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Scottish native speakers' acceptability judgements on Polish-accented English

ABSTRACT

The paper presents and discusses the results of an empirical study on the perception and evaluation of Polish-accented English by 30 Scottish listeners. The judges were asked to evaluate 30 features typical of Polish accent in English with respect to their acceptability. The aim of the research was to create a hierarchy of error and establish whether the raters are more tolerant of certain non-standard (i.e. non-RP) realizations they themselves produce. The secondary goal was to identify priorities for teaching pronunciation to Poles whose target interlocutors are Scottish native speakers.

Keywords: foreign accent, Polish-accented English, Scottish English, acceptability, pronunciation teaching

1. Introduction

According to Ludwig (1982), acceptability refers to tolerance of deviations from L1's norms. Owing to native speakers' competence in their mother tongue, they are able to distinguish between acceptable and unacceptable language use. In other words, the pronunciation norm is a collective judgement of native speakers concerning how a given phoneme should be pronounced. The assessment of

acceptability can be influenced by the norms adopted by a given speech community (Ludwig, 1982), which suggests that different groups of native speakers may respond differently to certain non-native realizations.

Therefore, researchers have tried to investigate how English native speakers representing different regional varieties evaluate mispronunciations of non-native speakers. The aim of such studies has been to establish a hierarchy of error and select those aspects of L2 pronunciation which should be given special attention during phonetic training of foreign language learners. The experiments reported by Johansson (1975), van den Doel (2008), Kirkova-Naskova (2010) vindicate the assumption that the notion of what is correct or incorrect in foreign-accented speech can be relative as it is largely dependent on the native speaker's linguistic background. Features of non-native speech also found in a listener's own accent tend to be evaluated more leniently following a principle of familiarity according to which people develop more positive attitudes towards things they can identify with (Dalton-Puffer, Kaltenboeck & Smit, 1997; Young, 2003). For this reason, if native speaker judgments of foreign accents are determined by the accent of the raters, this will imply that there is no such thing as a universal norm. Such assertion will consequently have important pedagogical implications since, as Bayley (2002:289) notices, "acquisition needs to be judged not in terms of the standard language but in terms of the varieties with which learners are in most frequent contact."

The present study is concerned with the perception of Polish-accented English by Scottish listeners. The choice of this particular group of English native speakers is motivated by the fact that they have become target interlocutors for a great many Poles who have emigrated to Scotland over the last decade. The main goal of the study is to create a hierarchy of errors and investigate to what extent accent similarity influences the evaluation of Polish English. The listeners use a regional variety of English, which shares some features with

Polish English. It is thus our aim to see how these departures from standard spoken English¹ are treated in this context.

2. Method

2.1. Participants and setting

The study was conducted in Glasgow and involved 30 Scottish listeners (16 females and 14 males). Their age-span was between 20 and 50, with a vast majority (78%) aged 22-37. All the participants referred to their own accent as “Scottish.” At this point it should be specified what is meant by this term since, as observed by Stuart-Smith (2004:47), “defining the term ‘Scottish English’ is difficult.” Aitken (1984:112) describes Scottish English as a “bipolar linguistic continuum” stretching between broad Scots and Standard Scottish English. Increasingly, Scots (typically used by working class) is becoming restricted to exchanges between friends and family while in more formal settings Standard Scottish English (characteristic of educated middle class speakers) is used. In the present paper the variety spoken by the judges will be referred to as “Scottish English” and, on the basis of self-reports, it will be assumed that they speak both Standard Scottish English and non-standard dialects.

2.2. Instrument

The listeners were presented with a list of 30 words (Appendix 1) containing mispronunciations typical of Polish-accented English. The selection of errors was primarily based on a number of comparative analyses of English and Polish phonetics (Sobkowiak, 1996; Szpyra-Kozłowska, 2003; Nowacka, 2003, Śpiewak & Gołębiowska, 2001) and on a manual of pronunciation for Polish learners of English (Szpyra & Sobkowiak, 1995) that provide extensive descriptions of most typical errors made by Poles. The chosen aspects of English are

¹ Standard spoken English is understood as the “variety which is normally taught in schools to non-native speakers learning the language” (Trudgill, 1974:17). In Poland, Received Pronunciation (hence RP) has traditionally been chosen as a model for teaching pronunciation (due to geographical proximity and the prestige it used to enjoy). Therefore, in the present paper RP is equivalent to standard pronunciation.

commonly regarded as problematic for Polish speakers. The experiment conducted by the author (Bryła, 2008), based on the analysis of speech samples of various European speakers, pointed to certain recurrent substitutions and mistakes made by Polish participants which have been taken into account in the present study as well. Moreover, empirical studies on error gravity have shown that these typical erroneous renditions might impair intelligibility and contribute to a Polish accent in English (Szpyra-Kozłowska, 2005; Nowacka, 2008; Scheuer, 2003). Last but not least, the choice of the tokens was also motivated by the author's intuitive and experience-supported judgments formulated daily over 9 years of her work as an academic teacher, during which time she has interacted in English with thousands of students (with majors in English and Applied Linguistics) of both public and private universities of Lublin.

The features of Polish English which were examined included both segmental and suprasegmental inaccuracies and spelling-based errors. The wide range of analysed problems constitutes an asset since the majority of the previous studies on the perception of Polish-accented English were confined to segmental aspects only, which was mainly due to methodological difficulties.

The table below lists the tokens which the listeners were asked to evaluate for their acceptability. In the recording the order of these items has been changed to avoid the consecutive appearance of the same type of error (e.g. /ɪ/ and /i:/) so that the listeners do not allocate the same score automatically.

Table 1. The phonetic aspects analysed in the study.

feature	carrier word	speaker's pronunciation	type of deviation from RP analysed in the present study
/ɪ/	live	/l, i:f/	substitution of /ɪ/ with Polish /i/
/i:/	peace	/p, i:s/	substitution of /i:/ with Polish /i/
/æ/	flat	/flæt/	substitution of /æ/ with Polish /ɛ/
/ʌ/	front	/frɒnt/	substitution of /ʌ/ with

			Polish /ɔ/
/ʊ/	look	/luk/	substitution of /ʊ / with Polish /u/
/u:/	choose	/tʃus/	substitution of /u: / with Polish /u/
/ɑ:/	fast	/fast/	substitution of /ɑ:/ with Polish /a/
/ɒ/	long	/lɔŋk/	substitution of /ɒ/ with Polish /ɔ/
/o:/	because	/b,ikɔs/	substitution of /o:/ with Polish /ɔ/
/ɜ:/	bird	/bert/	substitution of /ɜ:/ with Polish /ɛ/ followed by trilled /r/
/e/	better	/betɛr/	substitution of /e/ with Polish /ɛ/
/aɪ/	time	/tajm/	substitution of /aɪ / with Polish /aj/
/eɪ/	take	/tɛjk/	substitution of /eɪ / with Polish /ɛ/ and glide
/əʊ/	go	/gow/	substitution of /əʊ/ with a nasalized vowel and glide
/eə/	rare	/rar/	substitution of /eə/ with /a/ followed by /r/
/d/	down	/dawn/	substitution alveolar /d/ with its dental equivalent
/tʃ/	speech	/sp,its/	substitution of the palato-alveolar affricate with its Polish post-alveolar equivalent
/ð/	clothing	/klowɪŋk/	substitution of /ð/ with Polish /v/
/ʃ/	social	/sowʃal/	substitution of the palato-alveolar fricative with its Polish post-alveolar equivalent
/h/	home	/howm/	substitution of the glottal fricative with its velar equivalent
/r/	right	/rajt/	trilled pronunciation of the frictionless continuant

rhoticity	marks	/marks/	pronouncing /r/ before a consonant and word-finally
[ɫ]	all	/ɔl/	substituting the dark [ɫ] with clear /l/
/ŋ/	sitting	/sit,ɪŋk/	plosive insertion after angma
aspiration	culture	/kaltʃɛ/	no aspiration of stressed /k/
palatalisation	feeling	/f,il,ɪŋk/	palatalization of consonants when followed by /i/
weak forms	all of this time	/ɔl ɔf vis tajm/	no weak forms; using full vowel instead of /ə/
vowel reduction	confident	/kɔwɪf,ɪdɪnt/	no vowel reduction; using full vowel instead of /ə/
final devoicing	have	/hɛf/	final devoicing of obstruents and shortening the preceding vowel
word-stress	computer	/'kɒmpjuteɪ/	incorrect word-stress
spelling induced errors	doubt	/daʊpt/	pronouncing "silent" letters

It should be noted that some of the departures from RP, commonplace in Polish-accented English, overlap with regular features of Standard Scottish English, e.g. final obstruent devoicing, fewer vowels, the lack of aspiration of stressed fortis plosives. Therefore, it is an important objective of the present study to investigate whether the listeners' linguistic background influences their evaluation of the non-native accent.

2.3. Procedure

The participants listened to 30 words listed in Table 1 read out by a Polish speaker of English. While listening, the judges were asked to decide whether the underlined parts of the words were pronounced correctly or not. If the latter was the case, they needed to evaluate the mispronunciation gravity on a Likert scale ranging from 1 (= very serious error) to 5 (= no error). The strength of this approach is that it overcomes the perennial problem with untrained judges having to

report and label certain phonetic phenomena without possessing adequate knowledge and metaphonetic language. Another advantage of this method is that the errors are not presented as single deviations, but are accompanied with other phonetic errors typical of Polish-accented English.

The goal of the experiment was to single out those aspects of Polish pronunciation in English which are considered the most erroneous (the least acceptable) by the Scottish listeners. Since in the present study the variables are not in normal distribution, the application of any parametric test was precluded. Therefore, the distribution of the scores was taken into consideration. A One-Proportion Test was performed, i.e. we calculated the number of scores below and above or equal 4 and compared the proportions within each group. The point of reference was set at 4, since on our scale this value refers to almost complete correctness (4 = “relatively irrelevant error”). It was assumed that if at least 50% of the assigned rates are below 4, a given feature of Polish-English is regarded an error. Analogically, if more than 50% of scores are equal or above 4, then a given feature is no departure from the norm. The threshold for the statistical analyses was set at $\alpha = 0.05$.

3. Results and discussion

The table below presents the results of the experiment. In the first column the investigated features of Polish-accented English are arranged in the ascending order with the least acceptable at the top. In the next column to the right the percentage of scores within the two categories (1-3 and 4-5) is included. The last column on the right displays the p values for the calculated proportions. In some cases $p > 0.05$, which means that the null hypothesis cannot always be rejected and that the conclusions drawn here cannot be spread onto the whole population.

Table 2. The outcome of the One-Proportion Test for acceptability.

Acceptability	One-Proportion Test (1-3)>50%		
	1-3 (%)	4-5 (%)	Sig. (1-tailed)
Spelling-based errors	96.15	3.85	0.000
Substitution of /eə/	96.15	3.85	0.000
Plosive insertion after angma	96.15	3.85	0.000
Incorrect word-stress	92.31	7.69	0.000
Substitution of /ɪ/	92.31	7.69	0.000
Substitution of /i:/	92.31	7.69	0.000
No vowel reduction	92.31	7.69	0.000
No weak forms	92.31	7.69	0.000
Substitution of /ɒ/	88.46	11.54	0.000
Substitution of /o:/	88.46	11.54	0.000
Final devoicing of lenis obstruents	69.23	30.77	0.000
Trilled pronunciation of the rhotic	69.23	30.77	0.022
Substitution of the palato-alveolar fricative	42.31	57.69	0.216
Substitution of /əʊ/	38.46	61.54	0.882
Dark [ɫ] pronounced as clear /l/	38.46	61.54	0.882
Substitution of /aɪ/	38.46	61.54	0.882
Palatalisation	38.46	61.54	0.882
Substitution of the palato-alveolar affricate	38.46	61.54	0.882
Substitution of /a:/	38.46	61.54	0.882
Substitution of the glottal fricative	34.62	65.38	0.882

Substitution of /ɜ:/	34.62	65.38	0.945
Substitution of /e/	34.62	65.38	0.945
Substitution of the dental fricative	34.62	65.38	0.945
Substitution of /u:/	34.62	65.38	0.000
Substitution of /ʊ/	34.62	65.38	0.000
Substitution of /ei/	34.62	65.38	0.882
Substitution of /ʌ/	34.62	65.38	0.000
No aspiration	34.62	65.38	0.882
Rhoticity	34.62	65.38	0.001
Dental /d/	34.62	65.38	0.945

After dividing the features according to the highest frequency of scores at 1-3 or 4-5, the distribution of the listeners' rates was analyzed in order to establish which features correspond to particular categories within 1-3, namely which are deemed by the majority as "a very serious error," "a serious error," and "quite a serious error." This was performed in order to establish the hierarchy of error gravity.

The following aspects were selected as the least acceptable characteristics of Polish accent in English ("a very serious error"): the substitutions of /eə/, the lack of vowel reduction, no weak forms and spelling-induced errors. The high position of the diphthong /eə/ in the list raises the question why the listeners proved so intolerant of this deviant realization given the fact that centring diphthong is not found in the Scottish vocalic inventory. One possible explanation could be the way in which this sound was distorted by the Polish speaker, i.e. *rare* was pronounced as /rar/. The letter «a» was interpreted as the Polish /a/ and not /ɛ/, which would have been a much closer equivalent. Therefore, it is not so much the replacement itself, but rather spelling-induced departure from the target sound that may have caused little tolerance on the part of the English listeners. It would be insufficient to claim that mastering the quality of /eə/ should be

targeted in phonetic instruction. What seems more vital is to make students sensitive to the distribution of this sound and draw their attention to the interplay between spelling and pronunciation.

The category of "serious errors" involves plosive insertion after angma, substitutions of /ɪ/, /i:/, /ʊ/ and /o:/ as well as final obstruent devoicing. The score "quite a serious error" was ascribed to the trilled pronunciation of the rhotic.

The following departures from RP were assessed as acceptable: substitution of the palato-alveolar fricative and affricate, vowel substitutions (/əʊ/, /e/, /a:/, /ɜ:/, ʊ/, /u:/, /ʌ/, /eɪ/, /aɪ), replacing the dental fricative and the glottal fricative, dark [ɪ] realised as clear /ɪ/, the lack of aspiration, pronouncing the letter «r» in all contexts and the dental /d/. It should be noticed that the abovementioned consonants are replaced with close equivalents and cannot be confused with anything else. In other words, "acceptable" features are those which do not hinder intelligibility.

Some of the judges' decisions on acceptability can be related to the variety they speak and the raters' choices can in part be explained by their linguistic background. In Scottish English /əʊ/ and /aɪ/ have several different realizations, which accounts for lenient judgements of their quality. One of the most acceptable aspects of Polish-accented English is absent from RP and found in Scottish English, i.e. pronouncing /d/ as a dental and not alveolar sound. Distorting the quality of /eɪ/ and /æ/ does not bother the listeners either and this might be due to the fact that in their own accent these two vowels are not used (the former is pronounced as /e/ and the latter is realized as a shorter and more advanced vowel). Failure to aspirate stressed fortis plosives is considered "no error" by the Scottish listeners. This reflects a heavy tendency of non-aspiration (or weak aspiration) in Scottish English (Wells, 1982; Scobbie et al., 2006). The RP contrast between /ʊ/ and /u:/ does not exist in SSE either, which means that *pool* and *pull* or *full* and *fool* are no longer minimal pairs but are pronounced with the same vowel /ʊ/ that is rounded, high central or even front - /ʏ/ (Wells, 1982). This might be the reason why the

listeners evaluated positively the substitutions of /ʊ/ and /u:/ with Polish /u/.

The trilled articulation of /r/ was regarded “quite a serious error” and this fact might appear surprising. Stereotypically, a strongly trilled /r/ is a salient feature of a Scottish accent. Yet, in reality a trill is fairly rare in SSE (Robinson & Crawford, 2011) and the most widespread realization of /r/ is the post-alveolar approximant /ɹ/ or the alveolar tap /ɾ/ word-initially and in an intervocalic position. The listeners’ evaluations regarding this feature of Polish English as an error can be interpreted as an attempt to counter the widespread stereotype.

It can be thus concluded that the raters are rather tolerant about certain phonetic properties of non-native realizations they themselves produce. However, the linguistic background of the Scottish listeners does not fully determine the scores ascribed to the phonetic properties of Polish English. It is sufficient to consider the plosive insertion after an angma. The Scottish judges considered this aspect of Polish English to be an error even though in their own accent “ejective variants of word-final stops are common (typically /k/, especially after /ŋ/” (Scobbie et al., 2006:11). Similarly, the inclusion of /ɒ/ and /o:/ substitutions among the least acceptable features asks for explanation. Firstly, Scottish English does not differentiate between the two vowels using in all contexts just one vowel similar to /o/. Secondly, the Polish /ɔ/ is not exceptionally remote from /o/ or /ɒ/ found in RP. In this particular case it is fairly difficult to account for the listeners’ motivation in treating the substitution of this vowel so harshly.

One possible explanation could be the social prestige of different pronunciation variants, which means that the socially stigmatized markers of non-native speech are evaluated more harshly even if they occur in regional accents of English (Johansson, 1975).

It should also be noted that the participants do not form a homogenous group as indicated by quite a considerable dispersion in their evaluations. This supports the claim made by Ludwig (1982:278) that “even with a relatively homogenous speech community considerable variation exists as to what constitutes acceptability – and what constitutes an error.” This means that most decisions are highly

individual as they are influenced by sociolinguistic factors such as age, sex and education. Therefore, the raters' linguistic background is not the only determiner of which features of non-native accent are acceptable and which are not. Moreover, acceptability is the most subjective factor employed in the accent evaluation studies.

Yet, the outcome of the present study allows for formulating certain generalizations. In the light of the data obtained the following phonetic priorities can be proposed for Polish learners whose target interlocutors are the Scottish:

1. Eliminating spelling-induced mispronunciations
2. Proper word-stress
3. Vowel reduction
4. Weak forms
5. Vowels (/ɪ/, /i:/, /ɒ/, /o:/)
6. Properly realised velar nasal (with no accompanying plosive)
7. The rhotic pronounced as the frictionless continuant
8. Maintaining voicing in word-final obstruents

It is worth noting that the outcome of the present experiment is congruent with research conducted by Szpyra-Kozłowska (2005; 2013), who makes a claim that the main focus of phonetic instruction should be on practice of whole words commonly mispronounced by language learners. In another study carried out by the present author (Bryła-Cruz, 2016) spelling-induced errors have proved critical to as many as four variables, i.e. intelligibility, foreign-accentedness, annoyance and comprehensibility.

The list of phonetic priorities includes proper word-stress, vocalic contrasts, properly realised velar nasal and maintaining voicing in word-final obstruents. These features have emerged relevant for ensuring intelligibility and / or reducing foreign-accentedness in previous research on Polish-accented English (Majer, 2002; Scheuer, 2003; Gonet & Pietroń, 2004; Nowacka, 2008).

It must be underlined that the present experiment has focused primarily on segmental phonetics and it is by no means claimed here that prosody should be neglected in pronunciation instruction. How

native English speakers evaluate non-native intonation and rhythm should be definitely investigated in future studies.

4. Conclusion

The present research has investigated the notion of acceptability of Polish English pronunciation to Scottish listeners. The judges were asked to evaluate 30 features typical of Polish accent with respect to their acceptability. Establishing the hierarchy of errors has allowed to formulate phonetic priorities in teaching pronunciation to Poles who intend to communicate with native speakers of Scottish English.

The study corroborates the outcomes of the previous experiments, namely that English pronunciation norms are not monolithic and certain pronunciation “errors” are judged to be more acceptable if they are widespread among native speakers of English. The lack of aspiration, dental /d/ and the neutralization of the /ʊ/-/u:/ contrast were considered “no error” and they are also found in Standard Scottish English. However, adopting the criterion of accent similarity is a heavy tendency rather than an easily predictable pattern, which means more empirical research on various L1s and L2s is still needed.

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Appendix 1. The list of carrier words used in the experiment

All 30 entries below contain **an underlined part written in bold**. As you listen, decide how acceptable its pronunciation is by circling a number on a scale from 1 to 5 (1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error). You will hear each entry twice with a two-second pause in between. The whole recording lasts less than 3 minutes.

1. **BIRD**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

2. COMFORT**A**BLE

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

3. **CULTURE**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

4. **FRONT**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

5. **HOME**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

6. **LONG**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

7. **RARE**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

8. **SOCIAL**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

9. **TIME**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

10. **SPEE**C**H**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

11. **RIGH**T

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

12. **LOOK**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

13. **FAST**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

14. **GO**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

15. **FEELING**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

16. **DOUBT**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

17. **COMPUTER**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

18. **CHOOSE**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

19. **TAKE**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

20. **SITTING**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

21. **PEACE**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

22. **LIVE**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

23. **HAVE**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

24. **FLAT**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

25. **DOWN**

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

26. CONFIDENT -

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

27. CLOTHING

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

28. BETTER

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

29. ALL OF HIS TIME

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error

30. BECAUSE

1 = very serious error, 2 = serious error, 3 = quite serious error, 4 = relatively irrelevant error, 5 = no error