since the mother tongue of the inhabitants of Ireland was Irish, serving as a *substrate* to English as a *superstrate* and thus endowing it with its specific features (Corrigan, 2010, p. 31).

2.4.1. Plosives

Cruttenden specifically mentions Irish English as a dialect where plosives are more aspirated than in SBE (p. 178). In positions of high sonority, in other words, when /t/ is surrounded by open or close vowels or glides (Cruttenden, 2014, p. 51), it changes into (a) *fricative* /t/ or into (b) *dentalised* /t/, (c) *glottalised* /t/ or (d) *flapped* /t/ (Hickey, 2004, p. 42; Kallen, 2013, p. 51-52); alternatively, (e) /t/ can be completely replaced by [h] or (f) have numerous other variants of realisation (Ibid. p. 54-56). Occasionally, /t/ does not have to be shifted at all, and may remain an alveolar stop – this means that the changes it would otherwise have undergone are neutralised; the neutralization happens in the environments

before /l/ and /s/: The same speaker may pronounce *faith* as [fe:t̪] but *faithless* as [fe:t̪ləs], he would also make *fates* and *faiths* sound the same, i.e. [fe:ts] (Wells, 1996, p. 431).

2.4.1.1. Fricative /t/

The most prominent feature of Irish English is the realisation of /t/ as a fricative, found for example in *matter* ['mæt̪ə], *hat* [hæt̪], *city* [sɪt̪i]. There is a discrepancy in terminology, fricative /t/ being sometimes described as a *lenited* /t/ (Hickey, 2004, p. 42), *affricated* /t/ or *slit fricative* /t/, *fricated* /t/ or the “Hiberno-English slit /t/” (Hughes, Trudgill & Watt, 2012, p. 144), sometimes even as “apico-alveolar fricative” (Kolárik, 2013, p. 49) or “apical alveolar fricative formed with a broad central channel” (Kallen, 2013, p. 53); “voiceless alveolar slit fricative” (Wells, 1996, p. 429); or the process itself can be called *spirantization* (Crystal, 2008, p. 199). It is not clear which IPA symbol to use for marking the fricative /t/ and fifteen different IPA symbols have been suggested for the transcription; the one recommended by IPA and used by Kallen (2013) is [t̪] (p. 53); Hickey (2004) uses [t̪] (p. 42, 38) and Wells (1996) uses [t̪] (p. 429); in this thesis we use [t̪] as well. The /d/ sound can be realised as fricative /d/ as well, being possibly transcribed as [d̪], although occurring much less frequently (Kallen, 2013, p. 53). /d/ is also much less distinct than /t/ due to the fact that it is lenis ([t̪] is more audible and fortis [Uher, 2012, p. 32]); therefore, /d/ is not taken into consideration for the purpose of this thesis. Fricative /t/ is most frequently found in prevocalic or postvocalic positions (Wells, 1996, p. 429). Fricative /t/ is not to be found in positions with stress (*attack* [ə'tæk], *attend* [ə'tend]), in preconsonantal position *meat exports* [mi:t̪'ekspɔ:rts] x *meat sales* [mi:t̪ seɪlz] (Wells, 1996, p. 429), and in complex codas with many consonants clustered together (*bets* [bet̪s], *width* [wɪd̪θ]) – these either block or severely limit the fricativization process (Kallen, 2013, p. 55). On the other hand, one syllable words (short words) create the most favourable environment for the occurrence of [t̪] *bat* [bæt̪] (Ibid.). Words with [t̪] in final position are ones of the more easily perceived, [t̪] being used as an allophone of /t/ even in positions following /r/ (*heart* [ha:r̪t̪]) (Ibid.).

Hickey (2004) mentions the phenomenon of fricative /t/ with vernacular varieties of Irish English (p. 42), however, according to Wells (1996), fricative /t/ can appear at all levels of social structure (p. 429). Its influence is rare outside Ireland, however, if there is any, it is probably due to the influence of Irish immigrants abroad (Kallen, 2013, p. 54). It can be said

that fricative /t/ was probably created as a reinforcement of the /t-θ/ opposition (Wells, 1996, p. 429), although Hickey (2004) gives a more definite answer, saying that fricative /t/ was created as the result of lenition being a “phonological directive from Irish” (p. 40). Here we have a direct connection between the fricative /t/ and the influence of Irish.

2.4.1.2. Dentalised /t/

Dentalised /t/ is produced when the tip of the tongue taps on the upper teeth from the inside of the mouth (Crystal, 2008, p. 136). The SBE alveolar /t/ dentalises into IE dental [t̪] when it precedes the /r/ sound, however, morpheme boundaries may block dentalisation (*plaster* [plast̪ər] x *brighter* [braɪt̪ə]) (Kallen, 2013, p. 52; Hickey, 2004, p. 38). In word-internal positions, dental [t̪] is preferable to [t], [h] and [r] (*water* [wɔ:t̪ə], *letter* [let̪ə], *butter* [bʌt̪ə]) (Kallen, 2013, p. 55).

2.4.1.3. t-glottaling

There might be a discrepancy in terms of formal terminology amongst some academics: *t-glottaling* is a complete replacement of /t/ by a glottal stop [ʔ] (Hughes, Trudgill & Watt, 2012, p. 43) taking place in word-medial or word-final positions (a glottal stop is an audible release of the glottis closure created in the larynx, the glottis is located between the vocal folds [Cruttenden, 2014, p. 225]); whereas *glottalisation* happens in a situation when /t/ is articulated but is reinforced by a glottal stop (Crystal, 2008, p. 213; Cruttenden, 2014, p. 187; Hughes, Trudgill & Watt, 2012, p. 43); some scholars cited in this thesis used the terms “glottalization” and “t-glottaling” interchangeably, even within one publication (Cruttenden, 2014, p. 90, 84, 187).

In IE, /t/ tends to be completely replaced by a glottal stop (*bit* [bɪʔ], *meeting* [mi:ʔɪŋ]). The use of t-glottaling may be sensitive to both gender of the speaker and style (study of Dublin adolescents: females: 63% of usage in casual speech, 30% in reading passages, 10% in formal wordlists; males: 45% casual speech, 38% reading passages, 16% wordlists). Several researches have been conducted, all pointing to this probability in language usage being different with each gender (Kallen, 2013, p. 53).

2.4.1.4. Flapped /t/

In southern Irish English or in Dublin, the alveolar stop can be even realised as a voiced tap (the process is called *t-flapping*), produced by a “single rapid contact of two organs of articulation” (Crystal, 2008, p. 191). Concerning IPA transcriptions, nearly all sources for this thesis include [ɾ] as the symbol for flapped /t/, although Wells (1996) uses [ɾ̥]; he actually states that [ɾ] is a further stage of [ɾ̥] (p. 430). Examples include *letter* ['lɛɾə], *out of* [aʊɾ əv] or *city* ['sɪɾi]). Interestingly, t-flapping is being associated with male speakers (14% of realisations in reading style) rather than female speakers (Hickey, 2004, p. 42; Kallen, 2013, p. 52). Although t-flapping does not occur in word-final positions, it might appear in connected speech when followed by a vowel (Kallen, 2013, p. 55) because it occurs mainly in intervocalic position (*out of* [aʊɾ əv]) (Wells, 1996, p. 430).

2.4.1.5. /t/ realised as [h]

Another remarkable and distinctive Irish English variant of /t/ according to our sources is the substitution of /t/ by [h] in word-internal positions, violating the English syllable structure rules (Kallen, 2013, p. 54); this process is actually a continuation of the lenition process which began with fricative /t/:[h]-replacement is its further stage, because [h] is, in fact, a lenited form of /t/ in Irish English (Wells, 1996, p. 430). The replacement of /t/ by [h] differs across regions, being different in Dublin than anywhere else. 35% of /t/ following a stressed vowel in a simple syllable coda were realised by [h]: *about* [a'baʊh], *meet* [mih], *met* [mɛh], *at* [ah], *it* [ih], *out of you* ['aʊhəyə], *street and* ['ʃtrihan] (Kallen, 2013, p. 54), *Saturday* ['sahədeɪ] (Wells, 1996, p. 430).

2.4.1.6. Other realisations of /t/ in Irish English

Other, less frequent realisations of /t/ can be further distinguished in Irish English: [θ], [tʰ] and [ɹ] (sometimes titled as “T-to-R-rule”. It should be noted that in such cases, [θ] is an allophone of /t/ rather than of /θ/ and is to be found in the environment of /r/ (*water* ['wɔθəɾ], *stroke* [sθro:k], *coulter* ['koulθəɾ], *daughter* [da:θəɾ], *streams* [sθre:mz]) (Kallen, 2013, p. 55). Wells (1996) also lists this possibility, giving “afther” as an example (p. 428). The [tʰ] variant is even less common, Barry (1982) mentions it occurring in final and recently even in initial positions in words like *soot* [sutʰ], *tax* [tʰæks], calling it “a kind of affrication” (Berry, 1982, p. 126 in Kallen, 2013, p. 56), this is mainly a feature of young people. However, Henry (1958)

describes this feature as a “transitory following s” and gives the following symbol for it: *hat* [ha[>]ʰs] (p. 124-5). The variant of [ɹ] does not seem to be a feature of traditional dialect and seems to occur mainly across word boundaries (*what is it, pet?* [wəɪ ɪz ɪt pɛh], *get off, will you?* [gɛɪ ɒf wɪl jə]), a certain concern has been expressed about the possibility of spreading this feature in catch phrases (Kallen, 2013, p. 56).

2.4.1.7. Further commentary to the changes

The process of change does not have to end necessarily with only one stage, lenited /t/ can be further glottalised and gradually completely replaced by [h]: *foot* [fʊt] → [fʊʔ] → [fʊʔ] → [fʊh]; *getting* [gɛtɪŋ] → [gɛʔɪŋ] → [gɛʔŋ] → [gɛhɪŋ], *little* [lɪtəl] → [lɪʔəl] → [lɪʔl] → [lɪhəl]), especially in Dublin (Hickey, 2004, p. 32; Kallen, 2013, p. 52).

2.4.2. Fricatives

In the Irish English accent, /θ/ and /ð/ are seldom realised as [θ] and [ð]; this realisation is possible only in the Ulster area, Co. Donegal (Wells, 1996, p. 429), which is the major area Northern Ireland consists of and is located at the very northern tip of island. Therefore, /θ/ and /ð/ as fricatives “rarely occur” in IE outside Ulster English (Kallen, 2013, p. 50; Wells, 1996, p. 429), however, according to Wells (1996), middle-class Irish people from the south of Ireland frequently “fluctuate between plosive and fricative realisations” (Wells, 1996, p. 429): this shows that /θ/ and /ð/ realised as [θ] and [ð] could still occur.

Cruttenden (2014) says that in southern Irish English, /θ/ and /ð/ are most frequently “realised as dental plosives [t̪] and [d̪]” (p. 199) ([t̪] and [d̪] can be even transcribed as [T] and [D] in Irish grammatical tradition [Kallen, 2013, p. 50; Wells, 1996, p. 429]) and that no confusion with alveolar /t/ and /d/ is caused because the two places of articulation are different and /t/ is aspirated (Cruttenden, 2014, p. 199); Hickey (2004) confirms this statement and adds that this dental realisation occurs also on the west (p. 33-34). Overall, if we could conclude, realising dental fricatives as dental plosives is one way in which the difference between Irish English and Standard British English can be perceived; it is perhaps one of the main features of this accent from the perspective of the accent as a whole unit, not only in terms of the consonant system (Wells, 1996, p. 428).

The other way in which the fricatives can differ in IE as opposed to SBE is their realisation as alveolar stops (*think* [tɪŋk]) (Hickey, 2004, p. 31); Wells (1996) mentions the same process, more or less, although he does not use any detailed IPA symbols for transcription, stating only that “the English stereotype of an Irish accent (‘brogue’) includes the use of /t, d/ instead of /θ, ð/ and/or vice versa” (p. 428).

The geographical aspect of the realisation of /θ, ð/ as either a dental or an alveolar plosive became rather a tendency than a trend, with fricatives as either alveolars or dentals possible to be found in the same region (Kallen, 2013, p. 51), however, as we have seen above, even fricative realisations of /θ/ and /ð/ are possible (Wells, 1996, p. 429): /θ/ can be therefore realised as dental [t̪], the standard alveolar English [t], and as [θ] without any change, /ð/ can be either dental [d̪], alveolar [d] or [ð] (Wells, 1996, p. 429). Hence it would be incorrect to estimate that /θ/ and /ð/ shall be transcribed as [t̪] and [d̪] respectively in IE (Wells, 1996, p. 429); it would be far more useful to remain faithful to the IPA transcription as used with regards to SBE.

The fourth possible realisation of /θ/ and /ð/ is as an affricate combining a dental stop and an added fricative: [t̪θ] and [d̪ð] (Wells, 1996, p. 429) (Kallen [2013] transcribes it as [t̪^θ] and [d̪^ð] [p. 50]).

In syllable-initial position, all variants are permissible, the alveolar plosives may also occur in syllable-final position. (Kallen, 2013, p. 50). As for the reason the dental fricatives are not much used in Irish English, Hickey (2004) estimates it was because the Irish speakers of English needed to find a nearest equivalent to /θ/ and /ð/, those were coronal stops in Irish, which were alveolar in the east and south, but dental in the west of Ireland (p. 33).

2.4.3. Resulting contrast

Thus, the contrasts described in 2.3.3. between /t/ and /θ/ or between /d/ and /ð/ are jeopardised; the minimal pairs such as *tin* x *thin*, *taught* x *thought*, *fort* x *fourth*, *tree* x *three*, *debt* x *death*, *bat* x *bath*, *den* x *then*, *header* x *heather*, *paths* x *pads*, *breath* x *breed*, *though* x *dough*, *there* x *dare*, *seethe* x *seed*, *writhe* x *ride* cannot be distinguished on the basis of pure pronunciation (Cruttenden, 2014, p. 198; Kallen, 2013, p. 50).

Moreover, the different realisations of plosives and fricatives not only cause difficulties in terms of distinguishing the new word [tri:] from its former variant [θri:], it also causes

difficulties in the distinction of the new system itself; the situation is made even more difficult when dentalisation of /t/ and /d/ is taken into account (Kallen, 2013, p. 51), therefore, making a clash of (a) [t̪] as the allophone of /t/ and (b) [t] or [t̪] as the allophones of /θ/ (Kallen, 2013, p. 52). However, patterns of consistency are encountered within individual speakers and on the basis of context (*Meet me at three* [mi:t mi: ət̪ t̪ri:]. **Meet me at tree* [mi:t mi: ət̪ t̪ri:].

3. Method

3.1. Data collection and material

3.1.1. *Carrying out the research in Limerick*

The total of 21 speakers from the ranks of university staff and students were happy to have themselves recorded in the campus library in Limerick, Ireland. The Zoom H2 recorder was used, set to wav format, mono, with 16 bit depth and 44,1 kHz sampling frequency at 246 kbps; the input levels had to be increased in order to record good quality recordings. The speakers were seated one at a time in a moderately-proportioned storage room in the library (the stored items not affecting the quality of the sound), the recorder stood in front of the speakers on the table. Our goal was to record an equal number of men and women and to get about twenty speakers in total if possible. Twenty-one speakers were recorded, but the amounts of the speakers belonging to each gender were not balanced: There were 6 male speakers and 15 female speakers. Naturally, the condition upon which they could participate was that all of them had to be native Irish English speakers.

It was desirable to have two different contexts of their speech recorded, thus the recording had two parts: A reading part, in which the participants were asked to read a short story called “The Boy Who Cried Wolf” (to be found in the Appendix of this thesis), and in the second part they were asked to speak spontaneously about a specific topic of interest, the researcher could ask additional questions and interact.

Generally speaking, the reading part lasted about 2 minutes in total. “The Boy Who Cried Wolf” is recommended by Deterding (2006) in his article “The North Wind versus a Wolf” as a better alternative to another story called “The North Wind and the Sun” which had been previously used for phonetic research but which proved insufficient in the number of distinctive phonetic content to analyse and which also featured a big percentage of repeated words (p. 192-3). “The Boy Who Cried Wolf” eliminates these problems and being also an adapted version of one of the well-known fables by Aesop, it was easy to read and provided a certain degree of familiarity to the speakers (this degree of familiarity sometimes went so far that few speakers substituted a very few words from the fable with a better content of their own). However, despite the familiar nature of the fable, the reading was stern and not as relaxed and spontaneous as the spontaneous speech; the speakers were reading the story

quicker than they would have talked if they had talked freely, they sometimes stumbled while reading and overall, it was apparent they wanted to be through with the reading as soon as possible.

The recording time for the speaking part was estimated at about 10 minutes from which the best passage would be afterwards selected and cut out to be further used in subsequent analyses. The speaking felt casual and relaxed; the speakers generally enjoyed talking about a topic they were keen on and they became talkative, expressing themselves without any restraints. The researcher was now facing the speakers and whenever she felt they were running out of topics, she encouraged them to talk by asking questions, such as “And is your Saturday different from your Sunday?”, sometimes purposely trying to make them pronounce certain words (in this particular question, the researcher knew the word Saturday tended to show the /t/ to [h] shift [see 2.4.1.5.] and wanted to see if the speakers would exhibit the change or not); it has to be said that the intentions of the researcher were never explained to the speakers, neither were they obvious or noticeable; for it was yet unclear what specific features of IE to focus on, thus the speakers had to be recorded in such a way as to allow the research to be narrowed down to any specific points of interest. The researcher endeavoured to interact with the speakers as she would have done in an everyday conversation, making eye-contact, nodding and showing signs of interest in whatever they were saying. This usually helped to create an atmosphere of a casual interview or a friendly conversation, making the speakers forget about the recorder on the table and causing them to get lost in their own topic of interest.

The order of the two tasks was selected beforehand: It was desirable that the speakers shed their feelings of uneasiness and restlessness and calm down. Soon they were made accustomed to the situation and thus we could get closer to recording a vivid, naturally-sounding speech of an Irish English speaker.

3.1.2. Analysis procedure

An auditory analysis supported by visual inspection of the spectrogram in Praat was selected as the principal method of examination. It became clear at that time that our principal points of interest will be the distinct realisations of SBE /t/, /θ/ and /ð/. Two-minute passages were cut from the spontaneous speech recordings so as to obtain a lot of the target sounds;

“The Boy Who Cried Wolf” recordings were analysed in their entirety. The passages of the researcher speaking were cut out, as well as the passages of unnecessary pauses or hesitations. Apart from cutting and re-sampling, the recordings have not been modified. The selected passages were orthographically transcribed and phonetic segmentation was performed using the P2FA forced aligner (Yuan & Liberman, 2008). The target sounds were then identified on a separate tier in Praat TextGrids, along with their realisations (see Table 1). A Praat script was then used to extract the target phoneme and its realisation, as well as the word it occurred in and the larger prosodic context. The data were processed in the R software (R Core Team, 2015) and the frequency of occurrence of individual variants of the target sounds was plotted using the R package ggplot2 (Wickham, 2009).

4. Results and discussion

4.1. Excluded data

Before we address all the resulting data from our research in this section (we list all the possible allophonic realisations in Table 1), we would like to specify the items we excluded from or did not count into our analysis, together with the reasons why we did so:

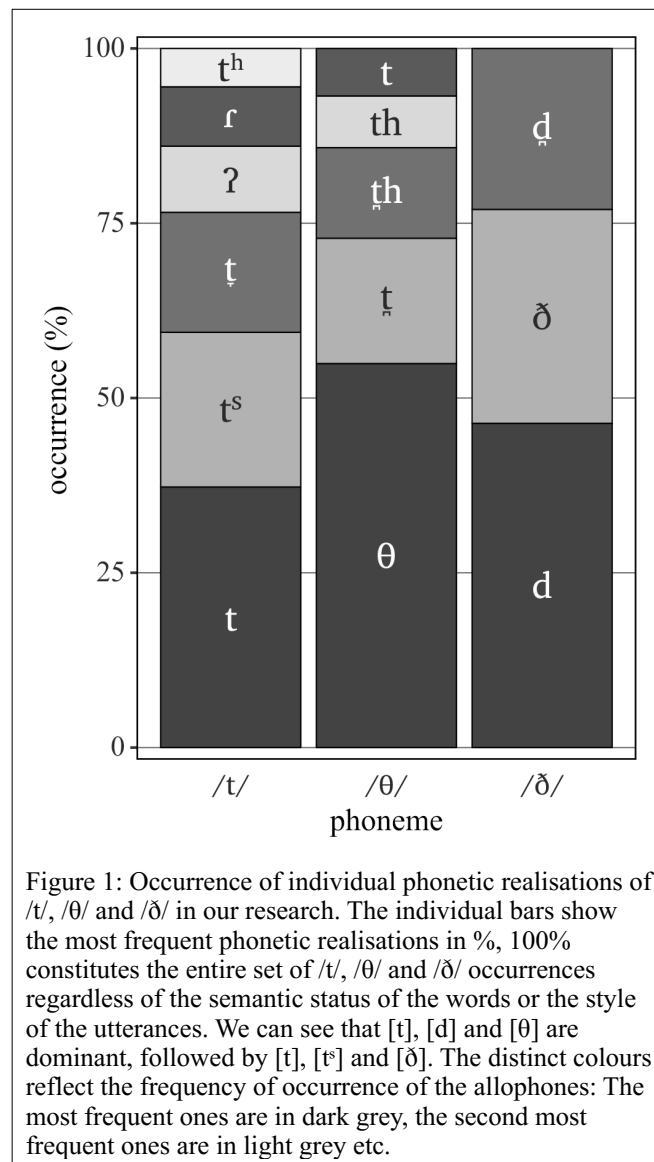
- 1) When /t/ was preceding /r/ (as in “try” or “train”) or when it was following a consonant and preceding any rhotic vowel (as in “after”, “centre”, but not in “better”, “litter”) we excluded those items since the auditory analysis showed no change in pronunciation in IE as opposed to SBE. We are aware that the reference material specifically lists /t/ → [t̪] dentalisation before /r/ but our initial auditory analysis did not prove this. Therefore all those instances were excluded from our analysis and further research would be necessary to prove or disprove the existence of dentalisation before /r/ in IE pronunciation, for if /t/ would not dentalise before /r/, such change would deserve a thesis on its own. (However, what we did include in our further analyses was the environment of V _/t/ _rhoticV, because in this instance /t/ changes into fricative /t̪/; this environment strongly favours the change [as in 2.4.1.1.]).
- 2) Unreleased plosives were not considered as valid items (as for example /t/ at the end of “difficult” in “difficult time” [dɪfɪkʰl̪t̪ tʰaɪm] – this example uses the pronunciation of SBE for demonstration).
- 3) Naturally, items belonging to the passages of the researcher were discarded. Similarly, when the speaker’s and the researcher’s utterances overlapped, the items were discarded either, even if they belonged to the speaker – the noise created by the overlap made it impossible to label the items correctly. Speaker’s items were discarded even when the speech was overlapped by any other noise.
- 4) Distinction was made between alveolar and dental realisation of allophones, however, no distinction was made between alveolar and post-alveolar realisations and they were all marked as “alveolar”.
- 5) No finer distinction of geographical origin of the speakers was made, because we do not consider a sample of 21 speakers sufficient enough to do so.

Phoneme symbol	Allophone symbol	Description of the allophone symbol
/t/	[t]	alveolar /t/
	[th]	alveolar /t/ followed by a voiceless glottal fricative
	[t ^h]	aspirated alveolar /t/
	[t̪]	dentalised /t/
	[t̪h]	dentalised /t/ followed by a voiceless glottal fricative
	[tʰ]	ejective /t/
	[ɾ]	flapped /t/
	[ɾ]	fricative flap
	[t̪ʰ]	fricative [t̪ʰ]
	[t̪]	fricative /t/
	[h]	/t/ as [h]
	[t̪ʰ]	/t/ as [t̪ʰ]
	[ʔ]	t-glottaling
	[t̪̥]	voiced fricative /t/
/θ/	[t]	alveolar plosive
	[θ]	dental fricative
	[θh]	dental fricative followed by a voiceless glottal fricative
	[t̪]	dental plosive
	[t̪θ]	dentalised stop followed by a dental fricative
/ð/	[d]	alveolar plosive
	[ð]	dental fricative
	[d̪]	dental plosive
	[d̪ð]	dentalised stop followed by a dental fricative

Table 1: A list of all possible realisations of /t/, /θ/ and /ð/ with regard to our research. This table provides a source of information on how we transcribed the allophones appearing in our research. All symbols are in IPA, some of them are uncoined and used by precedence and habit (such as [t̪ʰ] or [t̪]). Some of them were created by combining already existing IPA symbols, such combinations might be unfamiliar (such as [t̪h], [θh], [t̪ʰ]). In the instance of [t̪̥] we had to combine two symbols that are found underneath the character and we had to place one of them above the character instead of below.

4.2. Synoptic results

We present three bar diagrams (Fig. 1) showing the most frequent realisations of /t/, /θ/ and /ð/ in Irish English. As we can see, the most frequent realisations of SBE /t/ and /θ/ are plosives with an unchanged place of articulation in IE, and the most frequent realisation of /ð/ is [d] in IE. In order to interpret the results correctly, it is necessary to focus on /t/, /θ/ and /ð/ separately in more detail and to determine all the variables that influence the overall result we can see in Fig. 1; for there are specific variables which can affect the table of general results, such as the position of the allophone in a word (there are positions which favour the realisations corresponding to SBE pronunciation in IE and there are positions which do not, i.e. fricative /t/ can never occur at the beginning of a word), or the style of the utterance (speakers reading a text can feel that they have to show “proper English” vs. speakers



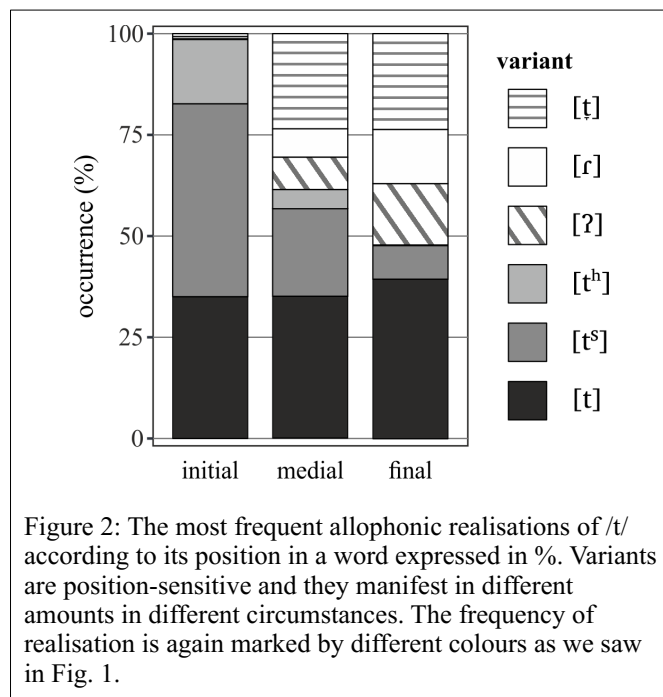
speaking spontaneously can incline to their own natural accent), or the phonetic environment of the allophones (specific phonetic environments favour specific changes, e.g. what would have been realised in SBE as /t/ is realised as [t̚] in IE in V_/t_/V or V_/t_/#), to name just a few variables that can influence the overall results. Therefore, it is necessary to look at the results more closely, for interpreting them from these diagrams only would be erroneous.

Surprisingly, several new categories emerged during our research (they are already listed in Table 1) and we would like to describe them in detail in the following sections, since to our best knowledge, they have not been described before yet by any of the used reference sources. Also, we would like to provide further commentary to the IE variants already described in section 2.4. of this thesis.

Also, it should be noted that many allophones appear several times in the diagrams with different phonemes, for, as was already said in section 2.4.3., the allophones can undergo a continuous change or they can be an allophone of more than one distinct phonemes: As we have shown in Fig. 1, [t] can be either an allophone of /t/ or an allophone of /θ/ (Kallen [2013] confirms this on p. 50).

4.3. Detailed /t/ results

This section presents the analysis of /t/ variants in more detail.. As shown in Fig. 2, the position of /t/ in a word very much affects which allophone will be the most frequent. We can

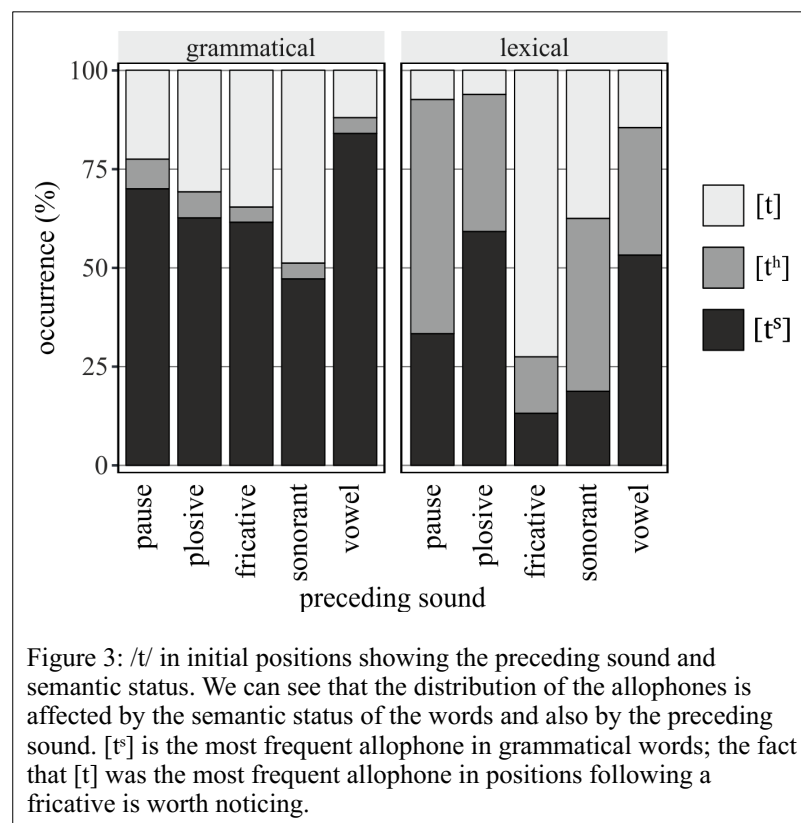


see that in initial positions, such as in “take”, [tʰ], [t] and [tʰ] were the most frequent realisations, which was not surprising, considering the fact that the other three most frequent options for /t/ as relevant from Fig. 1, [t̪], [r] and [ʔ], could not be considered as options because [t̪] and [r] require high-sonority environments and thus cannot be found in initial positions, and [ʔ] at the beginning of a word is not symptomatic of IE at all.

The previous research showed that [t̪] was preferable in word-medial positions, our research did not show this. It should be noted that no significant differences between males and females were spotted.

4.3.1. /t/ in initial position

Looking more closely at the first column of Fig. 2, “/t/ in initial positions”, and looking especially at the three exclusively present variants in it (Fig. 3), it is clear that the distribution of the respective allophones of /t/ is very much affected by the distinction between grammatical words (“words whose sole function is to signal grammatical relationships” [Crystal, 2008, p. 279]; most frequently “to” and “that”) and lexical words (“words which have lexical meaning” [Crystal, 2008, p. 279]; most frequently “time” or “two”): Grammatical words tend to feature [tʰ] the most, [t] less frequently and very little [tʰ];



lexical words on the other hand featured much greater differences: Although we do not have information on word stress, the prevalence of [t^h] in lexical words is caused by the fact that the first syllable is also usually stressed. The only exception to the prevalence of [t^s] and [t^h] in lexical words is when the preceding sound is a fricative; for /t/ was also coded as initial when preceded by /s/ in the same word (i. e. “stop”). We can assume that it is largely due to the /st/ cluster that alveolar [t] dominates the range of possible realisations when /t/ is preceded by a fricative in lexical words.

We would now like to focus at [t^s] in more detail: Our results show that [t^s] is a very frequently occurring feature in IE; it can be said that [t^s] is a form of aspirating the /t/: The [t^s] realisation may be regarded as equivalent to the aspirated one, [t^h]; they differ in the quality of the noise. While the noise is generated at the constriction in [t^s], it is laryngeal (and thus truly aspirational) in [t^h]. Speaking of the auditory perception of [t^s] in IE, the sound is similar to [t̥s], therefore, it is a plosive /t/ followed by a fricative /s/ of a very short duration. It is essential to distinguish *aspiration* and *affrication* and not to confuse those two terms, since we differentiate [t^s] and [t̥s] as two separate allophones and we would like to address this issue in the following paragraph:

[t^s] was actually described by Berry (1982) in section 2.4.1.6. as a “kind of affrication”, and we would like to square the record: In our thesis, we differentiate both [t^s] and [t̥s] as two distinctive allophones of IE. [t^s] is truly only the /t̥s/ sound, and it is true that it would occur in words like *tax* [t̥sæks] (as Berry [1982] differentiates in [2.4.1.6.]), however, it cannot be “affricated” (Berry probably meant “fricated”, we discuss this in 2.4.1.1.) because it is at the beginning of the word, where it is not possible to produce friction. We differentiate [t̥s] as rather similar to [t̥], which does exhibit friction, [t̥s] exhibiting a continuous “hissing” sound (see section 4.3.8. for a further discussion of [t̥s]). Therefore, even though we use the same symbol as Berry did (Berry, 1982, p. 126 in Kallen, 2013, p. 56), we differentiate [t^s] from [t̥s] and we conclude that Berry (1982) described two different things.

4.3.2. /t/ in word-medial position

Fig. 4 shows data for /t/ in intervocalic non-initial position (therefore, structures like “he told” have been excluded from the data). However, words containing /t/ intervocalically in a stressed syllable (as “detain”) could still occur in the data.

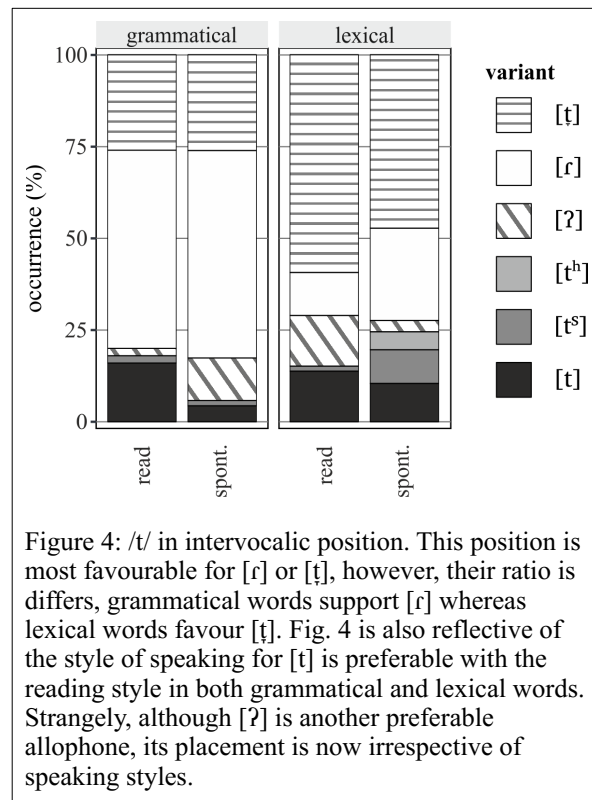
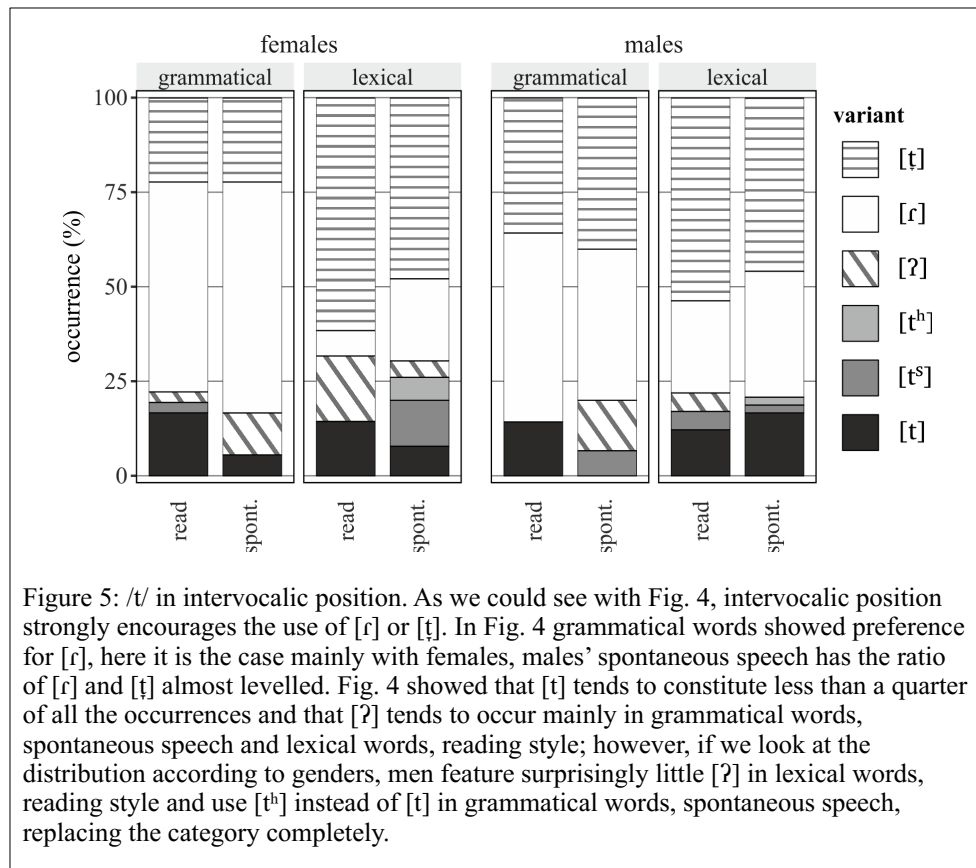


Fig. 4 and Fig. 5 show that differences in realisations were once again caused by the semantic status of the words, i.e. if the words were lexical or grammatical:

In grammatical words pertaining to both styles (i.e. reading style and spontaneous speech), flap was the most frequent allophone (although females featured it more than males), followed by fricative /t/. The third most frequent realisation differed according to the style but not to gender: In reading style it was [t̚], in spontaneous speech it was [ʔ]. It is interesting to compare males' and females' grammatical categories in Fig. 5: In reading style, females feature more allophones than males and in spontaneous speech; and the fourth most common allophone with females was [t̚] whereas with males it was [tˢ]. Interestingly, both sexes do not feature [tʰ] at all in grammatical words.

In lexical words, the main allophone which occurred with both styles was, according to expectations, fricative /t/. This shows that the most prominent feature of IE manifests itself mainly in lexical words (whereas in grammatical words it was the second most frequent), which can be supported both by Figures 4 and 5. We can see that the heavy distribution of fricative /t/ in lexical words in both styles is almost the same with both sexes, although females feature it a little bit more. The use of flap was greater with males in lexical words than with females.



With regard to /t/ in word-medial position, it is interesting to note that what Kallen (2013) mentions in his multivolume publication *Irish English* is that [t̪] is preferable word-medially to [t], /t/ as [h] and [r] (p. 55); our research did not show any such preference.

To add more information to the discrepancy of the flap, we first need to summarise the circumstances of its occurrence: It occurred mainly in grammatical words, where females featured it more than males, in lexical words its occurrence was significantly reduced and it was the males who featured it more than females. Kallen (2013) writes that male speakers used the flap in only 14% of all occurrences in reading style, but female speakers used it to a “negligible” extent in the same speech style (p. 52). He does not include the description of the semantic status of the words, therefore, by looking at Fig. 5 it could have been the lexical words that were observed, for if we look at “read” column, males and females, we can see that in lexical words, the occurrence of flap with females is truly rather small (however, the bar diagrams were created only with the more significant numbers). With males, we can see that the percentage is well above 14%. Therefore, there could be a slight tendency to use flap more frequently, although this conclusion might be influenced by our choice of our IE speakers recorded.

Although Wells (1996) provides the information in 2.4.1. that /t/ in IE may be neutralised into alveolar [t] before /l/ and /s/, after observing the data we conclude that there is a strong tendency to use [ʔ] in such environment, although fricative /t/ also appeared.

4.3.2.1. Fricative /t/, voiced and voiceless

We would like to comment on fricative /t/ or [t] in this section since we encountered it in Figures 4 and 5. We would like to distinguish its voiced and voiceless variant, being aware that such distinction is not mentioned in any source material for this thesis. We suggest that voiced fricative /t/ be marked as [t̚] in IPA, with the symbol for voicing above the character rather than below, because there is already the sign for lenition below the letter which, as commented on in section 2.4.1.1. of this thesis, is not a universally acknowledged symbol. Therefore, should any different symbol be suggested instead of [t] which would allow the [̚] symbol be placed below the character, we would suggest doing so. Voiced fricative /t/ was always preceded by a vowel and was uttered eight times in total by five different IE speakers: seven times by a female and once by a male, three times in spontaneous speech and five times in reading. We are aware that this sample is too small to form conclusions of any kind; our aim was to point out that as the majority of the plosives, fricative /t/ has its fortis and lenis variant, which is logical and should be taken into account when distinguishing it. Now we would like to provide spectrogram images of both voiceless fricative /t/ or [t] and voiced fricative /t/ or [t̚] in Fig. 6 and Fig. 7.

Concerning the previous research done, fricative /t/ is described always due to its conspicuousness in the speech, however, it is rarely described correctly. We strongly feel that a fixed terminology has to be established and that fricative /t/ should have a clearly established IPA symbol to use.

Regarding the fixed occurrence of the allophone, either voiced, or voiceless, it should be said that fricative /t/ has appeared even in non-vocalic surroundings. It has been said in section 2.4. of this thesis that fricative /t/ appears in positions of high sonority, which means it can be surrounded either by vowels (which was the most frequent place of realisation) or glides. Sonorants like /l/, /r/, /m/, /j/, /w/, /n/ appeared in close succession to fricative /t/, however, we have to make clear that /w/ appeared most frequently of them all (which it should have according to the previous research) and that with enough time to let out the

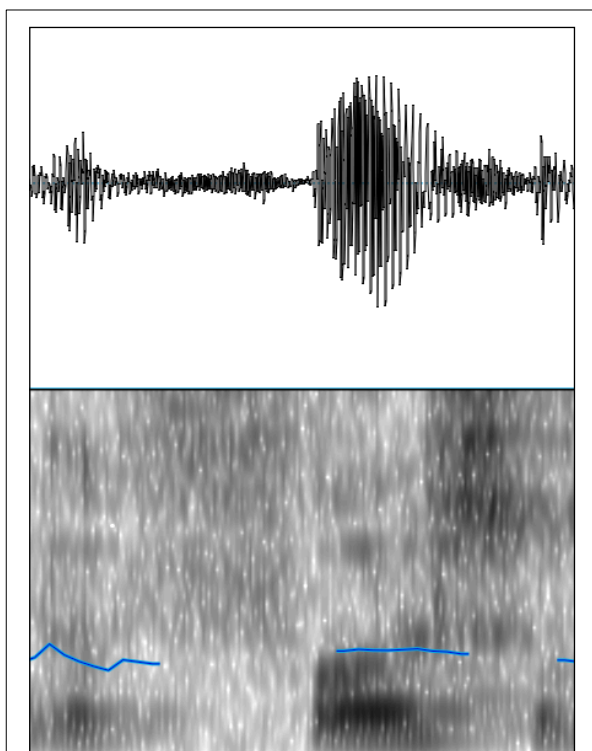


Figure 6: A spectrogram image of voiceless fricative /t/, reading style, female speaker saying “the foot of”. We can see the highest sound waves belonging to the [ʊ] vowel gradually decreasing into the fricative /t/ sound, note that there is no plosion. All spectrograms in this thesis show the frequency range of 0 to 5 kHz.

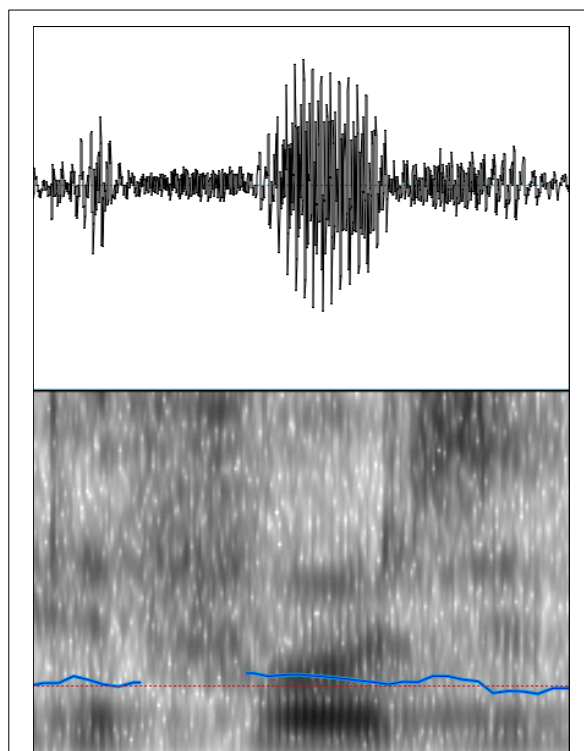


Figure 7: A spectrogram image of voiced fricative /t/, reading style, female speaker saying “the foot of”. We can see the highest sound waves belonging to the [ʊ] vowel gradually decreasing into the fricative /t/ sound, note that there is no plosion.

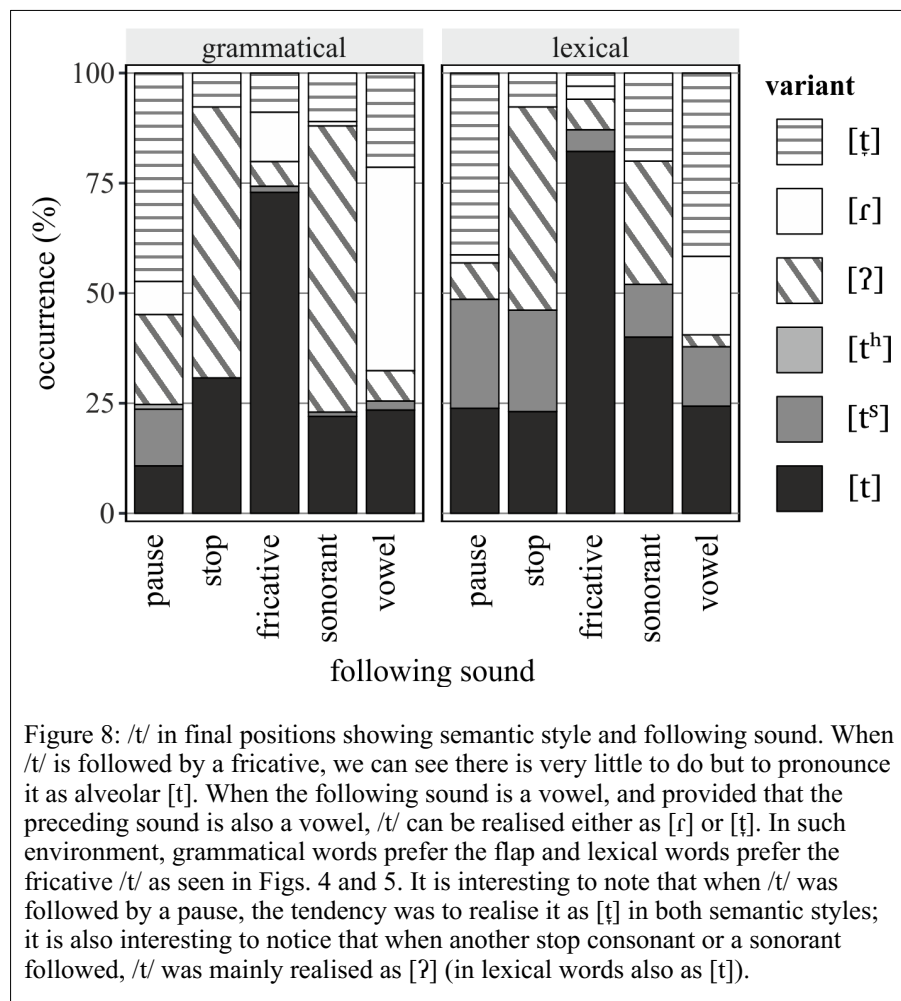
continuous friction of the allophone it was possible for the speakers to realise even consonants like /l/ and /r/. In instances when the continuous friction fluently continues into the next sound, a vowel or a glide is vital; surprisingly, there was a high number of fricatives following fricative /t/, mostly /f/ and /h/. Considering the similar nature of the consonants, i.e. that /f/, /h/ and [t] are accompanied by friction, it is actually quite fitting that the noise remains, but the setting of the articulatory organs changes from [t] to a fricative; fricative /t/ is as close to a fricative as a stop plosive can get.

4.3.2.2. /t/ realised as [h]

In our research, there was only one speaker who realised /t/ as [h]. He did so four times (in the words “Saturday” [pronounced three times] and “kilometres” [pronounced once]), all of those instances were realised while he was speaking spontaneously. All the sounds which were preceding and following /t/ as [h] in those two words were vowels. What is surprising is that although the /t/ as [h] realisation is being described as occurring frequently by the

academics interested in the IE accent (see section 2.4.1.5.), it did not appear as frequently in our recording sample as we would think. The auditory perception of /t/ as [h] is quite simple: Instead of pronouncing [ˈsætədeɪ], the speaker would pronounce [ˈsʌhədeɪ].

4.3.3. /t/ in final positions



Our results confirm the tendency which could be seen in Figs. 4 and 5, and which is now manifested again in Fig. 8, that flap occurs mainly in grammatical words and fricative /t/ is preferred in lexical words, provided that /t/ is preceded and followed by a vowel (this environment is necessary, see 2.4.1.1. and 2.4.1.4.). If there is a pause following, it is interesting to note that although the environment is favourable for a fricative /t/, it is not favourable for a flapped /t/.

When /t/ occurs word-finally and is followed either by a stop consonant sound or a sonorant sound, there is a strong preference for t-glottaling in grammatical words and for

t-glottaling (when followed by a stop) or alveolar /t/ (when followed by a sonorant) in lexical words. The assimilation of voicing can also occur in this position, therefore, we do not have any data which would allow us to compare the ratio of the instances where t-glottaling was used to the instances where the two plosives were assimilated. Word-final pre-pausal post-vocalic /t/ was most frequently realised as fricative /t/ when it was linked with a vowel situated in the initial position of a next word.

We would like to discuss some allophones in more detail again, for we believe there is more information yet to be added to those specific allophones.

4.3.3.1. t-glottaling

As we saw in 2.4.1.3., Kallen (2013) provides several studies where he shows that females tend to favour t-glottaling more than males. In our research we conclude that this is indeed the case, and we confirm that females favour the use of t-glottaling (already mentioned in 4.3.2.).

This is the reason why there is such a strong dominance of [t] in the “fricative” column: There were 195 instances where /t/ was followed by /s/, 168 were words like “its” and “it’s” and the rest were instances where /s/ was across the word boundary, i.e. at the beginning of a next word. In total however, the /ts/ cluster represents a minority of /t/ final allophones. What can be also perceived from both grammatical and lexical words is that when the word-final /t/ is followed by a stop (i.e. either a plosive or an affricate), it is very likely to be realised as [ʔ]. The same applies when /t/ is followed by a sonorant in grammatical words only.

4.3.3.2. Ejective /t/ ([tʰ])

Ejective /t/ has already been discussed in relation to SBE and to some of its dialects, yet it has never been specifically mentioned in the IE context. We would like to mention that it does exist in IE and that it appeared very frequently; the majority of occurrences was found in reading style, word-finally and before a pause.

4.3.3.3. Fricative [tʰ] ([tʰ])

[tʰ] has already been mentioned by Berry (1982), but only as a marginal “kind of affrication” (Berry, 1982, p. 126 in Kallen, 2013, p. 56) and not anyhow distinguished from fricative /t/, given the fact that Henry (1958) assigns to this feature the symbol of [t̥]. Hughes,

Trudgill and Watt (2012) mention that fricative /t/ “can often sound very [s]-like (p. 144), which is a minor information concerning a regular fricative /t/ but which is very important in the context of [t̥^s], for it was this piece of information that helped us distinguish [t̥^s] and [t̥] in terms of their individual sound quality: In our research we concluded that the instances which Hughes, Trudgill & Watt (2012) mentioned deserve their own category. We would like to define the category of [t̥^s], providing the following description: It does not exhibit any plosion (unlike [t̥^s]) and is characterised by a continuous stream of air through a slit in the mouth (the same as [t̥]), however, the sound of [t̥^s] as opposed to [t̥] is not a rustling noise of air escaping through a slit between the tongue and the palate, but rather a “continuous hissing friction”, although not as sharp as the regular /s/ sound. As such, [t̥^s] has not been mentioned by any of the other academics.

Looking at the spectrogram image in Fig. 9, we can see that [t̥^s] is voiceless and deliberately separated from the rest of the word by a slight pause (the sound waves from the middle of the spectrogram to the right hand side of the image represent the hissing friction); moreover, below the sound wave, there is the spectrogram part which shows an apparent high frequency component corresponding to the sharp alveolar friction of /s/ (if the image had a greater range than 0 to 5 kHz, we could see the high frequency component in full). On the other hand, and in opposition to [t̥^s], Fig. 6 shows that with [t̥], the frequency of the friction is much lower, somewhere between 3 and 4 kHz.

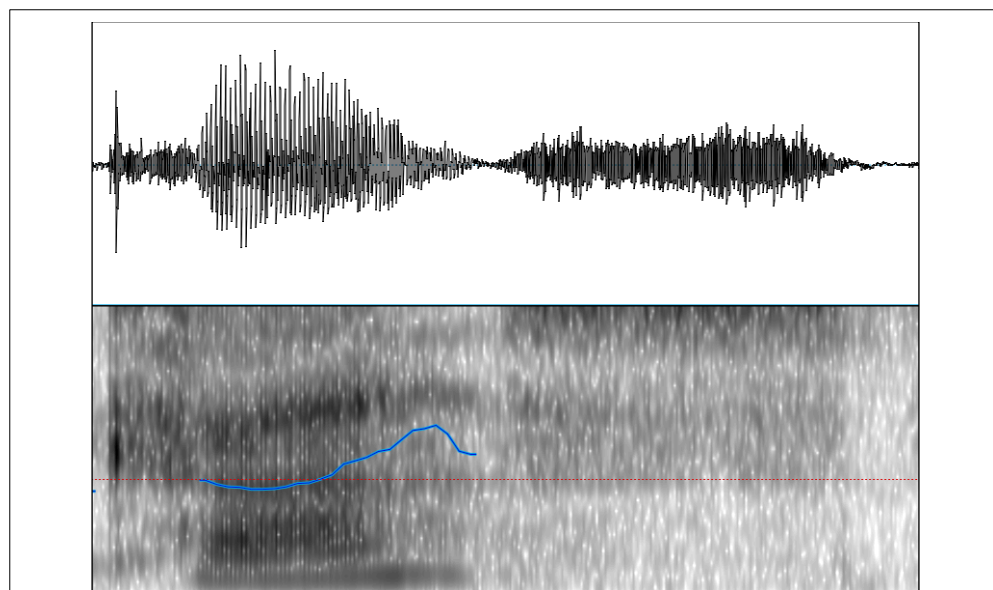


Figure 9: A spectrogram image of [t̥^s], spontaneous speech, a female speaker saying “cat”. The sound waves from the middle of the spectrogram to the right hand side of the image are representing the hissing friction. Also, there is a high frequency component present.

4.3.3.4. Fricative flap ([ɾ])

We would like to comment on another phenomenon related to the realisations of /t/ in IE and to our best knowledge, this phenomenon has not yet been commented on either – the fricative flap. [ɾ] was uttered 21 times by 10 speakers of both sexes in both styles, which ranks it even higher in terms of frequency than the /t/ as [h] realisation in our research. The most favourable environment for [ɾ] is the same as the one for [t̚]: The positions of high sonority, i.e. surrounded by vowels. Fig. 10 shows the realisation of [ɾ] in the word “thought up” and Table 2 shows the respective words in which [ɾ] was uttered, together with the word

word containing fricative flap	following sound	gender	style
at	eɪ	male	spontaneous
but	pause	female	spontaneous
but	pause	female	spontaneous
eight	ə	male	spontaneous
foot	ə	female	reading
it	æ	female	reading
later	ə	male	reading
lot	g	female	spontaneous
lot	ə	female	spontaneous
out	i:	male	reading
quite	ə	female	spontaneous
quite	ə	female	spontaneous
shouting	ɪ	male	reading
shouting	ɪ	female	reading
shouting	ɪ	female	reading
that	h	female	reading
that	ə	male	spontaneous
that	ə	male	reading
that	ə	female	reading
thought	ʌ	male	reading
thought	ʌ	female	reading

Table 2: In this table, the occurrences of a fricative flap are shown in more detail: We list the word containing fricative flap, the following sound, the gender of the speakers and the style of the utterance. We can notice that the following sound is always either a vowel or a pause and that the occurrence of the fricative flap is not determined by the gender or the style.

that followed the sound. With regards to Table 2, it has to be added that whenever pause followed, there was not silence; rather, there was a hesitation sound (such as “uhm” or “ehm”), because as any flap, the [ɾ] needs to be surrounded by a voiced surroundings to be realised. This seemingly unimportant feature made it possible for us to perceive it as different for the first time, because should “but” be only followed by a pause of silence, /t/ would have changed into [t̚]. This was truly a triggering surroundings, because by filling the pause with a vowel-like hesitation, the speaker created circumstances favourable both for a flap and for spirantisation, and the result was precisely a mixture of these two. Comparing [ɾ] of Fig. 10 and [t̚] of Fig. 6, it has to be pointed out that [ɾ] is of shorter duration; comparing Fig. 10 further to Fig. 11, which shows a regular flap, the differences are striking: [ɾ] exhibits no friction, the high frequency component is missing and [ɾ] is represented by decreased sound waves. Last but not least, the perceptive quality of the fricative flap is similar to the perceptive quality of the infamous Czech /ř/ sound, [r̝].

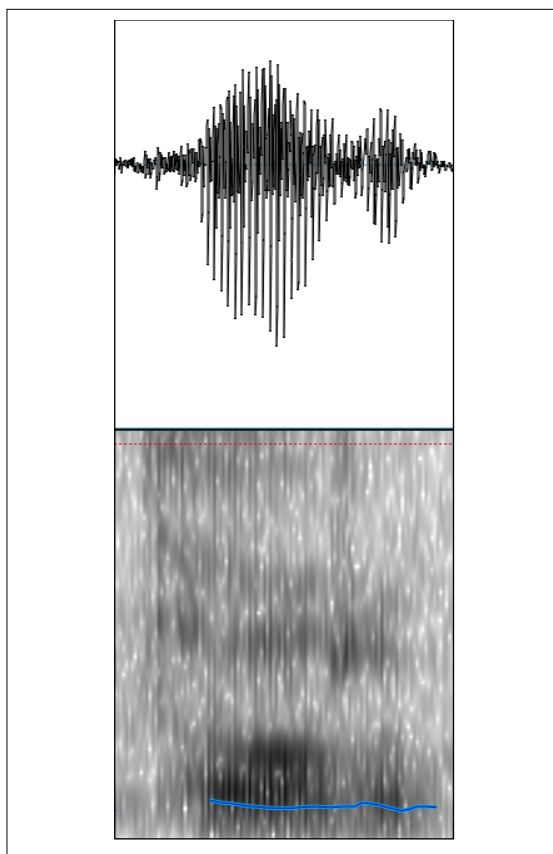


Figure 10: A spectrogram image of [ɾ], a male speaker saying “thought up” in reading style. There is an initial plosion of [t̚] at the very beginning of the sound wave followed by a fully voiced [h], after that there is the /ɔ:/ vowel, a fricative flap which precedes the /ʌ/ vowel and bilabial /p/ at the end.

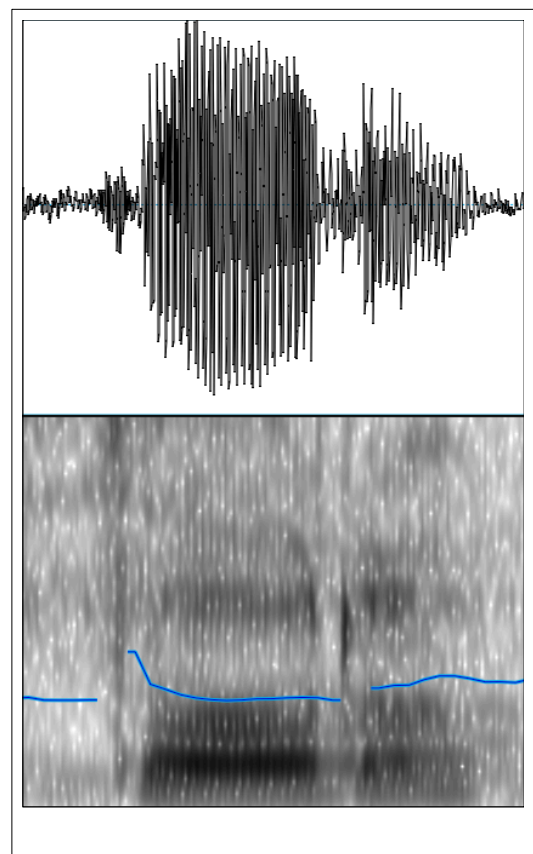
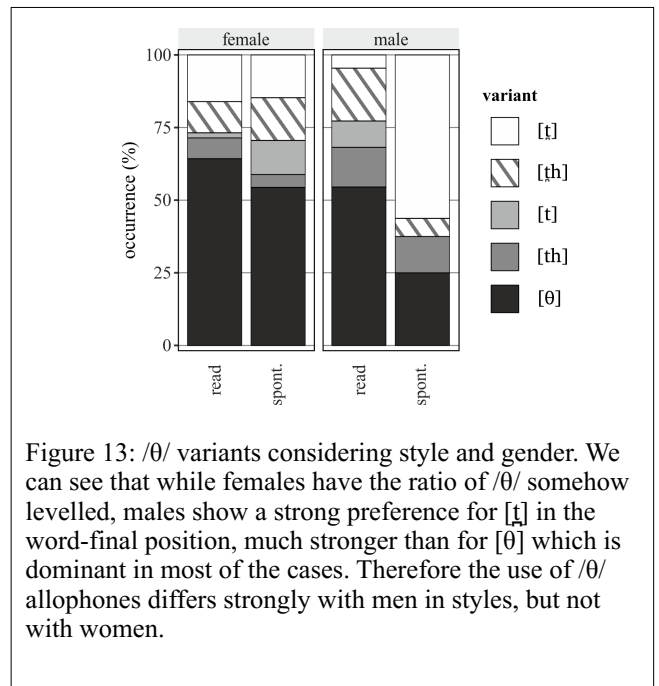
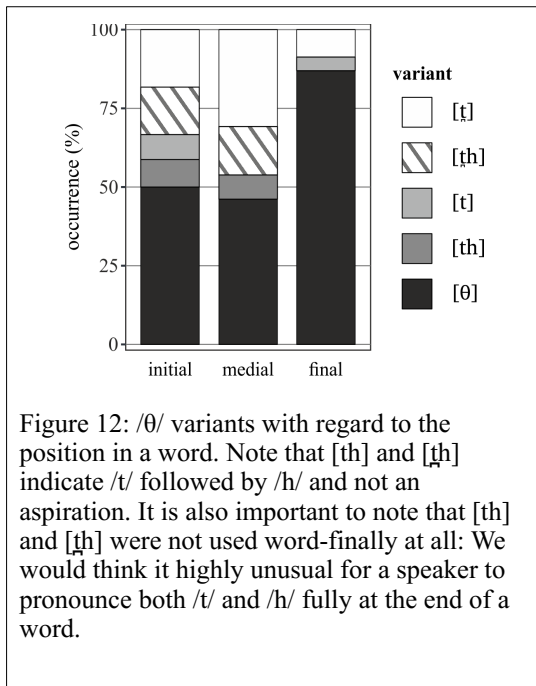


Figure 11: A spectrogram image of [ɾ], a female speaker saying “thought up” in reading style. There is an initial plosion of the /t/ at the very beginning of the sound wave, then there is a period of voiced /h/ and after that there is the /ɔ:/ vowel, a flap, the /ʌ/ vowel and a bilabial /p/ at the end.

4.4. /θ/ results



Wells (1996) says that /θ/ and /ð/ are most often realised as dental stops (p. 429). Our research confirmed this statement with /ð/ but contradicted it with /θ/, the most frequent realisation of /θ/ was [θ] and only the second one was [t̥], see also Fig. 1.

This may be surprising at first, but since only 10% of words containing /θ/ were lexical words, and very few items appear in other than the non-initial position, Fig. 12 may not provide a reliable picture (due to the earlier-mentioned low representation of lexical words, semantic status of words is not shown in a graph).

To answer the question of why /θ/ did not change into [t̥] (as it should according to the previous research) more thoroughly, we must look at Fig. 13 which shows /θ/ allophones according to the style of the utterance and the gender of the speakers: We can see that the leading allophone with both sexes in reading style is [θ], followed by [t̥] and [t̥h] with females and by [t̥h] and [th] with males (we are discussing [t̥h] and [th] in section 4.4.1.). However, spontaneous speech style is rather interesting, because there are significant differences.

In spontaneous speech, the most-used allophone with females is [θ], followed by [t̥h] and [t̥]; whereas with males, the preferred option is [t̥], followed by [θ] and [th]. This shows that in spontaneous speech both sexes have different preferences and that the preferred allophone with males in spontaneous speech is what all the up-to-now research showed.

4.4.1. Realisation of /θ/ as an alveolar or dental plosive followed by a voiceless glottal fricative ([tʰ], [t̪ʰ]) or as a dental fricative followed by a voiceless glottal fricative ([θh])

In the source literature, a remark was stated that “p t k tends to be strongly aspirated” (Hughes, Trudgill & Watt, 2012, p. 142). However, we would like to differentiate aspiration from actually pronouncing the [h] as equally distinctly and strongly as the plosive it accompanies, and we would like to transcribe such pronunciation as [tʰ], possibly [t̪ʰ] if a speaker pronounced a dental sound. This pronunciation was shown significantly, and was the third and fourth most frequent realisation of /θ/ in IE (after [θ] and [t̪]): [t̪ʰ] was realised 21 times and [tʰ] 12 times, both categories were realised more frequently than the alveolar /t/ variant which is mentioned by various academics as being one of the frequent possible realisations of /θ/ [see Hickey, 2004, p. 31]. See Fig. 14 and Fig. 15 below for [tʰ] and [t̪ʰ] respectively.

Apart from [tʰ], possibly [t̪ʰ], this process can go even further and IE speakers can actually produce a mixture of [tʰ] or [t̪ʰ] which is the allophone they are largely accustomed to, and the initial “correct” phoneme, [θ]: The result is a surprising [θh], which was found in three instances with three speakers, two of them were males and produced [θh] in spontaneous

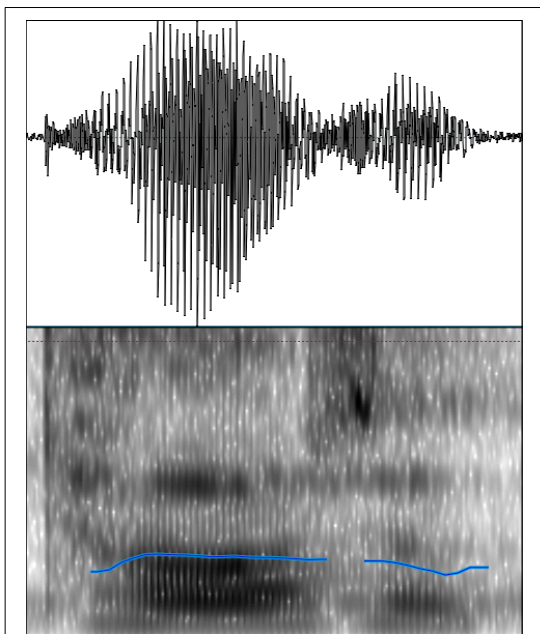


Figure 14: A spectrogram image of [tʰ], a female speaker saying “thought up” in reading style. There is an initial plosion of the dental /t/ at the very beginning of the sound wave, then there is a period of voiced /h/, the waves of which gradually increase into the /ɔ:/ vowel, followed by a fricative /t/, which precedes the /ʌ/ vowel, and bilabial /p/ at the end.

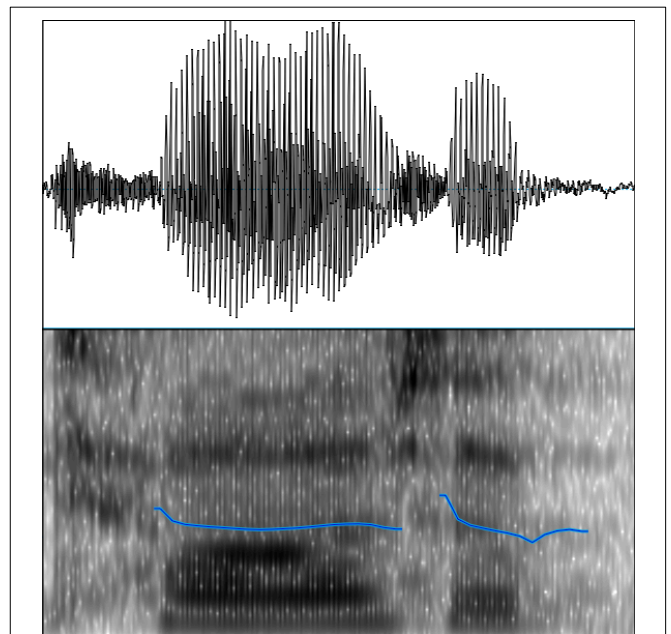
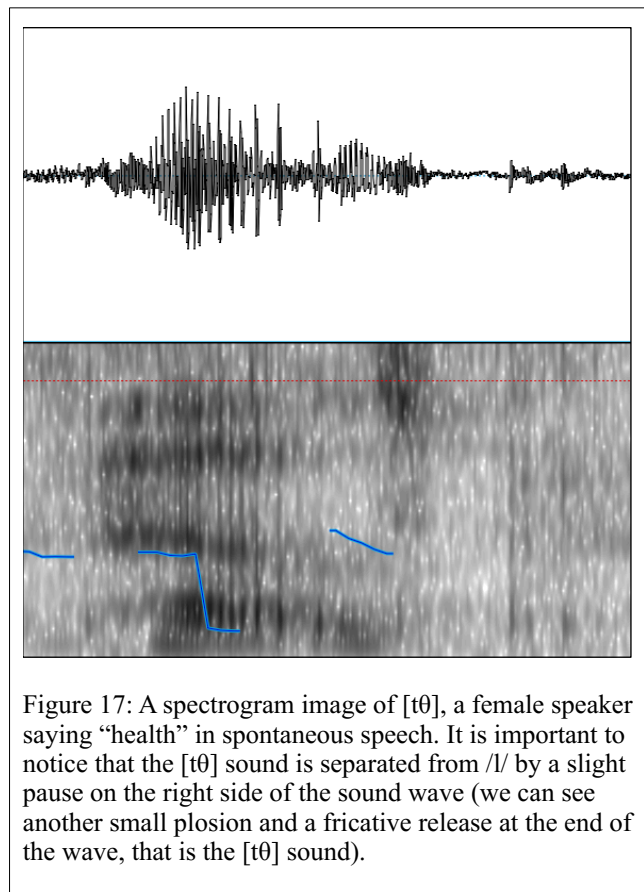
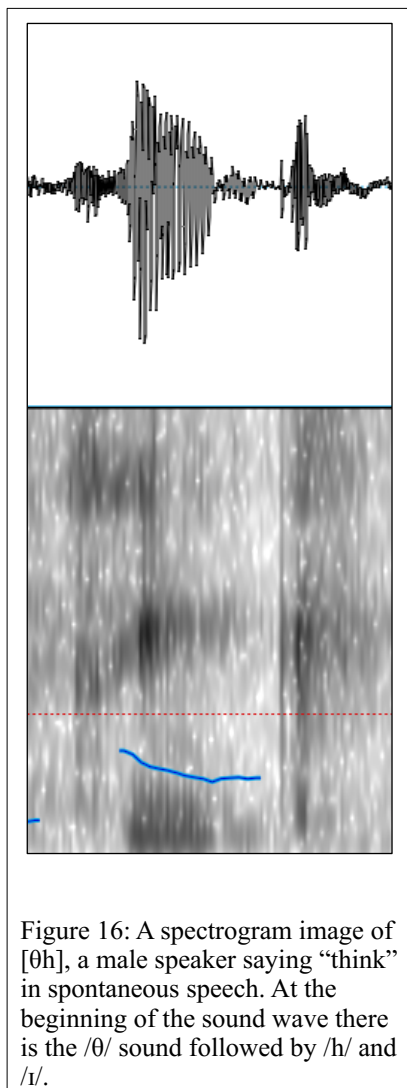


Figure 15: A spectrogram image of [t̪ʰ], a female speaker saying “thought up” in reading style. There is an initial plosion of the /t/ at the very beginning of the sound wave, then there is a period of voiced /h/, the waves of which gradually increase into the /ɔ:/ vowel, followed by a fricative /t/, which precedes the /ʌ/ vowel, and bilabial /p/ at the end.

speech (both saying the word “think”), and one of the speakers was a female, producing the sound while reading “thought”). Fig. 16 at the bottom of the page shows the spectrogram image of [θh] in “think”.

4.4.2. Realisation of /θ/ as an alveolar /t/ followed by a dental fricative /θ/ ([tθ])

The Irish have no problems joining two consonants together and pronouncing them both in full length, the only documented case by academics so far has been [tθ] (for [tθ] see section 2.4.2. of this thesis). Although not the same, [tθ] has appeared in our research and has been pronounced five times (i. e., two times more than [θh]); thus, both [tθ] and [θh] were more frequently pronounced (as discussed at the beginning of this section). [tθ] was uttered in spontaneous discourse only by four female speakers and one male speaker, in the words “thought”, “thinking”, “health”, “everything”, “both”. This shows it can be found in all positions in the morpheme. Fig. 17 shows the spectrogram image of [tθ].



4.5. /ð/ results

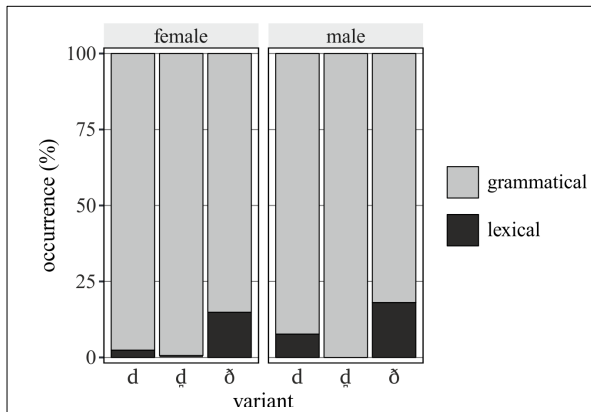


Figure 18: A bar diagram showing the distribution of /ð/ according to the semantic status of the words and gender. There is no noticeable difference between the sexes in terms of the allophones' distribution and the majority of the colour grey in the bars tells us that the /ð/ phoneme was most frequently recorded in grammatical words. Our results show that the greatest tendency to use [ð] was in lexical words and [ɖ] in grammatical words.

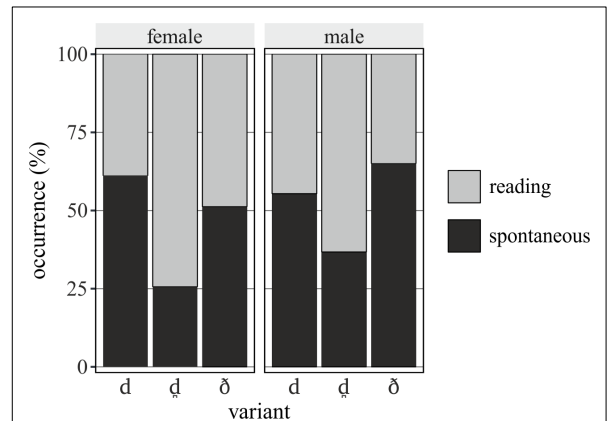


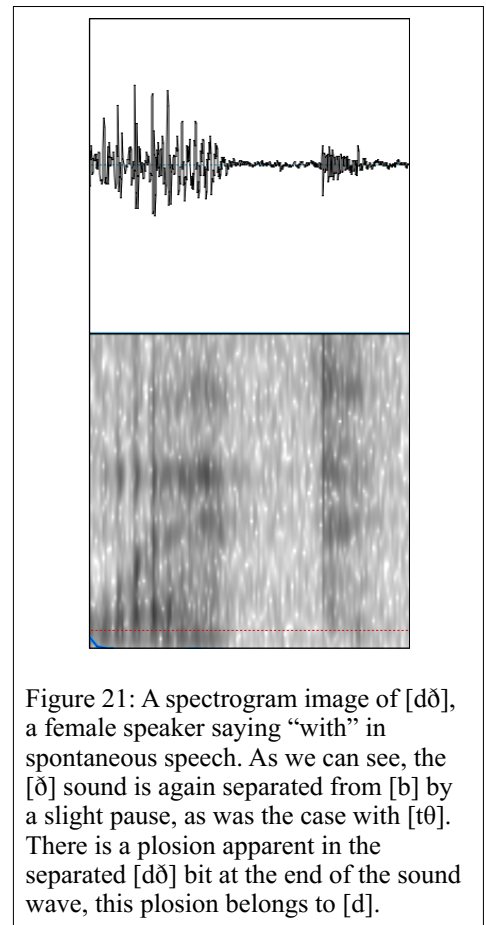
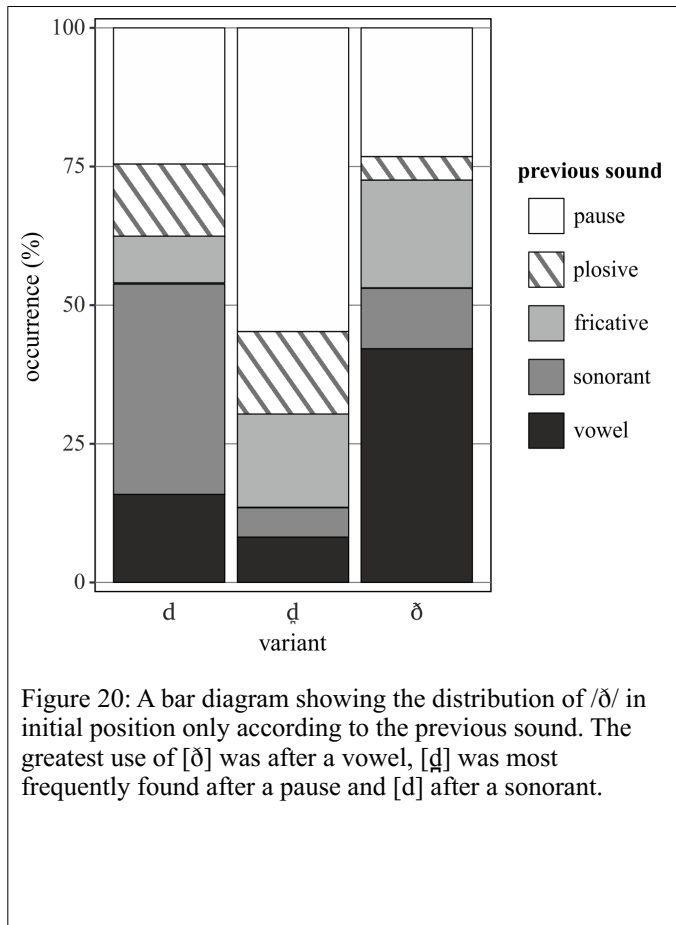
Figure 19: A bar diagram showing the distribution of /ð/ according to the style of utterance and gender. Both sexes used the distinct allophones in a similar manner; [d] and [ð] dominated the spontaneous speech, [ɖ] was used mainly in reading style.

As opposed to the large number of allophones of both /t/ and /θ/, there were only three main allophones of /ð/ – [d], [ð] and [ɖ], they are ordered according to the frequency of their realisation (see Fig. 1). No significant differences between males and females in the distribution of /ð/ allophones were revealed by the chi-square test and we can see that if we look at Fig. 18: Both males and females preferred to use [ð] most frequently in lexical words and [ɖ] almost exclusively in grammatical words; otherwise, we can see that all categories are strongly dominated by grammatical words – in fact, Fig. 18 might be a biased figure since in our research, the majority of words containing /ð/ were grammatical words, such as “than”, “the” and “that”.

The information shown in Fig. 19 is more varied: Both sexes preferred to use [ɖ] rather in reading style than in spontaneous speech. However, if we look at [ð], we can see that males used it almost exclusively in spontaneous speech rather than in reading style and that females used [ð] equally in both styles. On the other hand, females prefer to use [d] in spontaneous speech and their category of [ð] is quite levelled. The differences here are quite significant and we can see that each of the sexes has different preferences, even though there are some tendencies that remained mutually the same.

The last bar diagram we have to show, Fig. 20, shows the distribution of the allophones of /ð/ in initial positions according to their preceding sound. Attention must be drawn to the uneven distribution of /ð/ allophones in a phoneme: They are mostly found in initial positions (822 instances), there are some occurrences word-medially (63 instances) and very few word-final occurrences (only 23 instances): These differences in distribution could be expected (it is obviously harder to find a word with a /ð/ at the end; in our research, it was just the word “with”) and the chi-square test only confirms the significance: [ð] was frequently found word-initially after a vowel, [ɖ] was mainly found after a pause and [d] was usually chosen as the allophone to follow a sonorant (such as “from the forest”).

The fact that [ɖ] appears mainly with reading style is curious: It was described in 2.4.2. that the previous research saw [ɖ] as the main allophone for /ð/; in addition to that, the researchers usually used reading as the main method, be it the reading of lexical sets (Kallen, 2013, p. 55) or the reading of sentences or word clusters (Hickey, 2004, p. 12). Therefore, in this case, we can confirm the results presented by other academics because the majority of them used the method in which [ɖ] is strongly dominant.



4.5.1. Alveolar /d/ followed by a dental fricative ([dð])

[tθ] has appeared five times in our research, [dð] just once: One female speaker from Kilkenny pronounced it while saying “with” in spontaneous speech (see the spectrogram image in Fig. 21 on the previous page). It is therefore less frequent than [tθ], and regrettably, the fact that it occurred just once in our research prevents us from relating any information to the previous research concerning this allophone by other academics; since as we will see in the following paragraph, this distinct speaker showed some pronunciation features that were not exhibited by anyone else and were parts of her own idiolect.

4.6. Curiosities regarding the speakers

Although they cannot be included in the research data, there are some curiosities regarding the speakers. There was a woman from near the Kilkenny city (see Fig. 1 in Appendix) who, apart from being the only one who pronounced [dð], was also pronouncing flaps before glottal occlusions. She pronounced them three times: in “about eight kilometres” [əbaʊr ʔeɪ kɪ'lɒmətəz], “but a thing” [bɔːr ʔə θɪŋ] (there was a slight hesitation on “but”) and in “that I” [ðæt ʔaɪ]. This feature was not shown by any other IE speaker in our research.

Some speakers described themselves as having a “very neutral”, and even “slightly American-like”, accent. This research did not focus on the extra-phonetic variables of the speakers: We did not examine the extent to which the speakers might be influenced by their education, by modern media and technology, or by the various surroundings they often found themselves in (very often outside Ireland). However, it is understandable that any language is changing over time, and it would also be understandable if the media was the device which shaped the pronunciation features of IE. Since, as obtained from one of the speakers:

Researcher: “Your accent is very American-like. Have you ever been there for a long time perhaps?”

IE Speaker: “No actually, my wife says I watch the television too much.”

5. Conclusion

In this thesis we mapped thoroughly the use of /t/, /ð/ and /θ/ allophones in Irish English. In Theoretical part, we described all the existing allophones of /t/, /ð/ and /θ/ that have been recorded by previous researchers; additionally, we presented a short historical overview of the socio-linguistic situation in the Republic of Ireland and we also mapped the situation of /t/, /ð/ and /θ/ in SBE to be able to distinguish the distinctive IE allophones from the SBE. Consequently, we recorded 21 native speakers of IE and analysed the recordings in Practical part. There we presented our results according to the gender of the speakers, the semantic status of the words in which the allophones appeared, and the style of the utterances; our results were supported by visual illustrations of the sound waves from Praat, tables and bar diagrams.

It is important to remember that the previous research either described the language situation in Ireland (i.e. only listed the possible realisations as items or possibilities) or the previous research presented data in such a way that it was impossible to compare it with our research: To give a specific example, the only source showing the frequency of /t/ allophones in Irish English was Kallen's table summarising four different researches (Kallen, 2013, p. 55); the results of our research could not be related to Kallen's table because the studies this table contains were "conducted with different methodologies" as Kallen himself reports (p. 56) – the first study features "points of interest" and observations, two other studies focus on reading word sets and the fourth study "relies entirely on spontaneous conversation" (p. 56); in addition to this, the table features only results for the BAT, BUTTER and BUCKET lexical sets, i.e. a limited context is provided and we did not even work with lexical sets.

To conclude, we would like to summarise all the results of our research and all new allophones we have discovered, together with their relations to the previous research:

We have found 14 possible allophones of /t/, 5 possible allophones of /θ/ and 4 possible allophones of /ð/ in total (a comprehensive table listing all these can be found in Theoretical part of this thesis in section 4.2.). We also found that some of them might undergo a chain of multiple changes, i.e. that a phoneme can be realised as a distinct allophone which can undergo another shift onto another allophone.

The most frequent allophone of /t/ was [t], followed by [tʰ], [t̚], [ʔ], [ɾ] and [tʰ]. Initially, [tʰ] is the most frequent (50%) followed by [t] (30%) and [tʰ] (20%). The percentage of the

occurrence of [t^h] is not at all that high, considering the fact that in SBE it is the default allophone of /t/ for word-initial positions associated with stress. Grammatical words showed a strong preference for [t^s] whereas lexical words favoured [t^h] the most.

In grammatical words word-medially, [r] was the most frequent allophone (over 50%), followed by [t̚] (25%) and [t] or [ʔ], depending on style. In lexical words word-medially, [t̚] was preferred (in reading style over 50%, in spontaneous about 50%) to [ʔ], [t] or [r], which also appeared quite frequently. If we compare our data and Kallen's (2013), we can see that our speakers use flap to a greater extent.

Word-finally, [t] was the most frequent allophone (35%), followed by [t̚] (25%) and [r] (20%). Word-final position is one of the best positions for [t̚], because it can be frequently realised (when it is followed both by a vowel or a pause). [r] is possible only in V_[r]_V surroundings which are usually found in connected speech; in those circumstances it was the most used allophone. We could observe a repeated tendency as with /t/ word-medially before, that is that [r] is preferred with grammatical words and [t̚] with lexical words; this fact was therefore double-proved. We could also confirm Kallen's statement that [ʔ] is preferred with females rather than males.

The most frequent allophone of /θ/ was [θ], followed by [t̚], [t̚h], [th], [t]. It is important to note that there was a low number of lexical words and that we did not confirm what the up to now research showed, that the most frequent allophone of /θ/ was [t̚], this statement proved true only in the category of men in spontaneous speech. Although [tθ] was also listed as an allophone by the previous research, in our research it appeared far less frequently than expected (as low as /t/ as [h] which had also been noted down by academics); the [tθ] showed much less frequently than [t̚h] or [th] which are much more significant, yet they had not been noted down previously.

The most frequent allophone of /ð/ was [d] followed by [ð] and [ɖ]. It should be made clear that this section was the most limited one in terms of data or resources, because /ð/ did not appear as frequently as /θ/ and our focus was not at /d/ itself. Grammatical words dominated in our research, preferring [ɖ] in the vast majority of the cases, lexical words showed greater diversity in terms of allophone preference, using both [d] and [ð] to a greater extent. Another variable here is the occurrence of /ð/ allophones in a word, for the majority of the words containing any of the allophones featured the allophone at the beginning. [ɖ] had a

tendency to be used in reading style, which is the method researchers use a lot, however, [d̥] was not used exclusively in such cases. A remark should be made that [d̥] appeared only once, therefore, we cannot estimate if it is disappearing or whether it is a part of an idiolect.

We also described a few new allophones which we felt had not been described very profoundly or at all. We would like to list them here with the most basic description as to recognising them:

To begin with the allophones that are already known either in SBE or in IE, we focused on describing them more precisely. Although [t̥] on its own is not a new allophone in relation to SBE, we felt it had to be defined specifically for IE – it is essentially a /ts/ sound, used as an allophone of /t/ mainly at the beginning of the words. Then there was the infamous [t̥], where we distinguished a voiced and a voiceless category and remarked again at the lack of an established IPA symbol for it. /t/ realised as [h] had a very low percentage of realisation and we would not describe it as a frequent allophone – although the fact that the researchers listed it does not tell us anything about its frequency, it might be rarer than we thought. Then we described [t̥] as appearing both in SBE and in IE, which is a fact not many academics might know about.

We differentiated a few new allophones, i.e. allophones that either have been discovered while performing the auditory analysis or that have been incorrectly assigned to another existing allophone: We distinguished [t̥] as a new type of allophone similar to [t̥] in place of articulation but still not interchangeable and necessary to be distinguished (the quality of the friction is rather “hissing”). Another new allophone was [ɾ] which is a flap combined with friction (friction as with [t̥]). Then we focused on distinguishing the voiced fricative /t/ from its commonly known voiceless variant and last but not least, we differentiated new allophones of [th], [t̥h] and [θh] where the plosive or fricative was literally followed by a fully-fledged /h/.

Last of all, a few remarks have to be added to conclude this thesis: We are aware that although our speakers did not come from a single county in Ireland, they came from the majority of the central counties (see Table 1 in Appendix) and that the results may not be applicable to all counties in the Republic of Ireland. Our speakers were all users of the

English language as their first language, having Irish or other languages as a secondary language; therefore, in *Gaeltacht* areas, where Irish is actively promoted and spoken, IE can be spoken differently due to the above mentioned language situation. Further research and data collection is strongly advisable and absolutely necessary in order to estimate with certainty the allophones that are appearing, disappearing or changing and the extent to which such changes would be taking place; for what we know for sure is that any language is changing over time. The changes and new allophones that we described in our thesis should serve as an imaginary swallow for the future researchers and as a testimony of the contemporary situation of Irish English in the Republic of Ireland. We feel that more attention should be paid to IE accent, both to coin and establish its allophones and to support the interest in the accent with academics and English-as-a-second-language learners.

6. Sources

- Brinton L. J. & Arnovick L. K. (2011). *The English language: a linguistic history*. Second edition. Oxford: OUP.
- Corrigan K. P. (2010). *Irish English*. Edinburgh: EUP.
- Cruttenden A. (2014). *Gimson's Pronunciation of English*. 8th ed. London: Routledge.
- Crystal D. (2008). *A Dictionary of Linguistics and Phonetics*. 6th ed. Oxford: Blackwell Publishing.
- Deterding D. (2006). The North Wind versus a Wolf: short texts for the description and measurement of English pronunciation. *Journal of the International Phonetic Association*, 36.2, pp. 187-196.
- Dublin, the history of the placename*. Accessed 6th Oct 2017, <<http://www.logainm.ie/Eolas/Data/Brainse/baile-atha-cliath-dublin.pdf>>.
- Flanagan, D. & Flanagan L. (1994). *Irish Place Names*. Dublin: Gill and Macmillan.
- Gordon M. K. (2016). *Phonological Typology*. Oxford: OUP.
- Hickey R. (2004). *A Sound Atlas of Irish English*. Berlin: De Gruyter Mouton.
- Hughes A., Trudgill P. & Watt D. (2012). *English Accents and Dialects*. New York: Hodder Education.
- Kallen J. L. (2013). *Irish English, Volume 2, The Republic of Ireland*. Boston: De Gruyter Mouton.
- Kolárik A. (2013). *Pronunciation of Irish English: Materials for Seminar in English Phonetics*. BA thesis. Olomouc: Faculty of Arts.
- Ladefoged P. (2003). *Phonetic data analysis*. Oxford: Blackwell Publishing.
- Moody T. W. & Martin F. X. (1994). *The course of Irish history*. Revised and enlarged edition. Dublin: Mercier Press.
- R Core Team (2015). *R: A language and environment for statistical computing* (version 3.2.2) [Computer software]. *R Foundation for Statistical Computing*, Vienna. Retrieved from <http://www.R-project.org/>.
- Uher T. (2012). *Distinctive features of Irish Accent*. Diploma thesis. Praha: Faculty of Education.
- Volín J. (2002). *IPA-Based Transcription for Czech Students of English*. Praha: Karolinum.
- Wells, J. C. (1982). *Accents of English*. Vol.1. Cambridge: CUP.
- Wells, J. C. (1996). *Accents of English*. Repr. (1982). Vol. 3. Cambridge: CUP.
- Wickham, H. (2009). *ggplot2: Elegant graphics for data analysis (use R!)*. New York, NY: Springer.
- Yuan, J., & Liberman, M. (2008). *Speaker identification on the SCOTUS corpus. Proceedings of Acoustics '08*. Retrieved from <http://www.ling.upenn.edu/~jiahong/publications/c09.pdf>

7. Secondary sources

Barry, M. V. (1982). English in Ireland. In Bailey R. W. & Görlach M. (eds.), *English as a World Language*, pp. 84–133. Ann Arbor: University of Michigan Press.

Berry H. F. (ed.). (1907). *Statutes and Ordinances, and Acts of the Parliament of Ireland, King John to Henry V*. Dublin: Stationery Office.

Bush J. (1769). *Hibernia Curiosa: A Letter from a Gentleman in Dublin, to his Friend at Dover in Kent*. London.

Gilbert J. T. (1885). Archives of the municipal corporation of Waterford. *Historical Manuscripts Commission, Tenth Report, appendix*, part V, pp. 265–339. London: Stationery Office.

Hickey, R. (2007). *Irish English: History and Present-day Forms*. New York: CUP.

Henry, P. L. (1958). A linguistic survey of Ireland: preliminary report. *Lochlann 1*, pp. 49–208.

Kew G. (1998) *The Irish Sections of Fynes Moryson's Unpublished Itinerary*. Dublin: Irish Manuscripts Commission.

Stanihurst [Stanyhurst], R. (1577). A treatise contayning a playne and perfect description of Irelande. In Raphaell Holinshed, *The Historie of Irelande from the First Inhabitation thereof, unto the Yeare 1509, Collected by Raphaell Holinshed and Continued till the Yeare 1547 by Richarde Stanyhurst*. London: printed for Lucas Harison.

State Papers (1834). *State Papers Published under the Authority of his Majesty's Commission*, vol. II, pt iii; vol. III, pt iii. London.

Statutes (1786). *The Statutes at Large, Passed in the Parliaments Held in Ireland: From the Third Year of Edward the Second, A. D. 1310, to the Twenty sixth Year of George the Third, A. D. 1786 inclusive*. Vol. 1. Dublin.

Williams J. P. (1986). *Hiberno-English and white West Indian English: the historical link* in Harris, John, David Little, and David Singleton (eds.). (1986). *Perspectives on the English Language in Ireland*. Dublin: Centre for Language and Communication Studies, Trinity College Dublin, pp. 83–94.

8. Resumé

Tato bakalářská práce se zabývá realizací jednotlivých alofonů /t/, /θ/ a /ð/ v irské angličtině. V úvodu je nejdříve zpracován historický přehled lingvistické situace v Irsku společně s pohledem na současnou situaci angličtiny jakožto jazyka nadřazeného irštině. Dále je poskytnuto základní shrnutí produkce /t/, /θ/ a /ð/ ve standardní britské angličtině, tato podkapitola současně nahlíží i na několik málo alofonů, které k těmto fonémům standardní britská angličtina zná. Další podkapitola úvodu si klade za cíl shrnout poznatky o všech dosud známých alofonech /t/, /θ/ a /ð/ v irské angličtině a vysvětlit potenciální nebezpečí záměny těchto alofonů při porozumění této varietě.

Dosud uváděné alofony /t/ v irské angličtině jsou frikativní /t/, dentalisované /t/, glotalizované /t/ (čili /t/ realizováno rázem), /t/ realizované jako alveolární švih, /t/ realizované jako [h]; mezi méně časté patří /t/ realizované jako [tʰ] nebo jako [θ]. Je důležité zmínit, že frikativní /t/ nemá pevně stanovený ani správný název, ani symbol v IPA, a používá se několik různých označení. Mezi často jmenované alofony /θ/ a /ð/ patří dentální exploziv a alveolární exploziv, příležitostně můžeme u akademiků narazit i na variantu, ve které se dentální exploziva zkombinuje s frikativou a vzniká afrikáta (psáno [tθ] a [dð]). Zvýšená pozornost musí být věnována sémantickému významu promluvy, jelikož se rozdíly mezi minimálními páry často stírají a tudíž není možné v irské angličtině akusticky rozlišit např. *tin x thin, taught x thought, fort x fourth, tree x three, paths x pads, though x dough, there x dare*.

Praktická část této práce byla částečně realizována v Limericku formou výzkumu, kdy byla irská angličtina nahrávána od jedenadvaceti mluvčích, patnácti žen a šesti mužů. Účastníci výzkumu museli být rodilými mluvčími irské angličtiny; od každého mluvčího byly získány dvě nahrávky: U první z nich byli mluvčí požádáni, aby nahlas přečetli krátký příběh o chlapci a vlku “The Boy Who Cried Wolf” (Deterding [2006] doporučuje tuto upravenou verzi známé bajky jako nejvhodnější podklad pro analýzu výslovnosti všech anglických fonetických segmentů). V případě druhé nahrávky byli mluvčí vyzváni, aby se rozpovídali na jakékoliv téma, které je jim blízké; tato část mohla být nepřímo řízena zadavatelkou výzkumu, pokud se účastníci zdáli být ve slepé uličce ohledně náplně rozhovoru. U žádného z těchto dvou odlišných mluvních stylů však nebylo účastníkům řečeno, jaké konkrétní prvky irské angličtiny se výzkum snaží analyzovat. Nahrávky byly nahrávány nahrávacím zařízením Zoom H2 a poté byly následně zpracovány: Byla pořízena jejich ortografická transkripce a

poté byly fonetickou segmentací rozděleny do úseků, se kterými bylo možné dále pracovat v programu Praat. Jednotlivé body představující jednotlivé alofony byly vyznačeny v samostatné vrstvě a na těchto bodech byla následně provedena poslechová analýza, při které se body přiřazovaly dle své podobnosti k jednotlivým alofonům. Byly však případy, kdy bylo záhodno vytvořit alofon úplně nový, který nejvíce odpovídal tomu, co bylo slyšet na nahrávce; o všech těchto případech pojednává sekce Výsledky a diskuse.

V sekci Výsledky a diskuse bylo nejdříve nutné vymezit takové alofony z Praatu, které nemohou být zahrnuty do zpracování výsledků: Byly to všechny případy, kdy se v hláskovém okolí bezprostředně po /t/ vyskytovalo buď /r/ nebo rotická samohláska, v tomto případě ještě bylo nutné, aby se v hláskovém okolí před /t/ nevyskytovala další samohláska (protože okolí /V/ _/t/ _/rhotic V/ silně preferuje použití frikativního /t/). Dále bylo nutné vyloučit pasáže, kde mluvila zadavatelka výzkumu, nebo kde se případně promluva mluvčího překrývala s promluvou zadavatelky. Případy fonetické asimilace znělosti byly rovněž vyloučeny. Je důležité znít, že data ve výzkumu nebyla zpracována dle geografických parametrů a že nebyl brán zřetel na alveolární versus postalveolární realizaci hlásek.

Samotné výsledky výzkumu přinesly mnoho zajímavých informací a nových poznatků: Bylo nalezeno celkem čtrnáct alofonů /t/, pět alofonů /θ/ a čtyři alofony /ð/, zároveň je nutné zmínit, že hlásková změna nemusí končit pouze u realizace určitého fonému určitým alofonem, ale že tento alofon může poté ještě podléhat stejné hláskové změně jako jemu korespondující foném.

Výsledky výzkumu ukázaly, že nejběžnějším alofonem pro /t/ je alveolární /t/, po něm následovalo [t̚], frikativní /t/, ráz, alveolární švih a aspirované alveolární /t/. V pozicích na začátku slova bylo nejběžněji používaným alofonem [t̚] (polovina případů), po něm následovalo alveolární /t/ (třetina všech případů) a aspirované alveolární /t/ (pětina případů). Můžeme si všimnout, že výskyt aspirovaného /t/ nebyl vůbec tak velký, jaký by byl u standardní britské variety, u které je to v přízvukných slabikách defaultní varianta; dá se proto říci, že Irové používají aspirované alveolární /t/ mnohem méně. Data výzkumu byla rovněž rozlišena na gramatická slova a lexikální slova: Na začátku gramatických slov se nejčastěji vyskytovalo právě [t̚], zatímco lexikální výrazy dávaly přednost aspirovanému alveolárnímu /t/.

V pozicích mezi dvěma vokály uprostřed slova byl nejčastěji se vyskytující alofon závislý na sémantickém statusu slov: Gramatická slova preferovala alveolární švih (více než polovina výskytů), druhým nejčastějším alofonem bylo frikativní /t/ (čtvrtina všech výskytů) a třetí nejčastější alofon závisel kromě sémantického statusu slov také na stylu promluvy, jelikož čtené pasáže preferovaly alveolární /t/ a mluvené pasáže ráz. U lexikálních slov byla situace jiná, převážně se vyskytujícím alofonem bylo frikativní /t/, procento výskytu bylo u čtených pasáží vyšší než u volné promluvy. I zde se preference alofonů řídily stylem promluv, čtené pasáže nejčastěji obsahovaly alveolární /t/, ráz a alveolární švih, mluvené promluvy obsahovaly hlavně alveolární švih. Pokud porovnáme data našeho výzkumu s Kallenem (2013), naše data ukazují, že se používání alveolárního švihu v irské angličtině zvyšuje.

Velice zajímavý je fakt, že se velmi podobné tendence objevovaly i pokud bylo /t/ na konci slova: Gramatická slova opět preferovala alveolární švih a lexikální frikativní /t/, podmínkou obou realizací však bylo to, aby byla předchozí i následující hláska samohláska. Pokud bylo /t/ na konci slova následováno frikativou ve slově následujícím, bylo ve většině případů realizováno alveolárním alofonem. Pokud byl následující zvuk pauza (nejednalo se o tzn. “connected speech”), bylo nejběžněji užívaným alofonem frikativní /t/ v obou sémantických kategoriích. Pokud bylo /t/ následováno plozivní souhláskou nebo sonorou, bylo realizováno jako ráz (u lexikálních slov i jako alveolární varianta alofonu).

Většina alofonů /θ/ se vyskytovala v pozici na začátku slov, 90% slov byla gramatických. U této frikativy se také výrazněji liší míra realizace alofonů v různých mluvních stylech: Ženské mluvčí realizovaly jako nejčastější alofon [θ], následovaný dentalizovaným /t/ a dentalizovaným /t/, za kterým ihned následovalo [h] a obě hlásky se vyslovily namísto jednoho fonému, nejedná se tedy o aspiraci. Mužští mluvčí se oproti ženám lišili tím, že každý mluvní styl dominoval užitím jiného alofonu: Při čtení používali nejvíce [θ], ale při spontánní mluvě preferovali dentalizované /t/. Výsledky výzkumu se neshodují s hlavními tendencemi realizace alofonů frikativ v irské angličtině, kde se většina akademiků shoduje na tom, že frikativy /θ/ a /ð/ bývají nejčastěji realizovány odpovídajícími neznělou či znělou dentální explozivou; tato tendence se projevila pouze u mužů ve volné promluvě.

Sekce alofonů /ð/ byla nejméně početnou sekcí ze všech: Možná tomu tak bylo proto, protože se /ð/ nevyskytuje v angličtině tak často jako jeho neznělý protějšek. Gramatických slov obsahujících /ð/ bylo v našem výzkumu nejvíce, jim dominovala dentalizovaná exploziva jako alofon /ð/; v lexikálních slovech se početněji objevovaly i další varianty, alveolární exploziva [d] a dentální frikativa [ð], přičemž je nutno poznamenat, že alveolární exploziva

byla variantou, ve které se foném realizoval nejčastěji. Ačkoliv předešlý výzkum zmiňuje i variantu [d̪], tato se v našem výzkumu objevila pouze jednou, není proto jasné, zda se snad [d̪] zmenšilo četností či se jednalo o idiolekt. Alofony se nejčastěji vyskytovaly na začátku slov.

V praktické části byla náležitá pozornost věnována i alofonům, které nebyly ještě předešlým výzkumem zmíněny, nebo byly popsány nepřesně. Proto je zde nyní uvedeno jejich stručné shrnutí:

Snad nejznámějším alofonem irské angličtiny je frikativní /t/, toto se však může vyskytovat pod celou řadou dalších názvů (afrikované /t/, změkčené /t/, apiko-alveolární frikativní /t/,...), my jsme se rozhodli nazývat jej frikativním, protože se tak nejlépe vystihne povaha zvuku, který se štěrbinou mezi jazykem a horním patrem dostává ven; rovněž jsme se rozhodli používat symbolu [t̪]. Frikativní /t/ potřebuje pro svůj výskyt příznivé hláskové prostředí, značeno /V/[t̪]_V či V_[t̪]_# a je důležité vědět, že v sobě neobsahuje plozi, jedná se jen o frikativní šum; toto ale není přínos našeho výzkumu. Co je přínosem našeho výzkumu je to, že jsme poprvé rozlišili znělou a neznělou variantu tohoto fonému, neznělý zůstává značen [t̪] a znělý jsme označili [t̪̥] dle platných znaků IPA. Frikativní /t/ totiž nemá takový symbol, pod nějž by se dal znak pro znělost umístit, byli jsme tedy nuceni jej umístit nad písmeno a tímto dáváme podnět i k ustálení značení frikativního /t/, jakožto i slovního názvu pro daný foném, jelikož toto značení zůstává zatím na libovůli konkrétního lingvisty.

Rovněž jsme definovali [t^s] jako samostatný alofon v irské angličtině, který se často vyskytuje na začátku slov a jehož zvuková realizace se nejvíce podobá \widehat{ts} , tj. dvě hlásky v okamžitém sledu za sebou. Zároveň je nutné odlišovat [t^s] a [t̪^s], což je nový alofon, který jsme definovali: [t̪^s] rovněž neobsahuje plozi, protože je frikativní, v porovnání s [t̪] se však kvalita šumu blíží hlásce /s/. [t^s] a [t̪^s] bylo v předešlých výzkumech nesprávně zaměněno, [t̪^s] by nemělo stát v pozici [t^s] na začátku slova, protože k realizaci potřebuje stejné okolí jako [t̪].

Ejektivní /t/ není novým alofonem samo o sobě, v této práci jsme však poukázali na to, že se může rovněž vyskytnout v irské angličtině.

Kapitolou sám o sobě by mohl být frikativní švih, který by si jistě vyžádal další výzkum jen sám o sobě. Jedná se o další alofon, který jsme pojmenovali, a jeho výskyt není zanedbatelný – vyslovilo jej deset mluvčích žen i mužů jedenadvacetkrát v obou stylech. Frikativní švih potřebuje ke svému výskytu samohláskové okolí, stejně jako frikativní /t/ a

alveolární švih, jichž je kombinací. Nejzajímavější je, že ačkoliv se obyčejný alveolární švih nemůže realizovat před pauzou, frikativní švih ano, protože se do pauzy přidá hesitace a tím se vytvoří potřebné okolí. Pro české mluvčí je další zajímavostí nepochybně to, že se v podstatě jedná o zvuk písmene ř.

Krátký odstavec bude věnován i posledním třem alofonům z našeho výzkumu, které si jsou příbuzné: [t̪h], [th] a [θh]. To, co předchozí výzkumy považovaly za větší aspiraci jsme pojmenovali jako tři samostatné alofony, a skutečně se u nich jedná o plozivní souhlásku následovanou hláskou [h]. Jelikož se u /t/ jednalo o třetí a čtvrtou nejčastější realizaci, je jisté, že tyto alofony mají jistě v irské angličtině své místo. Varianta [θh] je ještě překvapivější, jelikož se zdá, jako by se jednalo o složeninu [t̪h] a [θ] (alofon byl vysloven třikrát třemi různými mluvčími, takže se nejedná o idiolekt).

Dosud sepsané publikace se převážně snažily o deskriptivní popis těchto vybraných alofonů v irské angličtině; tato práce nejen shromáždila tato deskriptivní data znovu z různých zdrojů, novějších i starších, navíc přinesla konkrétní čísla, grafy a tendence napříč sémantickými styly, mluvními styly i pohlavími mluvčích. Tato práce navíc identifikovala řadu nových alofonů, kde je další výzkum rozhodně na místě, jelikož je zatím znám jen nepatrný zlomek jejich použití, a jejich další vývoj (a ostatně i vývoj celé irské angličtiny jako jazykové variety) je zatím záhadou.

9. Appendix

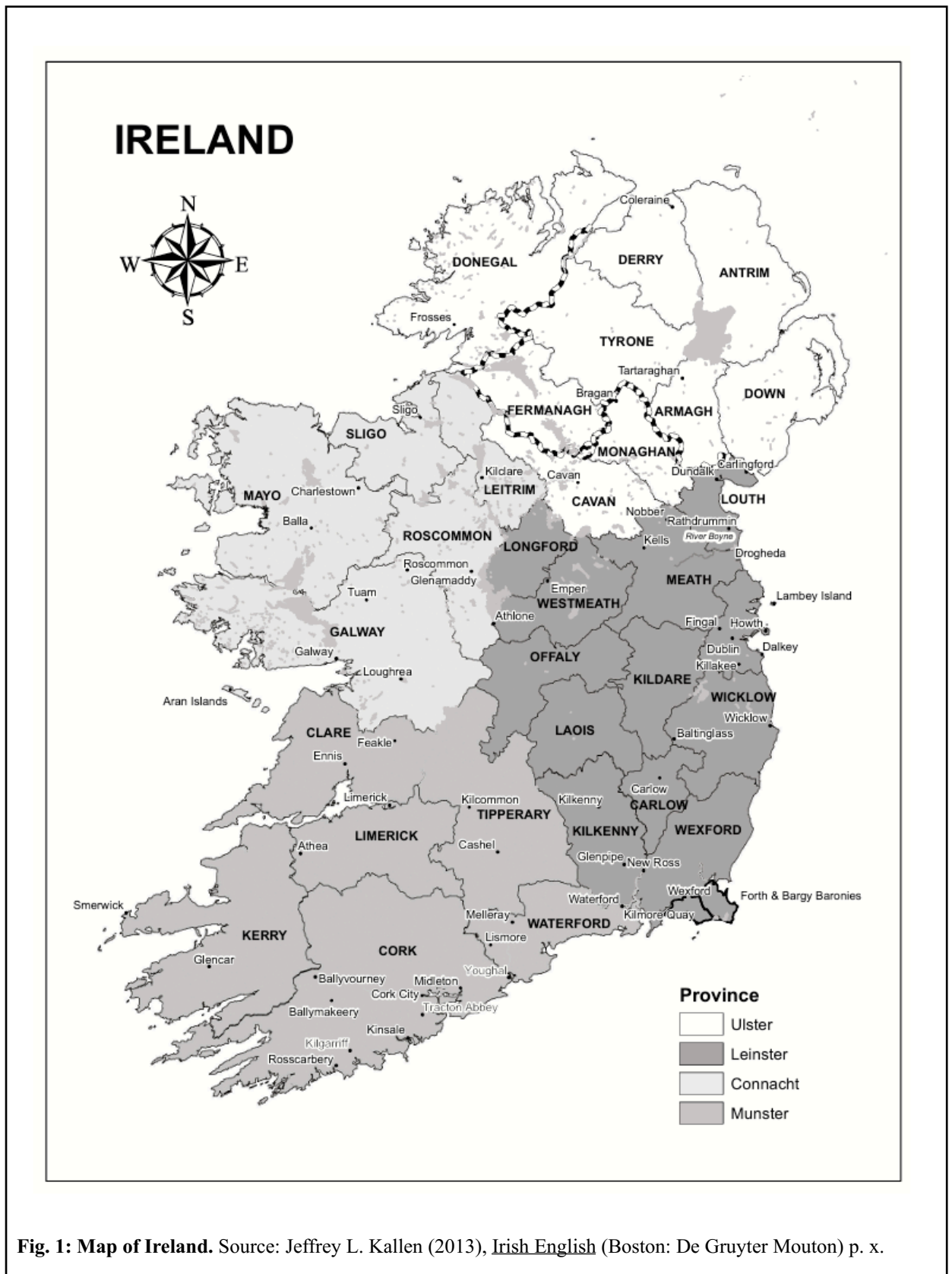


Fig. 1: Map of Ireland. Source: Jeffrey L. Kallen (2013), *Irish English* (Boston: De Gruyter Mouton) p. x.

Fig. 2: The Boy who Cried Wolf. Source: David Deterding (2006), *The North Wind versus a Wolf: short texts for the description and measurement of English pronunciation (Journal of the International Phonetic Association 36.2) p. 193.*

There was once a poor shepherd boy who used to watch his flocks in the fields next to a dark forest near the foot of a mountain. One hot afternoon, he thought up a good plan to get some company for himself and also have a little fun. Raising his fist in the air, he ran down to the village shouting ‘Wolf, Wolf.’ As soon as they heard him, the villagers all rushed from their homes, full of concern for his safety, and two of his cousins even stayed with him for a short while. This gave the boy so much pleasure that a few days later he tried exactly the same trick again, and once more he was successful.

However, not long after, a wolf that had just escaped from the zoo was looking for a change from its usual diet of chicken and duck. So, overcoming its fear of being shot, it actually did come out from the forest and began to threaten the sheep. Racing down to the village, the boy of course cried out even louder than before. Unfortunately, as all the villagers were convinced that he was trying to fool them a third time, they told him, ‘Go away and don’t bother us again.’ And so the wolf had a feast.

	gender	childhood spent in		gender	childhood spent in
Speaker 1	F	Co. Wicklow	Speaker 12	F	Co. Cork
Speaker 2	F	Dublin and Tipperary	Speaker 13	M	Limerick
Speaker 3	F	Co. Cork	Speaker 14	F	Limerick
Speaker 4	F	Limerick	Speaker 15	F	Co. Clare
Speaker 5	F	Tipperary/Limerick	Speaker 16	F	Cork
Speaker 6	F	Co. Cork	Speaker 17	M	Hospital, Co. Limerick
Speaker 7	M	Co. Cork	Speaker 18	F	Africa with NI parents, living in Limerick for 10 years
Speaker 8	F	Maynooth, Co. Kildare	Speaker 19	M	Galway
Speaker 9	F	Kilkenny	Speaker 20	F	Limerick
Speaker 10	F	Kilkenny	Speaker 21	M	Co. Galway/Co. Clare
Speaker 11	M	Co. Westmeath			

Table 1: Table of basic information from the speakers. In this table we present the basic data about the speakers. Although Speaker 18 spent her childhood in Africa, her parents were from Northern Ireland and she has been living in Limerick for more than 10 years now, therefore, we concluded we could count her into our research as well. The data was provided by the speakers.