University of Łódź Institute of English Studies Department of English Language and Applied Linguistics



# ACCENTS 2017

## **ACCENTS IN USE**

11th International Conference on Native and Non-native Accents of English

Łódź, 30 Nov - 2 Dec, 2017

www.filolog.uni.lodz.pl/accents

### THE BOOK OF ABSTRACTS

edited by Przemy<u>sław O</u>stalski

### ACCENTS 2017 CONFERENCE PROGRAMME Venue: Kopcińskiego 16/18, Łódź

### Thursday, November 30

- 9.00 14.00 Registration
- 9. 30 13.00 Walking trip (please sign up for the trip)
- 13.00 14.00 Lunch

14.00-14.30	Conference Opening	Aula
14.30-15.20	Plenary talk Chair: Pi Ma Investigating the phonological his	otr Stalmaszczyk Aula gnus Huber story of New Englishes. The case of Ghana
15.30-18.30	Parallel sessions	
15.30-16.30	Session1Room 1Chair: Piotr Stalmaszczyk	Session 2Room 4Chair: Jan Volín
15.30-16.00	Martin Hinton Accents of Persuasion	Šárka Šimáčková & Václav Jonáš Podlipský Production accuracy of L2 vowels: Phonological parsimony and phonetic flexibility
16.00-16.30	Piotr Steinbrich The mouthful of RP - the case of the Duke of Cambridge	Rias van den Doel, Anne-France Pinget & Hugo Quené Non-native attitudes to /θ/ and /ð/: a European case study

#### 16.30-17.00 Coffee break

17.00-18.30	Session 1	Session 2
	Chair: Arkadiusz Rojczyk	Chair: Radek Skarnitzl
17.00-17.30	Claire Cowie	Jan Volín & Damien Galeone
	Rhoticity and linking /r/ in a contact variety of English	Prosodic phrases in native and foreign-accented speech
17.30-18.00	Kamil Kaźmierski	Ewa Guz
	Word-final intervocalic glottalization in American English: Evidence for word-specific phonetics	Fluency of formulaic speech in English
18.00-18.30	Matthias Krebs	Łukasz Stolarski
	Definitely the ladder" – Allophonic realisations of word-medial /t/ and target accents for non- native speakers of English	Reading Tempo in General American and Received Pronunciation

### Friday, December 1

9.30-10.20	Plenary talk Chair:	Magnus Huber Aula
	Nar	cy Niedzielski
	Perception and its role	in shifting phonological systems
10.30-13.30	Parallel sessions	
10.30-11:30	Session 1 Room 1	Session 2 Room 4
	Chair: Tomasz Ciszewski	Chair: Małgorzata Baran-Łucarz
10:30-11.00	Geoff Schwartz & Ewelina Wojtkowiak	Marta Nowacka
	Asymmetries in L2-induced phonetic drift in L1 Polish	More insight into university students' formal and informal pronunciation practice
11.00-11.30	Jolanta Sypiańska	Dorota Lipińska
	What can VISC tell us about the influence of foreign languages on L1	The perception of English voiced interdental fricative by Polish leamers of English

#### 11.30-12.00 Coffee break

12.00-13.30	Chair: Magdalena Zając	Chair: Agnieszka Bryła-Cruz
12.00-12.30	Jan Volín, Radek Skamitzl & Pavel Šturm	Monika Konert-Panek
	Are there two classes of segments or three in prosodic structure?	Singing accent: Americanisation in the light of frequency effects
12.30-13.00	Arkadiusz Rojczyk & Andrzej Porzuczek	Jarosław Weckwerth & Kamil Malarski
	Detection of nonnative speaker status from backwards and vocoded content-masked speech	<i>'I'm from London, and that's OK: The increasing acceptance of southeast England segmental phonetic features in mainstream popular music vocal performance</i>
13.00-13.30	Léa Burin	Olena Petrashchuk
	Accommodation of L2 speech in a repetition task: exploring paralinguistic imitation	Role of accents in aeronautical communication

13.30-15.00 Lunch

### Friday, December 1 Afternoon

15.00-15.50	Plenary session	Chair: Pilar Prieto	Aula
		Una Cunningham	
		Accent and migration: Traces of belonging	

16.00-18.00	Parallel sessions + Poster session	
16.00-17.30	Session 1 Room 1	Session 2 Room 2
	Chair: Šárka Šimáčková	Chair: Andrzej Porzuczek
16.00-16.30	Esther Gómez Lacabex & Francisco Gallardo del Puerto A preliminary survey on pronunciation in an EMI context in tertiary education	Tomasz Ciszewski & Arkadiusz Rojczyk Using Facial Motion Capture technology in second-language speech research
16.30-17.00	Alice Henderson & Radek Skamitzl Changing stress-related durational aspects of French speakers' English: Effectiveness of a brief awareness-raising intervention	Marcin Bergier Temporal variations of L2 English vowels in function word production. Reduction of L2 advanced English vowels in <for> and <of> in native English model imitation task</of></for>
17.00-17.30	Steven H. Weinberger & Zhiyan Gao Transcribing non-native speech: the development of a crowdsourcing tool to evaluate perceptions of accented speech	<b>Poster session</b> Magda Kowalska Glottalization and h-dropping in the speech of
17.30-18.00		BBC radio presenters Aneta Ostrowska Attitudes of University of Lodz Foreign Philology Students towards phonetic transcription

#### 17.30-18.00 Coffee break

### 19.00 Conference Dinner (18.30 - departure from Kopcińskiego 16/18)

CONFERENCE DINNER VENUE: SCHEIBLER Mansion, Piotrkowska 266 (The Technical University of Łódź)



### Saturday, December 2nd

9.30-10.20	Plenary session Chair: Un	a Cunningham AULA	
	Pila	r Prieto	
	How our hands help us learn pronunciation in a foreign language		
10.30-13.30	Parallel sessions		
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	Chair: Aliœ Henderson	Chair: Monika Konert-Panek	
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	Learner needs in pronunciation instruction	Contours in music and speech: the effect of musical aptitude on speech prosody	
11.00-11.30	Małgorzata Baran-Łucarz	Jolanta Szpyra-Kozłowska & Agnieszka Bryła-Cruz	
	Immediate and delayed effects of pronunciation FFI on L2 self-confidence: A mixed-method study in the Polish EFL context	Phonetics and Hollywood. Fake Polish-accented English in "Sophie's Choice" and "Zookeeper's Wife"	

#### 11.30-12.00 Coffee break

12.00-13.30	Chair: Marta Nowacka	Chair: Geoff Schwartz
12.00-12.30	Anastazija Kirkova-Naskova	Zhiyan Gao & Steven H. Weinberger
	Investigating critical listening in the classroom: focus on types of analysis and feedback	Weighing Segmental/Syllable Errors in Foreign Accented Speech
12.30-13.00	Irena Czwenar	Anna Marczak
	Strategies of teaching English pronunciation in	English word stress leamability in a context of
	the primary language classroom	Transitional Grammar
13.00-13.30	Ewa Waniek-Klimczak	Umaima Kamran
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### **PLENARY SPEAKERS**

#### ACCENT AND MIGRATION: TRACES OF BELONGING

#### Una Cunningham

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As young children, we belong to a group of family and caregivers and we learn to show that belonging in our speech. Those of us who leave that first context gain access to other accents and possibly other languages. This language experience colours our own linguistic practices. Once we become aware of the differences between varieties of languages, there is no turning back. We know how to vary our expression to convey carefully curated glimpses into our life stories as we communicate with others. This talk will consider regional and transnational migration, circular migration, multilingualism and the effects of the digital diaspora on the accents of migrants.

INVESTIGATING THE PHONOLOGICAL HISTORY OF NEW ENGLISHES. THE CASE OF GHANA

#### Magnus Huber

University of Giessen

The growing interest in New Englishes has been accompanied by an impressive number of synchronic studies on these varieties. However, diachronic investigations of the structural evolution of postcolonial Englishes are still the exception. What studies there are mostly adopt a macro-sociolinguistic perspective and focus on the external history of (post)colonial Englishes, with little or no reference to linguistic structure. Even Schneider's (2007: 113-250) case studies, describing postcolonial Englishes at different stages of development, are mainly extrapolations from synchronic data.

One main reason for the lack of diachronic studies of the structural development of postcolonial Englishes in the Outer Circle is that in many cases authentic historical language data is either non-existent or has not yet been accessed by linguists, especially when it comes to early recordings. More progress has been made in recent years with regard to the phonological development of Inner Circle varieties: for New Zealand English, to give one example among many others, studies have been based on the 1940s recordings of the Mobile Disc Recording Unit, e.g. Gordon et al. (2004).

Taking an Outer Circle country as an example, this talk will look at the development of the Ghanaian English accent and present a diachronic quantitative-variationist analysis of selected phonological variables. I will start with an outline of the development of Ghanaian English and will also consider the role of the historical input variety, the part played by schools and the question of the target variety. After an illustration of the nature and quality of comments in early written sources on the pronunciation of English in Ghana, the main part of this talk will be a study based early radio recordings and popular music.

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#### PERCEPTION AND ITS ROLE IN SHIFTING PHONOLOGICAL SYSTEMS

#### Nancy Niedzielski

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Examining intra- and interspeaker variation from a speech production standpoint can often reveal shifts in phonological systems of speakers. For instance, simple and straight-forward acoustic analysis of young (Anglo) speaker reveals the supraregional feature now known as the Low Back Merger: \*cot\* and \*caught, dawn \*and \*don \*are now both homonymic in most dialects of young white speakers. However, speech perception work often sheds light on the complexities of these changes \*as they are happening\*. Several studies going back several decades (eg, Labov, Karen and Miller 1991) demonstrated near-mergers -- that is, segments that are produced differently, but perceived to be identical, indicating that a change in the phonological system may be taking place. In this talk, I present several examples of perceptual studies suggesting that relatively dramatic changes are taking place, such as tonogenesis (Howe 2017) and loss of the vocalic tense-lax distinction (Koops 2009). I argue that such work can reveal shifts well before they have gone to completion -- in fact as they are actually happening.

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#### HOW OUR HANDS HELP US LEARN PRONUNCIATION IN A FOREIGN LANGUAGE

#### Pilar Prieto

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When we speak, they use a type of rhythmic hand gestures which are coordinated with prominent parts of speech which have been called beat gestures (or also prosodic gestures). In this talk we discuss several experiments carried out in our research group that deal with how beat gestures facilitate the learning of second language pronunciation. Even though most of the research on the benefits of gesture in the second language classroom has analyzed the effects of meaningful representational gestures (for example for the acquisition of vocabulary), little is known about the potential beneficial effects of beat gestures to (a) the learning of new words in an L2 (Experiment 1); and (b) the learning of pronunciation (Experiments 2 and 3). Based on the positive findings from these experiments, I will conclude that a multimodal approach is essential to understanding L2 language learning and that rhythmic trainings with beat gestures or hand-clapping procedures can be successfully applied to language teaching and language treatment contexts.

### **PARALLEL SESSIONS**

#### IMMEDIATE AND DELAYED EFFECTS OF PRONUNCIATION FFI ON L2 SELF-CONFIDENCE: A MIXED-METHOD STUDY IN THE POLISH EFL CONTEXT

#### Małgorzata Baran-Łucarz

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The main objective of the presentation is to report the results of a longitudinal quasiexperimental study conducted among Polish pre-intermediate high school learners of English, aimed at examining the outcomes of integrating pronunciation form-focused instruction (FFI) with teaching/learning of other FL aspects and skills.

Among several dependent variables of the study was L2 self-confidence, which this report will focus on. To diagnose the level of L2 self-confidence of the subjects representing the experimental group (N=13; provided with explicit pronunciation instruction, followed by controlled and meaning-oriented pronunciation exercises) and control group (N=13; pronunciation teaching limited to correction of errors produced on spot by recasts) before and after the treatment, a Measure of L2 self-confidence was applied. It was designed for the purpose of this study, adapted from Kormos and Dörnyei (2004). It had the form of a 28-item self-report questionnaire, based on a 6-point Likert scale, and consisted of the following subscales: speaking anxiety, self-assessment of TL skills and subskills, confidence/enjoyment in using the TL (Cronbach alpha for the pre- and post-tests = .86).

After a 30-hour treatment provided systematically throughout one school-year, the experimental group, characterized, among others, by a higher level of phonetic competence and pronunciation self-assessment than the control group, revealed a significantly bigger increase of level L2 self-confidence than the control group (t=4,018; p=,001).

The presentation of the quantitative outcomes will be supplemented with qualitative data gathered among the subjects via semi-structured interviews conducted directly after the treatment and one year later. Additionally, remarks of English teachers running classes with the control and experimental groups after the treatment will be discussed.

#### TEMPORAL VARIATIONS OF L2 ENGLISH VOWELS IN FUNCTION WORD PRODUCTION. REDUCTION OF L2 ADVANCED ENGLISH VOWELS IN *SOF* AND *SOF* IN NATIVE ENGLISH MODEL IMITATION TASK

#### **Marcin Bergier**

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The prosodic features of Polish an English feature a vital contrast regarding the isochronic aspect. English is a typical rhythm-timed language (Abercrombie 1967) where the timing based on the word or sentence stress influences the temporal and spectral values of segments with common reductions to mid-central 'shwa' (Knight 2012). Considering syllable-timed languages on the opposite side of the continuum we can place Polish in between as sharing the features of both types of timing. Ramus et al. (1999) classifies Polish as a rhythm timed language, whereas (Nespor 1990, Grabe & Lee 2002, Wagner 2012) indicate its complex character with the elements of syllable and stress timing, nevertheless without any sharp degree of reduction. The synthetic and highly inflectional Polish is not that rich in function words and there is no contextually variable reduction process operating in Polish, hence the production difficulties regarding this process in English can be anticipated among Polish students of L2 English.

The aim of the project is to perform the temporal measurements of English strong and weak form contrastive pair of long and short back rounded vowels in function words in advanced L2 production study performed by native Polish participants. Each of the two carrier words  $\langle for \rangle$  and  $\langle of \rangle$  is put in the context of two carrier phrases as single intonation units, one triggering typical strong and the other typical weak form realization. In the experiment we used two types of imitation tasks – immediate and distracted. Twelve Polish 1<sup>st</sup> year students of English unaware of the research goal participated in three-stage task applied to both the 'weak form' set and the 'strong form' set of phrases: (1) reading the phrases (baseline condition); (2) repeating immediately after a recorded model (immediate imitation); (3) imitating after a recorded model, while being distracted by a cognitive reading task (distracted imitation).

The results are expected to contribute to the current discussion on convergence with a speaking model regarding reduction processes in L2 speech especially in the context of the long and the short vowel contrast as well as to demonstrate if distraction significantly impairs imitative effects.

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#### ACCOMMODATION OF L2 SPEECH IN A REPETITION TASK: EXPLORING PARALINGUISTIC IMITATION

#### Léa Burin

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This paper investigates phonetic accommodation between nonnative speakers and the recordings of natives in a repetition task.

The data is a fragment from the ANGLISH corpus designed by Anne Tortel (Tortel 2008). 40 French speakers (10 male/intermediate learners, 10 male/advanced learners, 10 female/intermediate learners, 10 female/advanced learners) were asked to repeat a set of 20 sentences produced by British native speakers.

Previous findings for accommodation in spontaneous speech indicate that female informants tend to converge more than male informants (Namy et al. 2002, Babel et al. 2014), and advanced learners to converge more than intermediate learners for «greater L2 usage and proficiency are associated [...] with increased L2 production experience» (Best & Tyler 2007). Convergence in vowel duration has also been observed in order to sound more native-like (Zając, 2013). Accommodation for low vowels and especially within the F1 dimension (Babel, 2012) is more likely to be observed. Euclidean distance for normalised F1-F2 was compared for levels and gender.

Somewhat contradictory results were observed for vowel duration and F1-F2 distance. Indeed, male learners converged more than female learners [t = -2.197, p < 0.05]. Level appeared not to be a relevant parameter due to a high amount of inter-individual variability amongst groups.

Our last section will discuss specific features traditionally ignored or rejected outside the perimeter of phonetic features and called 'paralinguistic' features, such as creaky voice. While segmental phonetic features seem to display accommodation, a sociolinguistic feature consistently appears for some French advanced female learners. Creaky voice — a noted feature in the pronunciation of American speakers (Yuasa 2008) — seems to be used as a sort of parallel accommodation. Preliminary observations indicate that some advanced female learners creaked more than the native speakers, and more in the reading task, which could indicate, both, linguistic idiosyncrasy and accommodation towards the native speakers. Open vowels seem also to be more likely to be produced with a creaky voice, especially at the end of prosodic constituents. We question the representation of the American pronunciation model adopted by investigating the phoneme inventories and prosodic constituents where creaks are observed.

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#### RHOTICITY AND LINKING /R/ IN A CONTACT VARIETY OF ENGLISH

#### **Claire Cowie**

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In this paper I analyze non-prevocalic /r/ in a sample of Hindi-English bilinguals based in the cities of Delhi and Dehradun in North India (Klingler 2017). Speakers of Indian English have been characterized as either rhotic with a substrate-influenced tap non- prevocalic /r/ or non-rhotic, depending on age, gender and level of English education (Bansal 1990; Gargesh 2004; Sailaja 2009; Sahgal and Agnihotri 1988). The speakers in this sample are mostly non-rhotic as expected, with older and male speakers more rhotic.

Non-prevocalic /r/ was coded according to four variants of /r/: null, taps, approximants and derhotics. The same tap /r/ from the Hindi substrate is dominant for all three age groups. In this particular sample, there is little evidence of the adoption of an exogamous approximant /r/ by younger speakers (Chand 2010). When /r/ variant is considered in relation to following environment, the taps of older speakers occur in a range of environments, with approximately 50% before a vowel. For speakers under 40, the majority of their taps occur before a vowel.

This distribution of the tap /r/ variant demanded an exploration of linking /r/. The role of following environment on /r/ in Indian English has not been investigated before and so the proportion of linking /r/ is not known. Rhoticity appears to be decreasing with age (from 45% to 32%), but linking /r/ is remains more constant with age, and relatively high compared to rhoticity (between 69% and 62%). It is likely that linking /r/ has led to an over-estimation of rhoticity in younger speakers for this variety.

The retention of linking /r/ after the loss of rhoticity has been described for L1 varieties (Hay and Sudbury 2005), but little is known about linking /r/ in non-rhotic contact varieties. In Singapore English non-prevocalic /r/ and linking /r/ are not considered to be part of the same process (Tan 2016). In contact varieties like Indian English which have a substrate-influenced non-prevocalic /r/, we have to consider

whether the same process of resyllabification of /r/ has taken place as in L1 varieties, or whether linking /r/ is possibly due to L1 influence. I address these issues by examining the extent to which both rhoticity and linking /r/ are continuous or discrete in these speakers.

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#### STRATEGIES OF TEACHING ENGLISH PRONUNCIATION IN THE PRIMARY LANGUAGE CLASSROOM

#### Irena Czwenar

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The present paper reports the results of a small-scale study conducted in several primary school classrooms, aimed at observing pronunciation teaching strategies employed by teachers of English.

Rational and judicious teaching of pronunciation at primary level is considered to be a necessary condition for developing appropriate language habits and maintaining good quality language performance in the future. Provision of correct language standards for young learners is justified by their natural ability to grasp words and phrases from input and to instantly imitate and remember the form of what they hear, even if this form is entirely wrong.

Teachers do know that young learners acquire language from exposure to the model they provide either in the form of ready-made classroom materials or their own production. And they also know that children will find it extremely difficult to get rid of the forms they have acquired incorrectly. It seems that pronunciation should feature high on the list of priorities in any primary classroom syllabus and teaching practice. However, mispronunciations of even high-frequency words, violations of stress and intonation patterns have been observed to be very common among young learners of English. The questions which puzzles the author of the study is: what or who is to blame for this situation?

In order to answer this question the author has observed several lessons of English taught in primary classrooms and interviewed teachers of English, with a view to

finding out what strategies of teaching pronunciation – explicit, implicit, or any at all – are used by primary school teachers in a typical small town in Poland.

#### WEIGHING SEGMENTAL/SYLLABLE ERRORS IN FOREIGN ACCENTED SPEECH

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The perceivable deviation of non-native speech from the native speech norm is defined as "foreign accent" (Munro & Derwing, 1998). Among the segmental/syllable level deviations, VOT duration (Riney & Flege, 1998), consonant manner of articulation (Magen, 1998), and vowel formants (Chan, Hall, & Assgari, 2016) are often shown to correlate with perceived foreign accent. However, the relative importance of these factors is not readily clear. The present study uses L2 English speech samples to investigate the relative impact of different segmental and syllable structure cues on perceived foreign accent. 100 speech samples selected from the Speech Accent Archive (Weinberger, 2016) were presented to native 110 English listeners who listened to and rated the foreign accentedness of each sample on a 9-point rating scale. 20 of these samples portray no segmental or syllable structure errors. The other 80 samples contain a single consonant, vowel, or syllable structure error. The backgrounds of the speakers of these samples came from 52 different native languages. Global prosody of each sample was controlled for by comparing its F0 contour and duration to a native English sample using the Dynamic Time Warping method (Giorgino, 2009). Table 1 illustrates an error typology of these samples.

	consonant error	vowel error	syllable error	correct
please call	/bliz k <sup>h</sup> al/	/pʰliz kʰol/	/pʰəliz kʰal/	/pʰliz kʰal/
ask her	∕æsk h <b>ər</b> ∕	/ <b>a</b> sk h <b>ə</b> .ı/	/æs_hə <b>ɹ</b> /	∕æsk (h)əı∕
six spoons	/sīks spun <b>∫</b> /	/s <b>i</b> ks spunz/	/sīks <b>ə</b> spunz/	/sīks spunz/
five thick	/faɪv <b>t</b> ɪk/	/f <b>a</b> vθık/	/faIv <b>ə</b> θIk/	/faɪv θɪk/
small plastic	/sm <b>ɔl</b> pʰlæstIk/	/sm3lphlæstik/	/sm3lphlæs_1k/	/sm3l p <sup>h</sup> læstIk/

 Table 1: Illustration of stimuli with errors consonant error

Comparisons of mixed-effects regression models (Bates, Maechler, & Bolker, 2013) show that 1) Consonant errors in general are judged to be more accented than vowel or syllable structure errors. 2) The phonological environment affects accent perception. 3) Occurrences of nonnative consonants always lead to higher accentedness ratings. 4) Among the syllable errors, vowel epenthesis is judged to be as accented as consonant substitutions, while deletion is judged to be less accented or not accented at all.

The results of this study suggest that native listeners, when given stimuli that show various segmental and syllable structure errors, show a remarkable ability to

discriminate and judge these errors differentially, regardless of the native language of the speaker. Indeed, within this limited domain, it appears that not all errors are equally weighted.

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#### FLUENCY OF FORMULAIC SPEECH IN ENGLISH

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This study is a cross-sectional analysis of the relationship between productive fluency and the use of formulaic sequences in native British English speech. The main question addressed here is whether formulaic sequences are produced more fluently than nonformulaic compositional speech. The data include recordings and transcriptions of randomly selected samples of British English speech from the Spoken British National Corpus (Audio BNC, Coleman et al., 2012). First, Compleat Lex Tutor's N-gram Phrase Extractor (Cobb, 2015) was used to extract the most frequent recurring word strings (2-5 words in length) within each sample. Second, two recently compiled lists of the most frequent formulaic sequences identified in the Spoken British National Corpus were used as a point of reference: 100 highest frequency collocations (Shin & Nation, 2008) and 505 most frequent non-transparent multiword expressions (Martinez & Schmitt, 2012). The extracted n-grams, collocations and multiword expressions were then removed from the data. Fluency scores were obtained for the each sample before and after removal of the formulaic material resulting in three types of data: baseline (pre-removal), non-formulaic (post-removal) and formulaic. Breakdown and speed fluency were measured using a set of objective phonetic measurements recently proposed as valid indices of productive fluency (Bosker et al., 2013). The resulting fluency scores were then compared. Preliminary results show that fluency scores of formulaic sequences are slightly but significantly lower than those of baseline samples for all the types of formulaic sequences.

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#### CHANGING STRESS-RELATED DURATIONAL ASPECTS OF FRENCH SPEAKERS' ENGLISH: EFFECTIVENESS OF A BRIEF AWARENESS-RAISING INTERVENTION

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This paper presents the results of a mixed-methods awareness-raising intervention, which sought to modify the production of stressed and unstressed syllables by six native French-speaking university professors, in read-aloud and spontaneous speech. Duration is one of the four acoustic cues to stress, which behaves very differently in the English and French phonological systems (Frost, 2011). Although the perception of F0 by native speakers of French can be improved (Gray, 2015), modifying production is notoriously difficult – and not just for L1 French speakers (Archibald,1997; Guion, Harada & Clark, 2004).

The wider objective of the intervention is to facilitate comfortable communication between a variety of English users in the English-medium instruction paradigm. These professors work with an increasingly diverse, but primarily European student body, and we argue that for three reasons it is useful for them to adhere to a native-speaker norm where "stress-based timing is important for achieving intelligibility" (Low, 2015). First, for L1 English users – and we assume this holds for students with high enough English proficiency to study abroad in English – word prosody facilitates word recognition and retrieval (Cutler 2012, 2015). Second, phrasal stress is one of the prosodic features used to signal propositional focus. Third, overall rhythmic patterning guides speech segmentation (Cutler 2015).

The professors had taken a semester-long course on English pronunciation, followed by an intensive 3-day session on English-medium instruction. The 2-step intervention occurred 6 months later. In Step 1, they compared their initial diagnostic recording of certain words and sentences to an acoustically manipulated version; they heard their own voice but with durations modified using PSOLA to resemble "native"

lexical and nuclear stress patterns more closely. They then recorded the same content anew, to demonstrate that they had noticed and were able to imitate certain features. In Step 2, they compared these two recordings and then discussed in English what they had noticed, what they had changed, etc. This spontaneous speech was analyzed for traces of modified durational features as well as for propositional content. The ability to transfer to a new read-aloud task was verified when they recorded a new short text.

The presentation will discuss improvements in the professors' production of temporal patterning in English, as well as cases where their production fell short of the goal. Analysis of their feedback will throw light on the potential benefit of such brief interventions and allow us to finetune the intervention.

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#### **ACCENTS OF PERSUASION**

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This presentation examines the use of varieties of native and non-native English accents in product advertisements and party political broadcasts from the perspective of argumentational theories of persuasion. While there has been a good deal of research into the effects certain accents may have on target audiences, on credibility of speakers (Lalwani et al. 2005, Levi-Ari & Keysar 2010) or brand perception (Bennett & Loken 2008), for example, it is a new departure in argumentation theory to consider aural elements in the presentation of persuasive communication as part of the argument itself (Groarke & Kišiček, forthcoming).

The suggestion that aural argumentation is possible follows Leo Groarke's groundbreaking work (2002) on establishing the acceptability of visual argumentation in the field and remains highly controversial among theorists.

The purpose of this study is to examine a series of productions in which the accent of the speaker may be thought to play a central part in the communication of the persuasive message – that is to say that the choice of accent is apparently deliberate and significant - and to determine whether that accent and the associations which the target audience may be assumed to have with it can be taken to form part of the propositional content, of the message – be it as premise, conclusion, warrant or evidence. If the accent is not to be considered part of the argument, then a different explanation of its rhetorical role will be required.

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#### LEARNER NEEDS IN PRONUNCIATION INSTRUCTION

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The paper presents preliminary results of a longitudinal (one-year) investigation conducted with a group of 10 secondary school learners who expressed their eagerness to study and to delve into pronunciation practice. It will discuss their needs and expectations with regards to language learning and pronunciation instruction, as well as the process of their awareness raising and pronunciation learning strategies development (Peterson, 2000; Eckstein, 2007) as well as fostering learner autonomy (Pawlak, 2006) that helped them build their confidence in the field of phonetic instruction. The concept of a good language learner (Rubin, 1975; Brown, 2008) emerges as a key term that can be applied and referred to pronunciation teaching and learning.

Much research and therefore literature dedicated to practical phonetics instruction usually concentrates either around students at the English departments or ESL learners, who, by definition, are to a great extent highly motivated. It may appear interesting to look at secondary school EFL learners and at what drives them to wish to speak correctly, as they themselves claim, and how their views and perceptions are different from their teachers', who report on dissatisfaction with their own pronunciation training or lack of it and who express discomfort when it comes to teaching pronunciation at all (Bradford and Kenworthy, 1991; Burgess and Spencer, 2000; Henderson et al., 2012).

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## CONTOURS IN MUSIC AND SPEECH: THE EFFECT OF MUSICAL APTITUDE ON SPEECH PROSODY

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The exploration of similarities and differences between language and music has recently received increased interest in the field of linguistics and neuroscience. While it is possible to study different domains of language and music, prosody and melody are the two aspects which are objectively similar, as they rely on the same acoustic amplitude, duration, parameters, i.e. fundamental frequency, and spectral characteristics (Schon et al. 2004). These similarities provide the basis for investigating pitch perception in language and music. Zatorre and Baum (2012) argue that there are two pitch processing systems: fine-grained processing, which is responsible only for accurate encoding of musical interval relationships used in scales, and coarse-grained processing, which allows to discriminate between different contours in both speech and music. Contour information is also more perceptually salient and can be detected at an early stage by infants, suggesting that it is a more basic and innate process (Trainor and Trehub 1992). Furthermore, musicians who perform better at processing contours in music also show superior encoding of contours in speech (Wong et al. 2007, Bidelman and Krishnan 2009). However, Billig and Mullensiefen (2012) point out that there is also a limit to the extent that musical training can affect the mental representation of pitch patterns.

While the above-mentioned studies focus primarily on the relationship between the perception of contours in speech and music (e.g. Schon et al. 2004), the proposed study tries to explore whether finer processing of musical contours can also lead to improved production of contours in second language speech. In order to investigate this, we recorded 20 advanced Polish speakers of English before and after a two-year pronunciation course, which included segmental and suprasegmental practice. The recordings comprised of a set of short dialogues designed to elicit different intonational patterns from the participants. Using Praat (Boersma and Weenink 2015), we measured the contours of each individual phrase read by the participants and pronunciation teachers to compare the results. To measure the participants' musical aptitude, we conducted a series of musical hearing tests assessing pitch perception, melodic memory and musical rhythm (Mandell 2009). There was an observable change across the participants' prosody before and after the course. Moreover, participants with finer musical hearing test results produced more native-like speech contours. These results suggest that musical aptitude does not only affect pitch perception in language and music, but can also influence pitch contours in speech.

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#### OPTIMALITY THEORY ANALYSIS OF SYLLABLE STRUCTURES OF PAKISTANI ENGLISH

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English, as a non native variety, in Pakistan has acquired its own form most pronounced on the phonological level. The few attempts have been made to study its structures and treated phonology as marginalized part of lexical or syntactic descriptions. And even when phonological descriptions are carried out, the focus was segmental features only. Consequently, the present study aims to explore suprasegmental features exclusively; which make significant differences in pronunciation and cause problem of unintelligibility. Among many sub-varieties of Pakistani English PE, syllable structures and syllabification of variety of English news media of PE are described. Finally, for the sake of precision and accuracy, optimality theory (OT), proposed by Prince & Smolensky (1993), is selected as a model to analyze syllable structures of PE. For this purpose, the constraints on these phonological features were ranked to make a grammar by forming violation Tableaus to understand interaction of these constraints. The violation computing method VCM (Nadeem, 2016) is applied by ranking constraints of syllable structures in PE. It is concluded that PE forms different syllable structures and syllabification patterns. For example, syllabic consonant C is not found in PE. Furthermore, Maximum Onset Principle MOP is not applicable word internally in PE. Syllable constraints hierarchy of PE is:

Peak, Faith V, Faith C, Son-seq (undominated) »  $CCC\sigma$  »  $\sigma CCC$  » Onset » No-coda » SLH

Results show that PE does not allow cluster of three consonants word internally, so to capture this process  $CCC\sigma$ ,  $\sigma CCC$  constraints are added in the grammar of PE; because "Complex' constraint prohibits occurrence of cluster of only two consonants.

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#### WORD-FINAL INTERVOCALIC GLOTTALIZATION IN AMERICAN ENGLISH: EVIDENCE FOR WORD-SPECIFIC PHONETICS

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*T*-Glottalization (=glottal replacement), i.e. the realization of the fortis alveolar plosive /t/ as the glottal stop, as in *city* is usually seen as a feature typical of British English accents, and contrasted categorically with flapping in American English, e.g. *city* (e.g. Harris & Kaye 1990). Granted, word-internally between vowels, glottalization is rare in American English. It is present there, however, in other phonologiocal contexts. For starters, it has been attested in American English word-internally before consonants, e.g. *Batman, output* (Eddington & Taylor 2009). Furthermore, there is a growing body of evidence for glottalization across word-boundaries in American English, including before vowels, e.g. *right around* (Levon 2006, Roberts 2007, Eddington & Taylor 2009, Eddington & Channer 2010).

In word-final intervocalic position, both flapping and glottalization can take place. The choice of one allophone over another has been shown to be influenced by both linguistic and social variables. Eddington and Channer (2010) provide evidence that the likelihood of glottalization in prevocalic position is higher for words which (as evidenced in speech corpora) are typically followed by consonant-initial lexemes (words with high 'c-ratio' henceforth). This finding challenges any model of phonology which assumes that the phonetic shape of a word is solely a result of the interplay between its phonological composition and phonetic environment (plus unsystematic performance factors). If words typically followed by consonants show higher rates of glottalization, then their c-ratios (or some other information from which c-ratios can be derived) must be stored – it is impossible for information about typical following word to be computed online (cf. Pierrehumber 2002).

A serious limitation of Eddington and Channer (2010) is that the influence c-ratios on glottalization rates was analyzed post-hoc, and so their result might be an artefact of an interplay of confounding variables. The present study compensates for this shortcoming, by including c-ratio (calculated from SUBTLEX-US (Brysbaert & New 2009)) as a predictor variable in a model including a number of other variables shown in extant research to influence rates of glottalization. A cumulative logit-link mixed model is fitted to a large set (N = 5,815) of word-final intervocalic /t/'s retrieved from the Buckeye corpus (Pitt et al. 2007). C-ratios are shown to influence glottalization rates, which provides evidence for word-specific phonetics.

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#### INVESTIGATING CRITICAL LISTENING IN THE CLASSROOM: FOCUS ON TYPES OF ANALYSIS AND FEEDBACK

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Research into cognitive phonology has proposed that L2 pronunciation is a cognitive skill and that the obstacle to acquiring any L2 sound is cognitive rather than physical (Fraser, 2001; 2006). The mastery of any cognitive skill depends on learners having the right concept of what it is that they are practicing. It is assumed that learners should form appropriate concepts so that they can perceive and categorise new sounds more easily and eventually modify their pronunciation. In doing so they need help and guidance as despite the fact that practice is essential, hearing and repeating an L2 sound is not sufficient, rather, it is the understanding of its auditory quality that is of crucial importance and it should be described in a way that is logical for the learners. Critical listening is a teaching technique that allows for the development of such teacher-student interaction, i.e. socially-constructed metalanguage, which enhances students' noticing skills by comparing and contrasting their own L2 speech.

This study investigates the effectiveness of three approaches to critical listening as part of a larger classroom-based study which tested the impact of a specific perceptual training on the perception and production of English front vowels /i:, I, e,  $\alpha$ / by Macedonian learners of English (N=31). In all three approaches participants' pre-recorded dialogues were jointly listened to for critical evaluation but it was the way they were analysed (joint discussion vs. individual self-evaluation) and the feedback that was given (peer vs. teacher corrective feedback) that varied and were combined. Qualitative data was obtained post training via interviews.

The analysis shows learners' views on their L2 pronunciation shifting in the following aspects: 1) an increased susceptibility to their pronunciation errors, and 2) a considerable concern for their L2 speech. In terms of type of analysis and feedback, results indicate preference to individual self-evaluation and teacher feedback. Overall, these findings suggest that improvement in learners' noticing skills is an important learning phase for raising their phonological awareness and developing more native-like L2 sound categories.

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#### SINGING ACCENT: AMERICANISATION IN THE LIGHT OF FREQUENCY EFFECTS

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Americanisation of British popular music singing accent has been investigated from various theoretical perspectives (Trudgill 1983, Simpson 1999, Beal 2009, Gibson and Bell 2012 among others). A number of questions regarding the character of this variation, as well as the details of its mechanisms, however, call for further research. One of them concerns the reason why some phonetic features seem to be more prone to Americanisation. Another matter, to some extent connected with the previous one, is distinct behaviour of various words exhibiting the feature at stake within a given phonetic process.

The aim of this paper is to estimate – within the framework of usage-based phonology, in which sociophonetic variation occupies a central position – the potential significance of lexical frequency effects: to assess whether more frequent words prove to be the carriers of Americanised singing style, still observable in British popular music. In order to do this, the singing accents of selected British vocalists are examined with regard to two processes: the LOT vowel unrounding and monophthongisation of the PRICE diphthong. Both auditory and acoustic methods are employed; PRAAT is used to provide acoustic verification of the auditory analysis wherever isolated vocal tracks are available.

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#### GLOTTALIZATION AND H-DROPPING IN THE SPEECH OF BBC RADIO PRESENTERS

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The study aims to analyze and compare the speech of BBC presenters in different types of broadcasts: news, sports news and entertainment programmes on four radio stations: BBC Radio 1, BBC Radio 4, BBC Radio 5 and BBC World Service. It focuses on /t/ glottalization as well as h-dropping in accented initial syllables and intends to measure to what extent BBC radio presenters retain the Received Pronunciation accent despite current tendencies of the BBC to employ a variety of non-standard accents. The study proposes to find out if there is any consistent pattern of accent use by BBC radio presenters in different types of broadcasts and, if so, in what circumstances RP features are used. Twenty-four extracts, about one minute each, have been chosen from radio broadcasts and recorded by means of Apowersoft Online Audio Recorder, two in each of the three categories: news, sports news and entertainment programmes on four radio stations. The recordings have been orthographically transcribed and the contexts in which t-glottaling or h-dropping could appear have been highlighted and examined auditorily through repetitive listening. The study reveals that t-glottaling has appeared in most cases in entertainment programmes and it involves both standard and non-standard usage of glottalization. The instances of t-glottaling in news have been relatively rare on BBC Radio 4,5 and BBC World Service. As regards h-dropping, it has happened occasionally only in entertainment programmes. The research shows that the pattern of BBC presenters' speech seems not to be stable in all broadcasts and that the use of non-standard t-glottaling is most frequent in entertainment programmes and sports news.

#### "DEFINITELY THE LADDER" – ALLOPHONIC REALISATIONS OF WORD-MEDIAL /T/ AND TARGET ACCENTS FOR NON-NATIVE SPEAKERS OF ENGLISH

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Studies into non-native speech have thus far focused primarily on segmental and supra-segmental features that differ significantly from native speech (Gut 2007), both acoustically and perceptually. The present study aims to characterise variable surface realisations of segments due to predictable phonological processes in non-native English, and thus to classify speakers in terms of target accent according to their choice of allophone in certain linguistic environments.

American English speakers differ from British speakers in their production of /t/ in most positions preceding an unstressed segment. Flapping is the preferred choice in these positions (Eddington and Elzinga 2008; Patterson and Connine 2001), and occurs with a very high probability in environments following a stressed vowel (e.g. Zue and Laferriere 1979). Conversely, aspiration is favoured by BrE speakers in these contexts (Cruttenden 2014; Schleef 2013). The choice of variant can thus be seen as a shibboleth of the respective accent, and be operationalised as an indicator of target accent of non-native speakers.

In a production study currently underway, 7 American and 1 British native speakers read out a carefully constructed story containing 40 carrier-words eliciting /t/ in word-medial positions. The choice of variant was assessed, and flapping rates were calculated. As an independent check, the instances of /r/-dropping in preconsonantal positions were also regarded.

Out of a total of 280 tokens of medial /t/, the American speakers flapped 211 instances. This leads to a one sided confidence interval for a proportion (confidence level of 95%) with a lower bound of 70.7% for the flapping rate, i.e. American English is assumed to have a minimum of 70.7% word-medial flapping. The British speaker flapped none of the 40 tokens, leading to a one sided confidence interval for a proportion (confidence level of 95%) with an upper bound and maximum flapping rate of 7.3%.

36 advanced German L2 learners of English at a German university were subsequently given the same items to read, and their estimated overall flapping rates were aligned on a continuum, with 70.7% flapping at one, and 7.3% flapping (or 92.7% aspiration) on the other endpoint of the scale. Figure 1 shows the distribution of all speakers in terms of nativeness. The results will be correlated with accent-ratings conducted by native British and American speakers, in order to yield implications for order of acquisition, methods for nativeness-ratings and the influence of extralinguistic factors like time abroad and motivation.



Figure 1: Flapping rates for NNSs

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#### A PRELIMINARY SURVEY ON PRONUNCIATION IN AN EMI CONTEXT IN TERTIARY EDUCATION

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One of the indicators of the internationalization of tertiary education in recent years has been the introduction of English medium-instruction (EMI) in university degree programmes (Coleman, 2006; Doiz, Lasagabaster & Sierra, 2013). Recent research conducted on students and teachers concerns about accent/pronunciation at tertiary level has evinced that these students are not satisfied with pronunciation teaching curricula (Kang, 2014), that they tend to show a preference for native-like

pronunciation models (Lasagabaster & Sierra, 2002) or that they also set a native-like standard for their own pronunciation development (Nowaka, 2012).

The present study is part of a state-funded project that seeks to develop collaboration between EMI lecturers and language lecturers at university levels. We preliminarily examined 12 university students' perceptions and expectations on pronunciation teaching and learning during an EMI experience with collaborative participation between a non-native content lecturer and three language lecturers throughout a semester during the 2016-2017 academic year. In such intervention, pronunciation was addressed from an awareness perspective in four 15-minute sessions, which i) targeted ideas such as 'is English pronunciation difficult?', 'How can I autonomously improve my pronunciation?' ii) presented the phonetic alphabet as a tool for identifying the pronunciation of specific terminology in dictionaries, iii) evinced how an orthographic interface can deter good pronunciation in favour of phonetic or audio interfaces and iv) promoted a discussion session on learning and teaching pronunciation beliefs and experiences.

A sample of learners' productions in the form of elicitation of isolated words and in the form of spontaneous speech was collected. In addition, they completed a 14-item questionnaire with 6 agree/disagree-scale points, which recapped on the main ideas in the discussion session. While comprehensibility and intelligibility analyses of students' productions are presently being conducted, the data gathered in the questionnaire showed that, although EMI students perceive pronunciation as very important for communication and their future careers, they are only moderately confident with their English pronunciation. Results also revealed that they wish to improve their pronunciation skills and that they would like to sound like a native speaker. Finally they also reported that they believed the EMI teacher provided a good pronunciation model and that they felt that their pronunciation was improving while taking the course. Although exploratory, students' responses seem to point to an activation of pronunciation awareness in an EMI context and to the need to ascertain intelligibility as an alternative pronunciation goal to nativeness for these students (Kang, 2014; Nowaka, 2012). Further production data analyses from the students are awaiting to confirm these findings.

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#### THE PERCEPTION OF ENGLISH VOICED INTERDENTAL FRICATIVE BY POLISH LEARNERS OF ENGLISH

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English interdental fricatives ( $/\delta$ / and  $/\theta$ /) seem to be very problematic sounds for Polish learners of English. Their production poses serious difficulties and, consequently, learners make mistakes which are not easy to eradicate (e.g. Gonet, 1982; Gonet and Pietroń, 2006). Jassem (1971) notices that English  $/\delta$ / is similar to Polish /d/ in terms of articulation, but perceptually it is close to Polish /v/. However, Polish learners of English tend to replace English voiced interdental fricative with Polish /z/. Porzuczek et al. (2016) claim that Poles are likely to pronounce a /d/-like sound instead of  $/\delta$ /. Gonet and Pietroń (2006) suggest that  $/\delta$ / is realized as /d/ before vowels, and as /v/ before consonants.

Not only Polish learners of English encounter difficulties while producing the sound in question. A similar situation was observed for Cantonese learners of English by Chan and Li (2000), who found out that those learners substitute  $/\delta$ / with either /d/ or /f/, and by Meng et al. (2007), who observed that Chinese Cantonese learners mispronounce English  $/\delta$ / as a slightly voiced version of Cantonese voiceless alveolar plosive /t/. Polka et al. (2001) highlighted that Francophone Canadians have difficulty discriminating perceptually between English  $/\delta$ / and /d/. This is why they replace  $/\delta$ / with the latter sound (e.g. Brannen, 2002; Morrison, 2005). Reis (2006) discovered the same for Brazilian learners of English.

And as the importance of correct production of English interdental fricatives has been mentioned by various researchers (e.g. Gonet and Pietroń, 2004; Sobkowiak, 2004; Szpyra-Kozłowska, 2005) it is worth paying some attention to this problem. Since sound perception always precedes its production (Abe, 2015), this paper is going to examine whether Polish learners of English are able to discriminate perceptually between English  $\delta$  and d. 45 first-year students of English Philology recruited at the Institute of English and the Institute of English Cultures and Literatures, University of Silesia, participated in the study. They were divided into an experimental group and a control group of almost equal sizes (22 and 23 subjects, respectively). They performed a discrimination task twice - before and after a winter semester of an academic course in practical phonetics of English. In the case of the experimental group, it included a module focused on English consonants, with a lot of practice devoted to interdental fricatives (both perception and production). The control group completed at the same time a module comprising English vowels. While the results of the pre-test obtained by both groups were very similar, the results of the post-test differed significantly. The ability to identify English  $\delta$  and d correctly displayed by the subjects from the experimental group improved remarkably (also the statistical significance was determined here). The results achieved by the control group were only slightly better (no statistical significance). Thus it can be stated that the perception of English voiced interdental fricative can be improved by appropriate training which is undoubtedly helpful in further production of this sound.

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#### ENGLISH WORD STRESS LEARNABILITY IN A CONTEXT OF TRANSITIONAL GRAMMAR

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The aim of the presentation is to report on strategies employed by Polish learners in assigning word stress patterns in English. A three-stage experimental study (Marczak, 2016) was carried out on a total of over 130 Polish learners with various mean ages and levels of knowledge of the English language. The observation of word stress produced by the test subjects in 35 English lexical items taken from Archibald (1993) and nonce words, makes it possible to formulate five strategies employed by L2 learners in their Polish-English interlanguage, coceived as Transitional Grammar (TG). The results from the experimental study (Marczak, 2016) help us to define the following five strategies: 'Stress Penult', 'Stress Heavy', 'Stress Heavy with Onset', 'Avoid Prominence Clash' and 'Stress the final syllable in disyllabic verbs'. The strategies are discussed together with the metrical conditioning under which L2 learners use them. It is also investigated when the L1 stress patterns resulting from L1 transfer are helpful and when they interfere with assignment of the correct stress pattern.

A two-fold account of how Polish-English (PE) learners deal with their task of finding metrical settings for parameters in English is provided. First, Polish English (PE) learners' bahaviour is described by means of a metrical parameter algorithm adapted from Dresher and Kaye (D&K) (1990). D&K's metrical parameterization helps to intepret PE learners' behaviour in their TG.

Second, the Optimality Theory framework (Prince and Smolensky 1993; Kager 1999; McCarthy 2008) is used to build the Transitional Grammar composed of PE constraints. The relevant constraints and their ranking reflect difficulties which the PE

subjects experience in the process of learning English word stress. The goal of the presentation is to show how the PE learners deal with their tasks of discovering metrical parameter settings in English. The difficulties are defined in terms of PE transitional strategies, which are characterised according to experimental results that show variation in stress patterning. The learning strategies are interpreted as L2 speakers' mechanisms which are expressed as either L1 or L2 parameter settings or as constraint rankings. For both accounts, the following metrical conditionings are considered: syllable heaviness, foot structure, and foot alignment.

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#### MORE INSIGHT INTO UNIVERSITY STUDENTS' FORMAL AND INFORMAL PRONUNCIATION PRACTICE

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The purpose of this three-stage study, which involves a questionnaire, a diary and recording, is to make a contribution to the research on formal and informal pronunciation practice and in particular such aspects as pronunciation learning autonomy (Pawlak 2006, and Szyszka 2006), strategies and beliefs (Nowacka, 2012; Pawlak et al. 2015: Szyszka, 2015), the choice of target pronunciation model and the attitudes towards L1-accented speech (Janicka et al., 2005).

This paper focuses mainly on a qualitative part of the study<sup>1</sup> on two major issues, i.e. phonetic preferences of 125 English philology first year students in Poland and the usefulness of the phonetic course. Among other things we have obtained data on our respondents' reasons for speaking with widely accepted, clearly understood English pronunciation, examples of the students' pronunciation model and their way of paying attention to English phonetics and accents.

Our participants have also given answers to questions concerning the pronunciation course itself such as: its positive/negative effects on their pronunciation, phonetic knowledge and the skills of speaking and reading aloud; the useless, surprising and most challenging phonetic issues, respectively; the usefulness of transcription and modifications to the course; 'likes and dislikes' of learning pronunciation; their most

<sup>&</sup>lt;sup>1</sup> The first mostly quantitative part of which was presented at the conference EPIP'5 in May 2017.

preferred and disfavoured instructional techniques and also the influence of the course on the participants' future pronunciation learning.

After responding to a questionnaire all participants were required firstly, to record a sample of speech, which was a response to an open-ended question and reading of Weinberger's (2015) diagnostic passage's *Please call Stella* and secondly, to investigate their pronunciation self-learning by keeping a track of their weekly English out-of-class exposure for the period of more than one month.

As a follow-up to this study we wish to present a profile of a phonetically careless student on the basis of a holistic evaluation, which involves the above-mentioned sources of data, i.e. a questionnaire, one-month introspective diary on selfpronunciation work and a recording in search of a plan for their phonetic improvement.

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#### PHONETIC TRANSCRIPTION AS A TOOL IN FOREIGN LANGUAGE PHONETIC INSTRUCTION IN POLAND (POSTER)

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It was over a century ago that Jespersen (1904:170) pointed at "an exceedingly large gain in exactness" that transcription brings. Other advantages of transcription such as awareness raising (Harmer 2015, Lintunen 2005), visual support (Cymbalista and Kleparski 2002) and the power for autonomous learning (Mompean 2015) have been found and described in literature. Transcription is also said to serve as an aid to abandoning the entrenched preoccupation with spelling (Sobkowiak 2001). For years,

phonetic transcription has been a staple ingredient of most phonetics courses taught at university level. Nonetheless, these days opinions on the use of transcription in second language learning and teaching vary (Mompean 2015).

At University of Łódź BA students of foreign philologies where phonetics is on the curricula are all familiar with the concept of transcription. However, they differ significantly in the amount of phonetic training that they undergo, which may, among other things, reflect on their beliefs or convictions about transcription in ESL learning.

The aim of this study was to measure students' attitudes to phonetic transcription, i.e. to find out whether or not they regarded it as easy, useful or interesting, as well as to see what prior experience with transcription the participants had had. To this end, 144 students of six foreign philologies (English, German, Russian, Romance, Italian, and Spanish) completed a questionnaire which consisted mostly of closed questions. Subsequently, the results were collated and presented on bar charts in order to highlight the differences between the philologies.

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#### **ROLE OF ACCENTS IN AERONAUTICAL COMMUNICATION**

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Aeronautical communication is coded, non-visual radiotelephony interaction between pilots and air traffic controllers. The communication language comprises English aviation phraseology and plain English in aviation context. Today all participants of aeronautical communication must sit for the test for English language proficiency to demonstrate operational level four at six skills – pronunciation, grammar structure, vocabulary, fluency, comprehension and interaction (ICAO, 2010). Due to non-visual mode of the oral interaction and usage of two English language devices (phraseology and plain language) pronunciation seems the key skill to investigate regarding its contributing role into the language related human factor.

The research carried out during the long period of testing practices of pilots and controllers has proved the two main factors suggested to be crucial for mitigating the risk of misunderstanding within radiotelephony communication. The first factor might be defined by the differences in pronunciation rules used by phraseology and plain language. In fact, it reflects the difference between invented (aviation phraseology) and natural (plain English) language. To be intelligible in pronunciation, the communicators should switch on/off between the two types of pronunciation codes. The second factor appears under the influence of the native language accent. The native language interference might cause serious distortion of English sounds and intonation patterns leading to incomprehensibility.

The research was carried out on the base of comparison between speech samples obtained after the test oral interviews and authentic samples of radiotelephony exchanges between pilots and controllers selected at random. The variables studied were (a) degree of effective phonetic code switching and (b) degree of native phonetic system influence. Firstly, the pronunciation features were analyzed in speech samples of oral interviews of pilots and controllers. Secondly, the same features were studied in the real radiotelephony exchanges. The native languages were Russian and Ukrainian.

The presentation will describe the unique phenomenon of pronunciation accuracy in aviation context regarding (i) specific pronunciation rules for English aviation phraseology; (ii) criteria for pronunciation accuracy in plain English used in radiotelephony; (iii) interference and transfer of pronunciation skills between phraseology and plain language; (iv) pronunciation related transmission problems caused by native language influence on nonnative English speakers.

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#### USING FACIAL MOTION CAPTURE TECHNOLOGY IN SECOND-LANGUAGE SPEECH RESEARCH

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Facial Motion Capture is the process of converting the face movements into a digital database using high-resolution cameras registering the position of markers on the speaker's face. Commercially, it is used to produce computer graphics and animation for movies, games, or real-time avatars. However, the nature of Facial Motion Capture technology makes it a potential tool for studying speech production together with the already-known technologies such as articulography or myography.

In this talk we will discuss prospects and limitations of FMC technology is studying second-language speech. We will concentrate on vowel production and vowel reduction in unstressed syllables in English. We will show how the data obtained from FMC may supplement traditional acoustic measurements. Finally, we will suggest directions in how FMC coupled with classical video recording may be used in planning in second-language speech perception experiments.

#### DETECTION OF NONNATIVE SPEAKER STATUS FROM BACKWARDS AND VOCODED CONTENT-MASKED SPEECH

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Detecting nonnative speech is relatively easy even for phonetically untrained listeners from utterances of very short durations. The listeners appear to be sensitive to various segmental and subphonemic deviations from the native speech. Other factors that are likely to contribute to nonnativeness of speech are articulatory rate, intonation, voice quality, or laryngeal setting. One contributors that has received considerable attention recently is rhythm of speech. In natural recordings, it is impossible to disentangle rhythm from segmental, subphonemic or suprasegmental features that will influence nativeness ratings. However, two methods of speech manipulation, such as backwards content-masked speech and vocoded speech, allow the classification of native and nonnative speech in which segmental properties are masked and unavailable to the judges.

In the current study we compare the two methods using native English speech and Polish-accented speech. Polish and English differ in the temporal organization of their rhythm, so, if rhythm alone is a significant contributor to the status of nonnative accentedness, we should observe the above-the-chance-level classification of Polishaccented English as nonnative. Both native English and Polish-accented recordings were manipulated using (1) backwards masked speech and (2) 6-band white-noise vocoded speech. Next, they were normalized for duration and intensity and presented to the judges. The prediction was that, if rhythm alone contributes to nonnative accentedness, both methods should lead to non-random classifications. Moreover, backwards content-masked speech was predicted to yield better results than vocoded speech, because it retains some of the indexical properties of speakers.

#### ASYMMETRIES IN L2-INDUCED PHONETIC DRIFT IN L1 POLISH

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Beyond traditional studies of L1 phonological interference resulting in a 'foreign accent' in a second language (L2), the work of Flege (e.g. 1987, 1995) represents the first major stream of research to identify consistent phonological effects of second language (L2) learning on first language (L1) pronunciation. These effects, referred to by Chang (2012) as 'phonetic drift', have been observed primarily in the voice onset time (VOT) of voiceless stops, with some additional cases reported in the spectral qualities (F1 and F2 frequencies) of vowels. Since L1 phonetic drift is less obvious and well-known than L1-influenced foreign accents in L2, most of the research examining it has focused simply on documenting its existence, and interpreting its implications for traditional views on linguistic competence.

A question that apparently has not been investigated concerns the effects linguistic competence may have on particular drift phenomena. In other words, research on phonetic drift has assumed that "phonological representations that are related cross-linguistically" (Chang 2012: 250) yield phonetic changes. However, since deeper investigation into phonological representation may cast doubt on traditional conceptions of the nature of cross-linguistic phonological relationships, one possible avenue of exploration is to examine which phonological phenomena may or may not be subject to drift, and why.

Laryngeal features represent one area in which different phonological perspectives may make different predictions for phonetic drift. Depending on one's theory of laryngeal markedness (Honeybone 2005; Schwartz, in press), it may be hypothesized that both voiceless and voiced consonants, or that only one or the other of the two series, may be subject to phonetic drift. Since previous research has for the most part examined only voiceless consonants in drift situations, these hypotheses have not, to our knowledge, been tested.

This paper presents an acoustic study of the realization of both the voiced and voiceless series in the L1 Polish of speakers with B-level proficiency in English, as well as a control group of Polish speakers without university-level English instruction. Preliminary results suggest that VOT for the voiceless consonants was more or less identical for the two groups. By contrast, the realization of the voiced series showed signs of drift in the speech of the experimental group, with a number of tokens produced without pre-voicing, and a shorter period of pre-voicing in the tokens produced with voicing lead.

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## PRODUCTION ACCURACY OF L2 VOWELS: PHONOLOGICAL PARSIMONY AND PHONETIC FLEXIBILITY

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We address ultimate attainment in foreign-language sound learning, focusing on vowel production accuracy in English spoken by advanced Czech EFL learners. English FLEECE–KIT, DRESS–TRAP, and GOOSE–FOOT contrasts are examined in terms of length, height, and frontness. Our data show that, while being constrained by phonemic category assimilation,<sup>1</sup> the learners' L2 vowel systems combine phonological parsimony (reusing L1 features) with phonetic flexibility (within-category shifts reflecting L1–L2 phonetic dissimilarity).

Czech is a vowel-length language contrasting /i:, $I, \varepsilon$ :, $\varepsilon$ ,a:,a,o:,o,u:,u/. The selected English vowel pairs represent different L1–L2 phonemic and phonetic interactions: two-category assimilation + phonetic similarity (FLEECE–KIT), two-category assimilation + phonetic dissimilarity (GOOSE–FOOT), and a single-category assimilation + phonetic dissimilarity (DRESS–TRAP). Twenty Czech learners produced 64 sentences (12 words for each high, 8 for each non-high vowel) in a delayed-repetition task. Five English native speakers recorded the baseline data.

The learners used length to contrast vowels within each English pair. Only the high front vowels were distinguished also by height and frontness. The FLEECE-KIT contrast maps directly onto Czech /i:/-/I/ contrast, each L2-English vowel acoustically matching its L1-Czech equivalent.<sup>2,3</sup> Small standard deviations suggest reusing well-practiced targets.

In contrast, TRAP and DRESS showed no spectral differentiation, both vowels assimilating to Czech  $/\epsilon \sim \epsilon$ :/. English DRESS acoustically matches the Czech vowels but TRAP is considerably lower and retracted.<sup>2,3,5</sup> However, learners' productions of  $/\alpha$ / showed no shifting toward the L2 spectral target. In a single-category assimilation,<sup>1</sup> the categorical overlap precluded noticing within-category L1–L2 phonetic dissimilarity even after prolonged and intensive foreign language learning.

GOOSE and FOOT showed less clear differentiation in height and frontness compared to the FLEECE-KIT pair. Neither were L1 spectral /u:/-/u/ targets reused for these L2 vowels. Instead, GOOSE and FOOT vowels were significantly fronted, becoming L2-like.<sup>3,4,5</sup> Thus, in a two-category assimilation,<sup>1</sup> the categorical overlap with L1 phonemes did not preclude noticing within-category L1-L2 phonetic dissimilarity.

To conclude, achieving native-like phonological competence may not be possible for late L2 learners, for whom the phonetic categories of their L1 and L2 inhabit a common phonological space.<sup>6</sup> The interaction of our learners' L1 and L2 phonologies manifested itself in the parsimonious reusing of the L1 length feature and in the L1–L2 category mappings. Though clearly constrained by L1 phonology, the learners' implementations of vowels also revealed their ability to adjust for phonetic detail of L2 sounds.

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#### THE MOUTHFUL OF **RP** - THE CASE OF THE DUKE OF CAMBRIDGE

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Received Pronunciation has been with us for exactly one hundred years now. With the introduction of *Public School Pronunciation* later dubbed *Received Pronunciation* (Jones, 1917), Jones established a model that for the next century has been considered standard British pronunciation and the basis on which to teachthe British variety of English as a foreign language. The last 30 years or so, however, have witnessed a major change in the perception of standard British English pronunciation. The study of phonetic change based on annual Christmas messages delivered by the Queen during the period of the 1950s and 1980s (Harrington, Palethorpe & Watson, 2000), the birth of Estuary English or the influence of American English, to name but a few, have all had a bearing on how RP is spoken and perceived nowadays. This paper begins with a brief historical and sociocultural background to RP. The analytical core of the paper

presents a case study of selected pronunciation features as produced by the Duke of Cambridge, the first monarch-to-be in modern times to deviate from the traditional RP. The study is based on twelve video recorded interviews spanning from 2007 to 2017. It will be argued that even though Prince William does not resort to the traditional variety of RP, most of the phonetic features that characterize his performance fall within what is referred to as modern RP whereby certain phonetic aspects do resemble the Jonesian description and others appear to drift from the core.

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#### **READING TEMPO IN GENERAL AMERICAN AND RECEIVED PRONUNCIATION**

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It has been suggested that speech tempo is affected by various linguistic factors, such as boundary lengthening or grammatical form of a sentence. Moreover, several extralinguistic factors have also been reported to influence speech rate. Among them are speaker's age, gender, cultural upbringing, socio-economic status and dialect.

The aim of the present project is to investigate the way in which General American (GA) and Received Pronunciation (RP) differ in reading rate. Dissimilarities in the level of phonetic reduction in the two dialects of English suggest that some differences in the corresponding reading rates may exist. In order to achieve this goal, recordings of the same texts read by GA and RP readers needed to be compared. The materials chosen were 30 chapters from audiobooks found at 'www.librivox.com'. Each of the chapters was read by one GA reader and one RP reader. Next, the corresponding texts were quantified in terms of the number of words, syllables and phonemes. Words were calculated in a text editor, and the latter two variables were counted in a program developed in Python. Finally, the duration of each recording was measured and the reading rate expressed in words per second, syllables per second and phonemes per second for each text was obtained.

A statistical analysis of the results indicates no effects of the dialects on the response variable under discussion. These findings may be particularly useful for programmers developing text-to-speech software. Additionally, they may be of interest to researchers from other disciplines, such as education, language acquisition or forensic linguistics.

## WHAT CAN VISC TELL US ABOUT THE INFLUENCE OF FOREIGN LANGUAGES ON L1?

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This paper aims at exploring the influence of foreign languages on the L1 by means of analysing Vowel Inherent Spectral Change (VISC) (Nearey and Assman 1986). The assumptions of the study are based on Donegan and Stampe (1983) and Donegan (1993) who claim that languages with large vowel inventories tend to have diphthongised monophthongs whereas languages with small vowel inventories tend to have relatively pure vowels. Thus, in the current study L1 Polish is expected to be influenced by L2 English VISC but not by L2 Spanish VISC as Spanish should display a similar level of formant stability to Polish. The L2 English group is predicted to have less stable F1 and F2 with greater slope and excursion in their L1 Polish. The measurements include F1 and F2 stability, excursion and slope of Polish /a,u,i/ in CVCV context. Slope and excursion are investigated in four intervals of the vowel.

The results show no influence in terms of F1 and F2 stability. However, there is a group effect on F2 for slope and excursion. The differences between the two groups reach statistical significance for /a,u/ but not for /i/. Significant differences in formant transitions are found in the first interval of /a/ (F2 excursion F(1,21)=5,81423, p=0,02514; F2 slope F(1,21) = 5,4106, p=0,03011) and /u/ (F2 excursion F(1,21)=9,54287, p=0,00556; F2 slope F(1,21)=7,62212, p= 0,01171). In the first interval of both vowels the L2 English group produces a greater amount of formant movement at a faster rate than the Spanish group. Moreover, the direction of the movement is different for /a/ as the English group displays a rising F2 as opposed to the falling F2 of the Spanish group. On the other hand, the direction of the movement is the same in both groups for the vowel /u/ as its F2 is falling.

It may be concluded that by means of VISC it is possible to observe certain aspects of the influence of foreign languages on the L1. Although no impact on formant stability was detected, the result was visible in the first interval of the vowel that is in the transition from consonant to vowel in the L1. This finding is in accordance with the Onset Prominence framework (Schwartz 2013) whose assumptions allow for a distinction between Polish (and possibly Spanish) and English with regard to the Vocalic Onset. Greater CV interaction and slower formant transitions into the vowel are expected in English than in Polish which may lead to an increase in slope and excursion of English-accented Polish but not Spanish-accented Polish.

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#### PHONETICS AND HOLLYWOOD. FAKE POLISH-ACCENTED ENGLISH IN "SOPHIE'S CHOICE" AND "ZOOKEEPER'S WIFE"

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In many American films actors and actresses, native speakers of English, who impersonate foreign characters make an attempt to speak English with a foreign accent, which, for obvious reasons, is not authentic, but fake. While their new put on accents are often commented on in many film reviews, such assessments are impressionistic and superficial, e.g. "X wrestles to sound as Polish as possible, but the results are not great," which is to be expected as review writers (and their readers) are not phoneticians to carry out such evaluations competently.

The present paper examines, compares and assesses the most salient phonetic properties of fake Polish-accented English employed by two American stars: the Oscar-winning Meryl Streep appearing as Zofia Zawistowska in "Sophie's Choice" (1982) and Jessica Chastain featuring Antonina Żabińska in a recent film "The Zookeeper's Wife" (2017). In spite of 35 years which passed from the making of the two movies, a comparison of the two actresses' accents is fully justified; both characters share a number of characteristics: they are young, well-educated Polish women of a similar age entagled in dramatic events of World War II in Poland. The analysis is carried out by means of a three-step procedure. First, a list of typical features of Polish accent in English is established on the basis of a questionnaire administered to several Polish phoneticians specializing in Polish English pronunciation. Next both actresses' Polish accents are examined with regard to their success or failure to express these properties. Finally, samples of their speech are assessed by a group of Polish students in a perception study.

#### NON-NATIVE ATTITUDES TO $/\theta$ / and $/\delta$ /: A European case study

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The English fricatives  $/\theta$ / and  $/\delta$ / are often described as difficult to master for nonnative speakers (NNSs). Despite their occurrence in a number of languages, these sounds are considered to be relatively exotic or "marked', and this is seen as a factor in inhibiting their acquisition (Wells 2010; Derwing and Munro 2015: 70). This has led some scholars to hypothesise that these sounds are increasingly becoming irrelevant in NNS communication (Crystal 2001:57; Jenkins 2000:18; Walker 2010: 29; MacKenzie 2014: 126) and are unlikely to be a feature of emerging varieties of English on the European continent (Jenkins 2001:17). While it would be difficult to predict future norms for the actual production of the sounds, it should be possible to determine whether European NNS are more accepting of any substitutions of  $/\theta$ / and  $/\delta$ / than their native-speaker or non-European counterparts, especially when it comes to judging speech by other European NNSs. If so, this may be indication that, European NNSs' pronunciation norms are in the process of converging on the European continent – a significant indicator of a more endonormative pan-European orientation.

In order to investigate this, we analysed additional data from the Internet survey described by Van den Doel and Quené (2013), which was designed to enable the assessment of speech samples produced by different NNSs of English from the European continent. In this survey, different groups of European NNSs were given the opportunity to evaluate non-native realisations of  $/\theta/$  and  $/\partial/$  as produced by other European users of English (including speakers of Dutch, Finnish, Greek, Polish and Spanish). In the interest of comparison, the same recordings were also submitted to non-European NNSs, and to a number of native speakers of English.

Our results did not show any clear evidence of convergence between European NNSs – in fact, the overall lack of any clear differences from NS evaluations would suggest a continuing exonormative orientation towards  $/\theta/$  and  $/\partial/$ . In addition, a number of minor differences were attested between groups of NNS respondents, implying that NNSs' evaluations, rather than converging, are far from uniform. This would mean that pronunciation teaching models which purport to represent the interests of all NNSs need to be subjected to further scrutiny. It also raises questions about other factors which affect NNS attitudes to  $/\theta/$  and  $/\partial/$ , such as perceptual difficulties, educational traditions, the role of L1 interference, and familiarity with local L2 varieties of English.

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#### **PROSODIC PHRASES IN NATIVE AND FOREIGN-ACCENTED SPEECH**

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Prosody fulfils many of its various communicative functions by means of prominences and boundaries within the speech continuum. The present study focuses on prosodic phrasing (or chunking) in foreign accented speech.

The traditional belief that prosodic boundaries reflect syntactic structure (e.g., Selkirk, 1984; Price at al., 1991, but also, though not explicitly Kentner & Féry, 2013) is very difficult to uphold outside laboratory speech. As Auer argued already in 1996, syntax and prosody do not serve one another. Rather, they complement each other to serve the meaning and manage the recipient's behaviour (Auer, 1996). This enlightened proposition, however, is not as yes specific enough for precise phrase boundary predictions in various speech materials. Breen et al. propose two options: meaning-based approach and balance-based approach (Breen, Watson & Gibson, 2011). They managed to introduce some more practical procedures, but they admit the precise modelling still requires more research.

Foreign accented speech offers one important addition to the dispute and that is the cognitive load. By this we mean lower-level (i.e., not intellectual) processing demands on the neurophysiology of the speaker's brain. A learner of a new language is constrained in the efforts to create meaningful prosodic phrasing by substantial processing costs (e.g., search for words, search for syntactic rules, or neurophysiological programming of articulatory movements).

The present study compares the frequency of occurrence of prosodic boundaries and the shapes of intonational contours at the boundaries in comparable speech material. A professional native speaker of Czech (a news reader) together with eight non-professionals (university students) provided the reference L1 data, while 16 Anglophone speakers of Czech produced the experimental L2 data.

As expected foreign-accented speech is considerably more broken even though the phonetic means of prosodic boundary markings are analogous. The current study provides valuable detail on the nature of phrasing to support future perception experiments, which should address the impact of abundant phrase boundaries on the listener. Ultimately, that is what matters in everyday communicative practice in multilingual environment.

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#### ARE THERE TWO CLASSES OF SEGMENTS OR THREE IN PROSODIC STRUCTURE?

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The notion of the *segment* in phonetics is conventionally narrowed down to a unit of the size of a phone, allophone or phoneme. Traditionally, the set of segments is divided into vowels and consonants (or vocoids and contoids). We suggest that in certain phonetic areas of interest, specifically in speech prosody research, three classes should be considered instead. Simple assignment of C and V symbols to segmental chains (producing, for instance, stretches like CCVCVC or CCCVCCC) may work well in languages with uncomplicated syllable structure, but for English with its frequent consonant clusters and syllabic codas it could obscure the nature of prosodic phenomena.

Differentiation between *obstruents* and *sonorants* is supported primarily by the acoustics: obstruents are characterized by noise, and possibly even silence, while sonorants by a formant structure similar to vowels. Such differences may explain the results of Šturm and Volín (2016) who found that the location of the perceptual centre of a stimulus depended not only on the presence vs. absence of a coda consonant, but also on its type.

Similarly, in a wide range of languages (e.g., Kiowa, Kwakw'ala, Lhasa Tibetan, Nama, Thai) the sonority of the coda consonant determines whether the syllable is light or heavy for purposes of stress placement and/or distribution of complex tones in a tone language (Gordon, 2004, 2006). Finally, there is ample evidence from syllabification experiments (Goslin & Frauenfelder, 2001; Ní Chiosáin, Welby & Espesser, 2012; Šturm, 2017) that speakers treat sonorant-obstruent clusters differently from obstruent-sonorant clusters. The former are usually split between the syllables, while the latter tend to be preserved as an onset. Šturm (2017) showed that this is not

always determined by phonotactics, even though sonorant-obstruent clusters are usually phonotactically illegal.

In the present study, we investigate behaviour of consonant codas in weak form words (WFWs), i.e., in monosyllabic structural words whose unmarked form of pronunciation in connected speech is reduced. The previous probe with words *has* and *have* explored the voicing status of the codas (Volín & Skarnitzl, 2017) and did not find any large differences. Current study expands the speaker sample and focuses on WFWs like *on* vs. *of*, *an* vs. *at*, *in* vs. *it*, and addresses the question of whether speakers of Czech English emulate the patterns of native speakers of English and whether the differences between obstruents and sonorants manifest in weak form words.

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## REFLECTING ON PRONUNCIATION INSTRUCTION IN THE ENGLISH CLASSROOM: STUDENTS' VIEWS

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Pronunciation instruction in the English classroom has been investigated from a number of different perspectives, including the experience and attitudes of the teachers (e.g. English Pronunciation Teaching in Europe Survey, Henderson et al. 2012, Waniek-Klimczak, 2013), and the learners (e.g. Dalton-Puffer, Kaltenboeck & Smit, 1997; Tergujeff, 2013). In the Polish context, a number of studies explore student attitudes towards pronunciation models (e.g. Janicka, Kul & Weckwerth, 2005), the aims in pronunciation learning at the university level (e.g. Waniek-Klimczak and Klimczak 2005) as well as the role of pronunciation in the professional development of English specialists (e.g. Waniek-Klimczak, 1997, Sobkowiak, 2002, Nowacka 2012, Waniek-Klimczak, Rojczyk & Porzuczek, 2015).

The study presented here takes a different view, asking Polish university students to reflect on pronunciation instruction at different stages of their education: from primary, through lower secondary, to secondary schools. The respondents represent recent secondary-school graduates, however, the choice of the area of further studies shows that their interest in languages must have been a major one. In the questionnaire study, they were asked to reflect on their experience with respect to pronunciation instruction, including the following: exercises in the textbooks, the use of phonetic transcription in vocabulary learning and the use of pronunciation practice by the teachers. The results suggest that it is with a higher level of schooling that pronunciation enters their language education; even at that level, however, it seems to have been an exception rather than a rule. The results are discussed in the context of pronunciation instruction in teacher training and teacher development.

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#### I'M FROM LONDON, AND THAT'S OK: THE INCREASING ACCEPTANCE OF SOUTHEAST ENGLAND SEGMENTAL PHONETIC FEATURES IN MAINSTREAM POPULAR MUSIC VOCAL PERFORMANCE

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Trudgill (1983) identified five variables for which UK pop singers typically used American-like variants in singing but not in speech. He also noted that the usages were not consistent, and that some of the variables seemed to have moved away from the American-like values between the mid-1960s and the time of his writing. Since that seminal article, other authors (e.g. Simpson 1999, Morrissey 2008, Beal 2009, Coupland 2011, Gibson 2011, Gibson and Bell 2012, Duncan 2017, Konert-Panek 2017) have looked for explanations of both the initial adoption of the American-like variants and their continued use, as well as of the observed changes away from them.

This paper will report on work in progress investigating Trudgill's variables, and more, in selected younger UK vocalists. The first exploration studied a convenience sample of singers originating from south-eastern England (primarily London) in genres close to the mainstream of popular music. On the one hand, there are singers "faithful" to the generic pop-song style, e.g. Amy Winehouse, Adele, Sam Smith or George Ezra, some displaying extremely high rates of the American-like variants. On the other hand, others – e.g. Lily Allen, Eliza Doolittle, Ed Sheeran and Will Heard – display low rates, and could be argued to be oriented towards a south-east English (London?) reference accent. In particular, BATH seems the most reliable diagnostic, reaching rates very close to 100% BATH=TRAP in the former group, and 100% BATH=PALM=START in the latter (importantly, even in covers of material originally by US artists). LOT tends to vary somewhat more, and so does PRICE (keywords per Wells 1982). It will be argued that (non-)rhoticity and t-voicing are quite problematic as diagnostics; however, /t/ glottalization, including intervocalically, is well attested in the Londonoriented group.

Besides the Trudgillian variables, other south-east-England realizations are in evidence in the London-oriented group, but less consistently – notably, relatively high THOUGHT. Conspicuously absent are some variants associated with traditional Cockney, e.g. [aI] in PRICE or [aI] in MOUTH.

Preliminary conclusions would be: (1) for at least for some singers in some genres, there is no perceived need to adopt a generic "pop-song" voice (in terms of segmental phonetics); (2) consequently, some accents (or at least some features) must have become "emancipated" sufficiently to warrant performing in one's own voice; (3) the placement of a performer on a cline from e.g. soul to pop may perhaps be a function of linguistic features, and not vice versa.

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#### TRANSCRIBING NON-NATIVE SPEECH: THE DEVELOPMENT OF A CROWDSOURCING TOOL TO EVALUATE PERCEPTIONS OF ACCENTED SPEECH

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Phonetic transcription is part of nearly every university level linguistics program. This type of activity essentially renders human speech into a discrete machine-readable phonetic representation (Heselwood, 2013). Indeed, second language researchers typically use this type of transcription to document speech production in a categorical fashion. But training humans to produce these representations is time consuming, and obtaining optimal transcriptions requires intensive collaboration. We report on a project to crowdsource this process, receiving transcriptions from all over the world for the speech accent archive (Weinberger 2016). This project includes two related research programs-one dealing with computational intelligence and one related to accent perception. This paper discusses the background and interface of the crowdsourcing tool, and the results of a pilot study that compares native and non-native English transcribers. We have designed a crowdsourcing platform to collect and analyze thousands of transcriptions from hundreds of users. While the main purpose of the platform is to train a computational algorithm to perform phonetic transcription, the data gathered through this platform facilitate a variety of other studies as well. One of these studies uses the gathered phonetic transcriptions as a method to determine a listener's perceptions of a foreign accent. Historically, L2 research has been concerned with simply what makes a foreign accent (Gut 2007; Ockey & French 2016; Scheuer 2002). To address this question, many methodologies involve having informants rate some selected audio sample on a pre-determined scale (Derwing & Munro 1997; Huang & Jun 2015; Piske, MacKay, & Flege 2001). Such studies obtain a ranking of accent types, but it remains difficult to determine just what aspect of the stimulus causes the scalar differences. In our study, asking informants to transcribe a speech sample allows us to approach this question in a more detailed and focused manner. For example, we elicited transcriptions from 79 trained transcribers with native English and non-native English backgrounds. We focused on the first consonant in the word "three" produced by a non-native speaker. The actual production was [fii]. 95% of the native English speakers transcribed the [f] correctly. The alternative form was limited to [s]. For the non-native speakers however, we found that 75% transcribed the [f] correctly, but 25% of these transcribers used  $[\theta]$  or  $[\phi]$ . These preliminary results suggest two things: 1) Continuance seems to be perceived correctly by all transcribers, and 2) Non-native transcribers appear to compensate on the side of canonical pronunciation. We expand this analysis with a larger set of transcriptions and a wider range of speech sounds. We conclude that the crowdsourcing tool provides a reasonably expedient and detailed method of gathering data on accent perception.

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