ACCULTURATION STRATEGY AND ITS INFLUENCE ON THE USE OF RHOTICITY BY POLISH ADULT IMMIGRANTS TO WALES

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Abstract
Migration to a foreign country can be a complex process involving the adjustment to a new culture and the acquisition of a second language (L2). Acculturation, the process by which an individual integrates their native values and behaviours with those of the host culture, is an integral part of this process. It has been suggested that the choice of acculturation strategy can either facilitate or hinder L2 acquisition (Schumann, 1986; Berry, 1997). Pronunciation is a vital aspect of L2 proficiency and is often seen as mediating an individual's identity in the host culture (Piske et al., 2001). This study focuses on the pronunciation patterns of ten adult Polish immigrants living in Welshpool, Wales, and attempts to examine the potential relationship between a chosen acculturation strategy (adaptation or preservation) and the use of rhoticity in English. Rhoticity, a salient feature of British English pronunciation that varies in use and quality depending on the region (Wells, 1982), has been previously studied in relation to the use of rhoticity by Polish speakers (Jaworski, 2010; Jaworski & Gillian, 2011; Stolarski, 2013, 2015; Zając, 2016; Rojczyk & Zając, 2017; Matysiak, 2020), with a notable emphasis on the use of taps in intervocalic and post-vocalic positions. The present study found some inconsistencies in the use of rhoticity in English.

Keywords: Acculturation, rhoticity, Polish immigrants, immigrant English, SLA

1. Introduction

As a sociological phenomenon, immigration has always been an intriguing issue. Throughout history, individuals or entire groups of people have been migrating, leaving their homes, and searching for new locations where they might settle down, raise families, and start anew. For various reasons, many people have been leaving their home countries. Some are fleeing war and oppression, while others are looking for work and a higher standard of living.

As a result of migration, a set of variables might affect the well-being of an individual or a group. Acculturation is the process through which immigrants adapt to a new culture, impacting nearly every aspect of their lives outside their home country. It is a two-tiered process, with society and individual components

intertwined (Piske et. al. 2001). The first is concerned with a settlement's economic and political position, as well as its culture and society. Individuals and their qualities, as well as their circumstances as an immigrant in a new country, are the latter's focus. Depending on their chosen strategy, individuals' acculturation strategies can either aid or hinder their ability to function in a new community.

Immigrants will likely encounter numerous challenges and obstacles when they first arrive in a foreign environment. Language is both one of the most frequent and one of the most significant of all. Acquisition of a second language in a naturalistic context provides direct exposure to a given speech community's linguistic and cultural aspects in the new environment. The concept of "naturalistic context" refers to acquiring a language in its natural setting inside the second language speech community (also known as L2). According to previous studies, such environments for L2 learning influence the SLA and can either accelerate or slow down the process depending on the relationship with the L2 community (Schumann, 1986). The pronunciation of the second language is among the fascinating features of SLA in an L2 context.

It has been hypothesised that certain aspects of L2 pronunciation, such as target-like traits, are influenced by internal and external factors in the SLA process (Piske et al., 2001).Such factors as age of arrival (AoA), length of residence (LoR), or the amount of L1 and L2 input immigrants receive daily can affect their second language speaking skills. Waniek-Klimczak (2011), Matysiak (2016, 2020) and Matysiak & Woźniak (2021) have found that acculturation strategy paired with other personal and social characteristics may also be a crucial component that determines L2 speakers' pronunciation. Rhoticity is a phonetic characteristic frequently chosen as a phonetic parameter since it is regarded as one of the most striking qualities of British English pronunciation (Waniek-Klimczak, 2011; Zając, 2016).

The primary goal of this study is to investigate a possible connection between the acculturation strategy used by adult Polish immigrants in Wales and rhoticity in their L2 pronunciation (based on the phonetic parameter indicated above).

2. Selected factors affecting the process of L2 acquisition

The process of second language acquisition (SLA) is complex and multifaceted, and numerous experimental studies have sought to understand the factors that influence its development in L2 learners. However, the results of these studies have often been contradictory due to differences in design and methodology, making it difficult to discern which elements have the greatest impact on the overall degree of SLA (Piske et al., 2001). Factors that have been considered include the length of residence in an L2 speaking environment (LoR), the amount of L1 and L2 use in daily communication with the L2 speech community, attitude

towards the L2 and L2 environment, and acculturation strategy. However, relatively little attention has been paid to variables such as L1 input and L2 proficiency upon arrival in the L2 country. It is difficult to assess these factors at the moment of arrival and determine the amount of L2 use in interaction with English-native speakers. In his numerous studies, Flege (1992, 1997, 1999, 2001) has focused primarily on the age of arrival in the L2 country (AoA) and has proposed dividing L2 speakers into two groups: early and late learners. According to Flege (1999, 2001), L2 speakers who began learning the second language at a relatively young age (before the age of 15) are more likely to achieve a native-like accent than those who first encountered the second language later in life. A study by Flege, Bohn, and Jang (1997) found that experienced non-native speakers produced English vowel sounds more accurately than inexperienced speakers, suggesting that earlier L2 acquisition leads to more effective SLA. However, there is little research on the impact of L2 proficiency on the SLA process among Polish immigrants in the United Kingdom.

On the other hand, earlier research by Flege (1997, 1999, 2001, 2009) suggests that immigrants who arrive in the UK with a relatively high level of spoken and written English are less likely to experience difficulty communicating with the L2 population in everyday life and are more likely to use English frequently. Those with a basic level of L2 (or no prior L2 experience) may struggle to interact with the L2 community due to affective filter and language shock, hindering the SLA process. A more recent study by Waniek-Klimczak (2011) among proficient English learners who settled in the UK supports this idea, finding that high levels of L2 proficiency are associated with lower levels of language and culture shock upon arrival. In this study, high L2 proficiency was also linked to a positive attitude towards the L2 and the use of an acculturation strategy that emphasizes the adoption of L2 norms and values. However, this study only considered highly proficient L2 learners. In general, most research on the impact of L2 proficiency upon arrival suggests that those L2 learners who arrive in a given L2-speaking country with higher levels of L2 proficiency tend to achieve L2 pronunciation more successfully than those without previous L2 experience.

The effect of L1 and L2 exposure and use on L2 proficiency has been examined in relation to factors such as LoR and previous L2 experience. Research on L2 input supports the hypothesis that two factors contribute to the development of L2 proficiency (particularly in pronunciation): length of residence and amount of L2 input (Piske et al., 2001). Longer periods of residence in the L2-speaking country and higher levels of L2 input are associated with more accurate L2 pronunciation. However, the relationship between these factors and L2 proficiency is not necessarily linear, as other factors such as age of arrival and L2 proficiency upon arrival may also play a role.

3. Acculturation strategy

The change in one's place of residence is inextricably linked to the acculturation process, which, according to Schumann (1986), is defined as the circumstance in which a person from a particular cultural background comes into close contact with a culture and a language that are utterly foreign to them. Individuals' selection of an acculturation technique might determine their overall success or failure in the new environment.

Schumann (1978) identified three key acculturation strategies: assimilation, adaptation, and preservation. Assimilation is often connected with abandoning L1 conventions, habits, or values in favour of those of the L2 linguistic group. Adaptation is more likely to occur when L2 learners recall their background, respect their mother language, customs, and national identity, but also become receptive to the impact of the TL culture, seek out interactions with the L2 society, and engage in its social life. The third alternative, preservation, is adopted by those L2 learners who prefer to reject everything related to the L2 speech group and insist on maintaining their L1 language, culture, and national identity. They have little interest in using or learning L2 or participating in the social life of the L2 community; they typically reside among L1 speakers and tend to avoid or at least minimise their interactions with L2 speakers.

Berry (1997) outlined four acculturation strategies: assimilation, integration, separation (equivalent to Schumann's assimilation, adaptation, and preservation), and marginalisation. Berry's model is widely used as a reference point in acculturation research. The last strategy, marginalisation, occurs when an individual rejects their culture of origin and the dominant host culture (a person is neither interested in interacting with their local society nor intercultural exchanges). Although Schumann asserts that assimilation is the most accurate predictor of SLA performance, according to Berry (ibid) integration appears to be the most beneficial in achieving long-term well-being and contributing to the overall SLA success.

A qualitative study conducted by Waniek-Klimczak (2011) among proficient ESL speakers is also noteworthy here. The author focuses on the language experience and acculturation strategy used by university-educated speakers of English. The results indicate that adopting such strategies as assimilation and integration may influence the SLA process, particularly when combined with a high level of English proficiency on arrival. Matysiak's (2016, 2020) studies appear to validate that L2 learners who were more skilled in L1 upon arrival had an advantage over those who came to the United Kingdom as novices. More recent studies by Matysiak and Woźniak (2021) on a group of Polish immigrants to Wales support this observation.

4. Rhoticity

The major distinction between English accents, according to Wells (1982), is the

pronunciation of the syllable coda /r/ or its absence. Accents of English are split into three categories: rhotic accents, non-rhotic accents, and variable rhotic accents. Non-rhotic forms include RP and Welsh accent. Postvocalic [r], non-prevocalic [r], and syllable coda or syllable-final [r] all refer to the [r] sound that occurs at the conclusion of a word or before a consonant (for example: far, car, rare). The most frequent content for the possible use of rhoticity – postvocalic /r/ – can be deceiving since its name implies the inclusion of the intervocalic environment as well. However, rhoticity does not typically vary in the intervocalic environment, and there are very few varieties of English in which so-called intervocalic r-dropping occurs (Wells, ibid). The context for the presence or absence of rhotic sounds is determined by the sounds that precede or follow them. This neighbourhood may be differentiated based on the previous vowel's class and its stress pattern (Downes, 1998). Thus, words like fur, far, and offer have a word-final /r/, but their use of rhotic sounds may differ for speakers with variable rhoticity (ibid).

Additionally, there are two other terms associated with rhoticity. These are frequent in the connected speech of non-rhotic English variations (including Welsh): linking /r/ and intrusive /r/. Linking /r/ is the [r] sound that occurs in non-rhotic accents at word-final vowel-beginning places, as in "more and more." The existence of connecting /r/ may indicate that speakers with non-rhotic accents have a lost underlying /r/ phoneme. Linking /r/ exists in spelling. Intrusive /r/ is the [r] sound that appears between a word-final unstressed vowel and the next word-initial vowel, when there was never a historical /r/, as in "Africa and America". The existence of intrusive /r/ suggests that there is no underlying phoneme. This characteristic of pronunciation is stigmatised in non-rhotic accents (Downes, 1998). Intrusive /r/ does not appear in spelling.

Rhotic sounds are commonly used by speakers of various world languages and are relatively difficult to produce – it is claimed that they are among the final sounds youngsters learn to pronounce in the SLA process (Jaworski, 2010). It is evident among languages with a trill in their sound system (such as Polish). One reason for such late acquisition of rhotic sounds is that it demands a considerable amount of effort put into articulation, which is why many young children find it very difficult to producethem? correctly (Jaworski, 2010). Due to the articulatory complexity of the trill, many speakers tend to replace it with more comprehensible sounds such as taps, fricatives, or even approximants (Stolarski, 2013). Tap realisations of this phoneme are the most common variants of /r/ sound production found in natural speech so far (Stolarski, 2015). Tapping, fricativisation, and approximantisation of rhotic sounds are frequently regarded as speaker-friendly ways of producing rhotics because they reduce articulatory effort (Jaworski, 2010).

According to Wells (1982), trills and taps are the most typically produced rhotic sounds. To refer to a particular sound as a trill, during the articulation, one organ of speech should vibrate against the other during the articulation. The alveolar trill is articulated with the apex, resulting in a succession of closing and

opening actions. Trills are especially significant because any muscle effort does not control the tongue movements. It makes trills similar to vocal fold vibration when one produces voiced sounds. After the active articulator fully closes with the passive organ, a sufficiently strong airflow separates them, and a certain quantity of air passes through the articulators. As a result, the pressure behind the closure decreases dramatically, and the active articulator returns to its original position, resulting in another closure. Overall, trilled articulations are made up of two or three such cycles that occur one after the other. Because trilling depends on the size and shape of the aperture and the airflow, even minor modifications to one of these parameters can result in a non-trilled rendition of a given sound (Wells, 1982; Jones, 1981).

Speakers of languages where trills do not contrast with other rhotic sounds seldom create trilled realisations. Similarly, in Polish and Russian, they are often realised as taps. Taps, unlike trills, have only one brief closing. Numerous phoneticians, such as Ladefoged (2006), distinguish between taps and flaps. In the first situation, a momentary contact is established between the articulators by advancing the active articulator directly toward the roof of the mouth. However, in the second case, the active articulator advances toward the contact site and touches it passingly.

Rhoticity was used as a phonetic criterion with a view to the research as this phonetic trait is regarded as one of the most distinctive aspects of English pronunciation. Furthermore, the quality of rhotic sounds in Polish is unquestionably distinct from the /r/ sound in British and American English. In Polish, /r/ is often realized as a tap, while in British English, it is often pronounced as an approximant. Therefore, it is intriguing to examine the patterns of /r/ and possible realizations based on voice recordings produced by Polish immigrants in Wales. As previously stated, there is currently a limited number of research examining the usage of rhoticity or its absence among Polish immigrants to the United Kingdom. More recent studies (Waniek-Klimczak, Matysiak, 2016; Zając, 2016; Waniek-Klimczak, Zając, 2017) indicate that the variable usage of rhoticity may serve as a speech signal or be the result of an imperfect L2 acquisition.

5. The study

The present study investigates the possible connection between an acculturation strategy adopted by Polish adult immigrant L2 learners residing in Welshpool (Wales) and their usage of rhoticity in L2 speech. The participants' English overall proficiency on arrival could be described as beginner (they all declared the lack of substantial knowledge of English at that time). The study provides additional insight into the methodological framework appropriate to this type of research, despite the sample size being insufficient to demonstrate a specific tendency.

5.1. Participants

L1 and L2 speech samples were recorded in naturalistic L2 settings. The interviewees were not selected based on a precise set of criteria; they were often individuals with unique ties to the researcher, such as coworkers, acquaintances, or friends who had chosen to reside in this location. All of them voluntarily participated in this experiment, however their self-esteem related to their English performance was not always high. Furthermore, not all of the respondents presented a positive attitude towards their L2 and the second language speaking community. The total number of individuals recorded was 10. Each participant in the research has a unique background story. Interestingly, all the participants were creating a social network at the moment of recordings – they lived close to one another, they worked and spend their leisure time in each other's company. Their length of residence ranges from 10 to 18 years. (Appendix III).

The present study investigates the use of rhoticity among selected representatives of the recorded participants (10 speakers in total), namely Polish adult immigrants to Welshpool aged 30 to 45, whose length of residence was longer than ten years and whose level of English on arrival was declared in questionnaires as beginner (9 participants) or elementary (1 participant).

5.2 Data collection procedure

The study provides quantitive and qualitative data analyses. The quantitative data were collected by means of the recording of participants' "controlled" speech - they were asked to read out separate words describing a busy street (in English) located around the picture illustrating the street and containing the context for the possible use or omission of rhoticity. Participants read out the following words aloud: **car, digger, fire engine, market, motorcycle, roller** and **trailer**. The visual materials were adapted from" My First Thousand Words in English" by Usborne Publishing – Usborne Children's Books (Appendix I).

The qualitative data were acquired using a structured interview. The speakers were given a questionnaire (Appendix II) containing 22 questions covering such topics as background information and language experience (such as age, place of birth, first and second language), views towards the L2 speech community, the culture, and the language itself, as well as those on socio-affective characteristics (such as language or culture shock). All questions were presented in English, and participants were instructed to read each question aloud and respond in their second language. After a brief period of familiarisation with the material, the speakers were invited to read the questions aloud at a natural pace. They were asked additional questions anytime the researcher needed clarification or further explanation. This task had no specified time restriction.

Both models presented by Schumann (1986) and Berry (1997) describe variables that constitute for one's acculturation strategy, but these do not provide any scale for determining strategies on the basis of values or descriptors associated with specific variables. The exhaustive overall analysis of the survey results exceeds the space limitations of an article. Therefore, in order to determine the

acculturation strategy adopted by each immigrant, the researcher selected four questions that directly referred to the issue of social identification and social networks (readiness to socialise with English native speakers) as well as the effectiveness in improving English language skills. These are the following questions in the questionnaire: Number 11: Do you speak more Polish or English in everyday life situations? Number 19: What do you think about English itself? Do you like the language, its melody etc.? Number 17: How important it is for you to be recognized as a person of Polish origin? Number 20: Do you like spending your free time with British people or do you prefer to have contact with your Polish friends? Do you take an active part in your community's social life? Answers to the selected questions were manually coded in the process of labelling[1], to identify common themes and to receive quantifiable information. Each interviewee was attributed an index number (from 1 to 10). The analysis allowed to divide participants of the study into two groups that used two different acculturation strategies.

Both reading the words in isolation (based on the image) and making rhotic sounds while reading out questions from the structured interview were evaluated for their rhoticity. The primary objective of this section was to identify potential parallels and variations in the generation of rhotic sounds in formal and casual speech.

The executed analysis was acoustic - Praat software was used in order to create and then analyse oscillograms and spectrograms (Figures 1 and 2 illustrate rhoticty in the example word: 'car').

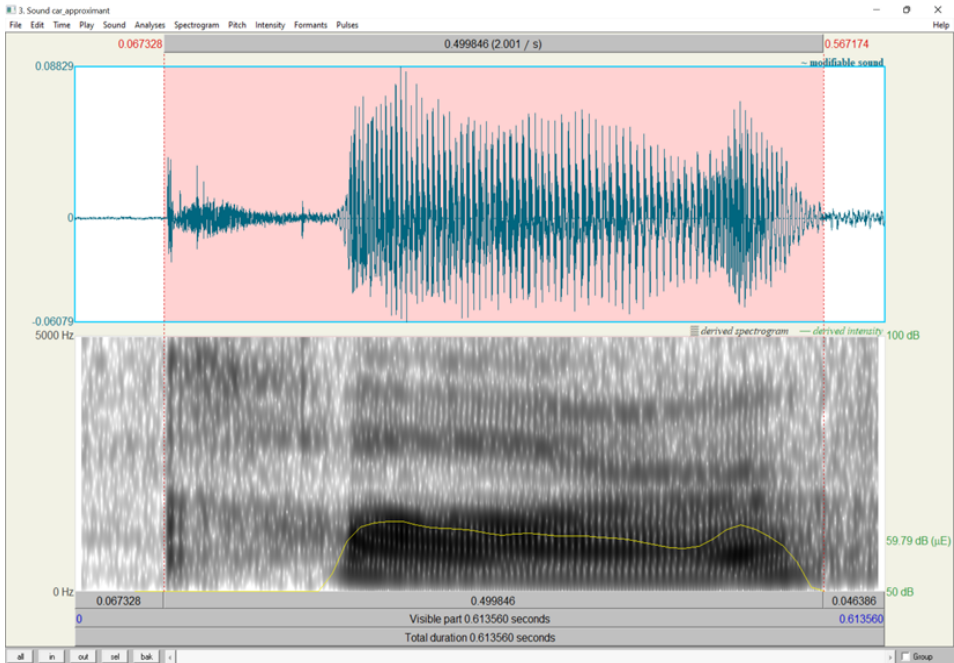[1]For more information on coding see Babbie (2005), Elliott (2018), and Flick (2012), among many others

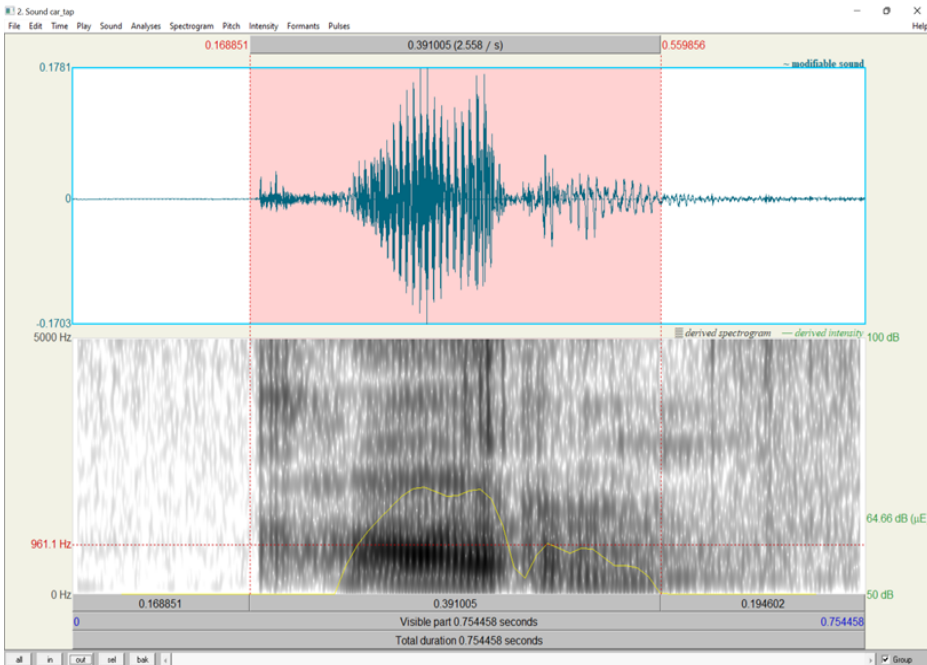**Figure 1**: A visual representation of the approximant in the English word 'car'.

Figure 2.:A visual representation of the tap in the English word: 'car'

6. Findings

This part presents some major findings based on the analysis of participants' speech covering reading out words in isolation and reading out questions from the questionnaire.

6.1. Rhoticity in separate words

Those immigrants who came to the UK with an elementary level of English and whose acculturation strategy turned out to be adaptation were relatively consistent with the use of rhoticity (most of them produced an approximant quality of /r/ sound)., They often used /r/ before a pause, but, at the same time, sometimes they skipped /r/ sounds in the same position within different words. It is rather difficult to explain the variety within such words as *roller, trailer, car* or *digger*. It is worth noting that all five speakers produced the word   *motorcycle* without /r/. Hence, they were closer to British-like pronunciation by omitting the /r/ sound in this word or transferring the Polish pronunciation pattern of this word (*motocykl*) where the/r/ sound does not exist. The speakers have no problems with the production of linking /r/ as they all produced this sound in the intervocalic position. It is uncertain if this feature is something they can control or if it occurs naturally in the process of casual speech. However, it seems that linking /r/ is articulated/produced? effortlessly and naturally in this context.

Interestingly enough, no speakers in this group would use the typically Polish quality of /r/ (taps), so it can be said that their pronunciation is not much of L1 influence. One of the speakers who? stands out with her non-rhotic pronunciation, especially in the final position.

Table 1: The use of rhoticity in reading out words in isolation by L2 speakers who chose adaptation as their acculturation strategy (n=5). (app.=approximant, retr.=retroflex)

	speaker	trailer	market	motorcycle	car	fire engine	digger
Sp1	NO	NO	YES/app.	NO	NO	YES/linking	NO
Sp2	YES/app.	YES/app.	YES/app.	NO	YES/app.	YES/linking	YES/app.
Sp3	NO	NO	NO	NO	YES/retr.	YES/linking	YES/app.
Sp4	NO	NO	NO	NO	NO	YES/linking	NO
Sp5	YES/app.	YES/app.	YES/app.	NO	YES/ app.	YES/linking	YES/app.

It seems that those L2 learners who chose preservation as their acculturation strategy are rather consistent in the use of /r/ and appear to be generally less aware of possible changes and patterns in /r/ production as the majority of them use rhoticity and the quality of their /r/ sounds is similar to the Polish tap, especially in the word-final positions. Although three of them produce /r/ with approximant quality after a vowel and before a consonant (in the word *market*), they still produce taps in most other contexts, making them different from their adaptation-oriented colleagues. They turned out to be consistent in the pronunciation of the word *motorcycle. T*he fact that in Polish the word *motocykl* does not involve any

/r/ sound could be crucial. Such results may lead to the conclusion that the chosen assimilation strategy might indeed be one of the factors that affect the use of rhoticity by the recorded participants. Those who adapt to the new environment, seek contact with the L2 speech community, and use L2 willingly daily are much more prone to acquire more native-like L2 pronunciation, with their speech being less L1 influenced.

Table 2: The use of rhoticity in reading out words in isolation by L2 speakers who chose preservation as their acculturation strategy (n=5). (app.=approximant)

	roller	trailer	market	motorcycle	car	fire engine	digger
Sp6	YES/tap	YES/tap	YES/app.	NO	YES/tap	YES/linking	YES/tap
Sp7	YES/tap	YES/tap	YES/app.	NO	YES/tap	YES/linking	YES/tap
Sp8	YES/tap	YES/tap	YES/tap	NO	YES/tap	YES/tap	YES/tap
Sp9	YES/app.	YES/app.	YES/tap	NO	YES/app.	YES/linking	YES/app.
Sp10	YES/app.	YES/tap	YES/app.	NO	YES/app.	YES/linking	YES/app.

6.2. Rhoticity in word boundaries (sentences)

The occurrence of rhoticity or the lack of it depends on the position of /r/ sound in a word. The presence or the lack of rhoticity can be easily determined in the word final position, after a vowel and before a pause. In non-rhotic varieties, the /r/ sound at the end of such words is not expected to occur unless the next word begins with a vowel. If we consider the results of /r/ production among the speakers who chose adaptation as their acculturation strategy, it becomes obvious that their /r/ production is rather consistent. Although it does not strictly follow the patterns of non-rhotic pronunciation (they mostly pronounce /r/ sound at the end of words - especially when preceded and followed by a vowel sound), there are practically no instances of using typically Polish pronunciation of /r/. However, the situation slightly changes in case of the word *born* – here all the respondents produce approximant before a consonant. It can be concluded that thanks to the use of L2 on the daily basis, this group may have more language awareness than those who use preservation as their acculturation strategy. Still, their performances are influenced by the presence of rhotic pronunciation pattern, and they are not yet fully consistent in their pronunciation pattern. However, they show much more sensitivity to non-rhotic way of producing /r/ sound – so the lack of it – before a consonant (Table 3).

On the contrary, the group who chose preservation as their acculturation strategy mainly uses 'tap' to pronounce rhotic sounds (Table 4). It seems that those speakers' L2 is heavily influenced by their L1 as they are rather reluctant to use L2 daily and avoid interactions with other L2 speakers (either native or non-native speakers of English). Surprisingly, two speakers did not pronounce the /r/ sound in the word *where* followed by *were*. It is unclear whether it resulted from the fact that they are becoming more aware of L2 speech patterns or whether it was just easier for them to pronounce *where* without a rhotic sound.

Table 3: Rhoticity investigated in the final position of a word, before a consonant or a pause in speakers employing adaptation as an acculturation strategy (n=5). (app.=approximant)

	When and where	were you	born?
Sp1	NO	NO	YES/app.
Sp2	YES/app.	YES/app.	YES/app.
Sp3	NO	NO	YES/app.
Sp4	NO	NO	YES/app.
Sp5	YES/app.	YES/app.	YES/app.

Table 4: Rhoticity investigated in the final position of a word, before a consonant or a pause in speakers employing preservation as an acculturation strategy (n=5). (app.=approximant)

	When and where	were you	born ?
Sp6	YES/app.	YES/app.	YES/app.
Sp7	YES/tap	YES/tap	YES/tap
Sp8	YES/tap	YES/tap	YES/tap
Sp9	NO	YES/app.	YES/app.
Sp10	NO	YES/app.	YES/app.

Another interesting case is the occurrence of /r/ between two vowel sounds, such as in words *there any* shown in tables 5 and 6. This time the results show that speakers who chose adaptation as their acculturation strategy are not that consistent with the use of /r/ sound. Three of them do not pronounce it in *are,* but then the same person (Speaker 1) uses retroflex in *other*. Speaker 5 uses a strong tap in *are,* yet he does not pronounce /r/ in *other*. Two speakers (Speaker 3 and AniaK) seem to preserve most British-like pronunciation without producing /r/ in the context where it is likely to be omitted in Welsh English. It is interesting to point out that in the sequence *there any,* all of the speakers use /r/ in intervocalic position as linking /r/.

Table 5: Rhoticity investigated in different contexts – intervocalically and after a vowel followed by a consonant in speakers with adaptation chosen as an acculturation strategy (n=5). (app.=approximant)

	Are	there any	other languages you speak?
Sp1	NO	YES/linking	YES/app.
Sp2	YES/app.	YES/linking	YES/app.
Sp3	NO	YES/linking	NO
Sp4	NO	YES/linking	NO
Sp5	Yes/tap	YES/linking	NO

The results for speakers who chose preservation as their acculturation strategy are slightly different as it turns out that this group is more consistent with their use of taps. The word *are* is pronounced with a typical Polish quality of the rhotic sound by every speaker. When it comes to its intervocalic position in *there any*, the pronunciation of all the participants contains /r/, but its quality is different with three speakers using a strong tap in this position. The word o*ther* is generally produced with a tap. Two speakers who used tap in *are,* do not produce the rhotic sound in o*ther*.

Table 6: Rhoticity investigated in different contexts – intervocalically and after a vowel followed by a consonant in speakers with preservation chosen as an acculturation strategy (n=5).

	Are	there any	other languages you speak?
Sp6	YES/tap	YES/linking	YES/tap
Sp7	YES/app.	YES/tap	NO
Sp8	YES/tap	YES/tap	YES/tap
Sp9	YES/tap	YES/tap	YES/tap
Sp10	YES/app.	YES/linking	NO

The last group of investigated patterns of /r/ is the context of its occurrence before a consonant in *learn* or a sequence such as *before coming*. While looking at tables 7 and 8, the difference in /r/ performance is relatively easy to notice. Almost all speakers who chose adaptation as their acculturation strategy tend to put an approximant quality /r/ after a long vowel and before a consonant (Table 7) which makes them sound American in their way of production of /r/. It can be explained by the fact that they are more prone to catch the proper native-like pronunciation because they deal with it daily, yet they cannot get rid of their pronunciation habits from the past.This could be referred to as 'interlanguage' (Selinker, 1972). Such a situation is prevalent among Polish learners of English, especially English students in their first year of English philology and at the beginning of their pronunciation course (e.g. Waniek-Klimczak and Zając, 2017). On the other hand, those speakers who use preservation as their acculturation strategy seem more consistent with their Polish-like pronunciation of /r/ (Table 8). The lack of interactions with the L2 speech community and the limited L2 use resulted in their L2 pronunciation being heavily influenced by their L1.

Table 7: Rhoticity investigated before a consonant in speakers with adaptation chosen as an acculturation strategy (n=5).

	Did you learn English	before coming to the UK?
Sp1	YES/app.	YES/app.
Sp2	YES/app.	YES/app.
Sp3	NO	NO
Sp4	NO	NO
Sp5	YES/app.	YES/app.

Table 8: Rhoticity investigated before a consonant in speakers with preservation chosen as an acculturation strategy (n=5).

	Did you learn English	before coming to the UK?
Sp6	YES/tap	YES/tap
Sp7	YES/tap	YES/tap
Sp8	YES/tap	YES/tap
Sp9	YES/app.	YES/app.
Sp10	YES/app.	YES/app.

7. Discussion

The results concerned the use of rhoticity revealed that, generally, Polish immigrants are inconsistent in using this phonetic feature. Although non-rhoticity is considered one of the most characteristic features of British English pronunciation, Polish immigrants have some problems with the use or omission

of the /r/ sound depending on the context and – equally important – some issues with its quality. The acoustic analysis, however, suggests that the subjects assimilated several native-like pronunciation features successfully.

Regarding acculturation strategy, half of the participants show a positive attitude towards L2 language and society as such, being eager to interact with other non-native or native speakers of English by participating in numerous social events or through everyday interaction. They are satisfied with the new place of residence and have jobs they are content with; some started families or set up their small businesses and have no intention of returning to their L1 environment. Such an attitude is believed to create favourable conditions for SLA as well. The primary assumption of the study was that those L2 speakers who use adaptation as their acculturation strategy are more likely to sound non-rhotic.

If Welsh English is – by default – non-rhotic, then L2 speakers should try to imitate Welsh speakers and are not expected to use rhotic sounds in specific contexts (after a vowel, at the word boundaries or before pauses). However, the results and the analysis show that it is not always the case. Those speakers are usually more aware of the existence and the lack of rhotics in a particular environment. They are more successful in the general use or omission of /r/ than their colleagues who use preservation as their acculturation strategy and who were assumed to transfer their Polish-sounding pronunciation pattern of the/r/ sound.

Another essential aspect of /r/ production by Polish immigrants is that the quality of /r/ sound is not the one we would expect as it has the quality of the approximant. What might be the reason for that? Apart from the fact that the speakers may transfer their learning habits into the new L2 environment or interact with numerous non-native speakers, which is not the best way to improve their pronunciation, such a situation may be explained by the fact that they do not fully assimilate or integrate with the society living in the UK. Although half of the group highlights their positive attitudes to English as their second language, L2 speaking community or the country's customs and culture, it seems that they still preserve their language and prefer living or working within the communities of other L1 speakers.

According to most of their answers about integration, the majority of respondents admitted that although they generally enjoy having contact with native or other non-native speakers of L2, yet – in the first place – they seek connection with other Polish immigrants. Contrary to the previous findings (Schumann, 1978, 1986; Berry, 1997, Waniek-Klimczak, 2011), it can be concluded that adaptation (at least as the strategy declared by the participants) is not necessarily decisive when it comes to the acquisition of certain features of English pronunciation. Adaptation as an acculturation strategy stated by five L2 speakers can undoubtedly help them develop their second language. However, in the case of rhoticity, it seems they are immune to assimilating or integrating with L2-speaking society fully and utterly. They seem to adopt their L2, do not mind a new environment and speaking community, and have a generally positive attitude

towards their new life situation. Yet, they still cultivate their traditions, use L1 whenever possible, and look for other Polish immigrants' company. In this respect, the new immigration resembles the old one.

8. Concluding remarks

The present study has its limitations. Firstly, a relatively small number of participants who agreed to participate in the recordings (twenty-one speakers in total, ten selected for the study) may not be large enough to investigate some regular features or patterns of pronunciation typical for Polish immigrants to Wales. A bigger sample would be needed for further studies. Secondly, the design of the study is far from being perfect as, for instance, the words connected with the picture of a busy street were given on a single sheet of paper – hence, some speakers made practically no pauses between given words, and that could affect the quality /r/ sound produced. The limited number of contexts makes it hard to prepare a more accurate analysis – for instance, there are no contexts for intrusive /r/ regardless of the type of the task (read or spoken). In the future, it might be helpful to conduct a detailed comparative analysis exploring the use of rhotic sounds in English and Polish. Thanks to such studies, the effect of L1 on L2 pronunciation could be explored in detail. It seems that it might be a good point of reference for the possible follow-up study or further studies on this aspect in general, as there is still a need to fill the gap in the literature devoted to the issue of immigrant English. Studies on immigrants' speech are important for several reasons. Firstly, they can provide insights into the linguistic and cultural barriers that immigrants face when adapting to a new society. Secondly, they can help us understand the ways in which language and identity are intertwined, and how language use can impact an individual's sense of belonging and acceptance in a new community. Thirdly, research on immigrant speech can also have important implications on pronunciation teaching by providing evidence-based approaches to support multilingualism and language diversity.

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Appendix I

"The street" (adapted from "First Thousand Words in English" by Heather Amery, Usborne Publishing - Usborne Children's Books, 2007)
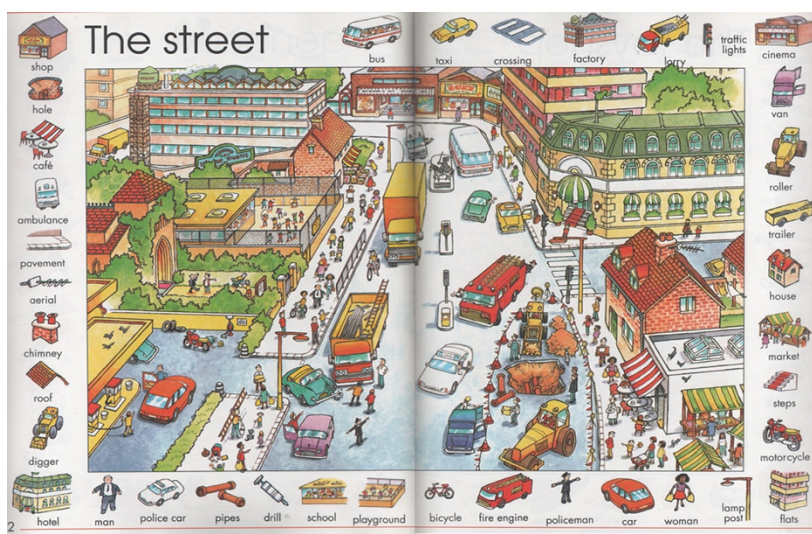
Appendix II

QUESTIONNAIRE:

1. When and where were you born?
2. What's your mother (first) language?
3. What's your second language?
4. Are there any other languages you speak?
5. When did you come to Welshpool? How old were you at that time?
6. Why did you decide to come here? To find a job/to study/to improve your English?
7. Did you learn English before coming to the UK? If yes, how long was that and how did you learn the language (regular school classes, special courses etc.)
8. Have you ever been to different parts of the UK before?
9. How do you learn English in the UK? Is it important for you to improve your language skills?

10. How would you assess your English before you came here and now?
11. Do you speak more Polish or English in everyday life situations?
12. How much Polish and English do you speak at home/at work/among friends/ when you have to communicate with British people (while do the shopping etc.)?
13. Are there more Polish or English people in the community you live in?
14. Do you read any Polish newspapers/magazines or watch TV/radio programmes or films in Polish? How often do you do that?
15. Are you interested in what happens in Poland? Do you follow the news about the country of your origin?
16. How often do you go to Poland? Do you miss your country when you are in Welshpool?
17. How important it is for you to be recognized as a person of Polish origin?
18. Do you think the fact that you are Polish helps you in everyday life situations (like looking for a job etc.) or not? Are there any stereotypes of Polish people in the UK?
19. What do you think about English itself? Do you like the language, its melody etc.?
20. Do you like spending your free time with British people or do you prefer to have contact with your Polish friends? Do you take an active part in your community's social life?
21. What was the most difficult for you when you first came here? What kind of problems did you have as regards your new job, everyday life routine etc.?
22. Do you plan to settle down in Welshpool for good? Why?

Appendix III
Immigrants' profiles

Speaker 1

Speaker 1 came to the UK in 2005 at the age of 28. Before that time, she had worked in Poland as a nurse and wasn't satisfied with her salary, so she decided to emigrate. Speaker 1 joined her husband Speaker 2, who had already been to Wales (Welshpool) since 2004. Speaker 1 claims that her English level on arrival was a beginner – she studied it at secondary school, but she wasn't a diligent student then. Speaker 1 initially had difficulties adapting to her new environment due to her insufficient L2 knowledge and felt insecure and self-conscious. She also worked under her qualifications for more than ten years. That affected her overall self-esteem. However, despite initial difficulties, Speaker 1 overcame her 'affective filter' and decided to interact with the L2 speech community daily. Thanks to that, she feels she has improved her English greatly since her arrival. Speaker 1 takes an active part in her community's social life. She also works with native and non-native speakers of English, so she uses English a lot in everyday situations. Although Speaker 1 has adapted to her new speech environment, she still watches much Polish TV, follows the news about Poland, talks to her Polish friends and family on Skype regularly and visits Poland at least two times a year. She also lives among Poles, so they often meet socially.

Speaker 2

Speaker 2 is Speaker 1's husband. He came to Welshpool in 2004, soon after the EU enlargement. As a result, Poland became a member state, and the borders were opened for immigrants. Speaker 2 was 29 when he first came to the UK. Speaker 2 chose to leave his mother country because of the lack of prospects for a good salary and an acceptable standard of living. Speaker 2 admits that he came to Welshpool with practically no L2 knowledge – he could not speak, read or write in English and did not even understand much of what native and non-native speakers were saying. However, he decided to take advantage of the fact that he found himself in an L2 environment and started interacting with L2 users daily. This way, Speaker 2 gradually acquired the skills to maintain conversations, run errands, or deal with official documents. Although Speaker 2 likes English and does not avoid contact with native and non-native speakers of English, he is also

connected with his Polish family and friends, whom he talks to weekly online or visits at least twice a year.

Speaker 3

Speaker 3 is Speaker 2 and Speaker 1's daughter. She came to Welshpool in 2008 at 13, soon after graduating primary school in Poland. She is the youngest participant in the study, but at the same time – one of the most proficient of all the immigrants that took part in the recordings. Although she studied English before coming to Wales, Speaker 3 admits that she did not pay enough attention during classes thinking that it would never come in handy for her. At first, she had severe problems expressing herself in English, but she was motivated to improve her L2 skills as she started going to Welsh junior high school with mostly native speakers as her teachers. As a very outgoing and sociable person, Speaker 3 quickly made friends with other L2 users and started speaking English daily. She has been engaged in her community's social life since her arrival, she enjoys the company of other native or non-native English speakers, and she gladly adapted to the new circumstances. She claims that she sometimes misses Poland and her friends left back there, but generally, Speaker 3 treats Wales as her home, and she cannot imagine returning to Poland, at least in the foreseeable future.

4. Speaker 4

Speaker 4 came to Wales in 2007 at the age of 25. She decided to immigrate because she wanted to join her boyfriend (now her husband). After finishing her studies, she decided to give it a chance to try something new and live in a new place. Speaker 4 claims that she studied English for about ten years before coming to the UK, but she assesses her L2 level as elementary. She decided to treat learning English seriously, and although she did not join any official English course for foreigners, she managed to learn the language herself. At the moment of recordings, she spoke fluently, and her pronunciation was pretty good. Speaker 4 is very open-minded and seeks any possible opportunity to improve her L2 skills. She likes speaking English and interacting with the L2 speech community. She sometimes has problems with code-switching and often mixes both languages while talking to people. Speaker 4 works with native and non-native speakers and is involved in many social activities organized by the L2 speech community. Although she is still interested in what is happening in Poland, she cannot imagine living anywhere else than in Welshpool.

Speaker 5

Speaker 5 came to Wales in 2006 at the age of 21. He decided to come here to find a job that would make it possible to make ends meet and would provide him with substantial income. Speaker 5 learned English at school but – similarly to other speakers – was not a very diligent student. He assessed his English level as a beginner, but he points out that since his arrival, his level of spoken English has improved significantly. Speaker 5 works mainly with native L2 speakers, which motivates him to improve his pronunciation. He also meets his British workmates after work at a pub or a club, and they talk about everyday life issues. They sometimes even go the gym together. Speaker 5 likes English a lot, he also reads much British TV and reads some British newspapers. He does not avoid Polish people and the Polish language. He still follows the news about his mother country, he misses his country, and he tries to visit Poland three or even four times in Poland, where his family lives. Although Speaker 5 tries to adapt to the new life circumstances, he points out that his social identity is still strong: he feels proud of being Polish and never hides it.

Speaker 6

Speaker 6 came to Wales in 2006 at the age of 19. His main reason for emigrating was to find a job. Speaker 6 claims that he had English in secondary school but he did not pay much attention to it at that time. In fact, it seems at the moment of recordings Speaker 6 was not really interested in improving his English level. Although he works with other L2 speakers, he does not seem to seek connections with them in social situations. Speaker 6 believes he just needs some basic L2 speaking skills in order to conduct simple conversations. He admits that he spends most of his spare time with Polish people and consequently, he uses mostly his L1 in Welshpool. He also reads a lot of Polish news online or watches Polish TV only. At the moment of recordings Speaker 6 claimed he wanted to earn money and then within the next few years he was planning to come back to Poland as he

does not feel a part of L2 speech community.

Speaker 7

Speaker 7 came to Welshpool in 2010 at the age of 22. She decided to come here to join her boyfriend, Speaker 5. She only had English at school, but she claims she did not learn much then. She assesses her L2 level on arrival as a beginner. Speaker 7 is a person who works mainly with Polish people, and she also lives in the neighbourhood of Poles. This is why she does not use much English in everyday life situations. She claims she does not need it and prefers the company of her Polish workmates, friends or neighbours. Speaker 7 also watches much TV in Polish, reads news about our country in Polish and is generally interested in what is happening in the country of her origin. She misses Poland a lot as most of her friends and family still live there. Speaker 7 is proud of her Polish roots and claims she does not seek integration with the L2 speech community as Poles surround her. She regards British accents as particularly challenging. She even points out that there are plenty of stereotypes of Polish people in the UK, mostly negative ones – she feels bad about it. Perhaps this is why she declares the will to return to Poland in the future.

Speaker 8

Speaker 8 came to Welshpool in 2004 at the age of 34. Speaker 8 claims that he had never studied English before (his second language at school was Russian). The speaker has many problems with understanding English, and his L2 speaking skills are very poor despite having lived there for so long. The reason may be that Speaker 8 lives surrounded by Polish people, work in a factory where mainly Polish immigrants work, and has plenty of Polish friends. It seems he does not feel motivated to improve his L2 skills as he does not need that. Speaker 8 does not search for the company of the L2 speech community. He feels best with his Polish mates. He only watches TV and films in Polish and also visits Polish websites. Speaker 8 avoids British TV as the language barrier is something he cannot overcome. Although Speaker 8 is not proficient in L2, he claims he is interested in what is happening in Poland. He also misses his country and tries to visit Poland at least three times a year. He is proud of his origins and keeps on preserving Polish customs.

Speaker 9

Speaker 9 came to Welshpool in 2008 for the first time. His motivation for emigrating is similar to the previous respondents' answers, so basically finding a job with a decent salary. Back in Poland, Speaker 9 finished his studies but could not find a job in his profession. Speaker 9 studied English at school and then took some private lessons, yet he assessed his level as a beginner on his arrival. This speaker uses English daily at work, but at home, he speaks Polish as he lives in a neighbourhood dominated by Polish immigrants. Although Speaker 9 claims L2 skills are essential for him, he does not think he needs to master them. He needs to be able to run errands such as shopping. Speaker 9 is connected with his Polish girlfriend, workmates and flatmates. He does not look for contact with the L2 speech community, and he does not take an active part in the events organised by native or non-native L2 speakers. He generally sticks to other Polish immigrants as he feels more confident in their company.

Speaker 10

Speaker 10 came to Welshpool in 2010 at the age of 27. Her motivation for coming to the UK was to join her boyfriend, who had already been living there. Before coming to Wales, Speaker 10 studied English for a few years in primary school. Then she continued learning the language in secondary school. She claims that she mostly took private lessons, but she did not feel very confident in her L2 skills. Speaker 10 admits that she has made no visible progress in her L2 and she expresses the view that improving her English is not that important to her. Although she works with British people, she does not need to use English. Speaker 10's situation is similar to Speaker 6, Speaker 8, Speaker 7 or Speaker 9's – she is surrounded with Polish immigrants with whom she interacts most and that is why she practically uses Polish all the time. Speaker 10 and her boyfriend watch much Polish TV, they also surf the Internet quite frequently – but they mostly read the news or articles in Polish. Despite living and working in the UK, Speaker 10 admits she follows news about Poland, she misses her mother country and she tries to visit Poland as often as possible due to various

reasons. Speaker 10 has a strong social identity, she preserves Polish customs and traditions. She claims she has much better contact with her Polish neighbours and workmates. Interestingly enough, Speaker 10 declares that she does not plan to come back to Poland anytime soon.