

Generational Differences in English Pronunciation Among Swedish Speakers

By: Gustav Hero

Supervisor: Stellan Sundh

Södertörn University

Independent project 15 credits

English III HT 2025

Ämneslärarprogrammet med inriktning
mot gymnasieskolan



Abstract

The English language plays a crucial role in Swedish society, with widespread exposure through channels such as media, education and work. Despite this widespread exposure, generational differences in English pronunciation among Swedish speakers seem to be noticeable. This study explores how the two English phonemes /tʃ/ and /θ/, which are known to be challenging for Swedish speakers, are pronounced across different generations. The present study is supported by the Critical Period Hypothesis (CPH), which suggests that there is a critical time period for a person to learn a new language with native proficiency (Siahaan, 2022, p.40)

The study consisted of recorded interviews with fourteen Swedish participants to investigate pronunciation differences across generations. The paper also considers individual differences such as traveling, education, and exposure to English content. The interviews were analyzed both in a quantitative way, by measuring pronunciation accuracy, and in a qualitative way, by comparing the quantitative results with individual background data.

The findings in this study display generational differences in the pronunciation of the target phoneme /tʃ/, where the younger group demonstrated higher pronunciation accuracy. In contrast, no clear generational differences were shown in the pronunciation for the phoneme /θ/. The results indicate that individual factors, particularly the amount of exposure to English content, are more likely to affect pronunciation accuracy than travel or education. The amount of English exposure may be related to age, with younger people being exposed to English to a greater degree than older people, especially during the critical period.

Overall, this study contributes to a wider understanding of variations in English pronunciation among Swedish speakers. Furthermore, the study takes into consideration how factors such as age, traveling, education, and media exposure affect these variations.

Keywords: Phoneme, generational differences, individual differences, English pronunciation, Swedish speakers, Critical Period Hypothesis

Table of contents

1. Introduction.....	5
1.1 Aim and research questions	6
2. Theoretical framework.....	6
3. Literature review	7
3.1 Basic phonetics and phonology	7
3.2 Generational differences	9
3.3 Teaching pronunciation in the EFL classroom	10
3.4 English as a lingua franca.....	11
4. Methodology	12
4.1 Participants	12
4.2 Description of the tasks	13
4.3 Pilot study.....	14
4.4 Analysis.....	15
4.5 Ethical considerations	15
5. Results.....	16
5.1 Individual results and group results	16
5.2 Individual results for the younger group	17
5.3 Individual results for the older group.....	17
5.4 The problem with /tʃ/.....	18
5.5 Replacements for errors	19
6. Discussion.....	20
6.1 Exposure to English content.....	20
6.2 Travelling	21
6.3 Education.....	21
6.4 Generational differences	22
6.5 Significance of correct usage of /tʃ/ and /θ/ for communication	22
6.6 Limitations and suggestions for further research	23
7. Conclusion	23
Reference list	24
Appendix 1: Interview background questions.....	26
Appendix 2: Task 1 - Reading a passage	27
Appendix 3: Task 2 - Word list.....	28

Appendix 4: Task 3 - Picture description.....	29
Appendix 5: Example of a report sheet from the analysis	30

1. Introduction

English has become a central part of life for Swedish people. Exposure to English is widespread in Swedish society, for instance through social media, entertainment, communication, and in education. However, even with the high exposure to English, the impression is that there are differences in how English sounds are pronounced by older versus younger people. Since the English language continues to expand globally and within Swedish society, it is crucial to understand how different generations of Swedes pronounce English sounds.

This study explores how generational differences and personal experiences among Swedish speakers influence the way they pronounce English sounds. The focus will be on phonology - particularly how two specific English sounds (phonemes) are pronounced and how these pronunciations vary between older and younger generations (group 1: 20-25 years, group 2: 50+ years). Previous research shows that younger Swedes are exposed to the language earlier and use it more extensively than older generations (Mežek, 2024, p.342), which may influence their ability to produce the target sounds in this study.

The interest in the chosen research area is based on childhood experiences where generational differences in pronunciation were noticed. These observations are partly from meetings with older relatives, but they were also noticed in TV shows and sports interviews. These experiences gave the impression of generational differences in English pronunciation among Swedish people. Therefore, based on personal experiences and findings in previous research, it is a general interest to know more about this.

According to Johansson and Rönnerdal (1985), there are some common pronunciation mistakes among Swedish people. One of them is the pronunciation of /tʃ/ (*chips*), which is often substituted with /f/ as in *ships* (p.83). Ugglå (2016) has contributed with a study that investigated Swedish secondary school students to see if they had problems pronouncing consonant sounds that do not exist or are rarely used in Sweden. The study concluded that Swedish people do have problems pronouncing a few sounds, where /tʃ/ was one of them. In that study, only 40% of the participants were able to pronounce the sound correctly.

Another common pronunciation difficulty involves the English phoneme /θ/ (*thought*), which Swedes tend to substitute with /s/, /f/, /v/, /t/, /d/. For instance, speakers may produce *free* instead of *three*, *sink* instead of *think*, and *tin* instead of *thin*. Since Swedish people appear to be having problems pronouncing these phonemes, they will be targeted in the present study.

1.1 Aim and research questions

The aim of this study is to investigate how generational differences among Swedish people affect the pronunciation of two specific English sounds. The study targets the phonemes /tʃ/ and /θ/ and aims to identify differences in the articulation between younger and older people with Swedish as their mother tongue. The study will also take into consideration other factors that may affect the outcome - such as media exposure, travelling, or education. To achieve this aim, the study addresses the following research questions:

1. How do younger (20-25 years) and older (50+ years) Swedish speakers differ in their pronunciation of the two specific English phonemes?
2. How do other factors, such as exposure to digital media, travelling or education affect the pronunciation of these English phonemes among Swedish people?

2. Theoretical framework

This study is supported by the Critical Period Hypothesis (CPH), which suggests that there is a critical time period for a person to learn a new language with native proficiency (Siahaan, 2022, p.40). The concept of CPH was introduced to the field of language acquisition by Penfield and Roberts (1959) but was redefined by Lenneberg eight years later (1967). Lenneberg argues that this critical period usually begins around the age of two and ends just before puberty, and according to the hypothesis, language acquisition becomes more difficult after this critical period. The reason for this is that there is a stage of a person's development when their nervous system is primed and sensitive to environmental stimuli, according to developmental psychology. If a child does not learn a language during this period, they are unlikely to achieve native fluency in that language (Siahaan, 2022, p.40).

In the context of this study, the Critical Period Hypothesis is relevant for the English phonemes /θ/ and /tʃ/ since they are not fully represented in the Swedish phonological system. Early and frequent exposure to these sounds during the critical period may contribute to more accurate pronunciation. Since young learners today are introduced to English earlier and use it more frequently than older generations (Mežek, 2024, p.342), they may produce these sounds more accurately. Older generations, whose English is more classroom-based, may rely more on Swedish phonological patterns and substitute the sounds /θ/ and /tʃ/ with familiar Swedish sounds.

Previous research suggests that adults can achieve high level skills in a new language, but they frequently retain a foreign accent, which is more uncommon among younger learners (Siahaan, 2022, p.43). The reason for this is the role of the neuromuscular system in speech

production, and adults have passed the essential phase for neuromuscular function learning. However, the extent to which this affects phonological accuracy remains debated.

3. Literature review

The following section presents the theoretical background relevant to the present study. First, it defines key concepts within the fields of phonetics and phonology, with particular focus on articulatory phonetics and distinctions between relevant speech sounds. Then, the section discusses generational differences in relation to English exposure and language acquisition, with emphasis on how increased access to English outside the classroom may influence pronunciation development. Furthermore, the section reviews research on pronunciation teaching in the EFL classroom, highlighting pedagogical approaches to difficult phonemes such as /tʃ/ and /θ/. Finally, it introduces English as a Lingua Franca (ELF) as a contrastive perspective to views of native-like pronunciation, with relevance to the present study's focus on the phonological accuracy of English phonemes among Swedish speakers.

3.1 Basic phonetics and phonology

Phonetics and phonology are the branches of linguistics that study speech sounds. Phonetics is the general study of the characteristics of speech sounds (Yule, 2010, p.26), while phonology describes the systems and patterns of speech sounds in a language (Yule, 2010, p.42). Phonetics can be divided into three parts: articulatory, acoustic, and auditory phonetics. The present study will mainly focus on articulatory phonetics, which examines how speech sounds are produced by the human speech organs. Acoustic phonetics study the physical properties of speech as sound waves in the air, and auditory phonetics deal with the perception of speech sounds, via the ear (Yule, 2010, p.26).

Articulatory phonetics is important for understanding speech production. It describes how different speech organs work together to produce speech sounds (Yule, 2010, p.27-30). Organs that help produce these sounds are the lips, teeth, tongue, alveolar ridge, nasal cavity, palate, velum, uvula, pharynx, larynx, and vocal cords (Yule, 2010, p.27). This approach provides a systematic way of classifying and analyzing consonants and vowels based on their physiological production.

A fundamental distinction within phonetics and phonology is between *phones* and *phonemes*. While the phoneme is the abstract unit or sound-type in a language, there are many different versions of that particular sound-type produced in actual speech, and these different versions can be described as phones (Yule, 2010, p.43). Phonemes function as meaning-differentiating units; for example, /f/ and /v/ are separate phonemes in English

because they distinguish words such as *fine* and *vine*. Phones function as variations of the same phoneme; for example, the phoneme /t/ in the word *tar* is normally pronounced with a stronger puff of air than the /t/ sound in the word *star*. These versions of the same phoneme are called phones. For instance, the present study targets the phonemes /tʃ/ and /θ/, while the analysis is based on their phonetic realizations (phones) in participants' speech.

To describe speech sounds more precisely, linguists use the concepts of *place of articulation* and *manner of articulation*. Place of articulation refers to the location inside the mouth where a sound is produced, such as bilabial, dental, palatal, or velar positions. For instance, /b/ and /m/, as the initial sounds in *bat* and *mat*, are bilabial sounds since they are formed by using both upper and lower lips (Yule, 2010, p.28). Dental sounds are formed with the tongue tip behind the upper front teeth, as the initial sound of *thin* and *thief*, and the symbol for this sound is /θ/ (Yule, 2010, p.28). Palatals are sounds created by the tongue and the palate (the hard part in the roof of the mouth). Examples of palatal sounds are /ʃ/, as the initial part of the word *shout*, and /tʃ/, as the initial part of the word *child* (Yule, 2010, p.29). This is relevant to the present study, since the phoneme /tʃ/ is one of the target sounds and may be replaced with similar sounds such as /ʃ/ by Swedish speakers.

Compared to place of articulation, which concentrates on where sounds are articulated, manner of articulation refers to how they are articulated, including categories such as stops, fricatives, affricates, nasals, liquids, and glides (Yule, 2010, p.31-33). Fricatives involve almost blocking the airstream and having the air push through the very narrow opening, and the sound /θ/ is one example of this. The other target sound of this study; /tʃ/, is an affricate, which is a combination of a brief stopping of the air stream with an obstructed release that causes some friction (Yule, 2010, p.32). These distinctions are particularly relevant for analyzing how Swedish speakers produce the target phonemes in this study.

Another important concept in phonology is that of *minimal pairs*. Minimal pairs are pairs of words that differ in only one sound but have different meanings, such as *ship* and *chip* or *three* and *free* (Yule, 2010, p.44). These pairs are crucial for identifying phonemes in a language, as they demonstrate that a single sound difference can change meaning.

Understanding phonetic and phonological systems is especially important in second language acquisition. Learners tend to transfer sound patterns from their first language (L1) into the target language, which may result in pronunciation errors when the two systems differ. For example, certain English phonemes such as /θ/ and /tʃ/ do not exist in Swedish, which may create pronunciation challenges for Swedish learners of English (Yule, 2010, p.27-30). For this reason, knowledge of articulatory phonetics is particularly valuable for

language teachers, as it supports both accurate pronunciation and effective teaching strategies.

3.2 Generational differences

English has become increasingly widespread among younger generations in Sweden, since they are exposed to the language earlier and use it more extensively than older generations (Mežek, 2024, p.342). This highlights the massive spread that has been going on for many decades, and today, all children in Sweden learn English in school. According to Mežek (2024, p.338), the goal of learning English in Swedish schools is communicative competence and the expectations of proficiency levels are high; by the end of upper secondary school education, students are expected to be “advanced independent users”. It is also mentioned that in the Swedish national exam of English, pupils reach higher grades in the speaking part of the exam than the writing, reading, and listening parts (Mežek, 2024, p.339), suggesting that young Swedes are high-level speakers of English in general.

In recent decades, language learning has increasingly taken place beyond the classroom. Research shows that a major part of language learning occurs through informal exposure, such as media consumption, digital communication, and everyday interaction (Reinders, Lai & Sundqvist, 2022, p.1-3). This shift has important implications for generational differences, as younger learners are more likely to engage with English through digital environments compared to older generations, especially during the Critical Period. This is particularly relevant for acquiring English phonemes that are not present in Swedish, such as /θ/ and /tʃ/. Since these sounds are not part of the Swedish phonological system, their accurate pronunciation may rely on early and constant exposure to authentic English. Younger learners, who are more frequently exposed to native English through digital media, could therefore have better opportunities to perceive and reproduce these sounds accurately, while older generations, whose exposure has been more classroom-based, especially during the critical period, may depend more on Swedish phonological patterns, which can result in substitutions for /θ/ and /tʃ/.

Reinders et al. (2022, p.1) mention that the arrival of the internet in the 1990s has led to much more accessible opportunities for learning beyond the classroom setting. This increased exposure may interact with the Critical Period Hypothesis, since young learners after the 1990s are more likely to have been exposed to more English content during this important period than older generations. As a result, many children today enter school with prior knowledge of English, which may shift the focus of education from introducing the language to developing accuracy and more advanced communicative competence. Still, it can be

argued that not all students benefit equally from digital English, since some students consume lots of English (YouTube, social media, gaming), while others have limited exposure.

3.3 Teaching pronunciation in the EFL classroom

Speaking a new language involves a variety of subskills, such as grammar, vocabulary, and pragmatics. According to Gilakjani and Sabouri (2016, p.967), one of the most important aspects of foreign language teaching and learning is pronunciation because it impacts learners' communicative competence, which is the goal of learning English in Swedish schools, according to Mežek (2024). Lack of pronunciation skills reduces learners' confidence and limits their social interactions (Gilakjani & Sabouri, 2016). Gilakjani and Sabouri (2016) claim that even though the acquisition of pronunciation is challenging, teaching pronunciation is not given too much attention in EFL classrooms.

Learning the pronunciation of English words when having English as an L2 (second language) can be difficult since there is almost nothing certain about it (Bryson, 1990, p.77). The English language has numerous words that are spelled in the same way but yet pronounced differently, such as: *five-give*, *low-how*, *break-speak*, *heard-beard*. As Bryson (1990) points out, English pronunciation is highly inconsistent, causing difficulties for learners' predictions of how words are pronounced. For this reason, EFL teachers should provide students with authentic listening activities, and they should continuously be practiced in class (Gilakjani & Sabouri, 2016, p.970). Gilakjani and Sabouri (2016) also mention that pronunciation should be integrated into other language skills and its learning should, as noted, be a continuous activity for EFL learners (p.970).

There are several other exercises that can be done in the classroom to practice pronunciation. One of them is communication activities (Nikbakht, 2010, p.164-165), such as dialogues or mini conversations. In these dialogues or conversations, there should be sounds that are not available in the students' first languages, which for Swedes could be /θ/ and /tʃ/ for instance. To further work with these sounds in classrooms, Gilakjani and Sabouri (2016) suggest that EFL teachers should explain important differences between the sounds of target language and the mother tongue since it helps learners to adapt the new nature of the target language (p.970). Through such instructional approaches combined with communicative practices, learners may develop greater phonological accuracy, particularly in the production of challenging phonemes such as /θ/ and /tʃ/.

In Gerald Kelly's *How to Teach Pronunciation* (2000), several practical techniques for helping learners produce consonant sounds are presented. For example, to practice the

English phoneme /θ/, students can place a finger against their lips and try to touch the finger with the tongue when breathing out and then adding voice (Kelly, 2000, p.56).

From a CPH perspective, pronunciation teaching may become even more important for older learners, since it is considered more difficult to acquire native-like phonology after the critical period (Siahaan, 2022).

3.4 English as a lingua franca

In recent years, the term *English as a Lingua Franca* (ELF) has been used to describe communication in English between speakers who do not share the same first languages (Seidlhofer, 2005, p.339). ELF is part of concepts such as *World Englishes* and *English as an International Language*, which emphasize the multilingual, global use of the English language (Seidlhofer, 2005, p.339).

One central claim in the research of ELF is that English is shaped not only by native speakers, but also to a large extent by its non-native speakers. Seidlhofer (2005, p.339) argues that English communication takes place mostly between non-native speakers, and therefore, native speakers should not be considered as the standard of correctness in English pronunciation. Despite this, native speakers continuously strongly influence what is seen as “correct” usage of English.

The increased usage of English globally has led to switches in the interaction patterns. According to Jennifer Jenkins (2000, p.201), communication between non-native speakers has become more common than communication between native and non-native speakers. In the field of ELF research, this shift has led to a minor focus on native-like pronunciation and phonological accuracy, with a major focus on intelligibility. From this perspective, variations in pronunciation are often seen as acceptable, as long as they do not reduce or prevent understanding.

This ELF perspective contrasts with the Critical Period Hypothesis, which is associated with ideas that native-like pronunciation is more difficult to achieve after early stages in life (Siahaan, 2022). The CPH emphasizes native proficiency and the role of age to achieve this, while ELF highlights intelligibility over phonological accuracy (Jenkins, 2000). However, it is important to note that the present study does not investigate intelligibility or communicative success. The focus of the study is specifically on phonological accuracy of the phonemes /θ/ and /tʃ/ among Swedish speakers and does not consider intelligibility. From the ELF perspective, substitutions such as /f/ or /t/ for /θ/, or /ʃ/ for /tʃ/ may still be intelligible in many contexts, but this study does not measure whether substitutions affect understanding. Instead, the ELF perspective here is used as a theoretical contrast to highlight that

communication varieties might not affect understanding, even if this study only focuses on speech production and phonological accuracy.

4. Methodology

This section describes the process of selecting participants and how the analysis of the collected data was carried out. The presentation shows the individual profiles of the participants (see Table 1 and 2) and the reasons for the selection. Furthermore, the section also discusses the procedure of creating an interview with tasks that would target the purpose of the study, partly by describing a pilot study. The tasks included in the interview are also presented briefly in this section.

4.1 Participants

To investigate whether and how age is a factor in English pronunciation, the study featured two groups that were based on age, with seven participants in each group, resulting in a total of fourteen participants. One group consisted of people between 20 and 25 years old, while the other group consisted of people aged 50 and above. The participants were chosen based on my own social network, including friends, relatives, colleagues, and family members.

This study did not consider any gender differences. Although both male and female participants were included, this was not analyzed, as the focus was on generational differences. In the paper, participants are named A, B, C, etc., to ensure their anonymity, and below, all participants are presented with some background information.

Table 1. *The individual profiles of the younger group*

	YA	YB	YC	YD	YE	YF	YG
Age	21	25	23	22	22	22	22
English in school	10 years	11 years, plus some courses that were in English	10 years	10 years	10 years	12 years	11 years
English content	Every day, 4-5 hours	Every day, 4 hours	Every day, 1 hour	Every day, 4 hours	Every day, 3-4 hours	Every day, 1-2 hours	Every day, 4-5 hours
English use in	Never	Sometimes at work	Never	Speaking English at work	Have been talking	Not much	Barely anything

everyday life					English at work a lot		
Travelling	Been travelling like once a year	Lived in Malta for one year	England several times	Been to London	Lived in Austria for 5 months, was in Asia for 2,5 months	Lived in Austria for 5 months, was in Asia for 2,5 months	USA 3 weeks, Europe one month, short trips.
Family from another country	No	No	No	No	No	Some relatives from Austria	Yes, but never meet them

Table 2. *The individual profiles of the older group*

	OA	OB	OC	OD	OE	OF	OG
Age	52	50	53	52	55	53	58
English in school	10 years	8-10 years	3 years	13-14 years	10 years	8 years	3 years
English content	Once a week	Once a week	Every day, 2 hours	Every day, 3 hours	2-3 times/week	Every day, 1 hour	Almost never
English use in everyday life	Sometimes	Never	Maybe once a week	Almost never	Sometimes at work	Never	Sometimes at work
Travelling	Been travelling a lot	Been travelling a lot	Been travelling a lot	Lived 2 years in Switzerland	Russia	New York, Thailand	To Europe every other year
Family from another country	No	No	No	No	No	No	No

4.2 Description of the tasks

This study investigated how two English phonemes (/θ/ and /tʃ/) were produced by Swedish people across different generations, but also how individual differences such as social media, travelling and education may influence the pronunciation of the target sounds. In order to connect pronunciation variations to these individual differences, participants were first asked

questions about their backgrounds (see Appendix 1). The reason for this was to see to what extent English has affected their daily lives. Then, the participants completed a few tasks that gave them the opportunity to use the target phonemes. Below, the tasks are generally described.

Task 1: The first task consisted of a short story that was read aloud by the participants. In this story, words with the target phonemes /θ/ and /tʃ/ occurred four and five times respectively. In the short story, there were also words beginning with /ʃ/ and /t/ to see whether these sounds were pronounced differently or the same as /tʃ/ and /θ/. (see Appendix 2)

Task 2: The second task was a simple word list consisting of ten words for each phoneme. All target phonemes were in the initial position of the words. Examples of words used in the list from each phoneme are /θ/- (*throw*), /tʃ/- (*cheap*), /ʃ/- (*sheep*) and /t/- (*taught*). The participants read the words in a mixed order from left to right. (see Appendix 3)

Task 3: The third task was a picture description. There were images of some words from the word list, and the participants were asked to describe what they saw in the picture. Since the words were not written explicitly here, the task aimed to examine whether there were any differences in the participants' pronunciation of the words when they did not have the spelling in front of them. (See Appendix 4)

4.3 Pilot study

To make the interviews and the tasks well designed, a pilot study was carried out, which turned out to be very useful.

One of the expected challenges was not being able to hear the recordings well enough to analyze them. Since the study focuses on specific sounds, it is crucial to be able to distinguish between minor variations in pronunciation. When listening to the recording from the pilot, it appeared that hearing the sound variations was a lot easier than expected, since the sound quality was good.

One aspect that was changed after the pilot study was the background questionnaire. The impression was that the questions needed to be more specific in order to gather more information about the participants, but also to make the analysis easier. Before the pilot study, the background questionnaire was about age, daily exposure to English content (YouTube, TikTok, etc.), education, and travelling. The pilot study revealed the need for one question about possible family members or relatives from an English-speaking country. Another important addition included in the interviews was a question about the use of English in the participants' everyday lives (work, friends, sports etc.).

The pilot study also resulted in changing the second task, including the word list. Originally, the list was organized with words that had the same target sounds standing next to each other in the table. The participant in the pilot study managed to see this pattern and, therefore, executed the task very well. For this reason, to improve the reliability of the task, the words in the task were rearranged into a mixed order.

4.4 Analysis

All interviews were recorded and analyzed. This was a study of mixed methods combining qualitative background analysis with quantitative pronunciation measurements. For instance, when listening to the recordings, the phonemes were categorized as pronounced *correctly*, *incorrectly*, or *could not be heard* (see Appendix 5). In this way, the level of correct sounds produced was measured, and therefore it was quantitative, in contrast to the qualitative part of the analysis, where these quantitative parts were compared with the background information.

In the tasks, a total of 18 words were analyzed from each of the four sounds (/t/, /θ/, /f/, /tʃ/) except for /θ/, which occurred 17 times. This resulted in a total of 71 analyzed sounds for each participant. During the first analysis, each sound was marked as correct/incorrect in every task, without focusing on the specific words in which they occurred. This made it possible to examine the overall accuracy of the sounds in total. In task 2, which involved the word list, the replacing sound was written down whenever a phoneme was mispronounced. The analysis then shifted to individual words used in the tasks to see if certain words were easier to pronounce than others for the participants.

Although all tasks were used for measuring the number of correctly pronounced phonemes, only the second task was analyzed with statistics for each word (see Appendix 5). In the other tasks, only the number of correct sounds produced was counted, without comparing individual words.

4.5 Ethical considerations

Before the interviews, the participants in the study were informed about several ethical considerations. Firstly, they were informed about the purpose of the study, without telling the specific target sounds used. They were also told that participation was anonymous, and their names would not appear anywhere. The participants were also asked about consent concerning recording them during the interviews and were informed that the recordings would only be used for research purposes and would not be shared or distributed. Another thing that had to be considered and conveyed to all the participants was that they had the right to withdraw from the study at any time. Regardless of the reason, this was something that they had the right to do and was a way to ensure safety for the participants to

avoid the feeling of being pressured to continue. Participants could withdraw before, during or after the interview, according to the voluntary participation (Vetenskapsrådet, 2002).

5. Results

5.1 Individual results and group results

Table 3 and 4 below display both the individual accuracy for each sound, and the group average accuracy percentage for each sound.

Table 3. *The accuracy of the younger group*

	YA	YB	YC	YD	YE	YF	YG	Average accuracy value
/f/	100%	83%	100%	100%	78%	95%	100%	/f/: 93%
/tʃ/	78%	89%	11%	44%	95%	89%	39%	/tʃ/: 63%
/θ/	53%	100%	35%	0%	88%	100%	65%	/θ/: 59%
/t/	95%	100%	100%	100%	100%	100%	95%	/t/: 98%

Table 3 presents accuracy scores for the younger group. Both the individual scores and average accuracy values for each sound are visible. As shown, individual scores varied considerably, and it is obvious that there are major individual differences.

Overall, all participants produced /t/ and /f/ with high accuracy, with average values of 98% and 93% respectively. On the other hand, the target phonemes /tʃ/ and /θ/ show some more varying results. The results show that among these two sounds, participants YB, YE, and YF were the ones with the highest accuracy. The group average was 63% for /tʃ/ and 59% for /θ/.

Table 4. *The accuracy of the older group*

	OA	OB	OC	OD	OE	OF	OG	Average accuracy value
/f/	100%	95%	89%	83%	95%	100%	83%	/f/: 92%
/tʃ/	11%	17%	72%	67%	11%	11%	22%	/tʃ/:30%

/θ/	88%	53%	76%	0%	88%	59%	41%	/θ/: 57%
/t/	100%	100%	89%	95%	100%	100%	95%	/t/: 96%

Table 4 presents accuracy scores for the older group. Even among these people, major individual differences were observed, even if /t/ and /f/ once again were pronounced with high accuracy overall among the participants in the group (96% and 92%, respectively). The pronunciation of /tʃ/ appeared to be the most challenging within this group with an accuracy of 30%, compared to 63% in the younger group. Apart from OC and OD, few participants produced this sound accurately more than a few times. For the other target phoneme; /θ/, the group scored 57%, which is very similar to the younger group (59%).

5.2 Individual results for the younger group

In the younger group, a great variation among the individual scores on the target sound /tʃ/ was observed. As shown in Table 3, participants YB, YE, and YF achieved the highest accuracy scores. YB and YF had an accuracy of 89% on this sound, while YE achieved 95%. In contrast, participant YC produced the sound with an accuracy of only 11%, whereas YG achieved an accuracy score of 39%.

With regard to the other target sound, /θ/, a similar pattern was observed with the same participants (YB, YE, and YF) performing most accurately, with scores of 100%, 88%, and 100% respectively. Among the remaining participants in the group, lower accuracy was observed.

Another notable finding was that participant YE, who performed highly accurately on both /tʃ/ and /θ/, only managed to produce the /ʃ/ sound with an accuracy of 78%, making him the least accurate person in the younger group for this sound. In all cases where this sound was mispronounced, it was replaced with /tʃ/. The word starting with /ʃ/ that caused problems for this person was mainly *champagne*, and a similar pattern was also observed for participant YB.

5.3 Individual results for the older group

In the older group, the greatest difficulty involved the /tʃ/ sound. With an average accuracy score of 30%, this group did not achieve results comparable to the younger group. However, for the /tʃ/ sound in this group, participants OC and OD scored the highest accuracy with 72% and 67% respectively, as shown in table 4. Apart from these two participants, few others produced the /tʃ/ sound accurately more than a few times.

In the analysis of the other target phoneme, /θ/, Table 4 reveals some interesting results. Participant OA and OE, who only managed to score 11% accurate on the /tʃ/ sound, both produced the /θ/ sound with an 88% accuracy. At the same time, participant OD, who achieved one of the highest scores in the group for the /tʃ/ sound, did not produce /θ/ accurately in any instance.

5.4 The problem with /tʃ/

As shown in table 4, /tʃ/ appeared to be the most challenging phoneme within the participants of the study, especially in the older group, and will therefore be given more attention. Tables 5 and 6 presents the participants' accuracy for each word for the phoneme /tʃ/ included in task 2. By analyzing these tables, it is possible to determine whether some words were easier to pronounce than others for the participants in the study.

Table 5. *The younger group pronouncing /tʃ/*

Words:	Chip	Chicken	Cheap	Chair	Child	Choose	Church	Chain	Chili	Chop
Correct	6	3	3	2	4	2	5	5	4	4
Incorrect	1	4	4	5	3	5	2	2	3	3

Table 5 presents the results for the younger group. Overall, most participants were able to produce the sound correctly in the majority of cases. The word *chip* had the highest accuracy rate among the words, with six out of seven participants producing it correctly, while *chair* and *choose* had the lowest accuracy rate, with five out of seven participants pronouncing it incorrectly.

Table 6. *The older group pronouncing /tʃ/*

Words:	Chip	Chicken	Cheap	Chair	Child	Choose	Church	Chain	Chili	Chop
Correct	1	3	1	1	2	2	1	2	2	0
Incorrect	6	4	6	6	5	5	6	5	5	7

Table 6 presents the results for the older group. The pronunciation accuracy was generally low across all ten words among this group, compared to the younger group. The word *chicken* had the highest accuracy rate with three out of seven participants pronouncing it correctly. Except for this word, most words were produced accurately by only one or two participants. *Chop* appeared to be the most difficult word, as none of the participants pronounced it correctly.

A notable difference between the two groups was in the word *chip*, which was pronounced correctly by six out of seven participants in the younger group, while the older group only had one participant producing the word accurately. It is also worth mentioning that the word *chop* was pronounced correctly in four out of seven cases among the younger group, while the older group, as mentioned, had none that pronounced it correctly.

5.5 Replacements for errors

In all cases where /tʃ/ was mispronounced, the participants replaced it with /f/. The few times where /f/ was mispronounced often occurred in the word *champagne*, and at all instances, it was replaced with /tʃ/.

When /θ/ was mispronounced on the other hand, it was replaced by several different sounds, most commonly /f/, but in some cases also /t/ and /d/. In task 2, /θ/ was used in ten different words, and below, table 7 and 8 shows all ten words, what phone that replaced the phoneme when they were mispronounced, and how many times each.

Table 7. Replacements for /θ/ in the younger group

Words:	Think	Throw	Thin	Three	Thief	Thumb	Theme	Thermos	Thirty	Theater
/f/	2	5	2	4	2	2	1			1
/d/										
/t/				1	1	1	1	1	2	1

Table 7 presents the replacing sounds for whenever /θ/ was pronounced incorrectly among the younger group. As shown in the table, the words *throw* and *three* were mispronounced by five out of seven participants and most commonly substituted with /f/. The table also shows that /t/ was a common substitution for the word *thirty*.

Table 8. Replacements for /θ/ in the older group

Words:	Think	Throw	Thin	Three	Thief	Thumb	Theme	Thermos	Thirty	Theater
/f/	2	2	1	1	3	2	1	1	3	1
/d/			1				3			
/t/				1		3		2		2

Table 8 presents the substitutions for /θ/ when it was mispronounced in the older group. The most common replacement was /f/, which occurred in every single word among this group. In

addition, /t/ and /d/ occurred as substitutions but less frequently than /f/. More specifically, /t/ was mainly used for the word *thumb*, while /d/ appeared primarily in *theme*.

The results demonstrate that among the participants, /θ/ was substituted with sounds such as /f/, /t/, and /d/. For example, some words such as *three*, *thumb*, and *think* were sometimes pronounced as *free*, *fumb*, and *fink*. While pronunciation mistakes like these might seem incredible to some people, the findings indicate that these substitutions occurred systematically within this sample.

6. Discussion

This section discusses the results in relation to the aim of the study and the research questions. It will also connect to the previous research that was presented in the literature review. The focus is both on how generational differences and individual factors such as education, English exposure and travelling may affect the pronunciation of two English phonemes (/tʃ/ and /θ/) among Swedish speakers.

6.1 Exposure to English content

As mentioned in the results section, the two groups performed relatively similarly in their pronunciation of the target sounds, with the exception of /tʃ/. While the younger group achieved an average accuracy of 63% for this sound, the older group only reached 30% accuracy (see Table 3 and 4). One possible explanation may be the varying amount of exposure to English content between the groups.

Looking at Table 1 and 2, clear differences in how much English content these two groups have been exposed to are revealed. In the younger group, all participants spend at least one hour every day watching or listening to English content, with most of them reporting four hours of daily exposure. This level of exposure is considerably higher than in the older group, where only three participants reported daily exposure to English content.

When taking a closer look at the older group through Table 2 and 4, a noticeable pattern was observed. The ones to score best on the /tʃ/ sound in the older group were OC and OD, who also reported the highest amount of daily exposure to English content among the participants in that group. Similarly, by reviewing the younger group through Table 1 and 3, it appears that participant YC, who reported the lowest amount of daily exposure to English content in that group also achieved the lowest accuracy score for the /tʃ/ sound.

These findings can be connected to the Critical Period Hypothesis (Siahaan, 2022), which suggests that language acquisition is most effective during early developmental stages in a person's life. The younger group in the present study has likely been exposed to more

English content during early stages than the older group, and according to Reinders et al. (2022), language learning has increasingly taken place beyond the classroom setting. This suggests higher exposure to authentic English pronunciation, which may contribute to more accurate pronunciation of phonemes that are not present in Swedish, such as /tʃ/.

6.2 Travelling

Another factor that may affect pronunciation accuracy is travelling, with the reason being that travelling can provide opportunities for real, authentic meetings in English. However, the results provided by this study suggests that travelling does not necessarily lead to accurate pronunciation of the target sounds /tʃ/ and /θ/, even if it in some cases does.

In the younger group, three participants had lived abroad for long periods. Two participants had lived in Austria for six months and in Asia for two and a half months, while the third participant had lived in Malta for one year. These three participants were also the ones to perform most accurately in their pronunciation of the target sounds /tʃ/ and /θ/.

In the older group, basically all of them had been travelling several times, but only participant OD had lived abroad. Although this participant achieved relatively high accuracy in the pronunciation of the /tʃ/ sound, he did not pronounce /θ/ accurately on any occasion. Despite a significant amount of travelling in the older group, the overall accuracy for /tʃ/ remained low.

One possible explanation for this finding is that when travelling, English is primarily used for basic communication like ordering food, shopping, or asking for directions somewhere. This means that one's pronunciation may not be constantly adjusted or improved. For instance, replacing /tʃ/ with /ʃ/ or /θ/ with /f/ may not impact meaning, which can reduce the motivation to modify pronunciation. This supports Jenkins' (2000) perspective of English as a lingua franca, where understanding and intelligibility are more important than phonological accuracy.

So, even if travelling can be beneficial, especially for basic communication, the findings of the present study suggest that it has less influence than frequent exposure to English content when it comes to phonological accuracy.

6.3 Education

In the younger group, there were no major individual differences in education, since all had studied English for a period between 10-12 years. This made it difficult to draw any conclusions regarding the connection between years of education and phonological accuracy. In comparison, the older group showed some more variation. Two participants, OC and OG, had studied English for three years, which is the least amount in that group. Despite this, OC

achieved the highest accuracy for the /tʃ/ sound among all participants in the older group. Table 4 also displays that OG did not perform significantly worse than the rest of the group, suggesting that more education does not necessarily lead to more accurate pronunciation.

The findings therefore suggest that the amount of education does not affect phonological accuracy of the target sounds /tʃ/ and /θ/ as much as might be expected. This supports Gilakajani and Sabouri's (2016) claim that pronunciation does not receive enough attention in EFL classrooms, and therefore, more years of English education do not automatically lead to higher phonological accuracy.

6.4 Generational differences

Apart from looking at individual differences such as education, exposure to English content, and travelling, the main aim of this study was to investigate whether age differences affect pronunciation accuracy of the target phonemes /tʃ/ and /θ/ among Swedish speakers. The findings from the present study indicate clearer generational differences in the pronunciation accuracy of the phoneme /tʃ/ than /θ/.

The younger group was generally more accurate in their pronunciation of the /tʃ/ sound, while the accuracy of /θ/ was more equally poor between the groups. This may suggest that /θ/ is problematic across different age groups rather than an age-specific dilemma among Swedish speakers.

At the same time, the observed generational differences may be partly connected to the amount of exposure to English. Participants in the younger group reported substantially higher daily exposure to English content than the older group, especially during the critical period (Siahaan, 2022). Therefore, this high level of English exposure is a generational divide itself and should not be entirely separated from each other.

6.5 Significance of correct usage of /tʃ/ and /θ/ for communication

As the findings reveal, Swedish speakers tend to have problems with the sounds /θ/ and /tʃ/. This was expected since these sounds do not exist in the Swedish language (Johansson and Rönnerdal, 1985). The findings of the present study show that Swedes tend to replace the English phoneme /θ/ with more familiar sounds that do exist in Swedish, such as /f/, /t/, and in some cases /d/, while /tʃ/ was constantly replaced with /ʃ/.

However, do these pronunciation variations impact successful communication? Kelly (2000, p.11) emphasizes the importance of correct pronunciation and argues that pronunciation is essential to increase understanding and avoid misunderstandings. According to Kelly (2000), a speaker who consistently mispronounces phonemes will be difficult for the listener to understand.

While one might argue from Kelly's (2000) perspective, the findings can also be interpreted from an English as a Lingua Franca perspective. Jenkins (2000) argues that communication in English as an L2 often prioritizes intelligibility over phonological accuracy or native-like pronunciation. This means that in many situations, replacing /θ/ with /f/ or /t/, or /tʃ/ with /ʃ/ does not reduce intelligibility, depending on the context.

It should be noted that intelligibility was not assessed in this study, and therefore ELF is used as a theoretical lens rather than an analytical variable.

6.6 Limitations and suggestions for further research

One limitation in the present study was the number of participants, which was relatively small. A total of fourteen participants were interviewed, which might be too few for identifying broader differences in pronunciation. In addition to this, most of the participants were chosen in my own social network, and most of the people in the younger group have had the same English teachers in primary school.

Another limitation of the present study is that the evaluation of pronunciation accuracy was done aurally by the researcher alone. This might affect the results and ideally, evaluations of this sort would be confirmed by additional evaluators.

One suggestion for further research is to increase the age span between the two groups. For instance, one group could be between 15-18 years, and the other group could be 65+ years, to see if anything else could be found within these groups. Another suggestion for further research could be to vary the target phonemes, to see if there are other possible problems specific for Swedish speakers.

7. Conclusion

The aim of this study was to investigate how generational differences among Swedish speakers influence the way the two target sounds /tʃ/ and /θ/ are pronounced. These phonemes were chosen since they seem to be challenging for Swedish speakers, most likely due to their absence in the Swedish language. Another aim was to see how individual differences such as travelling, education, and exposure to English content may affect the pronunciation of the target phonemes. The study included two groups, younger adults (20-25 years) and older adults (50+ years).

The findings suggest that generational differences are present, especially in the pronunciation of the English phoneme /tʃ/, while no clear generational differences were observed for /θ/. Instead, individual factors seemed to play a more crucial role than age when it comes to achieving accurate pronunciation for the phonemes /tʃ/ and /θ/. The individual

factor that appeared to be the most influential for phonological accuracy of the phonemes /tʃ/ and /θ/ was the amount of exposure to English content.

The results display that participants with the highest amount of daily exposure to English content were also the ones to be most accurate in pronouncing the sounds. The amount of English exposure may be related to age, with younger people today being exposed to English to a greater degree than older people, especially during the critical period. Other factors such as travelling and years of English education, on the other hand, did not seem to be influential for the pronunciation as much, which supports previous research saying that pronunciation is given too little attention in EFL classrooms.

Reference list

- Bryson, B. (1990). *Mother tongue: The English language*. Penguin Books.
- Davies, A., & Elder, C. (2006). Assessing English as a lingua franca. *Annual Review of Applied Linguistics*, 26, 282–304. <https://doi.org/10.1017/S0267190506000146>
- Gilakjani, A. P., & Sabouri, N. B. (2016). How can EFL teachers help EFL learners improve their English pronunciation? *Journal of Language Teaching and Research*, 7(5), 967–972. <http://dx.doi.org/10.17507/jltr.0705.18>
- Jenkins, J. (2000). *The phonology of English as an international language: New models, new norms, new goals*. Oxford University Press.
- Johansson, S., & Rönnerdal, G. (1985). *English pronunciation: A handbook*. Studentlitteratur.
- Kelly, G. (2000). *How to teach pronunciation*. Pearson Longman.
- Lenneberg, E. H. (1967). *Biological foundations of language*. Wiley.
- Mežek, Š. (2024). English in Sweden: Functions, features and debates. *World Englishes*, 43(2), 332–345. <https://doi.org/10.1111/weng.12650>
- Nikbakht, H. (2010). EFL pronunciation teaching: A theoretical review. *The Journal of Applied Linguistics*, 4(8), 146–174.
- Penfield, W., & Roberts, L. (1959). *Speech and brain mechanisms*. Princeton University Press.
- Reinders, H., Lai, C., & Sundqvist, P. (Eds.). (2022). *The Routledge handbook of language learning and teaching beyond the classroom*. Routledge.
- Seidlhofer, B. (2005). English as a lingua franca. *ELT Journal*, 59(4), 339–341. <https://doi.org/10.1093/elt/cci064>
- Siahaan, F. (2022). The critical period hypothesis of SLA: Eric Lenneberg. *Journal of Applied Linguistics*, 2(1), 40–45. <https://doi.org/10.52622/joal.v2i2.77>

- Uggla, C. (2016). Swedish second language learners' ability to pronounce English contrastive consonant phonemes (Bachelor's thesis, Halmstad University). <https://www.diva-portal.org/smash/get/diva2:894379/FULLTEXT02.pdf>
- Vetenskapsrådet. (2002). *Forskningsetiska principer inom humanistisk-samhällsvetenskaplig forskning*. Elanders Gotab.
- Yule, G. (2010). *The study of language* (4th ed.). Cambridge University Press.

Appendix 1: Interview background questions

- **How old are you?**
- **How many years did you study English in school?**
- **How often do you watch or listen to content in English (TV-series, podcasts, TikTok, YouTube etc.)?**
- **English use in your everyday life? (friends, sports, work)**
- **Have you ever lived in or travelled to an English-speaking country? (Australia, England, USA etc.) If yes, for how long? Any other trips?**
- **Do you have family/relatives from an English-speaking country?**
- **How would you rate your English-speaking skills from 1-10 compared to other swedes?**

Appendix 2: Task 1 - Reading a passage

“Tom and Charlotte took a short trip to the beach on Thursday. They checked the weather and thought it looked perfect for a walk by the shore. Charlotte packed some sandwiches and chips, and Tom brought a small camera. They chatted while watching the children chasing shells and throwing stones into the water. At the end of the afternoon, they thought it was the best trip they had taken that month.”

/ʃ/ - Charlotte, short, shore, Charlotte shells

/tʃ/ - checked, chips, chatted, children, chasing

/θ/ - Thursday, thought, throwing, thought

/t/ - Tom, took, trip, Tom, trip

Appendix 3: Task 2 - Word list

Chip	Ship	Think	Tree
Chicken	Throw	Shell	Talk
Taught	Cheap	Thin	Sheep
Share	Three	Tea	Chair
Shark	Towel	Thief	Child
Choose	Tall	Shoes	Thumb
Shine	Church	Take	Theme
Tape	Thermos	Champagne	Chain
Thirty	Chili	Table	Shout
Chop	Theater	Tiger	Shop

Appendix 4: Task 3 - Picture description



Appendix 5: Example of a report sheet from the analysis

(The individual results from all participants are available upon request)

- **How old are you?** 22
- **How many years did you study English in school?** 12 years
- **How often do you watch or listen to content in English (TV-series, podcasts, TikTok, YouTube etc.)?** Every day (1-2 hours). movies, social media, books, YouTube
- **English use in your everyday life? (friends, sports, work)** not much English in daily life. Talking to colleagues sometimes.
- **Have you ever lived in or travelled to an English-speaking country? (Australia, England, USA etc.) If yes, for how long? Any other trips?** Austria for 4 months, forced to speak English. Asia for 2,5 months. Been to the US, not much talking there.
- **Do you have family/relatives from an English-speaking country?** Cousins from Austria, speaking English to them. Meeting them with a few years in between
- **How would you rate your English-speaking skills from 1-10 compared to other swedes?** 7

Task 1: Reading a passage

Target sounds:

/ʃ/ - 4/5

/tʃ/ - 5/5

/θ/ - 4/4

/t/ - 5/5

Task 2: Word list

Words:	Chip	Chicken	Cheap	Chair	Child	Choose	Church	Chain	Chili	Chop
Correct	I	I	I	I	I	I	I	I	I	
Incorrect										I
Could not hear										

Replaced with											/ʃ/
----------------------	--	--	--	--	--	--	--	--	--	--	-----

9/10

Words	Ship	Shell	Sheep	Share	Shark	Shoes	Shine	Champagne	Shout	Shop
Correct	I	I	I	I	I	I	I	I	I	I
Incorrect										
Could not hear										
Replaced with										

10/10

Words	Think	Throw	Thin	Three	Thief	Thumb	Theme	Thermos	Thirty	Theater
Correct	I	I	I	I	I	I	I	I	I	I
Incorrect										
Could not hear										
Replaced with										

10/10

Words	Tree	Talk	Taught	Tea	Towel	Tall	Take	Tape	Table	Tiger
Correct	I	I	I	I	I	I	I	I	I	I
Incorrect										
Could not hear										

10/10

Task 3: Describe the pictures

/ʃ/ - 3/3

/tʃ/ - 2/3

/θ/ - 3/3

/t/ - 3/3

Total score:

/ʃ/ - 17/18

/tʃ/ - 16/18

/θ/ - 17/17

/t/ - 18/18