#### ROCZNIKI HUMANISTYCZNE Tom LXXII, zeszyt 10 – 2024

DOI: https://doi.org/10.18290/rh247210.5



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# ENGLISH PRONUNCIATION INSTRUCTION IN A MIXED POLISH-UKRAINIAN CLASSROOM: THE CASE OF THE VOICELESS INTERDENTAL FRICATIVE /Θ/

Due to an increase in the number of Ukrainian immigrants and refugees arriving in Poland in recent years, especially following Russia's invasion of Ukraine of February 2022, more and more university courses at Polish universities are taught in a mixed Polish-Ukrainian environment. This situation poses a significant challenge for English pronunciation instructors, as students' L1 constitutes one of the most important factors which determine the structure and content of English pronunciation curriculum (e.g., Derwing, 2008). Furthermore, as demonstrated by Couper (2017) among others, teaching pronunciation in heterogeneous L1 classes remains one of the major concerns for tutors, who face the task of designing courses which take into account different needs resulting from diverse linguistic backgrounds of the students.

It should also be emphasised that many Ukrainian students of English in Poland are multilingual, i.e. they speak at least three languages with varying degrees of proficiency (L1 – Ukrainian and/or Russian, L2 – Polish, L3 – English). This situation involves a complex interplay of various factors, including social, political and linguistic similarities and differences between Poland and Ukraine, which contribute to shaping the students' multilingual identity (see Szyszka, 2020 for a detailed discussion). Szyszka (2020) argues that Ukrainian students' perception of an L1 accent as a marker of identity is "an important factor that interplays with the perception of several other aspects associated with Polish and English pronunciation." It has been found that Ukrainian students

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of English in Poland demonstrate varied degrees of readiness to use L1 pronunciation features in L2 or L3 as speech markers of their identity, which may further complicate the task of successful English pronunciation teaching.

As regards English pronunciation instruction, it is frequently assumed that, given a relatively high degree of phonological and phonetic similarity between Polish and Ukrainian, speakers of both languages face similar difficulties in acquiring various aspects of English pronunciation. While in general this might be true, the actual teaching practice as well as relevant research results reveal a number of puzzling patterns in learning English pronunciation by Polish and Ukrainian speakers.

One such pattern can be observed with respect to English voiceless interdental fricative  $/\theta/$ , which is absent from the phonemic inventory of both languages and therefore problematic for Polish and Ukrainian learners, who usually substitute the phoneme in question with some close native equivalent (see, e.g., Gonet & Pietroń, 2004; Gonet & Pietroń, 2006; Szpyra-Kozłowska, 2005 for Polish; Melezhik, 2014; Ryabukha, 2014; Kalyta & Taranenko, 2015 for Ukrainian). However, based on a dozen years of experience in teaching English pronunciation in mixed Polish-Ukrainian classes, the author has observed that these substitutions are by no means identical for speakers of the languages under discussion.

In general, Polish learners substitute English  $/\theta$ / with the labio-dental fricative /f/ (or the post-dental plosive /t/), e.g. they confuse minimal pairs, such as *three* – *free* or *thought* – *fought*. The dental fricative /s/ is hardly ever used as a replacement for  $/\theta$ /. These observations are in line with relevant experimental research findings. For example, Gonet and Pietroń (2006) demonstrate that /f/ is the most frequent substitution for Polish learners, followed by /t/, while the rate of replacement by /s/ is negligible (less than 1%). On the other hand, Ukrainian learners often substitute English  $/\theta$ / with the dental fricative /s/, which is almost never the case for Polish speakers. Other replacements, including /f/ and /t/, are also attested in Ukrainian EFL students' pronunciation, yet it is difficult to estimate their frequency due to the lack of experimental studies in this field. Even though the scientific literature on the difficulties which Ukrainian learners have with acquiring English pronunciation is relatively scant, the available sources confirm that /s/ constitutes a frequent replacement of  $/\theta$ / (e.g., Melezhik, 2014; Ryabukha, 2014).

This differential substitution of  $/\theta$ / by Polish and Ukrainian learners seems particularly puzzling in light of the fact that both languages have the same set of consonants which could serve as substitutes for the interdental fricative, namely the labio-dental fricative

<sup>&</sup>lt;sup>1</sup> This article focuses solely on the voiceless interdental fricative  $/\theta$ /. The production and perception of the voiced interdental fricative  $/\delta$ / by Polish and Ukrainian EFL learners is further complicated by the complexities involved in the realization of standard Ukrainian phoneme /v/ (see, e.g., Vakulenko 2019; Buk et al., 2008; Zilyns'kiĭ, 1979). This issue will be dealt with in a separate article.

/f/, the post-dental fricative /s/ and the post-dental plosive /t/. Yet, for some reason, /s/ is selected much more frequently by Ukrainian speakers than by their Polish peers, which poses a practical challenge for English pronunciation instructors who work with mixed Polish-Ukrainian classes.

The primary aim of this paper is to verify the hypothesis that the differential substitution of  $/\theta$ / by Polish and Ukrainian speakers has a perceptual basis. As observed by Derwing (2008), "the most common cause of pronunciation problems is perceptual: a student may not hear a given contrast the same way that a native speaker does" (p. 352). In order to examine whether the  $/f-\theta-s$ / contrasts are indeed perceived differently by speakers of Polish and Ukrainian, we report on the results of an identification task in which Polish and Ukrainian participants listened to a set of monosyllabic English words or English-sounding nonce words containing /f/,  $/\theta$ / or /s/ and were asked to identify the consonant on the  $/f-\theta-s$ / continuum. The results demonstrate a significantly higher rate of  $/\theta-s$ / confusion for Ukrainian than for Polish subjects, which provides evidence for the perceptual motivation behind the divergent patterns of pronunciation errors found among Polish and Ukrainian learners. The other aim is to suggest a rethinking of the methodological approach to English pronunciation instruction in mixed Polish-Ukrainian classrooms in order to better adjust the teaching methods, techniques and materials to the linguistic background of learners.

#### 1. EXPERIMENTAL DESIGN

This section deals with the relevant details of the experiment carried out in order to test the perception of English voiceless interdental fricative  $\theta$  by Polish and Ukrainian listeners. We start with the presentation of the materials used in the study (1.1) and next provide information concerning the participants (1.2) and the adopted procedure (1.3).

#### 1.1 MATERIALS

The materials used in the study were 36 monosyllabic English words or English-sounding nonce words containing f/,  $\theta$  or s in word-initial or word-final position. The complete list of the stimuli is presented in (1).

(1) The stimuli used in the study:

12 items with the labio-dental fricative /f/, including

6 with /f/ in word-initial position: [fomp], [foɪ], [fæm], [fɪp], [feɪ], [fʌp]

6 with /f/ in word-final position: [bi:f], [kɪf], [nef], [du:f], [kəʊf], [mʌf]

12 items with the interdental fricative /θ/, including 6 with /θ/ in word-initial position: [θaɪk], [θσι], [θει], [θει], [θαιπ], [θεκ] 6 with /θ/ in word-final position: [du:θ], [dæθ], [gɜ:θ], [kəυθ], [qpθ], [bi:θ]

12 items with the alveolar fricative /s/, including

6 with /s/ in word-initial position: [sek], [sæm], [saɪk], [sɑːn], [sʌp], [sɒmp]

6 with /s/ in word-final position: [mʌs], [dæs], [gɜːs], [gɒs], [nes], [kɪs]

The stimuli were recorded by a 35-year-old male speaker of Standard Southern British English and digitised at 44.1 kHz sampling rate. Next, a set of three orthographic representations was created for each item, representing pronunciation with ff, f or f respectively, where f corresponds to f or f corresponds to f corresponds to f corresponds to f and f corresponds to f respectively. These are listed in Table 1.

Table 1. Stimuli and orthographic representations

ORTHOGRAPHY	STIMULI
FOMP – THOMP – SOMP	[fomp], [somp]
FOY – THOY – SOY	[fɔɪ], [θɔɪ]
FAM – THAM – SAM	[fæm], [sæm]
FIP – THIP – SIP	[fɪp], [θɪp]
FAY – THAY – SAY	[feɪ], [θeɪ]
FUP – THUP – SUP	[fʌp], [sʌp]
FIKE – THIKE – SIKE	[θaɪk], [saɪk]
FECK – THECK – SECK	[θek], [sek]
FARN – THARN – SARN	$[\theta a:n], [sa:n]$
BEEF – BEETH – BEECE	[bi:f], [bi:θ]
KIFF – KITH – KISS	[kɪf], [kɪs]
NEFF – NETH – NESS	[nef], [nes]
DOOF – DOOTH – DOOCE	[du:f], [du:θ]
COAFF – COATH – COASS	[kəυf], [kəυθ]
MUFF – MUTH – MUSS	[mʌf], [mʌs]
DAF – DATH – DAS	[dæθ], [dæs]
GIRF – GIRTH – GIRCE	[gɜ:θ], [gɜ:s]
GOFF – GOTH – GOSS	[gpθ], [gps]

In order to confirm the correctness of the stimuli, the recordings were then played to another native speaker of British English (male, 41-year-old), who successfully matched the orthographic representations to all the audio inputs.

#### 1.2 PARTICIPANTS

The participants were 20 native speakers of Polish aged 19–21, including 12 females and 8 males, and 20 native speakers of Ukrainian aged 18–22, including 15 females and 5 males. All the subjects were recruited at Vincent Pol University in Lublin, Poland, where they studied English philology (1st year) divided into 2 mixed Polish-Ukrainian study groups which followed the same curriculum with the same tutor. The participants attended English pronunciation classes and had a basic knowledge of English phonetics and sound-spelling correspondences. Before taking part in the study, the students participated in an introductory class on English interdental fricatives  $/\theta$ ,  $\delta$ /, where they received some theoretical knowledge on the phonemes in question as well as carried out some preliminary practical discrimination, identification and pronunciation tasks.

#### 1.3 PROCEDURE

The participants were tested individually. They were informed that they would take part in a study which involves listening to a set of words pronounced by a native speaker of English and identifying the written representation which best matches the audio input for each item. There were three spelling alternatives available for each stimulus, representing f/f, f/f or f/f respectively, as outlined in Section 1.1. The experimental items were played to the participants through headphones in a randomised order, with three spelling options displayed on the computer screen 2 seconds before presenting the audio input. Each stimulus was played once and the task was to click on the orthographic representation which best matches the auditory input for each word. A total of 1440 responses have been obtained, including 720 from Polish participants and 720 from Ukrainian listeners (20 speakers of each language x 36 items).

#### 2. RESULTS

This section focuses on the presentation of the results of the experiment for each group of stimuli, i.e. those containing /f/ (2.1),  $\theta$ / (2.2) or /s/ (2.3) respectively.

#### 2.1 The Labio-Dental Fricative /f/

Table 2 summarises the responses for the stimuli containing the voiceless labio-dental fricative /f/ in word-initial or word-final position.

Table 2. Results for words with /f/

	POLISH				UKRAINIAN			
	/f/	/ፀ/	/s/		/ <b>f</b> /	/0/	/s/	
[fomp]	14	6	0		13	6	1	
[foɪ]	14	6	0		12	7	1	
[fæm]	15	5	0		17	3	0	
[fip]	12	6	2		8	10	2	
[feɪ]	14	6	0		7	8	5	
[fʌp]	13	7	0		15	5	0	
TOTAL	82	36	2		72	39	9	
TOTAL %	68.3%	30.0%	1.7%		60.0%	32.5%	7.5%	
	/f/	/0/	/s/		/ <b>f</b> /	/0/	/s/	
[bi:f]	18	2	0		17	3	0	
[kɪf]	8	12	0		14	6	0	
[nef]	13	7	0		17	3	0	
[du:f]	10	10	0		10	9	1	
[kəʊf]	12	8	0		11	9	0	
[mʌf]	16	4	0		9	10	1	
TOTAL	77	43	0		78	40	2	
TOTAL %	64.2%	35.8%	0.0%		65.0%	33.3%	1.7%	
				_				
TOTAL	159	79	2		150	79	11	
TOTAL %	66.3%	32.9%	0.8%		62.5%	32.9%	4.6%	

The data presented in Table 2 show that the rate of correct identification of /f/ is similar for Polish and Ukrainian participants (around 60–70% of all responses). The patterns of misidentification of /f/ are also similar for speakers of both languages, with the labio-dental fricative confused mainly with the interdental fricative  $/\theta/$  (around 30% of all responses). The rate of /f-s/ confusion is negligible, however, it is slightly higher for Ukrainian subjects, especially for some items with /f/ in word-initial position.

To sum up, the data collected in the experiment show that there are no significant differences in the way Polish and Ukrainian listeners perceive English words with the labio-dental fricative /f/.

#### 2.2 The interdental fricative $\theta$

Table 3 presents the results for words containing the voiceless interdental fricative  $/\theta$ / in word-initial or word-final position.

Table 3. Results for words with  $\theta$ 

	POLISH				UKRAINIAN		
	/f/	/0/	/s/		/ <b>f</b> /	/0/	/s/
[θaɪk]	5	13	2		0	13	7
[ιcθ]	13	6	1		4	13	3
[веі]	11	8	1		0	12	8
[дір]	10	8	2		1	5	14
[θα:n]	11	8	1		5	9	6
[θek]	9	11	0		3	12	5
TOTAL	59	54	7		13	64	43
TOTAL %	49.2%	45.0%	5.8%		10.8%	53.3%	35.8%
	/f/	/0/	/s/		/ <b>f</b> /	/0/	/s/
[du:θ]	8	12	0		6	12	2
[dæθ]	4	15	1		2	14	4
[g3:θ]	3	17	0		1	15	4
[kəυθ]	7	13	0		4	15	1
[g <sub>0</sub> θ]	5	15	0		4	12	4
[bi:θ]	19	1	0		5	13	2
TOTAL	46	73	1		22	81	17
TOTAL %	38.3%	60.8%	0.8%		18.3%	67.5%	14.2%
				_			
TOTAL	105	127	8		35	145	60
TOTAL %	43.8%	52.9%	3.3%		14.6%	60.4%	25.0%

The data in Table 3 demonstrate some striking differences in the responses elicited from Polish and Ukrainian participants. While the rate of correct identification of  $/\theta$ / in word-initial and in word-final position is similar for both experimental groups, the types of errors observed for Polish and Ukrainian listeners differ significantly. Polish subjects usually confuse  $/\theta$ / with /f/ (43.8% of all responses), rarely with /s/ (3.3% of all responses). On the other hand, Ukrainian listeners mainly misidentify  $/\theta$ / as /s/, especially in word-initial position (35.8% of responses), less frequently in word-final position

(14.2% of responses). The rate of  $\theta$ -f/ confusion for Ukrainian subjects is relatively low (14.6% of all responses).

To sum up, the data obtained in the experiment indicate that there are significant differences in the way Polish and Ukrainian listeners perceive English  $\theta$ , with the former mainly confusing the sound in question with f and the latter with f.

#### 2.3 THE ALVEOLAR FRICATIVE /S/

Table 4 shows the results for the stimuli containing the voiceless alveolar fricative /s/ in word-initial or word-final position.

Table 4. Results for words with /s/

	POLISH			UKRAINIAN			
	/f/	/θ/	/s/	/ <b>f</b> /	/0/	/s/	
[sek]	0	0	20	0	1	19	
[sæm]	0	1	19	0	7	13	
[saɪk]	0	0	20	0	0	20	
[sa:n]	0	0	20	1	5	14	
[sʌp]	0	0	20	0	4	16	
[spmp]	0	1	19	0	6	14	
TOTAL	0	2	118	1	23	96	
TOTAL %	0.0%	1.7%	98.3%	0.8%	19.2%	80.0%	
	/f/	/0/	/s/	/ <b>f</b> /	/0/	/s/	
[mʌs]	0	2	18	0	5	15	
[dæs]	1	3	16	0	11	9	
[g3:s]	1	2	17	1	13	6	
[gɒs]	0	2	18	1	5	14	
[nes]	1	2	17	1	7	12	
[kɪs]	1	0	19	1	1	18	
TOTAL	4	11	105	4	42	74	
TOTAL %	3.3%	9.2%	87.5%	3.3%	35.0%	61.7%	
TOTAL	4	13	223	5	65	170	
TOTAL %	1.7%	5.4%	92.9%	2.1%	27.1%	70.8%	

The figures in Table 4 indicate that there are some important differences in the way Polish and Ukrainian listeners perceive English alveolar fricative /s/. The former hardly ever confuse this phoneme with /f/ or / $\theta$ /, especially in word-initial position, where the rate of correct identification is 98.3%. In word-final position, the incidence of /s- $\theta$ / confusion is higher, but still relatively rare (9.2%). On the other hand, Ukrainian participants hardly ever misidentify English /s/ as /f/, but the rate of /s- $\theta$ / confusion is significantly higher than for Polish listeners.

In summary, the data on the perceptual identification of English alveolar fricative /s/ by Polish and Ukrainian listeners demonstrate that English /s/ and / $\theta$ / sound much more alike to Ukrainian participants than to Polish subjects. This is in line with the results discussed in the previous section, which show a significantly higher rate of incorrect classification of / $\theta$ / as /s/ for Ukrainian listeners.

#### 3. DISCUSSION AND PEDAGOGICAL IMPLICATIONS

An analysis of the data collected in the experiment demonstrates that there are significant differences in the patterns of perceptual assimilation of the English voiceless interdental fricative  $/\theta$ / by Polish and Ukrainian listeners. In general,  $/\theta$ / is more frequently confused with the labio-dental fricative /f/ by Polish subjects, whereas Ukrainian participants are more likely to misidentify  $/\theta$ / as the alveolar fricative /s/. The divergent perception of  $/\theta$ / by Poles and Ukrainians is reflected in the most frequent pronunciation errors made by learners of English as a foreign language. The former usually substitute  $/\theta$ / with /f/ and find it difficult to differentiate minimal pairs, such as deaf - death or fought - thought, whereas the latter often replace  $/\theta$ / with /s/ and fail to differentiate minimal pairs, such as think - sink or think

It is commonly assumed that the phonetic perception of L2 segments or contrasts is shaped to a large extent by the interference from L1 phonological structures (e.g., Strange & Shafer, 2008). The patterns observed in the experiment might therefore seem puzzling given that the phonemic inventories of both languages contain the same voiceless fricatives which could potentially serve as substitutes for  $/\theta/$ , i.e. the labio-dental fricative /f/ and the post-dental fricative /s/. Still, for some reason, for Polish listeners  $/\theta/$  seems closest to /f/, whereas for Ukrainian listeners  $/\theta/$  appears most similar to /s/.

The divergent perception pattern may be at least partly related to a weaker phonemic status of /f/ in Ukrainian as compared with Polish. Even though there seems to be general agreement in the literature concerning the fact that /f/ enjoys the phonemic status

in Ukrainian (e.g., Buk et al., 2008; Pompino-Marschall et al., 2016), its occurrence is relatively rare and mostly limited to words of foreign origin and onomatopoetic items (e.g., Zilyns'kyĭ, 1979). On the other hand, the phonemic status of /f/ in Polish is fully established. This difference in the relative degree of phonological establishment of the phoneme /f/ in Polish and Ukrainian might partly account for divergent perceptual confusion data.

Furthermore, as noted by Flege (1995) among others, a comparative analysis of L1 and L2 phonological structures should also take into account acoustic and articulatory details of L1 and L2 segments as well as their allophonic variants. It is therefore possible that divergent perception arises due to some fine-grained differences in the acoustic and/or articulatory characteristics of Polish and Ukrainian fricatives, especially /s/, which result in different similarity judgements and perceptual confusion patterns. In order to verify this hypothesis, it is necessary to carry out comparative research on the articulation and acoustics of Polish and Ukrainian voiceless fricatives. It should also be added that the results of the experiment could be used in designing experimental studies which might shed light on the validity of the major L2 speech perception models, such as Perceptual Assimilation Model of L2 speech learning (Best & Tyler, 2007) or Speech Learning Model (Flege, 1995; Flege et al., 2003). Nevertheless, the major focus of the present paper is not on acoustic phonetics or theory of speech perception.

We would like to emphasise that the results obtained in the experiment carry some important implications for EFL pronunciation teachers who work with mixed Polish-Ukrainian classes. Since interdental fricatives belong to neither Polish nor Ukrainian consonantal inventory, they are usually included in the pronunciation curricula as one of the pronunciation priorities for Polish and Ukrainian EFL learners (see Szpyra-Kozłowska, 2015, pp. 68–139 for a detailed discussion of establishing pronunciation priorities). While it is true that speakers of either language find it difficult to learn to pronounce English  $\theta$ ,  $\delta$ , the types of errors they usually make in this process are by no means identical. This indicates that the implicit assumption that, given a relatively high degree of phonological and phonetic similarity between Polish and Ukrainian, speakers of these languages will face the same types of problems with the same English phonological structures cannot be maintained. While both groups of EFL learners may find similar aspects of English pronunciation problematic, the kinds of difficulties they experience in learning them may vary depending on their L1 background. This exactly seems to be the case with English voiceless interdental fricative  $\theta$  – the phoneme is difficult for both Poles and Ukrainians, but not in the same way.

We would like to argue that this situation necessitates a rethinking of the methodological approach to EFL pronunciation instruction in mixed Polish-Ukrainian classrooms. While the list of pronunciation priorities to be included in the curriculum might be similar,

it seems necessary to adjust the teaching methods, techniques and materials to learners' L1 background in some cases, e.g. in teaching the voiceless interdental fricative  $/\theta/$ .

First and foremost, our research results indicate that before doing any pronunciation practice, care should be taken to devote a sufficient amount of time to sound discrimination and identification tasks in order to improve the perception of non-native sounds and sound contrasts. In a mixed Polish-Ukrainian classroom, it might be necessary to select different sets of minimal pairs for perception practice in order to put a greater emphasis on the  $/\theta$ -f/ contrast for the former learners and on the  $/\theta$ -s/ contrast for the latter. Furthermore, the explicit pronunciation instruction given to Polish and Ukrainian EFL learners should take into account the L1-specific difficulties they are likely to face in learning the pronunciation of English interdental fricatives. Thus, it is vital that Polish learners focus on avoiding the contact between the lower lip and the upper teeth when pronouncing  $/\theta$ /. Ukrainian learners, on the other hand, should primarily ensure that they assume the correct position of the tongue tip, with the apex touching the low part of the upper teeth and protruding slightly rather than coming into contact with the back of the upper teeth, which might result in an articulation resembling the post-dental /s/.

Obviously, the differentiation of teaching methods and materials poses a practical challenge for English pronunciation teachers working with mixed Polish-Ukrainian study groups. However, the results of our experiment suggest it is necessary in order to provide students of various linguistic backgrounds with effective phonetic training. Furthermore, care should be taken to minimize potential detrimental effects of pronunciation anxiety (cf. Baran-Łucarz, 2017; Baran-Łucarz & Ho Lee, 2021) which may develop in mixed nationality groups for various reasons, e.g. fear of negative evaluation from classmates or teachers related to language-specific pronunciation problems.

In conclusion, it should be emphasised that there might be other aspects of English pronunciation which pose various difficulties for Polish and Ukrainian EFL learners and therefore require adopting a methodological approach to pronunciation instruction which takes into account these L1-specific problems. In order to shed light on the issue, however, it is necessary to conduct further research, including studies on L2 perception by Polish and Ukrainian listeners.

#### CONCLUSION

The major goal of the article has been to establish whether the patterns of differential substitution of English voiceless interdental fricative  $\theta$  by Polish and Ukrainian EFL learners have a perceptual basis. To this end, we have reported on the results of a perception experiment in which Polish and Ukrainian participants listened to a set

of monosyllabic English-sounding nonce words with /f/, / $\theta$ / or /s/ and identified the consonant on the /f $-\theta$ -s/ continuum. The results of the experiment demonstrate that there are significant differences in the patterns of perceptual assimilation of / $\theta$ / by Polish and Ukrainian EFL learners. In general, / $\theta$ / is more frequently confused with the labio-dental fricative /f/ by Polish listeners, whereas Ukrainian subjects are more likely to misidentify / $\theta$ / as the alveolar fricative /s/. We have argued that the findings of the study necessitate adjustment of methods, techniques and materials to learners' L1 background in English pronunciation instruction in mixed Polish-Ukrainian classrooms. More research is necessary in order to identify other aspects of English pronunciation which might potentially require adopting a differential approach to English pronunciation teaching in such classrooms.

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### ENGLISH PRONUNCIATION INSTRUCTION IN A MIXED POLISH-UKRAINIAN CLASS-ROOM – THE CASE OF VOICELESS INTERDENTAL FRICATIVE $/\theta/$

#### $S\,u\,m\,m\,a\,r\,y$

The article examines a puzzling pattern observed in English pronunciation instruction in mixed Polish-Ukrainian classrooms, whereby English voiceless interdental fricative  $/\theta/$  tends to be substituted with the labio-dental fricative /f/ by Polish learners and with the dental fricative /s/ by Ukrainian learners, even though both languages contain /f/ and /s/. The paper reports on the results of an identification task in which Polish and Ukrainian participants listened to a set of monosyllabic English-sounding nonce words containing /f/,  $/\theta/$  or /s/ and were asked to identify the consonant on the  $/f-\theta-s/$  continuum. The results demonstrate a significantly higher rate of  $/\theta-s/$  confusion for Ukrainian than for Polish subjects, which provides evidence for the perceptual motivation behind the divergent patterns of pronunciation errors found among Polish and Ukrainian learners. The author argues that the findings of the study necessitate a rethinking of the methodological approach to English pronunciation instruction in mixed Polish-Ukrainian classrooms in order to adjust the teaching methods, techniques and materials to learners' L1 background.

**Keywords:** L2 perception; pronunciation teaching; English interdental fricatives; Polish-Ukrainian classrooms

## NAUCZANIE WYMOWY ANGIELSKIEJ W MIESZANYCH GRUPACH POLSKO--UKRAIŃSKICH NA PRZYKŁADZIE BEZDŹWIĘCZNEJ MIĘDZYZĘBOWEJ GŁOSKI SZCZELINOWEJ /θ/

#### Streszczenie

Artykuł dotyczy zjawiska zaobserwowanego w nauczaniu wymowy języka angielskiego w mieszanych grupach polsko-ukraińskich, zgodnie z którym angielska bezdźwięczna międzyzębowa głoska szczelinowa /θ/ jest przez polskich studentów zastępowana głównie przez wargowo-zębowe /f/ a przez studentów ukraińskich przez zębowe /s/, mimo że zarówno język polski, jak i ukraiński zawierają /f/ i /s/. W artykule przedstawiono wyniki badania percepcyjnego, w którym polscy i ukraińscy uczestnicy słuchali jednosylabowych, angielsko brzmiących wyrazów zawierających /f/, /θ/ lub /s/ i klasyfikowali usłyszane spółgłoski. Wyniki pokazują, że ukraińscy studenci częściej błędnie identyfikują /θ/ jako /s/ niż uczniowie z Polski, którzy zazwyczaj błędnie rozpoznają /θ/ jako /f/. Odmienne rodzaje błędów wymowy obserwowane wśród studentów z Polski i Ukrainy mają zatem najprawdopodobniej przyczyny percepcyjne. Autor twierdzi, że wyniki badania wskazują na potrzebę ponownego przemyślenia podejścia metodologicznego do nauczania wymowy języka angielskiego w mieszanych grupach polsko-ukraińskich w celu dostosowania metod, technik i materiałów do języka rodzimego studentów.

**Słowa kluczowe:** percepcja języka obcego; nauczanie wymowy; angielskie międzyzębowe głoski szczelinowe; klasy polsko-ukraińskie