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# The Perception of Vowels and Phonological Processes of English by Poles Demonstrating Limited Knowledge of English as Evidenced by Amateur Phonetic Transcription

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## **Abstract**

This paper aims to examine if an amateur phonetic transcription can serve as a provider of information for a specialist in phonetics and phonology. Two phonetic transcriptions of songs and a phonetic prompt prepared for speakers at one of the railway stations in Poland were studied. For obvious reasons, for people who do not have knowledge of phonetics and phonology, the only way to register speech in writing is to use letters of the Polish alphabet. This method of transcription finds its justification in the literature on the subject, where the concept of semi-phonetic transcription is proposed by Polish linguists. In terms of the perception of vowels by Poles, the transcriptions under analysis uncovered some new solutions related to the pronunciation of [ɔ], [æ], [ɪ] and [u:] by Poles. The graphic representation of the closing diphthongs confirmed that they are invariably perceived as a vowel + off-glide sequence also by the musically gifted and/or educated transcribers. As to the relationship between musical skills and linguistic performance, which is also in the focus

of this paper, the most significant observation concerns the transcriptions of songs in which the musically skilled and/or educated transcribers heard chunks of speech rather than single words. Other phonological processes operating in connected speech remained unnoticed by them, but some new light was shed on the perception of syllabicity which was graphically notated as full vowels [e] and [y] apart from [o] and [ɔ] featuring in the subject literature.

**Key words:** phonetic transcription, semi-phonetic transcription, phonology, phonetics, music-phonology relationship

## Phonetic and semi-phonetic transcriptions

Phonetic transcription is a representation of speech sounds with the use of phonetic symbols. The phonetic symbol is the medium through which an utterance is available in writing. A transcriber of a particular set of data has to learn the nuances of phonetic symbols occurring in a given language. However, as Ladefoged claims (1993, p. 26), there is much more to learn and understand in order to record pronunciation and write down a language in a systematic and unambiguous way than the mastery of a set of phonetic symbols alone. To reach the mastery of transcription, one must first decode the numerous principles of phonetic transcription and understand the basic rules of phonology.

The same text, whether written or spoken, can be phonetically notated in various ways depending on the aim of the notation. If the aim is to isolate the significant functional elements of an utterance, the notation that results is broad transcription, also called phonemic. In phonemic transcription, one phoneme is represented by one phonetic symbol. This transcription focuses on such differences between sounds which document differences in meaning. If the aim is to indicate detailed sound values, that is, real speech, the transcription is narrow, also called allophonic. The principle operating here is the one which focuses attention on the details of pronunciation such as, for example, aspiration or velarization in English and *i-* or *u-*gliding in Polish. To put it differently, in this style of transcription, every phonetic feature of an utterance is notated, whether it influences the meaning or not.

Guided by the preferences or requirements, several transcription systems are now in use and none of them rules out the possibility to use another. For example, based on the analyses provided by Ladefoged (1993, pp. 28–31) and Sobkowiak (2001, p. 32), the English diminuendo or (falling) diphthongs are transcribed by different authors in the manner presented in Table 1.

Table 1. Phonetic symbols representing English closing diphthongs

As in the word:	Ladefoged/Wells	Gimson/Jones EPD 14	Benni	Jassem	Bałutowa
bait	eɪ	ei	ej	ej	ei
bite	aɪ	ai	aj	aj	ai
boy	ɔɪ	ɔi	oj	oj	ɔi
boat	oʊ, əʊ	ou	ou	ɔw	ou
about	aʊ	au	au	aw	au

Source: Sobkowiak (2001, p. 31)

The above are just a sample of a variety of symbols used in the literature to transcribe English. It is worth noticing that Benni, Jassem and Bałutowa choose to use the symbols [ej, aj, oj] probably having the Polish learners in mind, as these clusters, to a great extent, remind the Polish spelling sequences <ej, aj, oj>. However, in the remaining two diphthongs, i.e. [aʊ] and [əʊ], Jassem and Benni are not consistent with the Polish orthoepic habits, as the words boat and about were not transcribed as [oɫ] and [aɫ] but as [ɔw] and [aw], and [ou] and [au], respectively. Let us also mention that English diphthongs, as argued by, for instance, Dziczek-Karlikowska (2012, pp. 119–132) can have the graphic representation shown in the following English – Polish pairs of closing diphthongs: [ei] – [ɛj], [ɔi] – [ɔj] and [əʊ] – [ɔw] and centring diphthongs: [ɪə] – [ijɛ] and [ʊə] – [uwɛ].

Notwithstanding the above facts regarding the types of transcription, there is also a simplified so-called semi-phonetic transcription, in which, essentially, instead of phonetic symbols, orthographic signs are primarily used. This type of transcription is used by Lubaś and Urbańczyk (1994) as well as Dunaj (2006, p. 163) who, subscribing to the view that sounds can be represented by orthographic signs, writes as follows:

To facilitate the use of the rules for readers who do not know the phonetic record, I use the semi-phonetic record using orthographic signs. Only exceptionally, when there is no possibility to give the pronunciation by means of orthographic signs, I introduce special phonetic signs, e.g. <i, o>. To distinguish orthographic signs from sounds, the first ones are given in capital letters (Dunaj, 2006, p. 163; the translation is mine).

To complete the above discussion on the types of phonetic transcription, it seems worth mentioning that the semi-phonetic record, which is based almost exclusively on orthographic signs, was also used by Jodłowski and Taszycki (1997, p. 5). They claim that the potential recipient does not have to know the phonetic symbols at all to read the text recorded in this way, for example: szypka, łafka, waliska are pronounced instead of szybka (fast), ławka (bench), walizka (suitcase), and młotszy, grupszy, zdrowszy instead of młodszy (younger), grubszy (fatter), zdrowszy (healthier). Obviously, the spelling is not affected by the loss of voicing by the consonants involved in the words given.

As is commonly known, different transcription systems might be used by descriptive phoneticians, theoretical phonologists, language teachers, lexicographers, speech and language therapists, specialists in computerized systems of speech recognition and text-to-speech synthesis. However valuable is the phonetic transcription in the realm of science, it cannot be left unnoticed that the medium of writing used to represent the medium of speech also finds its application beyond the professional domain. If the users of a foreign language happen to be untrained or not professionally guided, it is highly possible that they will develop their own systems of graphic representation of the sounds they hear and these systems are often far from those referred to above. Having little or no knowledge of phonetic theory, while transcribing, these users are often guided or rather misguided by both segmental and prosodic factors.

## Difficulties resulting from the differences between the Polish and English systems of monophthongs, closing diphthongs and phonological processes

As has been shown in numerous studies, Poles learning English face the problem of finding an exact Polish substitute for English vowels. Problems arise for several reasons. First of all, in the British English system of monophthongal vowel sounds, there are 6 short vowels (and, additionally, [ə]) and five long vowels. The short vowels are only relatively short, as their length or duration depends much on the following sound. Long vowels tend to be longer than the short ones when placed in similar contexts. The length or duration of vowels depends on the sound that follows or the presence or absence of stress (e.g. Roach, 2009, p. 16). Apart from length, the short – long pairs of similar English vowels, for instance, [i:] and [ɪ], also differ in quality, which results from the different shape and part of the tongue engaged in the articulation and the shape of lips. In addition to the monophthongal vowel sounds, English has 8 sequences of two vocalic elements forming a glide within one syllable, that is, diphthongs, whereas in Polish, identical combinations do not exist.

To compare, in the Polish system, there are only 6 vowels. Hence, the Polish learners of English have to learn and recognize a set of sounds which are either non-existent or different than those present in their native language. Furthermore, the duration of English vowels being inherent to particular positions makes this feature distinctive in this language whereas in Polish the feature of length is non-distinctive.

Apart from difficulties arising from segmental differences, the Polish users of English, in their endeavor to imitate the foreign phonological features, may find themselves trapped. To master the non-existing in Polish phonological processes operating in connected speech in English such as aspiration, syllabicity or velarization, etc. requires years of study, but there is reason to

believe that the users of English that are musically gifted/trained should be predisposed to recognize these processes. In recognizing alien phonological features though, the phonology of the native language may pose a too serious problem to combat.

## The relationship between musical and linguistic skills

There have been many empirical studies carried out to confirm the music-phonology link. The musical aptitude and/or musical training and the impact these factors exert on phonological perception and production have been in the focus of linguists, neuroscientists and psychologists (among others, Pastuszek-Lipińska, 2004; Callender, 2007; Zhengwei et al. 2016) since the 18<sup>th</sup> century when the French philosopher Rousseau (Aitchison, 1996, p. 17) suggested that “the first languages were singable and passionate before they became simple and methodical”. This idea was taken up by Jespersen (1922, p. 420) who claimed that “The speech of uncivilized and primitive men was more passionately agitated than ours, more like music or song”. Other researchers studying the relationship between music and language notice that language and music are similar in consisting of “perceptually discrete elements organized into hierarchically structured sequences” (Patel, 2003, p. 674) and they document that the areas in the brain which are responsible for language processing “are also implicated in musical processing” (Patel et al., 1998, p. 726).

There are numerous theories according to which music may facilitate language reception and production. The ways in which musical aptitude and musical training play in language phonology were explored by, for example, Zhengwei et al. (2016, p. 25) who confirmed that the musical aptitude had an effect on English phonological skills and that in the experiment they carried out, “they primarily manifested themselves on suprasegmental level and in productive domain”. They proved that students having high receptive musical

aptitude also have an auditory acuity which may help them perceive and discriminate the prosodic features of language. A significant correlation between perception and production of both music and language was also considered by Zybert and Stępień (2009, pp. 108–109). In their study, they provide arguments in support of the assumption that “the ability to articulate FL sounds accurately results from their ability to discriminate between phonemes”.

In addition to the connection between the natural musical gift and language abilities, the connection between musical training and language abilities was brought forth by many researchers. Among those who explored the link between music and success in foreign language acquisition was, for example, Pastuszek-Lipińska (2004, 2008), who showed that musically trained students outperformed those with no musical education in imitating foreign languages. Carroll (1965), Skehan (1989, p. 309) and Zybert (2000, p. 194) argue that ‘music smart’ foreign language learners possess a good phonemic coding ability, that is, the ability to analyse sound in order to retain it in memory for more than a few seconds, which helps them in acquiring a foreign sound system. It is also claimed that musical training can significantly facilitate the acquisition of phonology because it stimulates the plasticity of the brain and improves phonological awareness.

The studies mentioned above show that the relationship between music and language is indisputable. They also indicate that talented and/or musically educated people are more likely to hear and reproduce not only individual sounds, but also phonological processes occurring in a foreign language. Notwithstanding the above facts, the phonetics of the native language is also significant, which can be a huge barrier in both the perception and production of sounds and processes that do not exist in the native language, but also native language processes can affect language behaviour. For instance, Dziubalska-Kończak et al. (2014, p. 236), claim that the second language learners “In terms of the influence of their first language, they are used to paying attention to some details, but disregarding others. (...) What reaches their ears is the

acoustic signal which has to be deciphered. It is deciphered according to first language processes, and in doubtful cases universal processes often apply”.

## An analysis

The following analysis concerns two phonetic transcriptions prepared by/for members of Polish music bands and one prepared for announcers at a railway station. The transcribers, in addition to the graphic notation in the form of the original English spelling, use a notation which could be compared to the semi-phonetic notation proposed by Jodłowski and Taszycki (1997), because they use the letters of the Polish alphabet. The examples presented will be discussed in terms of the phonetic notation of individual sounds and processes that do not exist in Polish, as well as in terms of the impact of the Polish language on the perception of such sounds and processes. The detailed analysis is based on examining the graphic record of sounds and processes by transcribers who have no knowledge of phonetic symbols and comparing them with the theories existing in this area. The analysis of the transcriptions of songs will be also analysed with a view to find out the possible relationship between musical and language skills in amateur transcribers. The phonetic transcriptions of both pieces of music and then the message are presented below.

### Pretty Woman

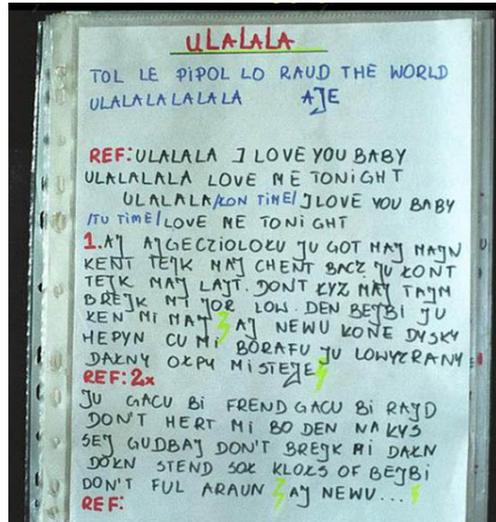
Pretty woman, walkin' down the street  
Pretty woman the kind I like to meet  
Pretty woman I don't believe you,  
you're not the truth  
No one could look as good as you,  
mercy  
Pretty woman won't you pardon me  
Pretty woman I couldn't help but see  
Pretty woman that you look lovely as  
can be  
Are you lonely just like me  
Pretty woman stop awhile  
Pretty woman talk awhile  
Pretty woman give your smile to me  
Pretty woman yeah, yeah, yeah  
Pretty woman look my way  
Pretty woman say you'll stay with me  
,Cause I need you, I'll treat you right  
Come with me baby, be mine tonight



Source: <https://www.google.com/search?q=pretty+woman+lyrics&oeq=pretty+&aqs=chrome.0.69i59j69i57j0l4.3736j0j9&sourceid=chrome&ie=UTF-8> and <https://demotywatory.pl/4653343/Weselny-spiwnik-w-najlepszym-wydaniu>

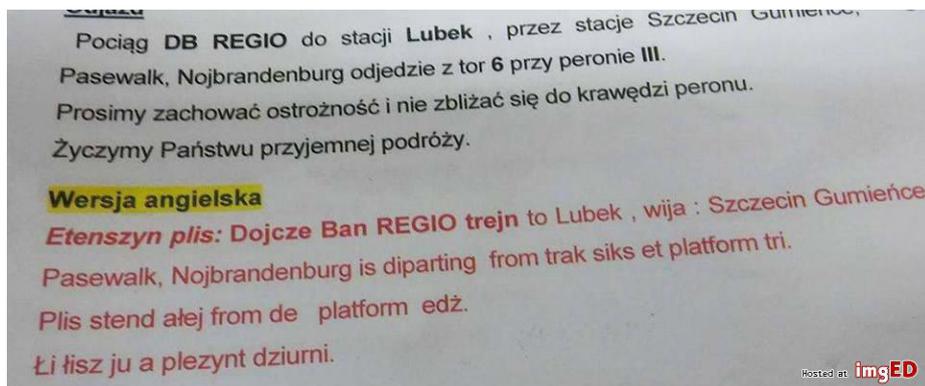
**Uh la la la - Alexia**

To all the people all around the world  
 Uh la  
 (Oh yeah)  
 Uh la la la I love you baby  
 Uh la la la love me tonight  
 Uh la la la (One time) I love you baby  
 Uh la la la la (Oh yeah)  
 I, I got your love, you got my mind  
 Can take my hands but you won't take  
 my life  
 Don't waste my time, bring me your  
 love  
 And baby you can be mine  
 I've never wanted this could happened  
 to me but I feel  
 Your love is right and I will always be  
 there, yeah!  
 Uh la la la (One time) I love you baby  
 Uh la la la (Uh yeah) love me tonight  
 (Come on, get it)  
 Uh la la la (One time) I love you baby  
 Uh la la la la (Uh yeah)  
 You got to be a friend, got to be right  
 Don't hurt me boy then I will say go-  
 odbye  
 Don't bring me down, don't stand so  
 close  
 Oh baby, don't fool around  
 I've never wanted this could happened  
 to me but I feel  
 Your love is right and I will always be  
 there, yeah!



Source: [https://www.tekstowo.pl/piosenka,alexia,uh\\_la\\_la\\_la.html](https://www.tekstowo.pl/piosenka,alexia,uh_la_la_la.html) and <http://www.strefa-beki.pl/img.php?id=7006>

The transcription of the instruction for the railway announcers in the Polish State Railways in Szczecin given in the form of a phonetic prompt was obtained by the journalist of the 'Stargard' Radio who, on Twitter, posted an instruction which he managed to reach (<http://www.tvn24.pl>). The instruction is as follows:



Source: <https://www.google.com/search?q=etenszyn+plis&tbm>

One of the problems to address in the discussion that follows relates to the way in which [ə] was transcribed. As claimed by Sobkowiak (2001, p. 132), “it is perfectly pronounceable for Poles as long as... they are not trying to pronounce it in English. When they are, they will immediately search for the closest Polish sound to serve as support”. The two vowels which are most commonly forced into the function of [ə] are Polish [e] and [i]. Reszkiewicz (2005, pp. 43–44) distinguishes between the raised variant of [ə], which occurs in initial and medial positions within words, and the lowered variant, which occurs in the final position of a word, phrase and sentence. The raised [ə] is intermediate between English [e:] and Polish y which is a little higher than the English [e:], whereas the lowered variant is intermediate between English [ə:] and Polish a. Additionally, Sobkowiak (2001, p. 133) addresses the schwa-lowering effect on the pronunciation writing that “in early Polish especially, this substitute is a fairly common error”.

In the transcription for announcers, the word at [ət] is graphically represented as [et], the [ðə] as [de] and attention [ə'tenʃn] as [etenszyn], and this is a typical way for Poles to transcribe the English vowel [ə] as [e]. This transcription, but also the other two, show that there are other possible solutions to dealing with this weak English vowel. Namely, the words away [ə'weɪ] and around [ə'raʊnd] were transcribed as [ałej] and [araun], respectively. The Polish [a] appears in the description of the lowered variant by Reszkiewicz

(2005, p. 43) but only in the context of [ə] occurring at the end of the word, and here, [ə] is initial in both words. Besides, to me [tə mi] was transcribed as [cu mi], to be [tə bi] as [cu bi], and never ['nevə] as [newu], which is not typical according to the previous studies.

To continue, the English [ʌ] which is non-existent in Polish is a sound described by Reszkiewicz (2005, p. 25) as very similar to Polish [a], but not so open. Sobkowiak (2001, p. 140) writes that many Poles transfer the Polish [a] into the contexts of the English [ʌ]. However, the analysed transcriptions of songs indicate that Poles perceive this sound as [o], transcribing one can [wʌn kən] and come [kʌm] as [łonke] and [kom], respectively.

As indicated earlier, all English long vowels are commonly, but at the same time erroneously, transcribed with Polish letters with no indication of length accompanying, as it is a feature that is not recognized by Polish learners of English, especially those at the beginner level. This assumption is confirmed by the transcription of [u:] as [u] in the prompt for railways announcers but in the transcription of songs the issue seems to be more complex. The transcribers of both songs heard two sounds instead of one which is longer and transcribed need you as [nidiuł] and good as you as [gudewiuł]. Such a transcription of [u:] confirms Jassem's (in Sobkowiak, 2001, p. 155) view who suggests representing this sound as a digraph, that is, [uw], claiming that [u:] undergoes diphthongization. In the above transcriptions, the off-glide is recorded as a letter <ł>. It must be stressed here that no diphthongization of [u] or any other vowel appears in Polish.

When it comes to phonological processes, the transcription of closing diphthongs with an off-glide as a target point, that is, [j] instead of [i] and [w] instead of [u] confirms the previous research in this field (e.g. Jassem, Rubach, Benni, Dziczek-Karliowska). Namely, in the analyzed transcriptions, the diphthong [ei] appears as [ej] in the words train [trejn] and away [ałej] in the announcement and in both songs, for example, in the words right, break, say. The diphthong [aʊ] appearing in the songs was transcribed as [ał] in e.g. down, around and the diphthong [əʊ/oo] was transcribed as [ol] in the

word close. This incorrect pronunciation of English diphthongs occurs as a result of the Polish i-gliding rule. As proved by Rubach (2000, pp. 290–296) and Dziczek-Karlikowska (2012, pp. 119–132), in the Vi/Vu sequences in Polish, the high vowels are glided to j and w, which is reflected in the gliding of the high vowel in English closing diphthongs as, for instance, in age [erɔʒ] pronounced with [ɛj] or cloud [klaʊd] pronounced with [aw]. In addition, the transcription of the announcement confirms that another Polish rule, namely, i-insertion has been applied, and the example is the word via transcribed as [wija]. The occurrence of an intervening glide in the iV/uV strings in Polish was confirmed, among others, by Rubach (2000, pp. 290–296) and Dziczek-Karlikowska (2012, pp. 125–132).

In keeping with the above, the Polish rules of voice assimilation are also often transferred to the pronunciation of English, which results in pronunciation errors (e.g. Rubach, 1996, pp. 70–74). The Polish Voice Assimilation (Regressive) takes the form of Devoicing before voiceless obstruents as illustrated in ud+o [ud+ɔ] (thigh) – ud+k+o [ut+k+ɔ] (dim. thigh). In English (Gimson, 1962), voiced obstruents are also devoiced before voiceless obstruents, but in English, devoiced obstruents are not equivalent to their voiceless counterparts. In the announcement there is a case where the transcriber devoiced [z] in please stand [pli:z stænd], probably because of the voiceless [s] following, and transcribed it as [plis stend]. Nevertheless, departing from [di'pa:tɪŋ frəm] was transcribed as [departing from], so the transcriber was not influenced by the Polish rule here. A similar tendency is observed in the transcription of songs, that is, the transcriber was not influenced by the Polish rule when transcribing stand so without voicing i.e. [stend so]. However, the Polish rule was applied in the phrase hand but you transcribed as [chent bacz ju].

As to Final Devoicing, it concerns obstruents which are devoiced when placed word-finally, as in chleb [xlep] (bread) and głaz [gwas] (boulder). Out of the three transcriptions being under discussion here, there are two cases in which the context for the rule is met. The word edge occurring at the end of a sentence in the announcement was transcribed correctly, that is, without

the application of the Polish full devoicing rule as [edź]. If the Polish rule was applied, then, the transcription would most probably surface as [ecz]. In the songs, the correct [s] in the adjective close was preserved and the word was transcribed as [kłołs] even if in the transcription, it was followed by a word beginning with a vowel, i.e. [əɔ] (representing the word Oh), and such a context would normally trigger voicing in, for instance, south-western Polish.

With regard to the English rules, it is interesting to observe how the transcriber coped with the syllabicity of the English consonants /n/ and /l/. The English sonorants are classed phonetically as consonants because of their typical for consonants manner of articulation and their marginal function within syllables. However, they can sometimes function as the syllable nuclei and in such occurrences, they are referred to as syllabic consonants. There are words whose both syllabic and non-syllabic pronunciations are possible. For example, the word maddening is pronounced with the syllabic [n] or with [n] that is non-syllabic. In maddened (past simple) or spectacles (plural), however, the only possible pronunciation is the one with an obligatory syllabic sonorant [n] and [l], respectively (e.g. Cruttenden, 2014, p. 162; Rubach, 1977, pp. 68–69; Sobkowiak, 2001, pp. 233–234).

On the one hand, Sobkowiak (2001, pp. 232–234) writes that syllabic sonorants also appear in Polish fast pronunciation of words such as bym [bm] (conditional mood suffix), tylko [tlko] (only), oranżada [ornżada] (orangeade). There is an automatic reduction of an unstressed vowel followed by syllable-final sonorants of which the speakers are unaware. On the other hand, in careful speech in Polish, no syllabic consonants appear. Consequently, Polish speakers may use the vowel+sonorant sequences instead of a sonorant which is syllabic. The vowels that most frequently surface are [o] and [ə], where even though the schwa+nasal consonant does not cause misunderstanding, it sounds unnatural in English. In the phonetic prompt for railway speakers, there is one word in which a syllabic sonorant appears, namely, pleasant and it was transcribed as a vowel+nasal sequence, i.e. [plezynt]. In the transcriptions of songs, there are two words with syllabic consonants:

people transcribed as [pipol] and pardon transcribed as [paren]. All examples indicate that the Polish users, whether musically gifted/trained or not, instead of suppressing the pre-sonorant vowel, pronounce or hear it and graphically represent it as a full vowel [y], [o] and [e].

Another phonological process that is alien to Poles is aspiration, which is described as “(...) a period of voicelessness after the stop articulation and before the start of the voicing for the vowel” (Ladefoged, 1993, p. 50). However, it is also compared to a sound that is described as the short glottal fricative [h] (Sobkowiak, 2001, p. 100) and is normally indicated by a small raised h, that is, [h], as in kite, pardon, contain transcribed allophonically as [khart], [pha:dŋ] and [kən'them], respectively. For aspiration to appear, several conditions must be met. First, the voiceless plosives /p, t, k/ must be released. Then, in the post-release stage, the air passes through the vocal cords making a sound that can be described as [h]. For this to happen, /p, t, k/ must be syllable-initial and followed by a vowel. Finally, the vowel must be stressed and only vowels which are primarily stressed can trigger strong aspiration. Weaker aspiration appears before vowels secondarily stressed (e.g. Sobkowiak, 2001, p. 100; Roach, 2013, p. 27). It has to be added that if s- precedes the referred to above sequence, aspiration is cancelled as in spite ['spart]. Referring to Poles speaking English and aspiration, Sobkowiak (2001, p. 102) states that in ordinary Polish speech there is no phonetic signal that resembles aspiration. Needless to say, its absence, in the same way as exaggeration that occurs often following the first stages of learning it by Poles, results in a foreign accent. On the other hand, Rubach (1977, p. 64) states the following: “Although little is known about phonetic variation in Polish in this respect, there is no question that aspirated stops may occur in panie ('sir'), taka ryba ('such a fish'), ale kiedy to zrobisz? ('but when will you do it?')”. Nevertheless, the distinction between the ranks of these two rules must be made. In English, the rule is obligatory while in Polish, “the rule is phonostylistic with a heavy marking for highly emotional speech” (Rubach, 1977, p. 64) and as such, they are dissimilar.

In the phonetic transcription of the announcement, the word attention [ə'thenʃn] was transcribed as [etenszyn] and departing [dɪ'pha:tɪŋ] as [dipart-ing]. In the correct English pronunciation, both words have aspirated sounds, but the process of aspiration has not been demonstrated in the transcription. Due to the fact that it is relatively easy to graphically represent aspiration, namely, with the letter h, it could be said that this transcription was prepared based on the written English text and the transcriber's own pronunciation in which aspiration is absent. In the transcriptions of songs, there are two words in which [t] is normally aspirated, namely, time [thaɪm] and take [teɪk], but they were transcribed without aspiration as [tajm] and [tejk], respectively. An educated musical ear should grasp this nuance of English pronunciation, even if in Polish such a phonological phenomenon does not occur. However, since musically gifted people and/or musically educated did not capture it, it can be concluded that in this case the talent/musical education did not bring the expected effect, because transcribers failed to show aspiration, similarly to the person transcribing the message for announcers. Obviously, this phonological process of English is not contrastive and phonetically untrained native speakers are unaware of it.

In English, words are often linked together and pronounced as chunks and not as individual words. There are several ways of linking words and the one most frequently used is linking r. In RP, [r] does not occur in syllable-final position but when the letters -re or -r appear finally in the spelling of a word and the following word begins with a vowel, then [r] is usually pronounced, for instance, car [kɑ:] but car in [kɑ:r ɪn]. Where a word which does not have r in its spelling ends with a vowel and the word that follows begins with a vowel, then there are three possibilities of linking the two words. When the first word ends with [ə], [ɑ:] or [ɔ:], then [r] is introduced to make the transition easier, for instance, I saw it [aɪsə:rɪt]. When the first word ends with [i:], [i] or a diphthong having [i] as the target point, then speakers usually introduce [j] to ease the transition to the vowel beginning the word that follows, for instance, I agree [ajə'gri:]. Finally, when the first word has [u:] or a diphthong

ending with [ɔ], speakers usually introduce [w] as the sound linking the two words, for instance, go away [gəʊw ə'weɪ].

There is also smooth linking of the consonant ending a word with a vowel sound at the beginning of the next word, for instance, ten hours [ten əʊəz] and so it is when a word ends with the same consonant that begins the next word, as in, for instance, some mice [sʌm maɪs]. In such a case, one lengthened consonant is pronounced (among others, Roach, 2013, p. 115; Hewings, 2007, p. 58; Kelly, 2000, pp. 111–112).

There is ample evidence that in the analyzed transcriptions of songs, words are linked, but in a non-systemic way, incompatible with the basic rules of linking words in English. One can make an attempt at specifying the phonological processes which allowed, for example, Kind I like to surface as [kane lajk], indicating the reduction of the diphthong [aɪ] to [a] and elision of the plosive [d] in kind, the reduction of diphthong [aɪ] to [e] in I and a linking of both these words resulting in [kane]. However, in most cases, the words have been linked in a way that leaves much doubt as to the context that would justify the use of formal rules for linking words in English. Other examples of linking words: down the [dałne], as can be [etken bi], with me [ɥtmi], got to [gacu], but I feel [borafu], treat you [tridiuł], give you [giwiuł], I got your love [ajgecziołołu].

## Conclusions

The analysis of amateur phonetic transcriptions considered in this article, in terms of vowels that do not exist in the Polish language, indicates solutions that complement the knowledge of the pronunciation of these vowels adopted so far. It was pointed out that [ɔ], in addition to [e] and [i], is perceived as [u] (e.g. never [newu]) and [a] (e.g. away [aɛj]); the [ʌ] is seen as [o] (e.g. one can [łonke]) in addition to [a]. Besides, there are many examples in the transcription of “Pretty woman”, among others, good as you

transcribed as [gudewiuł], confirming Jassem's thesis that long vowels can be perceived as double sounds, for example, [u] as [uw]. The long vowel [u:] is perceived and transcribed as [u]. If it comes to the closing diphthongs, they are implemented in all transcriptions as vowel+off-glide as a result of the Polish i-gliding and u-gliding rules, or vowel+glide+vowel as a result of glide insertion active in Polish.

With regard to English phonological processes, transcriptions have shown that when it comes to syllabicity, Poles, who do not have syllabic consonants in their native language, hear the full vowel between a consonant and a syllabic consonant. The contribution of this study in this respect is showing that these full vowels are [y] and [e] in addition to those described by Sobkowiak, that is, [o] and [ə]. Overall, whether musically gifted/trained or not, instead of suppressing the pre-sonorant vowel, all the users perceive syllabicity and graphically represent it as a full vowel [y], [o] and [e].

One of the most remarkable observations regarding musically talented and/or trained Poles is related to the phonological process of aspiration which is not heard by them. Consequently, it was not registered in the transcription in spite of the fact that it is relatively easy to mark this process, namely, with the letter h.

In turn, the transcriptions of songs have shown that gifted and/or musically educated people hear chunks of speech, not single words. In the phonetic prompt for railway station announcers, words were not linked but graphically notated as separate words. It cannot be excluded, however, that if the prompt was transcribed by ear, the linking of words would also occur.

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