EPIP4

4TH INTERNATIONAL CONFERENCE ON ENGLISH PRONUNCIATION: ISSUES & PRACTICES

Institute of Phonetics

Prague, Czech Republic   **May 21–23, 2015**

PROCEEDINGS

A Letter to the Participants

Pronunciation of a foreign or second language is a controversial issue. Many claim that without proper pronunciation people's chances of success in life are small. Others contradict by saying that as long as you are not changing meanings of words, any pronunciation is acceptable. Neither of these views really helps. The mechanisms and effects of pronunciation are far too complex to make strong and definite claims of any sort. It is actually quite damaging for our learning to say that, already, we are convinced about these fundamental issues. Why invest time and resources to research if we know that pronunciation is of little importance? Analogically, why study and experiment with pronunciation and its consequences, if we already know that it must be drilled and drilled and drilled?

It is much more practical and effective to talk about the subject matter with an open mind and modesty. We have to admit that we do not know but, with the same voice, claim that we want to know. That is also the reason for most of the participants of EPIP conferences to prepare their presentations and gather in an assembly to confront them with the views of others. Yet again, the objective of this confrontation is to inspire and encourage others to discover rather than to convince them. Let me stress again: We don't know and we want to know. The endeavours like EPIP are here to help us.

The proceedings you are now using manifest the wealth of ideas, but also the complexity of the issues in the field of pronunciation. More than seventy authors from four continents prepared 52 presentations with the aim to contribute to our understanding of issues and practices in English pronunciation learning and teaching.

The current conference is the 4th in the cycle with the EPIP label and hopes to extend the success of the previous conferences in such wonderful venues as Chambéry in France, Grahamstown in South Africa and Murcia in Spain. Prague is an old and beautiful city with a very clear linkage to education and learning. Charles University was founded in 1348 and many great spirits have worked in Prague since then, including the sharp minds of the Prague Linguistic Circle in the last century. We have the opportunity to honour the great past by making this conference a memorable event.

Jan Volín
Conference Chair

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http://fu.ff.cuni.cz/epip4/

Numbers of authors by countries of affiliation (alphabetically):

Austria	2	Finland	2	Iran	1	Poland	6	Un. Arab Emirates	1
Brazil	6	France	16	Japan	5	Russia	2	United Kingdom	5
Canada	4	Georgia	1	Netherlands	1	Serbia	2	USA	5
Czech Rep.	11	Hong Kong	2	New Zealand	1	Spain	1	Vietnam	1

CONFERENCE PROGRAMME

THURSDAY, May 21ˢᵗ

09:30–11:10 **REGISTRATION** (room 16, ground floor)

11:10–11:20	Conference Opening room 104 (1ˢᵗ floor)
11:20–12:50	Plenary talk 1 room 104 (1ˢᵗ floor) Chair: Jan Volín Mark Hancock **Doing things with sounds: practical pronunciation activities for ELT classrooms**

12:50–14:30 **LUNCH**

	Chair: Dan Frost room 18	Chair: Anna Gralińska-Brawata room 16	Chair: Radek Skarnitzl room 10
14:30–15:00	John Levis, Greta Muller Levis, Tammy Slater *The forms and uses of spoken parentheticals in teacher discourse*	Carina Silva Fragozo *Acquisition of unstressed vowels by Brazilian speakers of English* virtual presentation	Philip Carr, Inès Brulard *Accent modification, systemic vs realisational differences, and salience: RP and SSE*
15:00–15:30	Farhad Mazlum *Pronunciation pedagogy in the expanding circle: Investigating Iranian teachers' attitudes to ELF and LFC*	Kristýna Poesová, Lenka Weingartová *Schwaless or schwaful? The nature and occurrence of vowel reduction in Czech English*	Jette Hansen Edwards *Systematicity and variability in the phonology of Hong Kong English*
15:30–16:00	Marcia R. Becker, Denise C. Kluge *Studies of perception of English as a Lingua Franca - Intelligibility and Lingua Franca Core* virtual presentation	Jan Volín, Terezie Johaníková *Weak structural words in British and Czech English*	Małgorzata Baran-Łucarz, Ewa Czajka, Walcir Cardoso *A mixed-method approach to investigating the use of clickers in an English phonetics class*

16:00–16:20 **COFFEE BREAK**

	Chair: Ewa Waniek-Klimczak room 18	Chair: Richard Cauldwell room 16	Chair: Šárka Šimáčková room 10
16:20–16:50	Ilaria Torre, Jeremy Goslin, Laurence White *The effect of experience on trust attributions varies between two British accents*	Małgorzata Baran-Łucarz *Foreign language pronunciation self-assessment and willingness to communicate in and outside the classroom*	Maja Marković *Phonetic cue interpretation in the acquisition of a non-native vocalic contrast*
16:50–17:20	Jan Volín, Radek Skarnitzl, Alice Henderson *Perceptions of foreign-accented lecture-style speech: Please take this seriously*	Irena Headlandová Kalischová *The mastery of weak forms: a key to better intonation?*	Donghyun Kim *Perception and production of English tense/lax vowel contrasts by Korean speakers from two different dialects* virtual presentation
17:20–17:50	Ksenia Gnevsheva *Passing for a native speaker: Production and perception*	Becky Taylor *Why is Japanese pitch accent so difficult for English speakers?*	Bojana Jakovljević, Maja Marković *Vowel clipping in English and Serbian and transfer into English*

19:00–20:30   **GUIDED TOUR** (departure from main gate of the Faculty building)

FRIDAY, May 22nd

09:30–11:00	Plenary talk 2 room 104 (1st floor) Chair: John Levis Beatrice Szczepek Reed **Pronunciation and the accomplishment of social actions: Insights from Conversation Analysis**

11:00–11:20   **COFFEE BREAK**

	Chair: Mark Hancock room 18	Chair: Lenka Weingartová room 16
11:20–11:50	Rias van den Doel *Pronunciation training as a "local practice"*	Tomáš Gráf *Comparing native-speaker and advanced-learner speech rates in a parallel corpus*
11:50–12:20	Pekka Lintunen, Aleksi Mäkilähde *More training needed, but will it make me less confident? A learner perspective on English pronunciation*	Barbara Kühnert, Tanja Kocjančič Antolík *Patterns of articulation rate in English / French and French / English tandem interactions*
12:20–12:50	Martha Nowacka *Phonetic inspirations in authentic materials: stimulating students' phonetic awareness*	Ondřej Slówik, Jan Volín *Acoustic correlates of temporal structure in North-Vietnamese English*

12:50–14:30 **LUNCH**

	Chair: B. Szczepek Reed room 16	POSTER SESSION room 10
14:30–15:00	Richard Cauldwell *What can pronunciation teachers learn from spontaneous speech?*	Ross Sundberg, Walcir Cardoso: *A musical application to aid second language learners' development of pronunciation features* Duong Thi Nu: *Application of contrastive analysis in teaching English pronunciation to Vietnamese adults*
15:00–15:30	Hideki Abe *The acquisition of vowel reduction by Japanese EFL learners in form-focused instruction*	Svetlana Khoroshilova: *The impact of summer course in English phonetics on language acquisition evaluated from students' perspective* Marina Kolesnichenko: *Prosodic cues of tone-unit segmentation in Chinese EFL speakers' speech* George Kuparadze: *Formation of speech sounds in children* José A. Mompean: *A study of phonological variants in English lexical items* Nuzha Moritz: *The production of English /h/ by French speakers*
15:30–16:00	Dan Frost, Jean O'Donnell *Evaluating the essentials: the place of prosody in oral production*	Václav Jonáš Podlipský, David Petráž: *The interlanguage speech credibility benefit* Marie Sanford, Alexandra Fish, Erin Gatti, Maria Sanchez-Freeman, Dana Sharabi: *Comparing instructional approaches for attaining oral proficiency in adult English language learners* Anne Tortel, Sophie Herment: *Initial <e> reduction in English: phonological change and pedagogical implications* Jarosław Weckwerth: *Formants of English and Polish vowels in proficient Polish learners of English*

16:00–16:20 **COFFEE BREAK**

	Chair: Radek Skarnitzl room 18	Chair: José A. Mompean room 16
16:20–16:50	Šárka Šimáčková, Václav Jonáš Podlipský *Pronunciation of L2 sounds at word boundaries: Stop-stop sequences in Czech English*	Nicolas Ballier, Adrien Méli *CV-patterned transfers among French speakers of English*
16:50–17:20	Emiko Kaneko, Younghyon Heo, Gregory K. Iverson, Ian Wilson *Quasi-neutralization in the acquisition of English coronal fricatives by native speakers of Japanese*	Paul John, Walcir Cardoso *Are word-final stops codas? Evidence from Brazilian Portuguese ESL learners*

19:00 **CONFERENCE DINNER AND CONCERT** (venue: Students' Club, Celetná 13)

SATURDAY, May 23rd

10:00–11:30	Plenary talk 3 room 104 (1st floor)
	Chair: Alice Henderson
	Ewa Waniek-Klimczak
	Accents in learners of English: Problems, challenges, (possible) solutions

11:30–11:50 **COFFEE BREAK**

	Chair: Małgorzata Baran-Łucarz room 18	Chair: V. J. Podlipský room 16
11:50–12:20	Magda Zając	Leonidas Silva Jr, Ester M. Scarpa
	Accommodation to native and non-native interlocutors in L2 pronunciation	*Stress clash marks from Brazilian speakers of English as a foreign language*
		virtual presentation
12:20–12:50	Céline Horgues, Sylwia Scheuer	Suzana Santos
	"Is it /ˈprɑːg/ or /ˈpreɪg/?" L2 pronunciation feedback in English-French tandem conversations	*Full and partial phonetic and phonological adaptations of English loanwords: the production of personal names adopted by Brazilian subjects*

12:50–14:30 **LUNCH**

	Chair: Kristýna Poesová room 18	Chair: Jan Volín room 16
14:30–15:00	Yoko Kusumoto	Rachel Pole, Gregor Chudoba, Ursula Posratschnig
	Exploring the effects of shadowing on prosody	*How Austrian students learn the pronunciation of English (HALPE)*
15:00–15:30	Anna Gralińska-Brawata	Laetitia Leonarduzzi, Sophie Herment
	The acquisition of vowel reduction by Polish learners of English	*An exploration of phonosyntax in Newcastle English*
15:30–16:00	Janice Wing Sze Wong	Aurélie Chlébowski, Nicolas Ballier
	Perceptual training intensity effects on the perception and production of English /ɪ/ and /iː/ by Cantonese ESL learners	*"Nasal grunts" in the NECTE corpus – Meaningful interactional sounds*
	virtual presentation	

16:00–16:15 **CONFERENCE CLOSING** (room 18)

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Invited talks

Mark Hancock: Doing things with sounds: practical pronunciation activities for ELT classrooms

Thursday 21st, 11:20

In this talk, we'll be looking at individual sounds and things we and our students can do with them. These will include:

- Experimenting: simple classroom techniques to make students aware of sound articulation
- Imagining: imagery and movements to show students how sounds are produced
- Representing: using phonemic symbols to represent sounds
- Exploring: using a chart to explore the sound systems
- Playing: using word play to help students notice and practice sounds
- Communicating: using tasks which require students to understand and produce sounds

Beatrice Szczepek Reed: Pronunciation and the accomplishment of social actions: Insights from Conversation Analysis

Friday 22nd, 9:30

The aim of this talk is to go beyond the intelligibility debate and to suggest the need to consider the role of phonetics and prosody for natural interaction. Findings from empirical research show how vitally influential pronunciation is in terms of communicating, for example, turn taking, alignment with others, and sequential breaks or continuations. While it is not necessary for learners to use native-like pronunciation, learning to accomplish conversational actions is a crucial social skill and thus an important learning goal. The talk will show that learners who use non-standard pronunciation can be successful participants in talk-in-interaction. The presentation will discuss the complexities of pronunciation in interaction, as well as a way of incorporating some of them into a teaching approach.

Ewa Waniek-Klimczak: Accents in learners of English: Problems, challenges, (possible) solutions

Saturday 23rd, 10:00

Whether considered from the perspective of a target/model variety or characteristics of learner pronunciation, English accents continue to attract attention of English learners and teachers. The aim of this talk is to discuss accents with reference to both of the above meanings, concentrating on problems related to the choice of the model/target variety and its function, the status and description of learner Englishes, major challenges that the problems create for specifying the aims and priorities in pronunciation instruction, and finally, possible solutions.

Throughout the talk, learners will have a voice - after all, the speaker herself belongs in that number.

The acquisition of vowel reduction by Japanese EFL learners in form-focused instruction

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1. Introduction

1.1. FFI in SLA and L2 pronunciation pedagogy

The last two decades have witnessed a growing body of research on the effectiveness of instruction on second language (L2) development from the perspectives of *Form-Focused Instruction* (FFI), more precisely, *Focus on Form* (FonF) (Doughty, 2003; Long & Robinson, 1998; Norris & Ortega, 2000; to mention just a few). This line of inquiry has led to continuous modification of FFI, increasing its positive effects on L2 classroom instruction in the Japanese EFL context and showing strong support for the hypothesis that a timely combination of form-focused and communication-oriented instruction is necessary for successful L2 development. Nonetheless, L2 pronunciation instruction has not kept pace with the insights gleaned from the development of FFI.

L2 pronunciation studies in the 2000s shifted their interest to examining the assumption that the FonF approach vigorously investigated in morpho-syntactics might contribute to the betterment of L2 pronunciation (cf. Saito, 2012). However, the FonF type of instruction does not always and completely outperform *Focus on FormS* (FonFs), in which sequenced and fragmented items are presented to the learners stepwise, in the hope that the learners will acquire the system of the target language with the passage of time. Further investigation is thus required to answer the question, *Is FFI appropriate to promote the acquisition of L2 pronunciation in the classroom?* At present, this line of inquiry has just started.

1.2. Vowel reduction in SLA of speech

It is well known that the acquisition of English vowel reduction, both in perception and production, has posed difficulty to non-native speakers of English for a long time, which has motivated many researchers to investigate the instructional effects vowel reduction in the formal setting (cf. Rojczyk & Porzuczek, 2012). Though limited in the number of studies, an intervention study investigated the receptive abilities of adolescent learners who received phonetic training, indicating that both types of training (i.e., in perception and production) led to significant improvement (Gómez Lacabex, Luisa García Lecumberri, & Cooke, 2009). However, a review of the research suggests the possibility that, unlike in the attainment of receptive acquisition, the effects of instruction on productive abilities were quite limited (Author, forthcoming).

The current study presents an attempt to remedy this situation by reporting the findings of an inquiry which examines the following two research questions:

(1)   Does FFI, in which a teacher provides explicit instruction through phonetic negotiation of form, affect the interlanguage phonology of Japanese EFL learners?
(2)   If FFI has an effect on EFL learners' acquisition of English vowel reduction, does this approach affect both the receptive and/or productive acquisition?

2. Current Study

2.1. Research setting and participants

This study was conducted during a regularly scheduled classroom taught by the author at a college located in northern Japan. Most of the students in the class come from the same prefecture, which implies that they are relatively similar in terms of their background, goals in learning English, level of English proficiency, and engagement in the subject. The number of participants was 30 in the experimental group (EG) and 31 in the control group (CG).

2.2. Treatment

The classroom experiment was conducted over a period of three weeks and consisted of a pre-test, treatment sessions, and a post-test. The pre-test took place in week 1, prior to the perception and production treatment sessions, which consisted of 4 class hours in week 2, in both groups. Then, in week 3, the participants took the post-test.

2.2.1. The experimental group (EG)

The treatment in the EG first involved a perception session, followed by a production session, based on the assumption that perception precedes production. The perception session deployed the techniques of corrective feedback that helps learners notice the phonetic features of the target form in the input, together with FonF tasks with explicit metalinguistic instruction.

The treatment also emphasises sound discrimination: the participants were given a clear account of the formal properties of English vowel reduction, in context, focusing on the phonetic characteristics of the speech sounds. In the production session, they engaged in pair discussions of their experience in the noticing practice, then shared their findings in class.

2.2.2. The control group (CG)

The first session in CG, like that in the EG, was devoted to explicitly presenting the target forms with examples and presenting the weak forms as used in the textbooks, as well as asking the students to identify the target form in the dialogue in the text. Next, the teacher asked them to describe what they had heard in the task.

Following this, the teacher explained aspects of reduction phenomena in English pronunciation. Here, the teacher played a crucial role in explicitly informing the

participants of the rules underlying the target prosodic features. In so doing, he helped the learners gain declarative knowledge of weak forms in the type of instruction, FoF.

2.3. Assessment

The evaluation instrument used to assess the participants' pre- and post-treatment performance was divided into four subtests: two for perception and two for production. The perception test consisted of 10 sound discrimination and 20 dictation items; thus, the full mark was 30 points. The production test consisted of the recordings of two subtests; reading a passage and a picture description task. The data collected from the pre- and post-tests of production were analysed by two native speakers of American English, both of whom were teachers and EFL experts, and the author. Each examiner had 10 points to award, which were given in accordance with the participants' performance: five points for the reading task and five points for the picture description task. Thus, the full score of each participant was the total of the three examiners' scores, 30 points.

3. Results

The data demonstrated a significant change in the total (perception and production) scores: though the difference was not significant at the pre-test stage for the total scores of perception, total scores of production, and, most importantly, total scores of perception and production combined, it turned out to be significant at the post-test stage.

	Test Score	EG (n=30)	CG (n=31)	p (t-test)	d (Cohen's d)
PRE	Perception	11.57±1.92	11.55±2.20	0.97	0.01
	Production	13.27±3.19	13.26±4.27	0.99	0.00
	Total	24.84±4.04	24.81±4.72	0.98	0.00
POST	Perception	16.20±2.82	14.52±2.66	0.02	0.94
	Production	13.3±1.47	11.97±1.64	0.0014	0.62
	Total	29.5±3.42	26.48±3.12	$p<0.001$	1.00

Table: Descriptive statistics of pre- and post-test of perception and production of vowel reduction

The between-group test results for the perception of vowel reduction the post-test stage demonstrated that 1) the EG outperformed the CG in the total score, and 2) the EG significantly performed better than the CG in the perception score with a large effect size. The between-group comparisons for production revealed a medium of instruction, suggesting that 1) the EG outperformed the CG in reading the passage, and 2) the EG did significantly better than the CG in the picture description dialogue.

4. Conclusions and discussion

The data display noticeable development of both the EG and the CG in terms of the accuracy of learners' performance in several receptive and productive tasks, demonstrating that the FonFs type of instruction contributed moderately to the development of L2 pronunciation.

However, the fact that the EG significantly outperformed the CG can be attributed to the cognitively more challenging FonF tasks the EG engaged in. The CG was instructed using a familiar passage in the perception practice, and its production training was not as challenging as in the EG treatment, in which perception (input) and production (output) practice required concentration on the target form but helped with corrective feedback. Therefore, the findings contribute to solving a currently contentious question in instructed SLA of speech: whether the form-focused instructional approach, more importantly, FonF can significantly facilitate the development of L2 pronunciation.

Acknowledgement

References:

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CV-patterned transfers among French speakers of English

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1. Introduction

This paper investigates the effect of Romance CV-patterned syllable structures on English vowels as realised by native speakers of French. Following Svartvik & Leech 2006 and their description of syllable-timed varieties of English as potential pronunciation models, we make the claim that some French speakers adopt a CV-patterned realisation of English that has some consequences on their pronunciation of vowels.

A contrastive analysis of French and English phonotactics shows that syllable division has some bearing on a wide variety of performance errors, ranging from epenthetic vowels, misperception and mispronunciation of syllabic consonants and vowels, stress assignment and assimilations. This paper focuses on the transfer of distributional properties of French back vowels /o/ and /ɔ/. The learner realisations of the vowels of GO, DOG and DOOR have been compared, showing that the realisations of these vowels are influenced by French syllable structures: CVC favours [ɔ] and CV often corresponds to [o] in French realisations.

2. Method

The talk will exemplify detailed analyses of fined-grained phonemic annotations of a longitudinal spoken learner corpus. In this cross-sectional study in progress, it is investigated whether patterns reflecting interlanguage stages exist in the vocalic realisations of fourteen French undergraduate students at the University of Paris Diderot recorded over three years.

This fine-grained phonemic annotation is obtained by feeding short sound and transcription files into SPPAS (Bigi, 2012), which returns automatically aligned textgrids compatible with Praat (Boersma & Weenink, 2013). A very complex script then reintegrates these into a single Textgrid and collects phonetic and phonological data. So far, 46,124 datapoints have thus been collected for the 66 recordings.

The script includes in-house modifications of the SPPAS algorithm that returns the syllabification for each word. The syllable divisions assumed for English are the one described in LPD2008, consistent with phonotactic constraints observable in monosyllabic words and allophonic rules described in Wells 1990. The target syllable in English can thus be compared to the French-like assumed syllabification of the word, derived from the SPASS algorithm for French. Cognates such as *comfortable* allow for the comparison of

the realisations of the words according to the two algorithms (typically, four syllables for French learners, three for natives).

In French, /o/ only appears in open syllables, whereas /ɔ/ only appears in closed syllables. The same applies for /e/ and /ɛ/ respectively. In English, similar sounds like /ʊ/ and /ɒ/ appear in closed syllables only. Both languages therefore feature specific interactions between the phonemic and the syllabic levels. The question then naturally arises whether a transfer effect exists: does French syllabic structure (FSS) affect phonemic realizations in English?

In order to assess this potential influence, we decided to focus on vowels /e/ and /ɒ/. We assumed that if a transfer existed, then the aperture of the mouth when pronouncing either phonemes would be more important in syllables that would be marked as closed in French. In other words, we expected higher F1 means for syllables featuring those phonemes and corresponding to a closed French syllables. Examples of such syllables can be found in "popular", which is syllabified "pop.ul.ar" in English, but "po.pu.lar" in French, or in "academic", with "ac.a.dem.ic" and "a.ca.de.mic" respectively. Our null hypothesis was therefore that no significant difference exists between the F1 means of syllables featuring a closed or open FSS. Because however /o/ and /ɔ/ differ in lip-rounding, with /o/ being rounder than / ɔ /, we carried out the same analyses on F2 for /ɒ/. In that case, lower F2 was expected for open syllables, and the null hypothesis was that no significant difference exists between the F2 means of syllables featuring a closed or open FSS.

3. Results

We used R (R Core Team, 2013) to analyse our data. The first step was isolating the occurrences of /e/ and /ɒ/. We obtained two sets of 2,356 datapoints for /e/, and 2,884 for /ɒ/. The next step was averaging the occurrences over sessions, speaker, sex and words, in order to guarantee the independence of observations without which statistical mean comparisons cannot be carried out. Each datapoint therefore corresponded to a unique phoneme, in a unique word, pronounced by a unique speaker in a unique session. A Shapiro test revealed that none of the datasets featured a normal distribution. Figures 1, 2 & 3 summarize the structure of the data for F1 /e/, F1 /ɒ/ and F2 /ɒ/ respectively. Finally, we used a one-side Wilcoxon rank sum test to assess whether within each gender, the CV and CVC means were significantly different.

A Shapiro test revealed that none of the datasets featured a normal distribution. Figures 1, 2 & 3 summarize the structure of the data for F1 /e/, F1 /ɒ/ and F2 /ɒ/ respectively. Finally, we used a one-side Wilcoxon rank sum test to assess whether within each gender, the CV and CVC means were significantly different.

	Wilcoxon rank sum test (for CVC > CV)	
	p-value	W
/e/ F1 (male)	0.04729	17268

/e/ F1 (female)	3.794e-13	105589
/ɒ/ F1 (male)	0.2598	6118
/ɒ/ F1 (female)	0.3533	30914
/ɒ/ F2 (male)	0.0002407	7462
/ɒ/ F2 (female)	1.92e-05	37073

4.   Conclusions and discussion

The results show a significant difference between closed and open syllables for the F1 means of /e/ in female speakers, and of the F2 means of /ɒ/ in both sexes. For male speakers, the higher p-value approaches a less robust significance. However, no difference in the F1 means for /ɒ/ has been found. The consistently significant results for F2 may indicate extra lip-rounding in open syllables when pronouncing /ɒ/, but this will have to be confirmed by further analyses of F3. The gender difference observed in F1 means with /e/ may be a consequence of the lower number of datapoints for male speakers, but the absence of a transfer effect with /ɒ/ makes it possible that the aperture of the mouth is phoneme-dependent, rather than a generalizable feature, and therefore may not actually be correlated to the FSS.
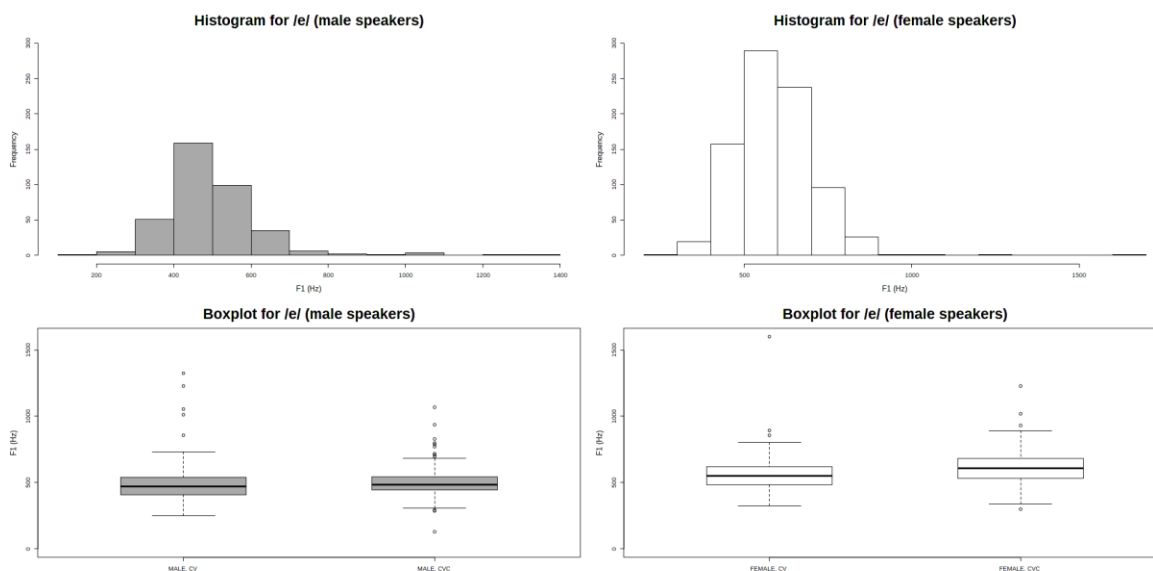
Figure 1: Distribution of the data for /e/ (F1)

From a theoretical point of view, these results are not totally inconsistent: the direction of the significant differences may be taken as serious, if tentative, evidence of a possible transfer effect of FSS on English phonemic realizations in French learners.

Other underlying distributional properties of French syllables surface as realisation errors for vowels. The realisation of the diphthongs /eɪ/ as [ɛ] in CVC words can also be seen as a regularisation of the French structural opposition between half close and half open vowels, for in French most /e/ occur in CV and /ɛ/ in CVC syllables. The CV-patterning of the realisation will also have to be addressed at the prosodic level. The rare reduction of adverbs in –ically is a good candidate for this undertaking (though only 23 occurrences were found in our data). Other kinds of evidence might be analysed to support this analysis of the syllable structure transfers for French speakers.
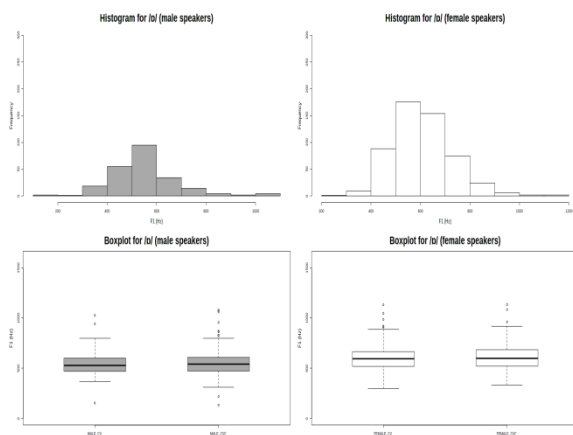
Figure 2: Distribution of the data for / ɒ / (F1)   **Figure 3:** Distribution of the data for / ɒ / (F2)
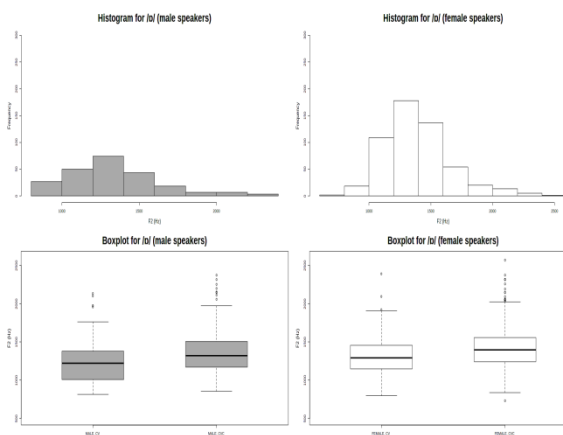
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Foreign language pronunciation self-assessment and willingness to communicate in and outside the classroom

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1. Introduction

The main aim of the majority of foreign/second language (FL/L2) learners is communicative competence. At the same time, it is stressed that learners must "talk in order to learn" (Skehan, 1989: 48) and that progress in language acquisition is hardly possible if students do not speak, whether it is in the classroom or naturalistic contexts (e.g. Savignon 2005; Swain 1985). Earlier observations show that learners' willingness to communicate (WTC) is significantly determined by their self-perceptions. However, studies in this area have concentrated on students' self-assessment of communicative skills, i.e. *self-perceived communication competence* (e.g. Peng and Woodrow 2010; Yashima 2002), ignoring self-assessment of specific FL aspects. Thus, a study was carried out to find answers to the following research questions:

(1) How important is students' pronunciation self-assessment for their WTC in comparison to their self-assessment of other FL aspects and skills (e.g. grammar accuracy, vocabulary range, fluency, interactive skills)?

(2) Which aspects of self-assessed pronunciation, i.e. segments, suprasegmentals, pronunciation of lexis, level of closeness to native-like models of English pronunciation (RP or GA), determine students' WTC in and outside the FL classroom?

2. Method

The study was conducted among 70 English majors studying at the University of Wrocław, Poland. Three self-report questionnaires based on a six-point Likert scale were designed to gather the necessary data. The first 25-item survey addressed students' perceptions of their pronunciation. It was followed by items provoking self-assessment of other FL skills/aspects, i.e. grammar accuracy, vocabulary range, fluency, and interactive skills. The next two questionnaires aimed to measure the levels of WTC in and outside the FL classroom. Pearson product-moment correlation coefficients were computed to examine the potential link between the subjects' self-assessment of various aspects and their extent of WTC in classroom and real-life contexts.

3. Results

The relationship between pronunciation self-assessment and WTC was found to be statistically significant of moderate strength both in the classroom ($r=.43$, at $p<.0005$) and naturalistic context ($r=.32$), being the strongest in the case of the classroom setting and at a lower proficiency level ($r=.62$, at $p<.0005$). When particular aspects of pronunciation are concerned, in both settings were they found to determine WTC; however, in each case the link between pronunciation self-assessment and WTC was more meaningful in the classroom context. Finally, pronunciation self-assessment usually appeared to be an equally important variable of WTC as self-evaluation of other FL aspects.

4. Conclusions and discussion

Since getting involved in speaking is a necessary condition for students to progress in FL acquisition, it is worth considering taking into account learners' concerns about their pronunciation of various aspects when designing the syllabus for pronunciation teaching/learning. To shed more light on the importance of pronunciation self-perceptions for willingness to speak, it is recommended to gather qualitative data with the use of various techniques, such as think-alouds, retrospection, and semi-structured interviews.

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A mixed-method approach to investigating the use of clickers in an English phonetics class

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1. Introduction

Many studies on second language (L2) pronunciation teaching propose guidelines on how to meet students' needs and, at the same time, make instruction both pleasant and effective. Various technological aids, widely available nowadays, offer new possibilities that were unavailable in a traditional, listen-and-repeat phonetics class. The present paper is an account of a study designed to investigate the use of one of such devices, clickers.

Learner Response Systems (LRS), also known as clickers, are mobile, hand-held devices, similar in size and shape to portable calculators. The technology was popularized in TV shows such as *Who Wants to be a Millionaire* and *Oprah*, wherein the show host asks the audience about their opinion about certain topics being discussed. In the context of the language classroom, clickers allow students to respond to multiple-choice questions posed by the teacher (e.g., via a PowerPoint presentation) by clicking on the corresponding button on the clicker's keypad. After the voting period closes, the results of students' answers are visualized on a projected screen. The pedagogical use of clickers has been widely investigated in various academic fields and instructional settings, and these studies suggest that the tool has the potential to promote learning by increasing students' motivation, encouraging active participation in class, allowing self-assessment and peer-comparison on the basis of immediate feedback provided (e.g., Barnett, 2006; Kaleta & Joosten, 2007).

Although the literature indicates that LRS may serve as a useful tool in L2 teaching (Cardoso, 2011), the technology has not been investigated in the context of phonetics instruction. What is more, the available studies do not provide quantitative data confirming that using clickers in the L2 classroom facilitates learning. An experimental study was conducted to fill these gaps and answer the following two research questions:

(1) What are the perceptions of Polish students of the use of clickers in their English phonetics classes? (RQ1)
(2) Does the use of clickers lead to better learning gains in the English phonetics instruction context? (RQ2)

2. Method

The study was conducted with 56 English majors (stationary and extramural students) at the University of Wrocław (Poland) during a 3-month period in 2014. Two topics were chosen

as learning targets: English word stress assignment, and pronunciation features that characterize RP and GA norms. While one group was taught the rules governing English lexical stress with the use of clickers (Clicker group), the other was presented the same content through PowerPoint only (No-clicker group). The procedure was repeated in the second lesson, which was devoted to differences between RP and GA norms. This time, however, the groups that used clickers and PowerPoint were reversed, thus providing all the participants with the opportunity to participate in classes both with and without clickers.

The answer to the first research question was obtained via class observations, questionnaires and interviews. Class observations were carried out during the treatment and focused on students' behavior and reactions to the instruction provided. After the treatment, the participants were asked to fill in questionnaires, which comprised two parts. The first part took the form of open-ended questions on students' perceived advantages, disadvantages and opinions towards the use of clickers in class. The second part included twenty-eight statements, referring to the application of the new technology, to which students responded using a 5-point Likert scale. Finally, semi-structured, individual interviews were conducted, which gave the students an opportunity to express their opinions and feelings towards the use of clickers orally.

The participants' progress (RQ2) was calculated based on competence and performance assessments. The students were tested on three occasions; before the treatment (Pre-test), immediately after the treatment (Posttest 1) and one week later (Posttest 2).

The Word Stress Test (WST) included two parts. In the first part, which was devoted to assessing the participants' competence, the students were asked to mark primary stress in 39 multisyllabic words. The second part consisted of an analogous list of words, which were read aloud. The learners' performance was recorded on SONY Digital Flash Voice Recorders (ICD-UX523).

The test on RP and GA pronunciation models also included two parts. The first part, which intended to diagnose students' RP/GA competence, included tasks such as true/false statements, multiple choice questions and IPA transcription. The second part assessed students' ability to recognize and distinguish between the two models. It included listening to individual words and fragments of conversation produced by native speakers.

3. Results and discussion

Both qualitative methods of compiling data on students' perceptions as well as objective measures of their progress revealed significant differences between the groups taught with clickers (Clicker group) and the one taught with PowerPoint only (No-clicker group).

3.1 Students' perceptions of clickers

During class observations, students in the Clicker group appeared to be interested, involved and willing to participate in various tasks. When figuring out rules of word stress and features of RP/GA models, they eagerly discussed possible answers with their classmates before voting and showed enthusiasm when it was revealed that the submitted answer was

correct. Students in the No-clicker group, on the other hand, were less enthusiastic, showing symptoms of boredom, particularly towards the end of the lesson. It was also noticed that those learners who provided incorrect answers felt irritated, embarrassed, and withdrawn from responding to further questions.

Observations made during treatment were confirmed by the results of questionnaires and interviews. Students praised the tool mostly for reducing their anxiety in answering questions. The outcome of the second part of the questionnaire revealed higher mean values for the group that used the clickers, particularly in categories such as increased interest in the subject matter, willingness to participate in class discussion, increased interaction with classmates, content clarity, better pace, and feeling of relaxation and enjoyment. Interestingly, there were two statements for which the Clicker Group was rated slightly lower than the group that was taught via PowerPoint: students in the former group did not believe that their use of clickers help them understand and remember the content of the instruction better than if they had not used the technology.

3.2 Students' progress: learning gains

T-test calculations of the results of the WST did not confirm a difference in progress between the Clicker and No-clicker groups to be statistically significant. However, as presented in Figure 1 below, in all but one case, the progress made by students taught with clickers was higher than the improvement made by No-clicker groups. The competence part of Posttest 2 was the only instance of the No-clicker outperforming the Clicker groups. This outcome may be explained by the fact that, contrary to the students voting via clickers, students in the No-clicker groups, who were answering questions orally or by raising hands, had the opportunity to take notes of the theoretical content provided during the treatment.

Because of the significant differences in the results of the RP/GA pretest, the stationary and extramural students were treated separately. The results illustrated in Figure 2 clearly show the improvement made by the Clicker groups to be higher than the groups taught exclusively via PowerPoint. This time, there were no exceptions from this general pattern as the Clicker groups outperformed the No-clicker groups in all tests. In addition, according to the t-test calculations, the difference was statistically significant in case of the performance part in Posttest 1 (stationary students) and in the competence part of Posttest 2 (extramural students).
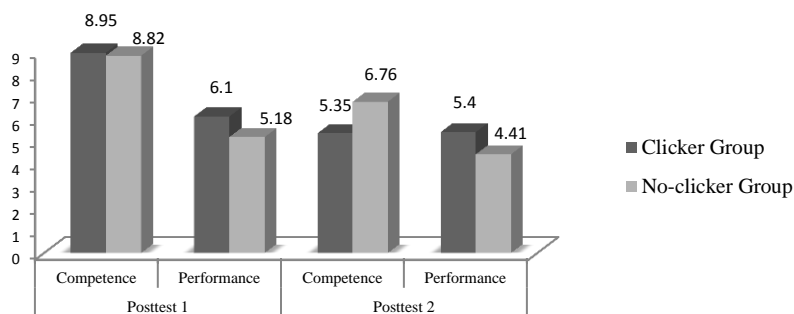
Figure 1: Word stress - Clicker and no-clicker groups in Posttest 1 and Posttest 2.
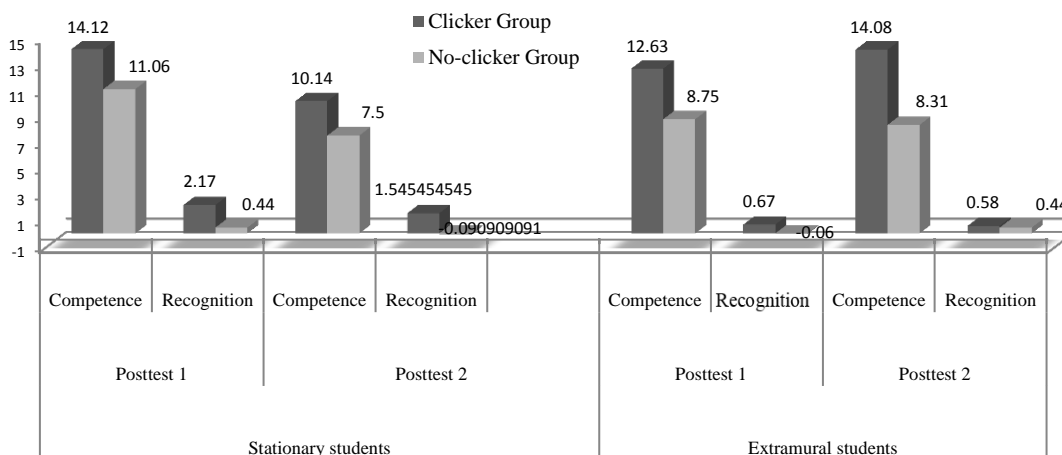
Figure 2: RP/GA features - Clicker and no-clicker groups in Posttest 1 and Posttest 2.

4. Conclusions

Overall, the findings of this study indicate that LRS may serve as a useful teaching tool in the context of L2 phonetics instruction. Apart from its potential to make the lessons joyful and engaging (see also Cardoso, 2011 for similar patterns), clickers can increase learning gains and make the learning of L2 phonetics not only pleasant but also effective, similar to what is observed in previous studies on the pedagogical benefits of using clickers.

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Studies of perception of English as a Lingua Franca - Intelligibility and Lingua Franca Core

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In the context of a globalized world, English stands out as *the* language for interactions. The great majority of English speakers are already not born in countries in which English is L1, and so will carry characteristics of their mother tongue into the English they speak. The Latin expression used to describe this English of the new millennium is "English as a *Lingua Franca*", ELF, whose main goal is to enable speakers of different nationalities to be mutually intelligible. This study on perception shows results of research into intelligibility between native speakers of Brazilian Portuguese who also speak English (the listeners) and informants who speak English and who are of four different nationalities: German, American, Chinese and Japanese (the speakers), chosen as being from countries which are major trading partners with Brazil, and with whom English is likely to be used as a *lingua franca* in business interactions. There were two speakers from each of the above-mentioned speaker groups, a man and a woman, who all read the same text, composed of 69 words, taken from the Speech Accent Archive, George Mason University (Weinberger, 2013). This text contained most of the phonemes and consonant clusters found in English. The tests of perception of intelligibility were carried out with ten listeners for each of the speakers, a total of eighty listeners, all students of Languages Portuguese-English at a public university in Southern Brazil. These eighty listeners transcribed orthographically what they heard, following the definition of intelligibility given by Munro and Derwing (1995) in which intelligibility is referred to as the extent to which an utterance is understood. A research question had to do with which of the phonetic characteristics at the segmental level (and suprassegmental to the level of the syllable) were according to the Lingua Franca Core (LFC), as proposed by Jenkins (2000). Also, it was determined which production groups were the most intelligible to Brazilian listeners, having data being treated statistically. The results showed that the intelligibility of Germans, Americans and Chinese was independent of the speakers' nationality, and consequently of any characteristics that might have been carried into English from their mother tongues, whereas the Japanese group showed the lowest intelligibility scores to the Brazilian listeners. Regarding the findings related to the LFC, consonants and consonant clusters appeared to be fundamental to intelligibility, which was according to the LFC. However, the dental fricatives, not essential to intelligibility according to the LFC, showed to have strong influence in what the informants understood. Limitations to this research have to do with several items involving the database used, and the number and characteristics of the informants. We should also consider that the construct "intelligibility" still lacks a "universal" definition (Isaacs, 2008).

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Accent modification, systemic *vs.* realisational differences, and salience: RP and SSE

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We consider the question, discussed by Abercrombie (1979), Wells (1982) and Trudgill (1986), whether there are some aspects of an accent which are more susceptible to modification than others, and if so, whether there is any way of explaining why.

The data come from our on-going PAC-based investigation (PAC: La Phonologie de l'anglais contemporain/ the Phonology of Contemporary English), into RP-influenced Standard Scottish English (SSE). Details of the PAC methodology can be found at (www.projet-pac.net).

Following Phase 1 of our project (Carr & Brulard, 2006), in Phase 2 (Carr & Brulard, in preparation; Nacu 2012), we considered the following: (i) diphthongisation of the mid vowels in the lexical sets GOAT and FACE, (ii) loss of the SSE /w/ vs /ʍ/ contrast, and (iii) adoption of the RP realisation of the /aʊ/ diphthong in words of the lexical set MOUTH.

Our results show that that diphthongal FACE and GOAT vowels are widespread, even among the least RP-influenced speakers, as is some version of the RP realisation of the diphthong in words of the set MOUTH. In some of our data, even the most RP-orientated SSE speakers show retention of the /w/ vs /ʍ/ contrast.

We discuss these results in the light of analyses of accent modification proposed by Trudgill (1986) and Wells (1982). We pursue a point touched on by Wells and Trudgill: the role of awareness of spelling. We conclude that awareness of spelling among our speakers plays a crucial role in accent modification.

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What can pronunciation teachers learn from spontaneous speech?

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Spontaneous speech is unscripted and constructed in real time: it is unruly and messy when looked at from the point of view of the tidy scripted speech that dominates language teaching. I will argue that if we look at spontaneous speech in its own terms – neither through the prism of the written language, nor through the prism of correctness – we will need to revise our professional understanding of the sound substance of spoken language. Additionally, we will find material for activities that we can make use of in the teaching of both listening and pronunciation.

I have been working with databases of spontaneous speech for twenty-five years, and the arguments in my presentation arise from evidence gathered in my research and pedagogic publications, all of which make extensive use of recordings of normal, everyday unscripted speech.

I will make the general claim that almost everything we teach about speech in ELT is – though pedagogically useful for the teaching of pronunciation and intelligible speech – not true of spontaneous speech (Cauldwell, 2013, 2014). And this has negative consequences for the teaching of listening. For truths about spontaneous speech, we need to attend more to the evidence of recordings of everyday speech, and to read the work of phoneticians (e.g. Cruttenden, 2014; Wells, 2006) rather more carefully than we currently do. Doing so will reveal material for exercises which help the teaching of both pronunciation and listening.

English Language Teaching requires rules which are easy to understand for both teachers and learners. Connected speech rules – such as adding glides to 'You are my lucky star' and 'Those lovely eyes' – fit this bill nicely, because they are amenable to being presented in writing, and they are also amenable to being turned into activities (again written) with right and wrong answers. The problem is that these rules misrepresent the fast messy nature of spontaneous speech: its speed, its transience (it doesn't hang around to be inspected) and its drafting phenomena. The connected speech rules, and other guidance (e.g. question intonation, stress timing, attitude and intonation) comprise a Careful Speech Model, whereas the teaching of listening requires a Spontaneous Speech Model. The two models are incompatible, for reasons I will illustrate, but this incompatibility is not an insurmountable problem as long as we clearly separate the goals of speaking/pronunciation and listening/perception.

In my talk I will demonstrate/argue that:

- disfluencies should be reconceptualised as drafting phenomena – and can thus be used for teaching speaking skills

- words of all types (functional and content) have a wide variety of soundshapes

- speakers speak not in sentences but in rhythmic bursts

- speakers – not the language – shape the stream of speech

- English is not stress-timed

- intonation has no generalisable meaning

- normal spontaneous speech often goes much faster than ELT allows for.

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Application of Contrastive Analysis in teaching English pronunciation to Vietnamese adults

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1. Introduction

The studies of teaching English pronunciation to people of non-English language have mentioned different problem areas and solutions such as misconceptions about pronunciation instruction, teaching techniques focusing on articulating individual consonant and vowel sounds by Goodwin (2013), common pronunciation problems of Vietnamese learners of English (Ha Cam Tam, 2005), mother tongue transfer (Tweed, 2012). In Vietnam, English is the most popular foreign language which is taught far and wide to school children and working adults who learn English to understand grammar structures and reading skills. At work these people have a lot of difficulties communicating in English with their foreign managers and business partners, thus misunderstanding occurs very often. Due to lack of proper training, their verbal English doesn't sound at all. Observing the pronunciation mistakes made by Vietnamese learners of English, the researcher decided to do an action research with a purpose of providing teachers of English in Vietnam a contrastive technique to teach English pronunciation and to correct the students' pronunciation mistakes. The results of the study will answer two research questions:

(1) What problems do Vietnamese adults have in learning English pronunciation?

(2) In what way does contrastive analysis help to teach and learn English pronunciation better in Vietnam?

2. Method

The technique employed in this empirical study is an action research which involves two cycles with five phases or stages in each cycle. Due to limit of time and scope of this paper, the researcher would like to focus just on the first cycle of the research. The researcher adopted the Detailed Action Research Model (cited in Yasmeen, 2008) as the theoretical framework for the study, because it is suitable with the researcher's context of study, and it is very clear for the researcher to follow. This study has undergone 5 stages below.

Phase 1 is the "diagnosing" stage, in which the researcher used a questionnaire to explore the respondents' personal information concerning their age, occupation, English learning experience, place of residence, aims of learning English, and problems in learning English. There are 8 participants, 4 males and 4 females, 3 of them are working for foreign

companies in two Industrial Parks located in the suburb of Hanoi, 1 is working at Noi Bai International Airport, and 4 are university students. All of them are living in a rural district of Hanoi, where residents are mainly farmers and workers. They are learning English to use English at work and to pass the examination (4 students). Their main problems with English include inadequate pronunciation instructions, no speaking and listening lessons, very poor background knowledge of English although they all learned English at their village school few years ago. The second tool is a pre-test consisting of 60 questions, divided into five parts. Parts1, 4, 5 ask students to speak and read aloud 3 lists of words and sentences for the researcher to record their voice. As a result, all of them omit some or all the ending consonant sounds of the words in part 1, 4, 5 of the test, for example they say /faɪ/ instead of /faɪv/. Besides, 5 of 8 participants add /s/ at the end of some words, e.g. "eight" is pronounced /eɪts/. 5 of 8 students mispronounce /l/ and /n/ interchangeably. They confused /z/ with /s/, /ʃ/ with /s/, /dʒ/ with /s/, English /θ/ is pronounced as Vietnamese aspirated /t/; part 3 requires students to listen and choose the words they hear, but the majority of students confuse /ʃ/ with /s/ (87,5%), /dʒ/ with /z/ (62,5%), /l/ with /n/ (62,5%); part 2 has 15 multiple-choice items checking students' recognition of differences between the four options given. The number of students got the most correct answers is very small. Of 15 questions, the weakest student got 2 and the best student got 13 correct answers.

The results of the pre-test inform the researcher about the students' two main pronunciation problems: (1) omission of the ending consonant sound of a word that ends with a consonant sound, and (2) confusion of mainly fricative sounds and affricates, and two alveolar sounds (/l/ and /n/).

Phase 2 is the "action planning" stage, in which the researcher prepares a relevant syllabus with a focus on problematic problems, write lesson plans to teach lessons with various techniques, select materials and prepare handouts and teaching facilities, ready for the action to take place.

Phase 3 is the "taking action" stage, in which students receive formal instructions from the teacher through introduction of the problematic sounds, demonstration of how a sound is produced, using phonetic charts of English and Vietnamese, comparing and contrasting to distinguish the similar and different features of the English and Vietnamese sounds and to give corrective feedback to the students so that their mistakes can be corrected either by the teacher or the students themselves. The focus is on describing phonetic features of fricative and affricate sounds /z, s, ʃ, ʒ, dʒ, tʃ, θ, ð/ and alveolar sounds /l, n/, contrasting them according to sound pairs, both between 2 English sounds and 1 English sound with 1 Vietnamese sound. The descriptions of sound features are compared and contrasted on the basis of their manner of articulation or place of articulation. For the treatment of omission of English ending sounds, the students are reminded that although there are 8 consonant sounds occurring in final position in Vietnamese, they are never pronounced. Unlike these Vietnamese consonant sounds, the English consonant sounds in the final position are pronounced. At this stage, the students are required to do a variety of tasks including the recognition exercises, matching exercises, transcribing exercises, listening and spotting, listening and repeating and responding, mistake correction exercises, reading and making

conversations, games and role-plays. During the course of action, students make use of phonemic chart, video and diagrams demonstrating the mouth activities. The materials used for the intervention are taken from the course books of famous authors like Jonathan Marks, Mark Hancock and others.

Phase 4 is the "evaluating" stage, in which the teacher and researcher evaluate the students' learning outcomes by a post-test, checking if the students have made any change to the problematic sounds identified in the pre-test. The results of the test show that students have better understanding of the phonetic features of the problematic consonant sounds, but they still make mistakes occasionally, especially when they are used in sentences and conversations. The number of students confusing /ʃ/ with /s/ decreased to 50%, /dʒ/ with /s/ to 25%, and /l/ with /n/ to 37,5%. Students make fewer mistakes with final consonant sounds, especially with single words.

Phase 5 is the "specifying learning" stage, in which the researcher comes up with general findings of the study by analyzing the data obtained in the "evaluation" stage. At the end of the first cycle, which took 10 hours, the main findings are used to make conclusions about the reasons why the students initially made such mistakes. They also inform the researcher about which of the students' problems have been adjusted, which remain to be treated in the second cycle.

3. Results

The results of the action study over the 10 lessons of 2 hours each have brought about the following main findings. First, Vietnamese adults learners have difficulties learning the fricative sounds, especially the ones that do not exist in Vietnamese language such as /dʒ, tʃ, θ, ð/. They often confuse /z, ʃ, ʒ, dʒ, tʃ/ with /s/ because in their dialectal language they pronounce /s/ in stead of /ʃ, ʒ/. They can distinguish between /l, n/ in written words, but not in pronunciation. They also have problems with omitting the English consonant sounds of a word because of their mother tongue transfer since they have the habit of not pronouncing them in their mother tongue. These findings provide answer to the first research question: What problems do Vietnamese adults have in learning English pronunciation? Second, by employing contrastive analysis as one of the effective techniques in explaining the distinctive phonetic features of the problematic consonant sounds both within the English consonant sound system and between English and Vietnamese consonant sounds, students become aware of the similarities and differences between them so that they can adjust their own pronunciation to avoid mistakes. The students' improvement in understanding about their English problematic consonant sounds and pronunciation is an answer to the second research question: In what way does contrastive analysis help to teach and learn English pronunciation better in Vietnam?

4. Conclusions and discussion

Basing on the results of the study, important conclusions can be made as follows: Little attention has been made to teaching English pronunciation of the fricative and affricates to

Vietnamese learners of English so far, thus students are ignorant of their phonetic features and confuse; The habit of speaking the mother tongue can cause interference with learning a foreign language, but the problem can be solved by providing the learners with adequate instructions and by contrasting the distinctive phonetic features of the sounds that are easily confused. The action research and contrastive analysis technique provide students with knowledge about pronunciation of sounds, and expose them to more practical ways of learning English. Similarly, they encourage teachers of English to apply different methods of teaching English in Vietnam. Although the study has suggested some effective method to teach English pronunciation to Vietnamese adult learners, it will be more beneficial if the sample of subjects were bigger and the duration of the action research were longer and with more cycles so that problems would be thoroughly solved.

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Evaluating the essentials: the place of prosody in oral production

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1. Introduction

Oral production has been a key component of language teaching since the communicative approach. Assessment of oral production, traditionally considered to be the most difficult skill to assess (Luoma, 2004), has become more feasible given recent developments in technology and with the "can-do" descriptors of the CEFRL.[1] Although pronunciation in language teaching has been given more consideration recently, it remains the poor relation and is often neglected (Gilbert, 2010, Henderson et al., 2012). Pronunciation is given little prominence by the CEFRL, partly explaining why many teachers prioritise fluency rather than accuracy. Research shows us that prosody is at the heart of L1 acquisition (Cutler et al. 1997, Gervain & Werker 2013), but also that in terms of intelligibility and comprehension, prosody should also be at the heart of L2 learning and teaching (Kjellin, 1999, Derwing et al., 1998, Derwing & Munro, 2005, Gilbert, 2008). This is particularly true for French learners of English, given the important differences in the prosody of the two languages (Frost 2011). For this to be possible, we need a tool to help identify and measure basic prosodic features; this need was identified by the Themppo[2] team (Frost & Picavet, 2014), part of the Innovalangues project.[3]

1.1. Research questions

(1) Is it possible to create a set of pronunciation descriptors focused on prosody which are language-specific yet based on and calibrated to the CEFRL?
(2) Is it useful (for pedagogical reasons and future research) to create such a set of descriptors?

2. Method

Two oral corpora were used for this action-research study. The main corpus consists of oral productions compiled as part of the ELLO[4] study (Frost & O'Donnell, 2013). This corpus is composed of nearly 1700 video recordings of monologues and interactions made over

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[1] Common European Framework of Reference for Languages, (COE 2001).

[2] *THEMatique Prosodie & Production Orale.*

[3] http://innovalangues.fr/.

[4] *Etude Longitudinale sur la Langue Orale*.

three years of two cohorts of students. A level was attributed to the recordings using expert, peer and self-assessment using the CEFRL descriptors for speaking.

Based on the experts' and subjects' experience of assessing the ELLO corpus and as part of the Innovalangues project, a set of descriptors for English pronunciation focusing on prosody were developed. These "prosody descriptors" are based on the "can-do" descriptors of the CEFRL in form, however they mention prosodic features (such as stress and intonation) and features linked to prosody (such as phonotactics and reduced syllables, etc.), so they are necessarily language-specific. As a complement to the main corpus, composed of semi-spontaneous productions, a secondary corpus was compiled consisting of a selection of subjects reading a short text.

By using the prosody descriptors to attribute a level to subjects whose level had previously been established using the CEFRL, the prosodic features concerned were validated (or not).

3. Results and conclusion

Some of the prosodic features were found to be in the appropriate level band, some were not.

Based on the results of these calibration tests, a modified version of the prosody descriptors was developed and will be piloted in the coming year. The elements in the descriptors also form part of the objectives for the development of learning resources for the Innovalangues project.

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Passing for a native speaker: Production and perception

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1. Introduction

In studies of ultimate attainment in second language (L2) acquisition, it is common to analyze L2 speakers' self-reports and/or listener judgments of L2 speech, in an attempt to assess L2 speakers' ability to 'pass' for a native speaker (e.g., Ioup, Boustagui, El Tigi, & Moselle, 1994; Piller, 2002). Using L2 speakers self-reports usually means relying only on intermittent and unsystematic observations, and while obtaining nativeness judgments from listeners, in experimental conditions for example, can add an extra element of control and allows us to explore the listeners' perspectives, the speaker's actual production is backgrounded. Thus, exactly what listeners are noticing in the linguistic signal and which linguistic features they respond to when they make their judgments of L2 speakers, remain unclear because listeners' responses are rarely scrutinized beyond the assigned nativeness rating (although see Ioup et al. (1994) for a brief consideration of this). In assessing whether an L2 speaker can 'pass' as a native speaker, we need to understand both the speaker's production and native listeners' responses to it. This paper explores this connection through a detailed discussion of an L2 speaker's vowel production and native listeners' judgments of the speaker's origin and qualitative comments on his speech.

2. Method

2.1. Speaker

24 L1 and L2 speakers of New Zealand English (NZE) were audio-recorded speaking English in four different settings (two interviews, one social encounter and one service encounter) for the broader purpose of studying style-shifting in non-native English speakers, followed by an interview collecting biographical and attitudinal information (see Gnevsheva (in progress) for details). For this paper, I focus on a 23-year-old male near-native L2 speaker Kahui, a German L1 speaker. He started learning English at the age of about nine, in his 'English as a foreign language' classes at school. Later, as an adult, he visited England for one month with the purpose of preparing for a standardized test of English proficiency before he moved to New Zealand 18 months before this study took place. He reported using English almost 100 % of the time with the exception of weekly Skype sessions with his family in Germany.

2.2. Production analysis

The recordings were orthographically transcribed and uploaded into the corpus Accents of Non-Native English (Gnevsheva, in progress). Naturally, passing for a native speaker would require nativelikeness in several domains such as segmental features, intonation, grammar, and vocabulary, but here I concentrate only on the production of monophthongs. This is because one of the main distinguishing characteristics of a 'New Zealand accent' is the realization of some of its vowels, particularly the vowels TRAP, DRESS, and KIT (see below; I use Wells' (1982) lexical set to represent the intended vowels). Vowel formant measurements for all lexically stressed vowels were extracted and measured with Praat (Boersma & Weenink, 2009). Plotting was done in R (R Core Team, 2012).

2.3. Perception stimuli and procedure

Short clips were extracted from the recordings in the four different settings for the perception experiment. Where possible, clips were extracted after the initial 5 minutes of recording, where the speaker might have been adjusting to the recording situation. Three clips per setting were extracted for each speaker in order to lessen any potential effect of particular individual recordings, resulting in a pool of 288 clips (24 speakers * 4 settings * 3 extractions). The mean length for all clips was 26.6 words (13 seconds). The recordings were normalized to remove variation in volume. Because grammatical inaccuracies and disfluencies can influence judges' ratings of accentedness, an attempt was made to select clips without errors and hesitations; however, for some lower proficiency speakers it proved impossible to find such a passage. The clips did not contain names of people, geographical locations, or any other extra-linguistic information that might draw attention to the speakers' foreignness.

24 native NZE speaking listeners were randomly presented with the stimuli one at a time and were asked to rate the speaker on a 1-7 accentedness scale, then guess the origin of the speaker, and finally, indicate what it was in the clip that made them answer the way they did. The geographical assignments were then grouped into three major categories: native speaker of NZE, native speaker of another variety of English, and a non-native speaker.

3. Results

Kahui believes that he can pass for a native speaker, and he has anecdotal evidence of such passing: 'Yes. Most often they realize that I'm not native when I tell them or when they ask me, "Where do you come from?" They expect an answer like Napier or Christchurch…' In this section I explore (i) whether Kahui's vowel production is similar to that of a native speaker of NZE, (ii) whether listeners judge Kahui to be a native speaker of (New Zealand) English, and (iii) whether listeners comment on his vowel production without prompting.

3.1. Production

NZE has evolved as a distinct variety of English with some distinguishing characteristics: TRAP (/æ/) is half-open, DRESS (/e/) is half-close, KIT (/ɪ/) is centralized, NURSE (/ɜ/) is front, START (/a/), GOOSE (/u/) and STRUT (/ʌ/) are central (see Figure 1; Wells, 1982).

From visual analysis of Figure 1 below, it is clear that Kahui's vowel space is very similar to the prototypical NZE vowel space. Many vowels are quite NZE-like: for example, TRAP is somewhat raised, DRESS is very high and fronted, KIT is centralized, and GOOSE and NURSE are front; however, the overlap is not perfect. Despite the visually quite nativelike vowel-space, a speaker may not pass for a native speaker for other segmental (consonants), suprasegmental (intonation), grammatical (syntactic deviations), and other reasons. The next section addresses Kahui's holistic linguistic performance from a perception viewpoint.
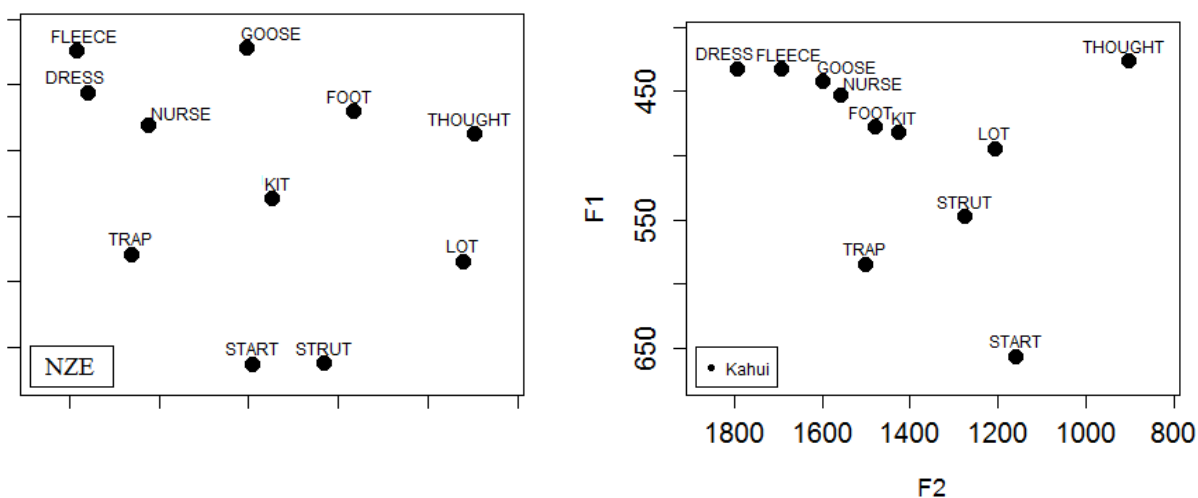
Figure 1: Vowel spaces of NZE (left panel) and L1 German speaker Kahui (right panel).

3.2. Perception

In native listeners' perception, Kahui passed for a native speaker of NZE in the majority of cases (69.4%), a few times for a native speaker of other varieties of English (27.3%), and just once he did not pass for a native speaker while two listeners gave no response. Content analysis of the listeners' comments reveals many general phrases, where listeners give holistic judgments (e.g., 'kiwi accent'). However, some listeners identified particular segments as a trigger (e.g., 'maybe australian [sic] with the vowel sounds'). Sometimes the listeners were more detailed and provided lexical examples (e.g., 'frish not fresh', which probably illustrates the raised quality of the DRESS vowel, typical of NZE). These words were categorized by lexically stressed vowel (see Table 1 for monophthongs). The listeners used four lexically stressed examples of the DRESS vowel, three each of GOOSE and KIT, two of TRAP, and one of NURSE. As discussed above, these five are the vowels quite distinctive in NZE, which the listeners may be using as a shibboleth.

Table 1: Listeners' lexical examples when identifying Kahui as a NS of NZE

DRESS	GOOSE	KIT	NURSE	TRAP
eleven	school	chilli	working	thank x 2
fresh x 2	you	think x 2		
ten	youtube			

4. Conclusions and discussion

Kahui's overall monophthongal vowel production was quite native-like, with NZE-like production of many of the characteristic vowels, despite no perfect overlap between his vowel space and the prototypical NZE vowel space. Kahui self-reported having experienced passing for a NS, and his claim was supported by the perception experiment in which he passed for a NS of NZE almost 70% of the time. When these listeners had to justify their decision, the words mentioned as examples contained vowels which are salient markers of New Zealand identity (Hay & Drager, 2010) and which Kahui produced in a NZE-like fashion, according to his vowel space. This shows that there is some value in obtaining listeners' qualitative judgments in perceptual tests, even though work in perceptual dialectology and folk linguistics is traditionally cautious about trying to map such comments directly to speakers' linguistic production (see e.g., the discussion in Montgomery, 2007).

This study highlighted the importance of native-like production of salient segments for high nativeness judgments. Kahui's native-like production of characteristic NZE vowels and the listeners' noticing of it raises a further salience question which can potentially be addressed in future experiments: will native-likeness in characteristic vowels coupled with non-nativelikeness in other ones result in the same nativelikeness ratings as native-likeness in all vowels. Qualitative studies can help to shed light on the processes underlying listeners' judgments of speakers' nativeness and origin.

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Comparing native-speaker and advanced-learner speech rates in a parallel corpus

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1. Introduction

Generally considered as the most robust parameter of fluency, speech rate is an indication of oral proficiency and a mark of advancedness. The proposed study aims to establish whether the speech rate of advanced learners of English is different from that of native speakers when both groups are performing identical tasks. It aims to reveal whether learners perform differently in various task designs and whether native speakers are affected by task design in the same way.

2. Method

The analysis is based on a spoken parallel corpus of 50 Czech advanced learners of English and 40 English native speakers. All participants were interviewed and asked to perform in three different tasks (planned, unplanned dialogical, and spontaneous). Each interview is approximately 15 minutes long. The total number of words in the corpus exceeds 225,000. Speech rate is manually measured using orthographic transcriptions and corresponding recordings, and it is expressed in words per minute.

3. Results

A pilot study of 50 advanced non-native speakers has been carried out in order to measure the speech rates in the individual tasks. Significant differences have been found in all three tasks. In the same pilot study 5 native speakers have been analysed using the same method. Whilst both groups show a large dispersion, native speakers appear to outperform the learners in all of the tasks. In our presentation we will report on the analysis of the remaining native speakers in the recorded corpus and compare their performance with the non-native speakers.

4. Conclusions and discussion

Using data available to date, we posit that native speakers have a higher speech rate in all of the tasks (cf. Götz, 2013) than non-native speakers. Both groups appear to be affected by

task design but the effect size is yet to be calculated. However, differences in task performance amongst non-native speakers seem to suggest that for accurate results tasks ought to be analysed separately and speech rate ought not to be measured globally as is sometimes the case (Götz, 2013). The study thus raises methodological questions for measuring speech rate and other temporal aspects of speech production. Within the context of the study of learner performance, this is significant for the successful realisation of fluency studies. Our analysis might yield more accurate results if the unit of syllables per minute rather than words per minute was used.

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The acquisition of vowel reduction by Polish learners of English

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1. Introduction

The study adopts an acoustic phonetics approach, attempting to describe the process of the acquisition of vowel reduction by Polish learners of English at university level. Vowel reduction is also discussed from a pedagogical perspective indicating its substantial role in pronunciation training courses. The rationale for the study stems from the fact that phonological vowel reduction is absent in Polish and unstressed vowels in Polish undergo minimal phonetic reduction (Schwartz, 2010), as opposed to English, in which vowel reduction is one of the most important features of speech encompassing both qualitative and quantitative modifications of vocalic elements. Because of these systematic differences, Polish speakers find it difficult to reduce vowels in unstressed syllables in English (e.g. Sobkowiak, 2004, Dziubalska-Kołaczyk et al., 2006), which may lead to inadequate rhythmic patterning, disfluency and intelligibilty break-downs. The following research questions have been formulated:

(1) Do instructed learning and exposure to L2 contribute to the increase in durational differences between stressed and unstressed vowels?
(2) Can vowel qualities in unstressed syllables be reduced as a result of instructed learning and exposure to L2? If yes, to what degree?

2. Method

The study presents a pre-test and post-test design. The data used for the experiment come from 30 Polish first-year students of English at the University of Łódź recorded twice: at the beginning and end of a 7-month pronunciation course. The reading passage is The North Wind and the Sun. Four phrases were extracted from the reading passage and segmented manually into vocalic and consonantal intervals with the help of Praat, mainly according to the criteria proposed by Grabe & Low (2002). The study employs both instrumental and auditory tools in the analyses of recorded data. The durations of vocalic segments, both stressed and unstressed, were measured instrumentally, and the degree of qualitative reduction was assessed auditorily for each participant and for both recordings.

3. Results

The results are expected to show greater differences between stressed and unstressed vowels in the post-test recording. The stressed vowels are predicted to be longer as a result of the type of training students are offered and which concentrates mostly on recognising, discriminating and producing the sounds of English on the segmental rather than suprasegmental level of British English standard pronunciation. The unstressed vowels are likely to be shorter than in the pre-test recording, but the difference may not be significant statistically. The qualitative alterations are expected to be noticeable only for some of the subjects and to different degree.

4. Conclusions and discussion

Preliminary conclusions point to fact that vowel reduction is a complex and difficult element of English speech for Polish learners, but a teachable one. The inclusion of vowel reduction into pronunciation syllabuses seems obligatory as it enhances the intelligibility in interactions between native and non-native speakers (Kenworthy, 1987, Sobkowiak, 2004). As the present study concentrates on read speech only, it would be recommended to observe whether similar reduction patterning emerges if spontaneous speech samples were analysed.

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Systematicity and Variability in the Phonology of Hong Kong English

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1. Introduction

This study examines the variation of consonant sounds in Hong Kong English (HKE), with a particular focus on variation among and within speakers in the use of a number of linguistic features commonly associated with HKE. While there have been a number of studies (cf. Bolton & Kwok, 1990; Deterding, Wong, & Kirkpatrick, 2008; Hung, 2000, 2002; Kirkpatrick, Deterding, & Wong, 2008; Luke & Richards, 1982; Peng & Ann, 2004; Peng & Setter, 2000; Setter, 2006, 2008; Sewell & Chan, 2010; Wee, 2008) investigating the phonology of HKE, these studies have largely focused on developing a description of the common features of HKE. While these studies have found a number of common phonological features among their participants, conflicting results have also been found among the studies, particularly with respect to the following features: /l/ - /n/ variation, whether /f/ is used for /θ/, whether /v/ and /w/, and also /r/ and /l are interchangeable. In other words, while previous studies have noted that there is variation in features of HKE, they have not examined *when* and *why* this variation occurs and whether it is systematic and predictable based on particular linguistic and extralinguistic (linguistic background, social factors, etc.) factors. The current study seeks to address this research gap by investigating the following questions:

(1) Which phonological features are in variation in Hong Kong English?
(2) What is the degree to which each of these features is in variation, both intra-speaker and across speakers?
(3) What factors, linguistic and extralinguistic, appear to govern the variation?

2. Method

To address the research questions, forty-six tertiary students across a range of year levels (including undergraduate and postgraduate studies) and majors were recruited to participate in the study. Speech data consisting of reading passages, word lists, and sociolinguistic interviews were collected from each participant in a one-on-one data recording session in a soundproof room. All data were recorded using a Marantz PMD-661 recorder and Shure microphone. Data were phonetically transcribed by two IPA trained researchers, and subjected to acoustic analysis using PRAAT and WavePad. Variation analysis, using GoldVarb, was employed to investigate which linguistic and extralinguistic factors affected the variation of each phonological variable.

3. Results

Preliminary results indicate that a number of sounds are in variation in Hong Kong English: /n/ and /l/; /f/ and /θ/; /v/, /w/, and /r/; /d/ and /ð/, among others.   A number of linguistic (e.g., preceding and following linguistic environment) as well as extralinguistic factors, particularly medium of instruction in secondary school (English vs. Cantonese) as well as international experiences were found to significantly affect phonological variation in Hong Kong English.

4. Conclusions and discussion

A detailed phonological analysis of data from forty-six speakers of HKE revealed that a number of consonants exist in variation in HKE, and that the variation is constrained by a number of linguistic and extralinguistic factors. Based on these findings, suggestions for future research will be discussed.

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The mastery of weak forms: a key to better intonation?

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1. Introduction

English intonation, in particular the placement of intonation centre (nucleus), has been the author's long-standing research objective together with the pedagogical implications as to its teachability. Previous research (see Headlandová Kalischová, 2010) has proved that Czech users of English tend to misplace the intonation centre (IC), i.e. in most cases they assign it to the final element in an utterance, regardless of other factors. In return, their speech gets marked with a rather monotonous sound. This occurrence can be observed regularly in the speech of even the most advanced users of English. Having tried different strategies and approaches to the matter, the author is now exploring the possible benefits of consistent exposure to and especially practice of *weak forms* of function words. The hypothesis is that it should help lessen the extent of interference of the speakers' mother tongue, at least in the most conspicuous cases such as **I'll tell THEM.* vs *I'll TELL them*.

2. Method

Various methods have been used, first with focus on imitation of tones and extensive practice of various pitch movements. Then, emphasis was put on the role intonation plays in the information structure of utterances and it was approached by means of the principles of the theory of functional sentence perspective, holding that a sentence is oriented towards the element with the highest degree of communicative dynamism (i.e. *rheme/focus*), which is almost always also the element of the greatest prosodic prominence. Recently, the author has returned to a purely phonological aspect of intonation in connected speech, namely to function words and their weak forms/unstressed strong forms.

The following experiment is currently in process: over 50 students, enrolled in the course of Phonetics at PdF MU, have been recorded reading various texts. A number of inappropriate placements of the IC was detected, e.g. in a sentence about the Abbey Theatre and the writers of the Celtic Revival, "*many of whom were involved in its foundation and whose plays were staged there*" ("Abbey Theatre," n.d.). Over 70% of the students shifted the IC in the second clause from the appropriate *STAGED* to **THERE*. The plan is to spend a certain amount of time in each lesson of the current semester on intensive practice of weak forms/unstressed strong forms. Finally, students will be recorded again and their recordings subjected to a comparative analysis.

3. Results

The occurrence of other instances of misplaced IC in the recordings confirmed yet again that no matter how proficient the speakers (the participants are B2 level or higher), they still make these − seemingly elementary − prosodic mistakes. The findings tally with general observations of other linguists (cf. Roach, 1991, p. 102; Dalton & Seidlhofer, 1994, pp. 110-113; Wells, 2006, pp. 12-14).

4. Conclusions and discussion

Bearing in mind how difficult it is to try and teach/learn where to place the intonation centre, let alone to acquire various tone patterns (and how questionable the outcomes may be), the author hopes to achieve at least partial success in teaching her students how to *unstress* rather than what to *stress*.

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"Is it /ˈprɑːg/ or /ˈpreɪg/?" L2 pronunciation feedback in English-French tandem conversations

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1. Introduction

1.1. Research background

The paper offers further findings from the analysis of corrective feedback (CF) given to the native French speakers by their native English-speaking tandem partners as part of the SITAF corpus collected at the University of Paris 3. The corpus, described at length in Horgues & Scheuer (in press), consists of around 25 hours of video-recorded, face-to-face interactions held by 21 pairs of French-English tandem participants. The speakers were recorded on two occasions – in February (session 1) and May 2013 (session 2) – while performing three types of tasks. Two of them were communication activities, *Liar-Liar* (Game 1; storytelling) and *Like Minds* (Game 2; argumentation), while the last was a reading task, for which *The North Wind and the Sun* was used. Although all the participants got to perform all three tasks in their respective L1 and L2 at least once during the recording sessions, our analysis will only be concerned with the English portion of the data. We have previously reported on the CF provided by the native speakers (NSs) during the reading task (Horgues & Scheuer, 2014), whereas the present paper expands this line of research by offering a preliminary analysis of L2 pronunciation feedback given to their native French-speaking partners during the two conversation tasks.

1.2. Research questions

Among the research questions addressed are the following: (1) What is the corrective strategy adopted by the native speaker: recast, explicit correction, or clarification request? (2) Is the correction solicited by the learner in some way, or is it spontaneous? (3) What gets corrected by the NS: segmental or prosodic errors? (4) What is the learner's uptake after receiving feedback? (5) How do body gestures supplement both the corrective audio input and the CF request and uptake? One of our overarching research hypotheses is that pronunciation errors are weak magnets for corrective feedback in spontaneous tandem interactions, with a vast majority of CF instances focusing on syntax and vocabulary.

2. Method

We use the term 'corrective feedback' to refer to the negative evidence given by the native speaker to their tandem partner during the recorded interactions. Gass (2003, p. 225)

defines negative evidence as "the type of information that is provided to learners concerning the incorrectness of an utterance". In the present analysis, we will be distinguishing three basic categories of CF: explicit comments ("you can't say X…"), clarification requests ("what do you mean by X?") and recasts[5].

We count corrective feedback as spontaneous if no appeal, be it verbal or non-verbal, is made to the native speaker by the learner. On the other hand, the non-native participant may solicit feedback explicitly or implicitly. In the current study, the former label is applied to cases of explicit *verbal* requests – such as the one paraphrased in the title of the paper: "is it /ˈprɑːɡ/ or /ˈpreɪɡ/?" – whereas implicit requests are conceptualised as various types of non-verbal vocal or visual appeal, such as hesitation marks, unfinished sentences, rising tones, questioning gazes or gestures, etc.

Finally, learner uptake is understood following Lyster & Ranta's (1997, p. 49) definition as "a student's utterance that immediately follows the teacher's feedback and that constitutes a reaction in some way" to that feedback. We distinguish between (a) total uptake, characterised by (reasonable) conformity to the model provided by the NS expert; (b) partial uptake, where only part of the correction has been implemented by the learner; (c) failed uptake, where the NNS attempts but fails to repeat the model form (*e.g.* by repeating the initial error) and (d) no uptake, in which case there is either no reaction whatsoever to the CF and the NNS continues on the same topic, or the learner simply acknowledges the NS's contribution through minimal verbal back channeling ("yes", "okay").

3. Results

We analysed seven hours of video-recorded interactional speech (Game 1 and Game 2 in both recording sessions) and identified a total of 158 instances of corrective feedback. In accordance with our initial hypothesis, pronunciation did not constitute the primary target of native speakers' interventions, accounting for 28% (44) of all CF instances at best (*i.e.* when combinations of foci – such as grammar/syntax and phonetics – are taken into account), and just over 19% if we consider pronunciation alone. The favourite area targeted by the experts in our study was vocabulary with 52.5% of all cases, while pure grammatical (syntactic) errors only accounted for just under 13% of all CF occurrences, with the remainder split between the various mixed-focus categories. The occurrences of phonetic CF were split equally between the two recording sessions (22 + 22), but not so between the two tasks: Game 1 (storytelling) attracted over 2.5 times more CF than Game 2 (32 and 12 instances, respectively).

3.1. Corrective strategy

Just like in the 'reading' study (Horgues & Scheuer, 2014), recast proved by far the predominant strategy employed in our peer-to-peer interactions. 41 of the 44 cases (93%)

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[5] Lyster & Ranta (1997, p. 46) define recast as a corrective strategy involving "the teacher's reformulation of all or part of a student's utterance, minus the error", see also El Tatawi 2002. In our context, this can be illustrated with the following exchange: *NNS* "And then I fall on my knees"; *NS* "Oh, you fell on your knees".

involved this method, although 13 of those featured recast combined with another strategy. Still, recast in its 'pure' form accounted for nearly 64% of all phonetic CF instances. The runner-up was clarification request, which was found in 13 cases (in all but 3 in combination with recast), whereas explicit correction was employed merely 3 times, always accompanied by recast.

3.2. Solicited or spontaneous?

Phonetic feedback was solicited roughly as often as it was not (23 vs 21 cases, respectively). When some sort of appeal to the native speaker did occur, it was predominantly implicit, usually executed through prolonged gazing at their interlocutor, hesitating tempo and rising tone. Only 13.6% (6) of CF instances followed an explicit verbal request on the part of the learner, for example "I don't know if you can say that".

3.3. Segmental or prosodic?

Unlike the reading task, where only a tiny minority (4.6%) of CF instances regarded suprasegmental matters, the conversation data presents a less unbalanced picture. Segmental errors appear to have acted as major triggers in 29 cases (65.9%), with the remaining 15 divided between word stress (10, or 22.7%, *e.g. 'prisoners* being incorrectly stressed as *pri'soners)* and syllable count, *i.e.* the learner adding or 'losing' a syllable (5, or 11.4%, *e.g. cluedo* mispronounced with an extra medial syllable: *clu-e-do).* Again in contrast to our reading study, vocalic errors no longer seem to be the main culprits: 38% of all segmental corrections might be attributed to vowels (*e.g. sit* pronounced *seat*), 41% to consonants (*e.g. sixth* pronounced as if it was **thixth*), and the remaining 21% represent a mixed V+C category (*e.g. hotel* pronounced **[o'tel]*). The respective figures in our 2014 findings, as regards types of segmental CF, were 58.3%, 25.2% and 16.5%.

3.4. Learner uptake

Of the four options we considered, 'no uptake' turned out to be the most frequent one: it accompanied 24 (54.5%) out of the 44 CF occurrences. If uptake did occur, however, it was predominantly 'total' (12, or 27.3%), whereas only 3 cases (6.8%) were labelled as 'failed uptake'. This relative scarcity of uptake of any kind (45.4%) is perhaps less surprising than it might initially appear: after all, the majority of corrections were carried out by means of recast, which – by its very nature – is non-explicit and therefore often vague. Consequently, the corrective function of recasts is sometimes not perceived by the recipient, especially if more than one item is corrected at a time (*e.g.* the inflectional ending *and* the stressed vowel of a verb, as in a NS recasting 'he sit **['si:t]*' as 'he sits'). Moreover, recasts are also minimally disruptive in this context where the tandem partners tend to focus on smooth and friendly communication and task-completion, rather than on language accuracy.

3.5. Multimodality

All three stages of corrective feedback (*i.e.* CF request, provision and uptake) were found to be highly multimodal in our SITAF corpus (Debras et al., 2015). NSs tend to provide phonetic feedback combining visual cues to support their verbal content and learners also

frequently rely on non-verbal strategies when attempting to take up phonetic CF (face movements, hand gestures and visual alignment with the expert's articulatory movements, *e.g.* stretched lips when silently mirroring the NS's model pronunciation of long /i:/ in *geese*).

4.   Conclusions and discussion

So far, SLA research on CF has mostly focused on feedback provided by language teachers in the field of morphosyntax and vocabulary (Lyster & Ranta, 1997 and El Tatawi, 2002) while phonetic feedback has largely been neglected. We therefore hope that our present contribution brings a new insight into the study of CF by showing how peer-to-peer tandem interactions also induce a favourable environment for L2 learners not only to be exposed to valuable phonetic feedback provided by their native-speaking counterparts, but also to be proactive in soliciting this feedback, which is essential for their L2 phonetic development. The quantity, type, form and impact of the phonetic feedback are partly dependent on factors such as the speaking task, the instructions given to the participants and the interlocutors' profiles. A more thorough investigation of which phonetic errors tend to be corrected and why would be necessary although it is often sometimes difficult to identify the corrective focus intended by a NS's correction or to have access to their reasons for deciding to intervene or not. In a further perspective, we would like to take a closer look at how the CF sequence develops in time: indeed the provision and uptake of phonetic CF is not always immediate and it might be enlightening to study its delayed effects too.

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"Nasal grunts" in the NECTE corpus – Meaningful interactional sounds

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1. Introduction

This paper discusses sounds like *uhhuh, mmhm*, which are usually considered as disfluencies. Those have been extensively covered and classified according to their roles in conversations, texts and discourse, *e.g. filled pauses, repetitions, backchannels …*

Notwithstanding the markers that may be categorised as disfluencies, some interpretations have been proposed, usually on a single variety of English. Ward (2006) has studied disfluencies in American English, from the forms of the sounds to their meanings and roles in conversations, using a "compositional model", *i.e.* "the meaning of a [sound] is the sum of the meanings of the component sounds" (133), but he did not investigate their prosody.

This paper proposes an experimental study of non-lexical conversational sounds in Geordie, an English dialect spoken in Newcastle, following the "compositional model" (Ward, 2006), but trying to focus on a class of sounds that we have decided to name "nasal grunts", *i.e.* words which have no "clear meaning" (Ward, 2000: 29) but possess a nasal feature. We summarise the findings of our investigation as to the putative meanings conveyed by the components of "nasal grunts", analysed in terms of prosodic features (duration, intensity, register and prosodic contours), morpho-phonological components (segments and syllable structures), and paralinguistic features such as voice quality (*i.e.* creakiness and breathiness).

2. Method

We have focused our investigation on the *Phonological Variation and Change in Contemporary Spoken English* (henceforth PVC; Milroy et al., 1997) project, which is part of the *Newcastle Electronic Corpus of Tyneside English* corpus (henceforth NECTE; Corrigan *et al*. 2001), *i.e.* a spontaneous and ecological corpus which is composed of 18 recordings and their orthographic transcriptions in .xml. Extracting the grunts from the NECTE corpus (Allen et al., 2007) led us to consider lemmatisation and morpho-phonological issues.

2.1. Data extraction and selection

Investigating the transcripts, we have realised that the tag used to label words such as *huh* in the .xml files, *i.e.*<w type="UH" lemma=" ">, included the token <aye> which has been

sometimes mislabelled, *i.e.* the sound is a nasal vowel, but since the grunt seems to mean *yes* and because nasal vowels may originate from and be closed to diphthongs (Avram, 1974) annotators may have decided to label it as being *aye.* Thus *aye* and *no* have been included in the analysis of the words *ehm, uh, uhhuh, huh, mm, mmhm,* and *hm* increasing the number of candidates present in the corpus to 4,844. A Praat tier has been dedicated to the realignment of the analysable grunts. The huge amount of overlaps has reduced the number of sounds to 1,482. A more refined auditory analysis has excluded the sounds corresponding to *aye, i.e.* [aɪ], and *no*, *i.e.* [nəʊ], for these sounds already bear a meaning and cannot enter our category. The real number of analysable "nasal grunts" in the 18 files is 1, 001 out of which 394 grunts have been analysed for the present study.

Coding our data has enabled us to see that some grunts (*i.e.*[VC] grunts of the type [ɛm]) were cliticised to the previous words (193 grunts). These cases were excluded, given our compositional perspective. Figure 1 compares the consonants used for forward linking when "nasal grunts" are cliticised.
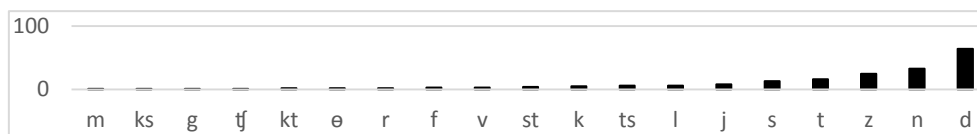
Figure 3: Preceding consonants in case of clitics (n= 193)

2.2. Data analysis

This section explains the methods used to analyse spoken data under Praat (Boersma & Weenink, 1993).

2.2.1. Criteria for the acoustic features

Prosodic contours have been analysed following the British tradition (Wells, 2006). The fundamental frequency has been investigated in semi tones and controlled by a narrow band spectrogram which was adapted to men and women. The thresholds for perception of pitch movements have been set as follow: ¼ semi-tone (ST) for perceptible movements and 7 ST for high movements. According to the quality of the sound files, it seems that measuring intensity for an intra-grunt analysis is impossible, *i.e* .we cannot say that grunt 1 has been uttered with more intensity than grunt 2, but measuring the maximum intensity (dB) upon disyllabic grunts to decide stress placement should be possible. The pitch baseline of each speaker has been approximated by calculating mean F0 (Hz) upon 10 random utterances and compared to the mean F0 (Hz) of each "nasal grunts". The length of the grunt has been measured by running a Praat script in the tier dedicated to syllables structures. Mean F1 and F2 of each vowel have been measured in the tier that was dedicated to vowels measurements and a vowel chart has been generated from NORM website (Thomas & Kendall, 2007) for each speaker by extracted F1 and F2 of the set /i, e, a, u/ by speaker.

2.2.2. Semantic criteria

The meanings for prosodic contours have been ascribed following the hypothesis of Cruttenden (1986), Tench (1996) and Wells (2006). Although Geordie has not been investigated specifically in the literature "the tones and meanings… will in most cases be at least receptively familiar" (Cruttenden, 1986: 103). So that low-falls would convey an idea

of statement (*i.e.* agreement, disagreement, step-back), low-rises an idea of concession (*i.e.* speaker B expresses that speaker A's statement is true and that A can go on talking), high-rises would behave has question-like grunts, rise-falls would serve has indicate gap-filling (*i.e.* a gap has been filled in the mind of the speaker which helped him understood the matter under discussion), fall-rise would be used as implicational tone, and flat tone tones would be uttered when nothing is conveyed. Meanings for register have been ascribed following Snow & Balog (2002), *i.e.* high F0 would suggest excitation while low F0 would suggest that the speaker is in a zone of comfort. For duration, the meanings have been ascribed following Ward's methodology (2004), *i.e.* by making five clusters upon the grunts independently of their constructions. The meanings chosen for syllabification, [h] or breathiness, [ʔ] and creakiness are the same as those from Ward (2006), namely: "two-syllable items seem to signal the intention to take a listening role" (169), "concern" (153), "negation or denial" (162), and "consult and correct…mental map" (155). The meanings of [m], [ɛ] (*i.e.*[ə] equivalent in Geordie English) have been inspired from Ward (2006) so that [m] would mean that the speaker is processing something while speaking ("thought-worthy" subject: 145), [ɛ] that the speaker has encountered a problem in his/her speech ("*neutral*": 160). For [Ṽ], it would mean that the speaker is more present in the conversation as opposed to [m].

3. Results

Section 3 summarises our findings in a bottom-up perspective, from acoustic to semantic properties.

3.1. Segmental features

Results have shown that nasal vowels are spread over the entire vowel chart, *e.g.* [ã], [ɛ̃], or [ʌ̃], and the large amount of different nasal vowels used suggest that they all bear the same meaning (see Figure 2). (Nasalised)-vowels are centred on the [ɛ] and [ə] vowels as expected (see Figure 3).
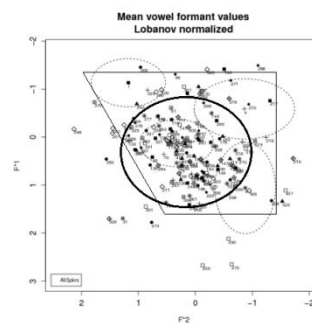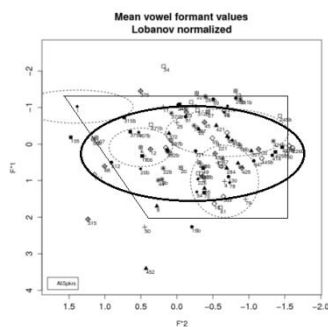
Figure 4: Group means vowel chart for nasal vowels **Figure 5**: Group means vowel chart for (nasalised)-vowels

Figure 4 summarises the various combinations with consonants and syllable structures. [h] and [ʔ] were not found in initial position but can be found in intersyllabic position of dissyllabic grunts in the NECTE corpus.
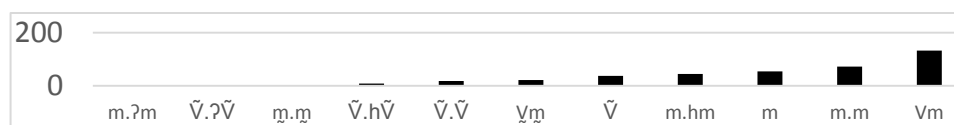
Figure 6: segmental combinations for "nasal grunts" (n= 394)

3.2. Prosodic features

We summarise the findings of our investigation as to the putative meanings conveyed by the prosodic features of "nasal grunts", analysed in terms of prosodic features (duration, intensity, register and prosodic contours), morpho-phonological components (segments and syllable structures), and paralinguistic features such as voice quality (*i.e.* breathiness and creakiness).

Results have also shown that we could not rely upon maximum intensity to decide for stress placement upon disyllabic grunts at 36% (n=97), but we could rely upon the degree of variation of prosodic contours, so that disyllabic grunts uttered with a low-fall will be stressed upon the first syllable (87.9%, n=59), and on the second syllable when uttered with a low-rise (100%, n=40). Complex grunts will be uttered onto two syllables. Table 1 represents the number and kinds of contours used according to the syllable patterns, where V stands for either [ə] or [ɛ], C for [m] and Ṽ for nasal vowels.

Table 1: Contour preference according to syllable structure (n=394)

	Ṽ.Ṽ	Ṽ	C	C.C	VC	Total
Flat	0	0	2	0	15	17
Low-fall	8	26	44	51	126	255
Low-rise	10	12	6	30	13	71
High-rise	0	0	1	0	0	1
Fall-rise	7	0	0	39	0	46
Rise-fall	3	0	0	1	0	4

Figure 5 sums up the duration for Ward's categories, obtained by clustering durations and represented in percentages of absolute durations.
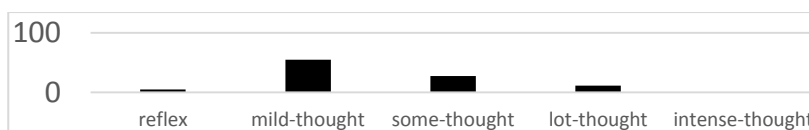
Figure 5. Relative percentage of duration for Ward's categories

4. Conclusions and discussion

Analysing "nasal grunts" in the NECTE corpus has raised some lemmatisation issues concerning the data (we differed in 122 of the 808 labels for grunts). Although this analysis raises the problems of circularity and of *ad hoc* categories since the authors were not native speaker of English, results seem to be promising in showing that "nasal grunts" may

convey various meanings, though the lexical-contextual analysis is in making. Bearing in mind that this study has been realised upon Geordie English, perception tests (*i.e.* resynthesis of grunts and prosodic morphing) and the investigation of other dialects of English need to be performed. Finally, an analysis of the positional properties and status in the prosodic hierarchy of "nasal grunts" should be carried out to see whether or not "nasal grunts" should be considered as being IPs, given the fact that they bear an accent and a proper prosodic contour which convey a meaning.

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Acquisition of vowel clipping in English by advanced Serbian learners

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1. Introduction

The paper examines the properties of vowel clipping in English and Serbian and analyzes the strategies which are employed in acquiring the clipping of English vowels, which is far more significant than in Serbian (Marković, 2012, Jakovljević, 2012), by advanced Serbian ESL learners. Considering that the degree of clipping of English vowels largely depends on their openness (Gonet, 1997, Gonet & Stadnicka, 2006), we are primarily interested in examining whether the same tendency exists in Serbian as well as whether it is possible to establish the relation between vowel clipping and vowel quality in the acquisition process.

2. Method

The research consisted of two production tasks, whose subjects were 30 first year students of English at Novi Sad University. In the first task, the subjects were recorded pronouncing the members of 40 Serbian minimal pairs within the frame sentences of the type 'The word X is spoken' (X is a member of a minimal pair, 80 sentences in total), which were ordered randomly. The target words were analyzed for duration using Praat software (Boersma & Weenink, 2011). In the second task, the subjects were recorded pronouncing the members of 44 English minimal pairs (88 frame sentences, which were of the same type as in Serbian). The target words were analyzed for the first two formants and vowel length, which was measured as absolute duration in pre-fortis and pre-lenis environments. All the words analyzed contained monophthongs, taking into consideration that Serbian does not have phonemic diphthongs. The degree of clipping in English by Serbian subjects was compared with the values given by Gonet (2006) and the level of mastering the quality of English monophthongs was estimated on the basis of average F1 and F2 values given by Gimson & Cruttenden (2008) and Deterding (1997).

3. Results

The results of the study show a significantly lower degree of vowel clipping in Serbian. In addition, the research points to a different relation between vowel clipping and vowel quality in English and Serbian, in which there is no correlation between the degree of vowel clipping and vowel openness. Finally, the analysis shows the presence of transfer considering that Serbian subjects did not sufficiently shorten pre-fortis realizations of English monophthongs. This was especially the case in the production of the words which

are less familiar to Serbian native speakers. On the other hand, more significant clipping of English monophthongs was primarily observed in the minimal pairs in which one member was an inflected lexeme.

4. Conclusions

Due to the fact that the situation described above was observed in the production of both poorly and well acquired monophthongs, we conclude that vowel clipping and vowel quality tend to function as two independent properties, which develop separately in the acquisition process. Considering the recommendations for further research, we suggest a larger-scale study, which would provide a deeper insight into the phenomenon in question. Future study should also include examining the relation between the production and perception of pre-fortis and pre-lenis realizations of English monophthongs by Serbian native speakers.

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Are word-final stops codas?
Evidence from Brazilian Portuguese ESL learners

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1. Introduction

This paper investigates the acquisition of medial coda and word-final consonants by Brazilian-Portuguese (BP) ESL learners, with the express intent of establishing the syllabic affiliation of final consonants. The focus is on the acquisition of /p/ and /k/, which are the only oral stops that occupy both medial coda and word-final position in English (see Harris & Gussmann, 1998). BP restricts the set of consonants in these locations to /s r l N/, so the realization of /p/ and /k/ in words such as *ca*[p]*tain* or *do*[k]*tor* and *bisho*[p] or *magi*[k] represents a considerable challenge for learners. The interlanguage tendency is to employ a process of [i]-epenthesis that permits such stops to be realized as onsets: hence *ca*[pi]*tain* and *magi*[ki]. Indeed, researchers have uniformly characterized [i]-epenthesis as a resyllabification process transforming coda /p/ and /k/ into onsets (e.g., Baptista & Filho, 1997; Cardoso, 2007; Major, 1986). This analysis is certainly uncontroversial when applied to medial stops – few would challenge the view that /p/ and /k/ in *ca*[p]*tain* and *do*[k]*tor* are codas. With regard to final consonants, however, two opposing views have been expressed: these are either i) *codas* (the orthodox view – Blevins, 1995; Selkirk, 1982); or ii) *onsets of empty nuclei* (the Government Phonology view – Harris & Gussmann, 1998; Kaye, 1990).

Combining these two views, Piggott (1999) proposes that, depending on the language, final consonants may be either codas or onsets of empty nuclei. Among the means for determining which syllabification a given language adopts, a simple measure involves the distribution of consonants in the two locations: a language that restricts final consonants to the same set as medial codas syllabifies final consonants as codas. This is the case for BP, which permits only the canonical coda consonants /s r l N/ in final position, the same set that appears in medial coda position. Conversely, a language with a mismatch between the set of final consonants and medial codas would syllabify the former as onsets of empty nuclei. English allows all consonants in its inventory except /h/ in final position, whereas medial codas are restricted to /p k f s m n ŋ l r/ (see Harris & Gussmann, 1998). Consequently, English would syllabify final consonants as onsets, whereas BP would syllabify them as codas. The central purpose of the present study is to establish, via data from the developing BP ESL interlanguage system, whether this analysis is well-founded.

The data involve [i]-epenthesis following medial coda and final /p k/. As [i]-epenthesis applies to native BP words (e.g., *pacto* → *pa*[ki]*to* 'pact') and to loanwords (e.g., *chic* → *chi*[ki]), it is best viewed as an L1 transfer process. With increased proficiency, BP learners often reach a stage where they are able to suppress the transfer process and acquire

targetlike pronunciation. As stated above, this implies uncontroversially that they learn to syllabify the /k/ in *doctor* as a coda. That is, acquisition involves expansion of the set of permissible coda consonants from the L1 canonical coda set /s r l N/ to include the oral stops /p k/. Our question concerns the syllabification of final /k/ (as in *magi*[k]) and /p/ (as in *bisho*[p]), since the two competing analyses would analyze these as either codas (Co), as illustrated in (1a), or else as onsets (O) of empty nuclei (N), as shown in (1b).

1. a)
                σ
              /|
           O N Co
           | | |
           m æ dʒ ɪ k

    b)
                σ   σ
              /| /|
           O N O N
           | | | |
           m æ dʒ ɪ k

Under the analysis in (1a), we would expect medial coda and final /p k/ to be acquired together, since expansion of the set of coda consonants to include /p k/ should make them simultaneously available in words such as *do*[k]*tor* as well as *magi*[k] (i.e., assuming the /k/ in *magi*[k] to be a coda). Under the analysis in (1b), which we hypothesize to be the correct one, it is anticipated that medial coda and final /p k/ will be acquired at different rates, since separate syllabic affiliations are implicated. Indeed, we predict that final /p k/ will be acquired after medial coda /p k/, since only the former requires acquisition of a novel prosodic representation, namely empty nuclei (1b).

In this study, then, we test the hypothesis that final consonants such as /p k/ in *bisho*[p] and *magi*[k] are onsets of empty nuclei. If BP ESL learners acquire medial coda and final /p k/ in tandem, this would suggest instead that final consonants are codas too. If, however, they are acquired at different rates, this would imply that the two employ distinct prosodic structures.

2. Method

The study adopts a variationist approach for data collection and analysis (e.g., Labov, 2001). To test whether medial coda and final /p k/ are acquired at different rates or simultaneously, data were collected from 10 BP ESL learners, adults (age 23-64) living in Montreal, a bilingual French/English-speaking city in Quebec, Canada (year of arrival 1997-2014). Participants self-reported their proficiency level as beginner (2 participants), intermediate (5) or advanced (3). Three tasks were employed to elicit spoken data: i) real-word elicitation; ii) non-word repetition; and iii) non-word reading aloud. For the real-word elicitation task, participants saw an image on a computer screen (e.g., a picture of a doctor) and, based on this image, verbally completed the blank in a carrier sentence (e.g., *This man is a ___*). All of the words were fairly high frequency and thus expected to be familiar to participants. Nonetheless, to aid participants in the task, it was preceded by a training session during which the same images were shown, accompanied by an identification recorded by a NS of English (e.g., *Doctor. This man is a doctor.*). For the non-word repetition task, participants heard a recorded non-word twice (e.g., *gazoop, gazoop*). Then, they orally inserted the heard word at the end of a carrier phrase (e.g., *I'd like to buy a ___*). The final task involved reading aloud the same set of non-words, which were presented in orthographic form, with stressed syllables indicated via larger lettering (e.g., *gaZOOP*).

The majority of the real and non-words used in the experiment were disyllabic, and none monosyllabic. Necessarily, medial coda /p k/ as in *captain* and *doctor* only occur in polysyllabic forms. Our decision to eschew monosyllabic words with final /p k/ (e.g., *li*[p] or *boo*[k]) was based on previous research showing that monosyllables favour [i]-epenthesis (Cardoso, 2007). That is, epenthesis is more likely in a word such as *lip* than in a word such as *bishop*. Apparently, a Word-Minimality constraint emerges in interlanguage, with the result that minimally disyllabic forms are preferred. If we had included monosyllabic forms, then, any mismatch in [i]-epenthesis rates between words with medial versus final /p k/ might be due to this constraint. By ruling out monosyllabic forms, however, we were faced with the dilemma that relatively few common polysyllabic words in English end in /p/ or /k/. To circumvent this problem, we incorporated non-words into the tasks (e.g., *gazoop* and *zudock*).

3. Results

The data were coded for a range of factors, including crucially *presence vs. absence of [i]-epenthesis* (the dependent variable) and *whether /p k/ was in medial or final position* (the key independent variable). Other independent variables included in the analysis were: *word status* (real vs. non-word), *task* (picture elicitation, repetition, reading aloud), *stress status* of the preceding vowel (stressed, unstressed), *proficiency level* (beginner, intermediate, advanced), and *participant*. The results of a Goldvarb X (Sankoff et al., 2006) analysis revealed that rates of [i]-epenthesis were significantly higher following final rather than medial-coda /p k/; indeed, only 1 out of 599 tokens (0.3%) of [i]-epenthesis following medial-coda /p k/ appeared in the data. That is, the production of the target /p k/ was significantly more problematic in word-final than in medial-coda position. Incidentally, [i]-epenthesis rates were also higher when the preceding nucleus was unstressed (.68). No other variables contributed significantly to the rate of [i]-epenthesis. Finally, Goldvarb X eliminated 6 participants from further statistical analysis because their speech was characterized by either single instances of [i]-epenthesis or native-like production of the target consonants.

4. Conclusions and discussion

We hypothesized that final consonants such as /p/ and /k/ in *bishop* and *magic* are onsets of empty nuclei in English. They thus contrast with medial /p/ and /k/ in *captain* and *doctor,* which are syllabified as codas. BP does not permit /p k/ in either location, restricting the set of consonants in these positions to /s l r N/. This distribution suggests that, unlike English, BP syllabifies its final consonants as codas. Hypothetically, then, medial coda and final stops pose a problem for BP ESL learners for different reasons: i) because /p/ and /k/ are not permissible codas in BP; and ii) because BP does not employ onsets of empty nuclei.

Our hypothesis would be falsified if learners acquired medial coda and final /p k/ simultaneously. Such a finding would be consistent with their sharing a prosodic representation and hence with /p k/ being syllabified as a coda in both locations. This is not what we found. Significantly, higher rates of [i]-epenthesis occurred following final /p k/ as

opposed to medial-coda /p k/ (with only 1 instance – 0.3% of the data set), a finding that is consistent with our hypothesis that these consonants employ distinct prosodic representations.

Our study is limited by the small number of participants with [i]-epenthesis and by the presence of limited instances of medial epenthesis. Apparently, the participants recruited were of too high a level of proficiency, either having advanced beyond the stage of epenthesis entirely, or else having passed the earlier stage of medial epenthesis. In future research, we plan to recruit participants of lower proficiency levels, including learners in Brazil rather than in Canada, since learners in the EFL context are likely to be less advanced. Eventually, we also intend to investigate the acquisition of medial consonants that syllabify as onsets of empty nuclei. Medial empty nuclei occur between consonants that are not branching onsets but that also cannot be coda-onset sequences, since they contravene the falling sonority cline that typifies coda-onset pairs (e.g., /gn/, /dn/ and /tl/ in *ignore*, *kidney*, and *atlas* respectively).

Despite the current study's limitations, our findings provide robust support for the view that final consonants are onsets of empty nuclei rather than codas. The results suggest that stops in medial codas, at least for BP ESL learners, are acquired before stops in final onsets. This finding has important implications for the L2 classroom, whether in terms of materials development (i.e., activities will need to target stops in the two locations separately) or in terms of the sequencing of pronunciation work, since *ca*[p]*tain* is acquired before *bisho*[p].

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Quasi-neutralization in the Acquisition of English Coronal Fricatives by Native Speakers of Japanese

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1. Introduction

Second language learners show various deviations from target pronunciation, most perhaps due to direct native language transfer, but others to 'deflected contrast' (Eckman et al., 2003), 'hypercorrection' (Eckman et al., 2013) and 'covert contrast' (Berti, 2010; Eckman et al., 2014; Scobbie et al., 2000). The purpose of the present study is to report on a novel form of adaptation that we term 'quasi-neutralization,' in which acoustic characteristics of competing target phonemes are found within the same interlanguage segment (e.g., *think* [θɪŋk] pronounced as [θsiŋk]).

2. Method

The three English voiceless coronal fricatives /s/, /ʃ/, /θ/ were elicited from 127 Japanese learners of English via two techniques: a sentence construction task and a wordlist reading task. During the first task, participants were aurally presented with three words or short phrases (e.g., *eats bananas; my uncle; always*). Then they were asked to reorder them and create a grammatical sentence (e.g., *My uncle always eats bananas*). In this task, the participants' attention was diverted away from pronunciation. During the second task, on the other hand, they were asked to pronounce given words in their best pronunciation. Lastly, they had a spelling test. Nineteen participants who had spelled the target words correctly were chosen for the analysis. Two non-native speakers and six native speakers of English evaluated the pronunciation of these participants and selected nine who seemingly had three sorts of [s]'s, namely, one substituting for English /θ/ (*think = sink*), one as a result of the hypercorrection of /ʃ/ (*sheet = seat*), and one as the surface form of phoneme /s/ (*seat = seat*).

3. Results

Against our expectations, participants pronounced the fricatives more accurately in the sentence construction task (in which their attention was diverted away from pronunciation) than in the wordlist reading task. Detailed qualitative analyses suggested that learners at a basic level of acquiring L2 phonology showed only L1 interference, others deflected

contrast as well as hypercorrected. There were also some learners who showed quasi-neutralization, a kind of intra-fricative transition. Hypercorrection and quasi-neutralizations were predominantly observed in the wordlist reading task. We consider that this was due to the linguistic insecurity of the participants, whose speech was affected by the awareness that their pronunciation was being observed.

4. Conclusions and discussion

We found that L2 learners manifest various strategies in the course of L2 pronunciation acquisition: (i) use of only L1 phonology, (ii) use of mostly L1 phonology with some L2-like distinctions implemented via deflected contrast, (iii) coexistence of L1 and L2 phonology, which sometimes results in hypercorrection. Quasi-neutralization, which serves as evidence of their learning struggle, was observed at all of the levels. Statistical analyses were not conducted in the present study, due to the absence of minimal pairs and the limited and unequal numbers of elicited samples, but future investigation of the quantitative features of fricatives may provide further evidence of lesser studied phenomena in second language phonology such as those identified here.

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The impact of Summer Course in English Phonetics on language acquisition evaluated from students' perspective

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1. Introduction

The abstract presents the study which evaluates the effect of Summer course in English phonetics (SCEP) held at University College London on language acquisition perceived from students' perspective. The study addresses SCEP as an extracurricular activity. As Mahoney, Cairns and Farmer (2003) found extracurricular activity participation can enhance students' academic success. The present study research questions were: 1) to investigate the students' experience with SCEP; 2) to evaluate the impact of SCEP on language acquisition as it is perceived by language learners.

2. Method

The methods employed in the current research combined observation and a questionnaire study. Respondents were students from Novosibirsk State Pedagogical University, who attended SCEP in the past, the total of 28 students. The questionnaire included demographic questions and research questions. Research questions addressed the respondents' experience with SCEP, their attitudes to SCEP, and the perceived impact of SCEP on their linguistic competence. Results from Yes/No and multiple choice questions were processed with descriptive statistics tools. Open ended questions were analyzed using key word analysis and key word frequencies. Direct observation was chosen as the second research method.

3. Results

The respondents attended SCEP in the period from 2012 to 2014, 1 subject attended SCEP twice. The vast majority of the respondents (92.9%) express great interest in participation in SCEP in the future and all of them would recommend other students to attend SCEP. To assess the influence of SCEP on students' language acquisition the following six linguistic competences were chosen in accordance with the Common European Framework of Reference for Languages: lexical, grammatical, semantic, orthographic, phonological and orthoepic competences. By orthoepic competence the ability to produce a correct pronunciation from the written form is meant (CEFR, 2001).

The subjects give the highest ranking to the impact of SCEP on their phonological control (89.9%) and orthoepic competence (84.9%). The respondents also give equally high ranking to the impact of SCEP on their semantic and lexical competence (82.4% and 76.7%% respectively), while the impact of SCEP on grammar and orthography can be characterized as less significant from learners' perspective (46.6% and 29.6% respectively). Russian subjects confirm that SCEP has a greater impact on their attitude towards the language under study (96.5%) than towards the target culture (70.6%).

4. Conclusions

The results of the research showed that most respondents are interested in having more experience with SCEP in future and give positive ranking to the impact of SCEP on most components of linguistic competence. As we are not aware of any other national or cross-cultural study of learners' attitudes to the impact of SCEP on their linguistic competence, it is impossible to state whether such high level of impact given to SCEP by Russian students is due to cultural paradigm or learners' individual preferences. These issues can be explored in our further research.

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Perception and Production of English Tense/lax Vowel Contrasts by Korean Speakers from two different dialects

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1. Introduction

Although much research has examined the L1 influence on non-native speech perception and production, few studies have investigated the effect of L1 dialects on L2 speech perception and production (Escudero et al., 2012). To fill this gap, this study investigates the influence of L1 dialects on the perception and production of English tense/lax vowel contrasts by native speakers of Korean from two different dialectal backgrounds, namely Seoul Korean (SK) and Kyungsang Korean (KK). They were chosen based on dialectal factors which differ in their use of vowel duration which potentially affects their perception and production of non-native contrasts.

2. Method

Twenty Korean speakers (10 SK, 10 KK) completed perception and production experiments. In perception, the listeners were tested on their ability to discriminate English tense/lax vowel contrasts in /pVb/ and /pVp/ contexts (Lengeris, 2009), evaluating the effect of the shortening of vowels before voiceless stops on their perception in a categorical discrimination test. Production tests examined Korean speakers' production accuracy of the English tense/lax vowel contrasts in voiced (/CVd/) and voiceless (/CVt/) contexts. Their production accuracy was assessed by native speaker judgments and acoustic analysis.

3. Results

The perception test revealed that SK and KK groups did not differ as a function of L1 dialects, and both Korean groups showed similar patterns of perceptual sensitivity to the target vowels. The effect of context on the discrimination of the English contrasts showed that both SK and KK listeners were sensitive to durational cues. However, Korean listeners were not simply comparing the duration in discriminating the two vowel contrasts. There existed an easier vowel contrast in one context than the other for Korean listeners although the duration difference between the two vowels was similar across contexts (i.e. /pup/-/pUp/). This suggests that Korean listeners use both durational and spectral cues to discriminate the contrast, and L2 vowel perception is a complex interplay between spectral and durational cues. The production test also showed that SK and KK speakers did not

differ in production accuracy, and both Korean groups have difficulty in producing the English tense/lax vowel contrasts in a native-like way. Both Korean groups over-relied on vowel duration to distinguish the English front vowel contrast /i/-/I/ in both contexts, whereas both groups showed no or minimal duration differences in the back vowel contrast /u/-/U/.

4. Conclusions and discussion

Korean speakers' degree of accuracy in perceiving and producing the English tense/lax vowel contrasts, as well as the extent to which their performance influenced by consonantal contexts, did not vary as a function of dialectal background. This suggests that the availability of durational information in an L1 dialect may not affect the process of making use of spectral and durational information in an L2.

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Prosodic Cues of Tone-Unit Segmentation in Chinese EFL Speakers' Speech

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1. Introduction

There have been numerous studies examining the role of prosody on speech segmentation and linguistic transfer (Lehiste, 1973; Hirst, 1983; Ferreira, 1993; Sun, 1995; Ladd, 1988; Fomichenko, 1998; Hitina, 2007; Kasevich, 2002). Apparent differences exist in segmental and suprasegmental features of Chinese and English (Lehiste, 1970; Zadoenko, 1980; Chun, 1982; Chen, 2006; Chu et al., 2006; Sofronov, 2007). This research provides findings on production of English phrases by Chinese EFL speakers. The purpose is to discover prosodic cues of tone-unit segmentation, establish correlation between prosodic and syntactic means of intra-phrase segmentation and describe prosodic peculiarities of tone-units produced by Chinese EFL speakers. We assume that EFL learners' inaccurate speech macrosegmentation leads to meaning transformation provoking tonal, temporal and amplitude changes.

2. Method

Materials include expanded declarative sentences (up to six tone-groups). Their actual division is constructed by adding the new information to the given one as follows: *I live on a farm. I live on a farm in the north of Scotland. I live on a farm … in a flat area. I live on a farm in … which attracts many tourists. I live on a farm … because of its beauty* (Kolyhalova, 1998).

30 Chinese EFL graduate and undergraduate females were recorded while reading aloud with a voice-recorder Olympus DS-20 in a laboratory room. Two American EFL teachers were also recorded while reading the same material to be used as a model for analyzing Chinese EFL speakers' samples of speech. The corpus includes 1200 phrases. We used PRAAT (Boersma & Weenink, 2005) to analyze the data.

3. Results

Chinese EFL speakers use pauses (51%) (full stops: short 50-200 ms – 56%; medium 250-400 ms – 29%; long 400 and more ms – 15%) and last syllable duration (31%) as the most frequent and important means of tone-unit chunking. In case of pitch change at the

boundary the pitch value in last vowel in a final accented syllable was compared to that in the first stressed or unstressed vowel in the following tone-unit (Dehé, 2014). Pitch intervals (negative, zero – 4%, 2% correspondently) are not so significant, excluding positive one (12%) that is connected with pitch declination both at intra- and inter phrase boundaries. Prosodic cues interact when signalling tone-unit boundaries (eg.: before full stops there is a final syllable lengthening). This results support other findings claiming the interaction of prosodic cues at tone-unit boundaries (Zadoenko, 1980; Potapova 2003; Chu et al., 2006; Chen, 2006). Syntactical cues were informative and eased the chunking process. As the length of a phrase expands there appear such inaccuracies as incorrect tone-unit stress placement, weak forms and unstressed syllables accentuation, rhythmic patterns transformation, incorrect actual division and abundance of hesitations. These inaccuracies transform the meaning and lead to miscomprehension.

4.   Conclusions and discussion

Given that temporal characteristics in Chinese EFL speakers' speech are more crucial we recommend teaching them weak forms and unstressed syllables reduction, training phrasal stress and shortening the time of pausing at intra-phrase boundaries while developing their reading and speaking skills. We continue to examine production and perception of Chinese EFL speakers' speech.

Acknowledgement

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Patterns of articulation rate in English / French and French / English Tandem Interactions

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1. Introduction

The present study examines articulation rate in French / English tandem interactions. Articulation rate, as one measure of speech tempo, is defined as the number of syllables uttered per second, excluding pauses. In second language (L2) speech research, articulation rate is sometimes associated with the notion of fluency. In other words, an increased level of competence in L2 speech might be reflected in a faster overall articulation rate.

Existing studies comparing articulation rate between native speakers and L2 learners have thus far yielded contradictory results. Some authors established that speakers articulate faster in their L1 than their L2, and that L1 speakers as a group articulate faster than L2 learners in a given language (Trouvain & Möbius, 2014), others found no significant differences in articulation rate between native and L2 speakers (Avanzi et al., 2012).

Another domain in which studies lead to diverse findings concerns the phenomenon commonly called phonetic convergence or accommodation, i.e. the observation that talkers become more like each other on multiple phonetic dimensions during an interaction. Some reports confirm convergence of articulation rate between native speakers, while others could not observe any effects of temporal adaptation. In mixed interactions between L1 and L2 speakers instances of both convergence and divergence were observed (cf. Prado, 2013).

Tandem interactions, in which pairs of native speakers aim to learn of each other's language, are deemed useful to shed more light on some of the inconsistent findings. They allow for the evaluation of articulation rate of the *same* speakers, talking about the *same* topics in the *same* setting in two different languages. Specifically, we were interested in the following questions: (i) how do native speakers adjust their L1 articulation rate in conversations with L2 learners; (ii) how does the rate in L1 compare to the rate in L2 speech, and, (iii) can we observe any convergence of articulation rate between the native and non-native speaker during the conversational interactions?

2. Method

Using part of the SITAF corpus (Horgues & Scheuer, 2014), we analyzed the spontaneous interactions of 5 language pairs of native speakers of French and American English (GA). The French speakers were undergraduate students of English, the GA speakers were

exchange students at the same university. Each speaker participated in three interactions: an L1-L1 control conversation, and two L1-L2 Tandem sessions; once using his/her native language and once using his/her L2.

The conversations were orthographically transcribed. The English recordings were semi-automatically aligned by means of the Munich MAUS system (Kisler et al., 2012) and manually verified, while the French recordings were manually annotated by an experienced transcriber using PRAAT (Boersma & Weenink, 2015). Discarding samples produced with background noise, overlapping speech or obvious disfluencies, we extracted all inter-pausal stretches with a defined threshold of inter-stretch pause duration of 100 ms. Only stretches of 3 to 20 syllables were considered in order to exclude short high-frequency backchannels and stretches with an unequal distribution. In total, 1475 stretches of speech were analyzed. Average articulation rate (henceforth AR), measured in syllables per second, was calculated by dividing the number of 'realized' (not canonical) syllables by the duration of the speech sample.

A linear mixed effect analysis of the relationship between AR and independent variables (factors) was performed using R (R Core Team, 2012). In order to test the hypotheses, three models were applied with the following fixed effects: (i) Control conversation: *Language* (GA, French); (ii) L1 speech: *Language* (GA/Fr), *Session* (Control, L1/Tandem) and *Interaction Language* x *Session*; (iii) Tandem conversations: *Language* (GA, French), *Language Status* (L1, L2) and *Interaction Language* x *Language Status*. In all models, speakers were entered as random effects. P-values, set at a level of 0.05, were obtained by likelihood ratio tests of these models against models without the fixed effects in question.

3. Results

3.1. Global patterns of articulation rate

A summary of the mean AR as a function of language and conversation is shown in fig.1. First, we observe a significant effect of *Language* ($\chi^2(1)$=12.855, p<0.01) on AR during the control conversations, with French speakers being faster than GA speakers. This is not surprising as it is well-known that AR is influenced by a number of language-specific factors, such syllable complexity, consonant phonotactics or reduction processes (for an overview, see Schiering, 2007). As a consequence, French with its simpler syllable structure and less complex consonant clusters is produced faster than English.

For the same reasons, the factor *Language* has a significant influence in the L1 condition ($\chi^2(1)$=9.4391, p<0.01). There is also a significant effect of *Session* ($\chi^2(1)$=25.201, p<0.01) and, most importantly, a significant *Interaction* between the two ($\chi^2(1)$=23.718, p<0.01). All French speakers show a prominent overall adjustment in their L1 AR when addressing L2. No such accommodation to the L2 speech of the French speakers can be observed on the part of the GA speakers during the English conversations.

Finally, the comparison between the use of the L1 and L2 during the tandem conversations shows a significant *Interaction Language* x *L1/L2* ($\chi^2(1)$ = 6.388, p<0.05). As can be seen
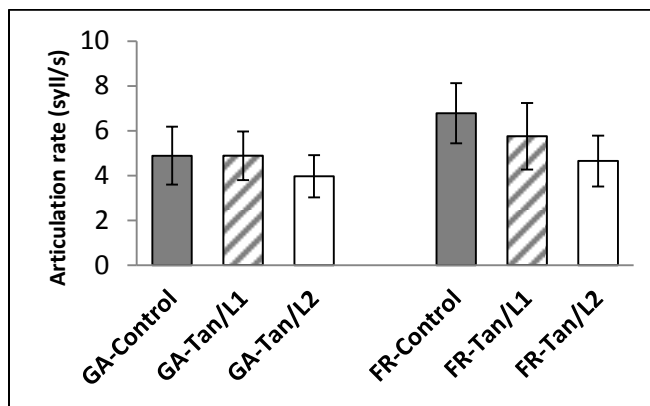
Figure 1: Means and s.d. of AR (syll/s) for, from left to right, GA speakers in control conversations (GA-Control), tandem conversations speaking English (GA-Tan/L1) and French (GA-Tan/L2), followed by French speakers in control conversations (FR-Control), tandem conversations speaking French (FR-Tan/L1) and English (FR-Tan/L2).

in fig. 1, French speakers when speaking English are not slower than the native GA partners whereas GA speakers have a significantly slower rate than the corresponding French subjects during the French conversations – even though the latter, as outlined above, already displayed a tendency to slow down their average AR during the tandem sessions.

3.2. Dynamic patterns of articulation rate

In order to test for possible accommodation of AR between speakers during the sessions, we followed a design by Levitan & Hirschberg (2011) and attempted to evaluate to what extent speakers were more similar to each other later in the conversations. As each tandem session consisted of two conversational games, we split each session into the two games and compared the differences in AR between speaker pairs. The results are given in table 1.

Conversation	Speaker Pair				
	GA1 - F1	GA2 – F2	GA3 – F3	GA4 – F4	GA5 – F5
French Tandem	**1.70 > 1.58**	**1.44 > 1.27**	0.52 < 1.08	**3.65 > 1.08**	**1.63 > 1.32**
English Tandem	**0.55 > - 0.23**	**0.99 > 0.72**	**1.67 > 0.77**	**0.32 > 0.24**	**0.53 > 0.13**

Table 1: Mean AR differences (syll/s) between paired tandem partners. The first number of each pair indicates the difference in the initial game, the second number the difference in the following game.

Overall, there is a general, albeit varying, tendency of the speakers to become more similar to their partners in 9 out of the 10 tandem conversations, i.e. the difference between the partners' AR decreased. In the French tandem conversations this trend was almost exclusively due to a reduction of AR on the part of the native French speakers. For the English tandem conversations, the patterns were more heterogeneous. Both native GA speakers and French L2 speakers accommodated via a reciprocal in- and decrease of AR.

4. Conclusions and discussion

The small number of speakers per language only allows for a cautious interpretation of the results. As expected, our findings are consistent with reports that speakers are overall slower in their L2 than in their native language. However, our results do not confirm that L2 articulation rates are on average slower than those of L1 speakers. While GA speakers were slower in their L2 French compared to native speakers, there was no difference at the group level between the two when speaking English. Strikingly, some French L2 learners showed higher AR values than the L1 speakers. These results suggest that L2 articulation rates are not only related to L1 rates on an individual level, but also that L2 rate variations are dependent on the language background (cf. Kim et al., 2013). The intrinsically high and slow rates of French and GA, although motivated by language-specific properties, interweave with individual rate habits. This allows French learners of English to closely approach the native speakers' level whereas this is not the case for GA learners of French.

In addition, we found some instances of speaker accommodation. On a global level, French speakers significantly slowed down their L1 productions when talking to L2 speakers. On an intra-session level, the majority of tandem pairs were more similar in their AR during the second part of the conversations. Interestingly, and contrary to the results reported by Trouvain and Möbius (2014), those rate adjustments did not reveal an L1 leader / L2 follower dynamic. Rather it was the native speakers who adjusted their rate in the French tandem interactions, while in the English sessions the convergent tendencies were mutual, regardless of the language status. A more fine-grained analysis of AR convergence during the dialogues will be necessary in the future.

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Formation of Speech Sounds in Children
On the material of English and Georgian Languages

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1. Introduction

Children are born with the ability to learn speech and language, but they gain the skills of language by listening to, processing, and practicing the words of the language, or languages, around them. The presented paper deals with the comparative analysis of formation of speech sounds in children from the earliest age of their throaty vowel sounds called "coos" up to the period when these sounds gradually disappear forever from their speech (by the age of 4-5 years).

1.1. Comparative Analysis of Formation of Speech Sounds

Please All infants learn language in the same sequence. Although the timing may vary for different languages, the developmental sequence is the same. From the moment of birth, the neonate uses cries and facial expressions to express his needs. He can distinguish his mother's voice from other voices and can discriminate among many different speech sounds (Berger, 2000). How do theorists explain language development? Three major theories have informed our understanding of how language develops: The behaviorist theory of language development (Skinner, 1957); Language is acquired through operant conditioning (Skinner, 1957); Even very young children take charge of learning language (Chomsky, N., 1957). Some recent theoretical approaches interpret the same task a bit differently: First, termed as interectionist, is based on the fact that language is not acquired without socialization. Language cannot be acquired without a social context (Chapman, 2000); Second, notes that infants and toddlers have an innate capability to learn language facilitated by adult caregivers (Berger, 2000; Berk, 2002); Third, proposes that language is learned in a social context. Language is centered in the sociocultural history of a population. The child as a member of the group learns the language to communicate in his community (Vygotsky, 1984). We share D. Swingley's opinion that speech and language development, like other development, follows fairly predictable stages. Children learn speech and language through their contact with others. Babies' "coos" and "goos" will become babbling and sounds, followed by their first words and, as understanding increases, gradually lengthening sentences and conversations. Children should be able to talk by 2 and be understood by 3 (Swingley, 2006).

1.1.1. First Non-crying Vocalizations

The first type of non-crying vocalization, produced by English and Georgian neonates, is cooing. Cooing includes a variety of basic speech sounds, such as ooooooh, eeeeeeh, and aaaah. Since most communications during the first year (or so) of life tend to be nonverbal,

communications during this period are said to be "pre-linguistic", i.e., before words. The sounds used at the age of (0-2 months), are mainly of vegetative character and they are called so – **Vegetative sounds**. These sounds are considered to be the natural ones that babies make, e.g. crying, coughing, burping, and swallowing. They have no real communicative significance. The above discussed sounds are typical for both groups of informants. No difference is observed in language development of these two group representatives at the age of **Cooing and laughter** (4-8 months), if not those of slight diversions based upon the phonological systems of analysed languages. Many of these sounds are produced accidently at first, since neonates are not born with the ability to intentionally produce specific speech sounds. These vocalizations usually occur when the baby is comfortable and content. They are generally made up of vowel and consonant sounds. Babies learn to combine some of these experimental sounds, and by six to eight months, they can combine a consonant and a vowel. Next, they double those sounds and practice long strings of (see ganatlebageo.wordpress.com, 2012):

English: *hee…he…hee…*   **Georgian:** ღე........ღე........ღე.... *(ghe…ghe…gh…)*
        ga…… ga……ga…   დე.......დე........დე.... *(de....de....de…)*
        ma….. ma….. ma…..   და......და........და....... *(da…… da……. da....)*

1.1.2. Stage of Babbling

Babbling (7-13 months) continues for several months. However, by about seven months infants add the capacity for repetitive babbling. In repetitive babbling infants repeat the same speech sounds over and over again, e.g., dadadada. This is the stage most commonly thought of as being associated with language development. It is often regarded as consisting of two sub-stages: **1) canonical babbling,** and **2) variegated babbling.** The first sub-stage (7-10 months) itself consists of two types: **a) reduplicated babbling,** in which the child produces a series of Consonant-Vowel (CV) syllables with the same consonant being repeated, e.g.

> **English:** wa-wa-wa, ab-ab-ab, mu-mu-mu
> **Georgian:** *ბა-ბა-ბა-ბა, ნა-ნა-ნა-ნა, მე-მე-მე-მე (ba-ba-ba-ba, na-na-na-na, me-me-me-me)*

A second type **b) non-reduplicated babbling** consists of vocalizations either in the form of Consonant-Vowel-Consonant (CVC) sequences, e.g.

> **English:** *non, mam, peep*
> **Georgian:** *დად, ბებ, დოდ, (dad, beb, dod)*

or Vowel-Consonant-Vowel (VCV) sequences, e.g.

> **English:** *ooboo, ama, eewee*
> **Georgian:** *აგა, აფა, ედე (aga, apa, ede)*

During **variegated babbling** (11-13 months) there is greater variation in the sequences of syllables, creating so-called **diverse babbling,**e.g.

> **English:** *ma-moo-mee, ba-doo, wo-mee*

Georgian: ბა-დედე, და-ბუუ, გე-ბეე *(ba-dede, da-buu, ge-bee)*

It should be noted that not every researcher will categorize speech development according to the stages presented above. Some may not make a distinction between non-reduplicated babbling and variegated one, as they both appear to be describing the same phenomenon, i.e. a reduction in the number of repetitive sound and an increase in their variety. Because so much development is happening all at the same time around 10 – 12 months, it is quite difficult to unambiguously divide the development of speech into discrete stages.

1.1.3. Stage of First Actual Words

At the period (12-24 months), the words used by the child are more readily identifiable as actual adult words. A variety of single words are used to express feelings, needs, wants, and so on. This is the moment in infant's speech development, when the latter begins to name and label the objects and people around them (Berko-Gleason, 1997). The following consonant sounds are usually well established at this stage:

> **English:** *m, n, p, t, d, w*
> **Georgian:** მ, ნ, პ, ფ, კ, დ, ტ (*m, n, p, l, k, d, t,*)

At the age of 20-30 months, the child begins to produce two-word combinations such as:

> **English:** daddy car, shoe on, where Katie
> **Georgian:** მამა ფაფუ, ფაფა ფუფუ, *mama papu, papa fufu* (daddy has disappeared, porridge is hot)

The following additional consonants are consolidated:

> **English:** k, g, ng (as in sing), h
> **Georgian:** ც, ძ, წ, ზ

Child's linguistic development continues till 28 months and after. He or she extends two-word utterances by incorporating at least another word, e.g.

> **English:** me kiss mummy, he hit ball
> **Georgian:** დედა, მოდი აქ! ფეხი კავა, დედა, მოდი აქ! (mummy, come here! foot hurts me.)

2. Method

The corpora for the research implied two languages (English and Georgian) with different lexis and structural frame and was completely based upon the experimental data observed in the process of study. However, with practice, and in response to reinforcement, infants tend to continue to produce the speech sounds of their native language. As the scrupulous comparative analysis has shown, young children use many more sounds with concrete and imaginable referents. Infants practice individual sounds, and sound sequences, and thus gain the motor skills necessary to produce what will eventually be considered actual adult words. In reality children may add up to two more words, thereby creating utterances as long as four words. Over the next 2-4 years, the child consolidates the usage of last remaining consonants (see www.kvirispalitra.ge, 2012).

3. Results

The description of speech development has shown the following:

1) In both cases (English and Georgian), consonant sounds are generally acquired in front-to-back pattern so that, sounds made at the front of the mouth develop and can be used by the child before the sounds, that are made at the back of the mouth;
2) As in all walks of life, there are exceptions to every rule and this is no less true of the way in which children acquire speech sounds;
3) Between 1,6 - 2,6 years English speaking child may not consistently use any fricative sounds;
4) In Georgian infants of the same age, difficulties may be observed while producing some post-alveolar, velar and uvular sounds as well as plosives and fricatives;
5) Majority of English and Georgian children, by the age of five, undoubtedly consolidate the use of all the consonant sounds and it is not unusual that they may be fully capable of saying all the speech sounds an adult would use;
6) So-called 'whirlies'('w','r','l','y') often continue to cause confusion for children. Even up to 6,5 years of age a child may have difficulty signaling differences between these sounds, e.g.
English: *red* is said as *wed, lolly* is said as *yoyiy*
Georgian: რატომ *? ≠* ლატომ *? (Ratom ? ≠ Latom?) (Why?)

4. Conclusions and discussion

In summary, the results strongly indicate that children are not only responsive to speech sounds and able to make fine discrimination but they also perceive speech sounds along the voicing continuum in a manner approximating, categorical perception, the manner in which adults perceive the same sounds.

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Exploring the effects of shadowing on prosody

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1. Introduction

Imitating target language sounds is one of the methods that a foreign language learner uses, and s/he will make a number of pronunciation errors at the phonetic and prosodic levels when producing speech in the target language. Imitating sound is a behavior that everyone does not only when learning foreign languages but also when acquiring a first language. According to the behaviorist perspective, children would imitate sounds when they acquire their first language and continue to imitate and practice sounds and patterns until they form habits of correct language use, and the quality and quantity of the language children hear are important (Lightbown & Spada, 2006). Shadowing, the immediate oral repetition of what is said by a listener, has been originally used for training simultaneous interpreters to enhance timing and short-term memory for beginner interpreters (Lambert, 1992), but it is also frequently used as a pedagogical technique in language education.

In fact, the use of shadowing is gaining popularity as a study tool for foreign language learners. Most of the studies on shadowing report the effectiveness of shadowing training in terms of improvement in listening, speaking, and reading skills (Chung, 2010; Kusumoto, 2013; Shiki, 2010; Tamai, 2005). However, there are few studies that examine the effect shadowing has on pronunciation. Okada (2002) examined the usefulness of shadowing as a means of prosody teaching. Her study suggests that shadowing helps improve rhythm; however, intonation was not improved through shadowing.

The purpose of this study is to explore the effectiveness of shadowing as a means of improving English pronunciation. Previous studies on pronunciation suggest that appropriate intonation use is essential to the intelligibility of pronunciation. The research questions posed in this study were: (1) to what extent, if any, could the shadowing technique improve English learners' prosody? (2) can participants reproduce the utterances in target-like manner?

2. Method

This research consists of two studies with 42 Japanese university students, 30 participants in Study 1 and 12 participants in Study 2. Participants in Study 1 had 30 minutes of shadowing practice once a week during a 95-minute class for 12 weeks. As measuring instruments, participants recorded their shadowing utterances at the beginning and end of the semester. Three native English speakers (American, Canadian, and British) rated the

participants' pre- and post-recordings and examined improvement in their English prosody. Similarly, participants in Study 2 had 30 minutes of shadowing practice once a week during class for 10 weeks. However, as the second research question was posed based on the findings of Study 1, participants in Study 2 recorded their read-aloud utterances instead of shadowing utterances. The *Praat* computer software was used to analyze the recordings of Study 2 participants.

3. Results

Study 1

The three raters were asked to listen to two audio files of the same student and determine which audio file was the pre-recording and which one was the post-recording based on overall pronunciation quality. The raters were asked to pay attention to the prosodic level, i.e. rhythm and intonation. The raters were unaware of which recording was the post-recording, and errors at the phonetic level, i.e. specific aspects of pronunciation such as mispronunciation of /θ/, were ignored. When the raters indentified the post-recording correctly, a mark was given to the participants. Figure 1 shows the result of the shadowing recording evaluation by three native English speaker raters. For 10% of participants, all three raters thought their pre-recording was the post-recording and vice versa. For 40% (12 out 30) of the participants pre/post recordings were identified correctly by all three raters. Two raters identified pre/post recordings correctly for 30% of participants, and only one rater identified pre/post recordings correctly for another 20%.
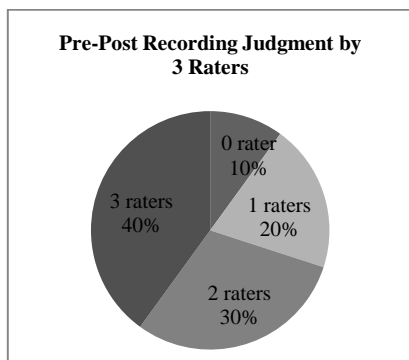
Figure 1: Pronunciation ratings by 3 native speaker raters
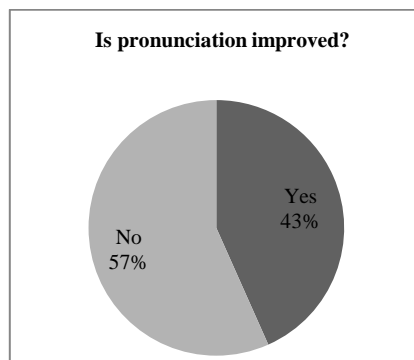
Figure 2: Improvements in participants' pronunciation

In order to examine if the participants' pronunciation was improved through shadowing practice, the raters were also asked to judge whether the two recordings were different in quality. Ideally, a greater number of raters should be used in the study, however, as the current study only used three raters, the participants' pronunciation was further examined when two or three raters agreed on the correct pre/post-recordings identification, i.e.70% of the participants. For 13 participants of those, two or three raters reported that the post-recording is better than the pre-recording. This suggests that 13 out of 30 participants improved their pronunciation through shadowing practice. Overall, the data suggests that

the shadowing has a positive effect on pronunciation learning, and it helped 43% of the participants' pronunciation (See Figure 2).

However, an interview with participants revealed that they still had difficulty producing target-like prosody when they spoke in their own words.

Study 2

As for Study 2, *Praat* was used to examine the improvement of the participants' read-aloud utterances. After viewing the visual pitch contours of the participants' utterances, it was concluded that most of the participants showed moderate improvement in their prosody while some participants showed no improvement. Student #12, as seen in Figure 3 below, showed no improvement in yes/no question intonation. The student produced the sentence with a flat intonation pattern on both the pre-test and the post-test.
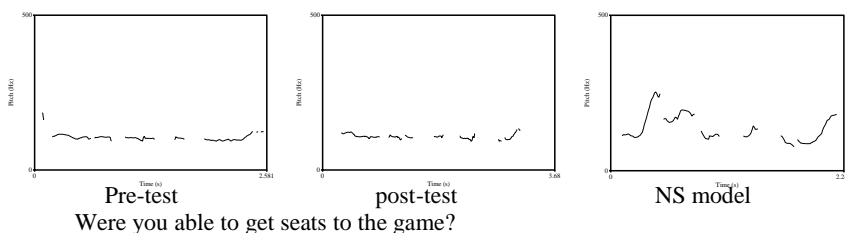
Figure 3: Visual display of the pitch contour produced by Student #12 compared to the native speaker's model

Figure 4, 5 and 6 illustrate the participants' moderate improvement in their prosody. In Figure 4, Student #9 produced a yes/no question with a flat intonation pattern on the pre-test. Although pronunciation in post-test is not native-like yet, the student produced a sentence with some rising and falling intonation. Similarly, as can be seen in Figure 5 and 6, Student #2's pronunciation in post-tests was closer to the native speaker's pattern.
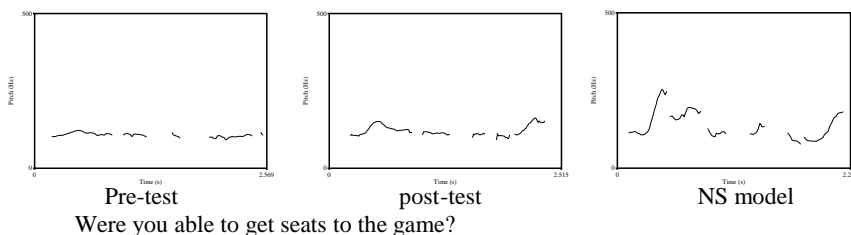
Figure 4: Visual display of the pitch contour produced by Student #9
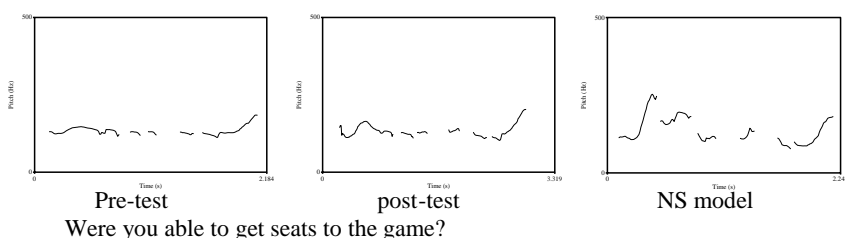
Figure 5: Visual display of the pitch contour produced by Student #2

| Pre-test | post-test | NS model |

By the time I got to the stadium, they'd been sold out.
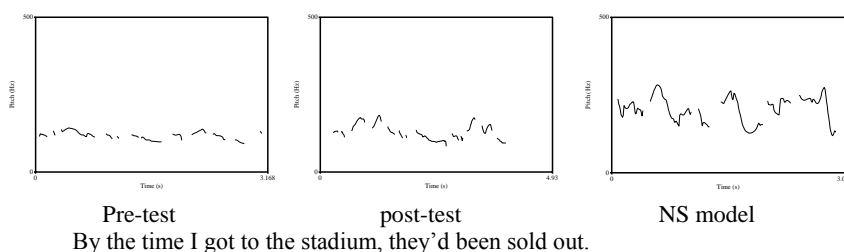
Figure 6: Visual display of the pitch contour produced by Student #2

4. Conclusions and discussion

The main goal of this study was to explore the effectiveness of shadowing for pronunciation training. In answer to the first research question, overall, the results suggest that simply tracking the heard speech and repeating it helped to improve prosody. In answer to the second research question, although participants did not achieve target-like prosody, they showed improvement in some degree. Specifically, *Praat* provided visual evidence that shadowing practice helped Japanese EFL learners to improve English pronunciation. Further research needs to be conducted on direct prosody training and the use of *Praat* as a means of feedback.

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An Exploration of Phonosyntax in Newcastle English

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1. Introduction

Our study is an exploration of the relations between prosody and syntax in a corpus of Tyneside English (the NECTE corpus). We wanted to compare the prosody of Tyneside English in certain syntactic structures (*wh-* clefts in this paper) to what we had already found of the prosody of such structures in another corpus which displays a variety of English closer to standard English, the ICE-GB corpus. After taking a close look at the general characteristics of the prosody of Newcastle English, we compared the prosody used in *wh*-clefts to that found in the ICE-GB corpus (Herment & Leonarduzzi, 2012). The type of speech studied is spontaneous and semi-spontaneous speech (casual conversation, broadcast news…).

2. Corpora and method

2.1. The corpora

The NECTE corpus is an oral corpus of dialect speech from Tyneside (North-East England) containing only natural conversations. ICE-GB is a syntactically parsed corpus of British English with various types of speeches. We were able to analyse 30 *wh-* clefts and 24 reverse *wh-* clefts in NECTE, and 152 *wh*-clefts and 151 reverse *wh-* clefts in ICE.

2.2. The prosodic and syntactic analyses

The prosodic analysis is based on Halliday's (1967) three Ts: Tonality, Tonicity and Tones. Tonality is the chunking of speech into intonation phrases (IPs), each having a coherent prosodic contour. Tonicity is the place of the nuclear accent. We consider there is only one nucleus per IP, which by default bears on the last lexical item of the IP. The tone is the distinctive pitch movement. It can be a fall (F), a rise (R), a fall-rise (FR), a rise-fall (RF) or a high fall (HF). The prosodic analysis of the two corpora was conducted aurally (partly due to the poor acoustic quality of many of the examples).

The structure we studied are *wh-* clefts (*what I need is money*). These are focusing structures (see Lambrecht, 1994; Prince, 1978), serving to highlight an element. From a syntactic point of view, a *wh-* cleft is analysed as a simple sentence which has been divided into two sections (a *wh*-clause and a main predicate starting with *be*). The first part corresponds to what is called the presupposition (*what I need*) and the second part contains the focus or foregrounded element (*money*) (Huddleston & Pullum, 2002).

3. Tyneside prosody

Of all the characteristics of Newcastle intonation that we found in the literature or by analysing the corpus, we will retain three for the present paper.

Cruttenden (1997) talks about the 'tyneside tone', involving a rising pitch and mentions a case of urban spread of those typical rising intonations. This is what is commonly called UNBI (Urban Northern British Intonation): UNBI speakers utter declarative sentences with a rising intonation, and also questions, in particular WH-questions, which are uttered with a falling intonation in standard English. In Newcastle English, two types of rises can be set apart: a simple rise/rise plateau and rising level tones. However, some bi-intonational speakers also use F, HF and FR tones. This might be correlated with the social class, and also with the age group.

Pellowe & Jones (1983) mention rise-falls, which are typical of this variety of English. Rise plateau falls can be heard, with a rise on the nuclear syllable, a high plateau followed by a fall if the word bearing the nucleus has enough syllables. The syllables following the nuclear word are uttered on static low tones. When there are too few syllables in the word, no plateau is possible, and we hear a rise fall on the word.

Wells (1982) is struck by the use of level tones, and in the NECTE corpus, we heard a lot of level nuclear tones, mostly in the speech of younger people, when older people favour a falling pattern.

4. The prosody of clefts

For this study, we considered whether there was an IP boundary between the two parts of the cleft (the *wh-* clause and the predicate with *be*). We coded 1 IP when there was no boundary and 2 IPs when a boundary was present at that particular place. When the structure is pronounced in a single IP, we coded "-" the part of the IP which does not contain the nucleus (for instance "-F", means that there is only one IP and that the nucleus is in the second part of the cleft with a falling tone). Analysing the ICE-GB corpus, we found that the number of IPs was linked to the informativeness of each part of the cleft (we consider a part to be "informative" when it is relevant at this point of discourse): with two IPs and an F/F pattern, each part is important from an informational point of view, whereas one IP will focus only the second part of the cleft (-F). When there were two IPs, we found a variety of tones in the first part of the cleft (the *wh-* clause), which have according to us various functions: R indicates that the *wh-* clause is minor information, F that it is major information. As for FR, it can either serve to attract the co-speaker's attention on the second part of the clause (the focused element) or, when in a marked position (that is to say, not on the last accented syllable in the IP), to mark emphasis or contrast.

The number of IPs can be said to function in NECTE as in ICE. With one IP (-F), the only important piece of information is the focus: *what they're after is the background F*. Only the focus is important here. With two IPs and an F/F pattern, both parts of the cleft are informative : *what we have now F/ is a sweatshirt F*. The RF tone in NECTE seems to

function as an FR tone in ICE, used to attract the attention on the second part of the cleft. In *What they do is RF / they get people out to work RF*, the focused part *they get people out to work* is the important piece of information, and it is announced by the *wh-* clause, which contains a semantically neutral verb *do*. When in a marked position in the *wh-*clause, the RF tone can, as the FR tone in ICE, be used for contrast or emphasis. In *what we also found when we were doing the house RF / was a poss tub F*, the RF tone on *also* is used for emphasis.

5. Conclusion

We found some common points or correspondences between the prosody of *wh-* clefts in NECTE and in ICE. The number of IPs plays the same role: that of indicating which part of the cleft is informative (one IP or two IPs with F/F). The RF tone replaces the FR or HF tones of ICE to indicate contrast or emphasis.

The main unanswered questions yet concern the use of the R tone in *wh-* clefts. Since R is the default tone in a UNBI variety of English such as Tyneside English, we might wonder if it plays the same part as an F in ICE (indicating major information), or if it indicates minor information (as the R in ICE). The distinction between the two types of R found in NECTE also remains unclear. It might be linked to social class or age groups, in which case it would be a phonetic distinction, but it might also have a distinctive (phonological) function.

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The forms and uses of spoken parentheticals in teacher discourse

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1. Introduction

Distinguishing more important from less important information is a critical skill for teachers to use in order to help scaffold informational discourse for their students. It is frequently achieved through the use of prosody to signal the relative importance of the information being presented. Focused syllables (e.g., "Now THIS is a critical point") are one key resource to signal importance, but other prosodic strategies are also employed by speakers in English. One of these strategies involves the use of spoken parenthetical utterances. Parentheticals have been described as "expressions that are linearly represented in a given string of utterance (a host sentence), but seem structurally independent" (Dehé & Kavalova, 2007, p. 1). They may be marked by special prosody (Bing, 1980), but they may also be marked by a shift in the type of information being presented. Whichever form or combination of forms they appear as, parentheticals are a common feature of academic lectures where they help listeners distinguish the relative importance of information, and because of this purpose they provide a critical communicative tool for teachers. Yet despite the importance of parentheticals in structuring spoken discourse, research on their use in teaching is scarce.

1.1. Research questions

This paper builds on a previous study that revealed that teachers frequently used extended parentheticals in constructing their spoken discourse. In this study, we examine the instructional discourse of two groups of teachers: native-English-speaking teaching assistants (TAs) and international teaching assistants (ITAs) whose L1 is not English Their teaching discourse was examined for intonational and informational parentheticals to examine the functional uses of parentheticals.

2. Method

We collected authentic teaching discourse from sixteen university classes, eight from chemistry classes (four taught by TAs and four taught by ITAs) and eight from English classes (four taught by TAs and four by ITAs). The teaching discourse was orthographically transcribed and analyzed for prosodic and informational characteristics of parentheticals. These parentheticals were analyzed using a systemic functional linguistic perspective based on Mohan (1986) and Mohan, Leung, and Slater (2010).

3. Results

Our results indicate that both TAs and ITAs used parentheticals to create interpersonal connections with their students, and they also used them to break up the density of the lectures. We also uncovered interesting differences between TAs and ITAs, especially in the frequency of use and in the use of specific strategies such as vocatives (use of student names). As a result, TAs were often more effective in creating connections with students and a more informal and interactive classroom environment.

4. Conclusions

Our findings suggest that ITAs may need to become aware of how parentheticals function both informationally and prosodically to develop greater interpersonal connections and make the information in lectures more accessible. By not incorporating parentheticals well into their teaching, ITAs sometimes came across as rigid, overly knowledgeable, and even unapproachable.

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More training needed, but will it make me less confident? A learner perspective on English pronunciation

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1. Introduction

Earlier studies have shown that pronunciation has a major role in communication success, but there are also concerns that pronunciation skills are often neglected in formal education. This is not ideal for the learning process as studies have shown that instruction improves pronunciation (e.g. Derwing & Munro, 2005: 387-388, Saito 2012). Learners have also been found to have positive attitudes towards pronunciation teaching and to want more practice (e.g. Tergujeff, 2013). At university level, pronunciation practice is common in many countries. Recently, pronunciation goals have been much debated in research, and the native-speaker norm has been challenged. Learners are no longer expected to reach the level of a monolingual native-speaker, and this might not even be the desired goal for most learners (Dalton & Seidlhofer, 1994: 6-8, Jenkins, 2000). Derwing & Munro (2005: 384) emphasized that native level is not a realistic goal as achieving it is rare and context-dependent. Naturally the goal always depends on the learner's communicative needs.

Learner opinions, beliefs or attitudes have been found to play an important role in the learning process and to affect learning outcomes (Kalaja & Barcelos, 2013). Earlier studies have used various methodologies to investigate the learner perspective and learner opinions (see e.g. Nowacka, 2012). According to Waniek-Klimczak & Klimczak (2005), for instance, Polish learners considered vocabulary, pronunciation and grammar, in this order, as the most important aspects of speech. In formal education, however, the emphasis is often on vocabulary and grammar. When learner attitudes towards pronunciation goals have been studied, some studies have found that learners want to sound like native speakers and have native level as their goal (e.g. Janicka et al., 2005, Nowacka, 2012, Waniek-Klimczak & Klimczak, 2005). Dalton-Puffer, Kaltenboeck & Smit (1997) also showed that Austrian university students of English had negative attitudes towards their own non-native accent of English and preferred native accents. Other studies have shown that native level is not the learners' goal, but they emphasize intelligibility (e.g. Tergujeff, 2013). One explanation for the different results may be that university students are more likely to aim at native levels and to have higher goals than other language learners. Attitudes are also dynamic and may change as learners gain more experience (e.g. Shizuka, 2008).

In this study we wanted to explore the learner perspective on these matters and focused on three questions: 1. How much emphasis had earlier education placed on spoken language? 2. What is the role of pronunciation in comparison to other language skills? 3. Which goals do learners set for themselves and how do they evaluate their pronunciation skills?

2. Method

The data were collected with a questionnaire from first-year L1 Finnish university students of English (n=112). The subjects used a 5-step Likert scale (1=strongly agree; 5=strongly disagree) to respond to the questionnaire statements on the pronunciation of English. Some subjects left some statements unanswered. The answers 1 and 2 agreed with the statement, and 4 and 5 meant that the subjects disagreed with the statement. The median and average values were calculated for each statement. To increase the validity of our analysis, a group (n=10) of students also participated in semi-structured interviews, but due to restrictions in space we will focus on the questionnaire results in this report. The data were collected at the end of a compulsory lecture course. All subjects had taken at least a theoretical lecture course on phonetics (11 x 90 min lecture) at the time of testing. Many students (n=73) were also taking a practical pronunciation course (11 x 90 min of pronunciation exercises) concurrently with the phonetics course, whereas some students (n=39) would take it later due to curricular reasons. To see if taking a pronunciation course affects student opinions, we compared the opinions of the two groups using the nonparametric Mann-Whitney U-test. The subject group's answers to different statements were compared with the Wilcoxon signed ranks test. To compare three statements, we used the nonparametric Friedman test.

3. Results

3.1. Earlier education

The students often agreed that they had been taught enough grammar at school (48% agreed, 31% disagreed; mean 2.74), but quite clearly thought that pronunciation had not been taught enough (10% vs. 84%; mean 4.17), they had not had pronunciation training before (12% vs. 80%; mean 4.21) and schools did not focus too much on spoken skills (2% vs. 90%; mean 4.44). The difference between pronunciation and grammar teaching was statistically significant ($p<.001$). The students who had attended a pronunciation course were more of the opinion that pronunciation had not been taught enough before. This was also statistically significant ($p<.016$). Thus it seems that explicit pronunciation teaching makes students understand what they had missed in their earlier education.

3.2. Role of pronunciation

The second research question focused on the role of pronunciation. According to the students, they often pay attention to their pronunciation (85% vs. 6%; mean 1.85) and grammar (81% vs. 8%; mean 1.99) of English. They also thought that to use words accurately is important for communication (81% vs. 5%; mean 1.98), whereas pronunciation (67% vs. 7%; mean 2.21) and grammar (44% vs. 24%; mean 2.76) were considered slightly less important, which agrees with Waniek-Klimczak & Klimczak's (2005) result with Polish learners of English. The difference between words, pronunciation and grammar was statistically significant (Friedman $p<.001$). Thus the students were active language learners who paid attention to their language skills, including pronunciation. When we contrasted the groups who either were or were not taking a practical

pronunciation course at the same time, we noticed that those who attended pronunciation classes paid more attention to their pronunciation and agreed more with the statement "I'm more interested in the pronunciation than the grammar of English". The difference was statistically significant ($p<.05$). At the same time, however, the students believed that English has clearer grammar (36% vs. 31%; mean 2.98) than pronunciation (27% vs. 40%; mean 3.22) rules ($p<.011$). Naturally, the earlier focus on grammar may have affected the result. It may also be that pronunciation has been thoroughly discussed at university level where prescriptive rules about language are also less used than at lower levels of education.

3.3. Pronunciation skills and goals

The results suggest that the subjects would like to sound like native speakers (89% vs. 1%; mean 1.38), tried to avoid a Finnish accent of English (90% vs. 2%; mean 1.47) and believed that they still had a lot to learn in their English skills (87% vs. 2%; mean 1.61). The statement that the students clearly mostly disagreed with was that English spoken with a Finnish accent sounds good (3% vs. 88%; mean 4.45). Here we can see negative attitudes towards the learners' own nonnative accent and positive attitudes towards native accents as shown in earlier studies (Dalton-Puffer et al., 1997) as well. The subject group thought that vowels were more difficult to pronounce than consonants ($p<.001$), which is against Cenoz & Lecumberri's (1999) findings with Spanish learners of English. When we contrasted the two groups, those who had already attended a pronunciation course and those who had not, we discovered that the clearest differences of opinions were found in statements "Vowels of English are difficult to pronounce", "I pronounce English well" and "I feel confident when I speak English". Students who received explicit pronunciation practice thought that vowels are not that difficult to pronounce, but there were no major differences in opinions towards the consonants. Therefore, the pronunciation course may have given the subjects more confidence when it comes to vowels without affecting their opinion about the consonants. Interestingly, although students receiving explicit pronunciation teaching thought that they pronounce English well, they also seemed to have less confidence when speaking English in general. In closer statistical testing, only the difference in confidence was statistically significant between the groups ($p<.05$). Corrective individual feedback during a specialized course may have affected their confidence. Yet they still trust their abilities, which could mean that, in their opinion, formal classroom situations where language skills are being evaluated differ from casual conversations.

4. Conclusions and discussion

The study shows that university students of English are active learners who have high learning goals and that explicit pronunciation training makes learners more aware of the linguistic skills they think they should possess. The study also shows that earlier education lacks explicit pronunciation teaching, but that teaching might also have a negative effect on the learner's confidence by making learners more aware of the mistakes they make. Interestingly, especially those students who received explicit pronunciation training were of the opinion that pronunciation had not been taught enough. The students were also of the opinion that they often pay attention to their own pronunciation and considered

pronunciation more important than grammar but less important than vocabulary for their communication skills. It also seems that pronunciation teaching further increases students' interest in pronunciation. As for their goals, the students valued native accents and often had native accents as their learning goal. Attitudes towards their own native accent in English were very negative. Focusing on questionnaires alone and the common tendency to use the middle values in answers on the Likert scale sets limitations to the analysis. Next this questionnaire information will be complemented with the results of the learner interviews to gain a more thorough view of the learner perspective on these matters.

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Phonetic cue interpretation in the acquisition of a non-native vocalic contrast

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1. Introduction

The study deals with the acquisition of the English vocalic contrast /e/ vs. /æ/ by native speakers of the Serbian language, in which this contrast is unfamiliar, and one of the most difficult among monophthongs to be acquired in English as L2 (cf. Paunović, 2002; Marković, 2007, 2009, 2012). The author specifically addresses the questions of how the categories of /e/ and /æ/ are developed in the interlanguage of relatively proficient learners of English. We hypothesize that the acquisition of this contrast is a stage-like process, which starts from a complete assimilation to the category of the L1 vowel /e/, and is further developed on the basis of durational, rather than spectral cues. In order to test this hypothesis, perception and production experiments were carried out in which different durational contexts were observed.

2. Method

The research consisted of one perception and two production experiments, whose subjects were first year students of English at Novi Sad University. The perception task was a recognition test based on 9 pairs of words containing the vowels /e/ and /æ/ in pre-fortis and pre-lenis environments. The words were produced in isolation by a native speaker of British English. The subjects were 65 first year students of English at the University of Novi Sad. Each of the 18 words was repeated twice in a random order. The production experiment consisted of two tasks. In the first task 15 female students were recorded producing 22 isolated English words containing the target vowels. The recorded material was analyzed for the first two formants (F1 and F2) and durational values using *Praat* (Boersma & Weenink, 2011). The values obtained were compared to the values of the vowels produced by a control native English speaker and the values from the literature (Deterding, 1990, 1997; Gimson & Cruttenden, 1994). Since the first task revealed that the subjects' production of the target vowels contained peculiar durational characteristics, we conducted a follow-up production task, in which 20 students uttered 24 words containing the target vowels in pre-lenis and pre-fortis positions, with the goal of comparing their duration values with the ones produced by the control native speaker and the values from the literature. The vowels were analyzed for durational characteristics, and the results were analyzed statistically.

3. Results

The results of both perception and production tests indicate that the vocalic contrast /e/ and /æ/ is rather poorly acquired in terms of spectral differences. The majority of the students distinguish between the two vowels mainly on the basis of their duration. This is more marked in the students' production, where durational difference is the dominant cue distinguishing the two vowels.

4. Conclusions

Based on the above findings, we conclude that the attainment in the acquisition of this unfamiliar contrast is a stage in the development of the students' L2, at which L2 learners mainly rely on a cue which is secondary in L2, but a significant feature in the subject' L1. We therefore suggest that this phenomenon should be further examined in a longitudinal study, which could provide deeper insights into the sequence of the development of the new contrast, and probably show a pattern which would shed light on the relation between perception and production aspects of L2 sound acquisition.

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Pronunciation pedagogy in the expanding circle: Investigating Iranian teachers' attitudes to ELF and LFC

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1. Introduction

Recently and following the birth and flourish of *World Englishes*, there has been a surge of interest in pronunciation pedagogy. Two competing ideologies of native-speakerism versus intelligibility principle in pronunciation teaching have always been, and still are, hotly-debated by both theoreticians and practitioners (Levis, 2005). Proponents of the first argument believe that the attainment of native-like pronunciation is both feasible and desirable. Advocates of the latter view hold that learners simply need to be understandable. They also believe that accented pronunciation does not hamper successful communication and, as a result, pushing L2 learners to conform to native speaker norms is neither necessary nor acceptable.

Jenkins (2000) is one of the main advocates of intelligibility-informed instruction of pronunciation. She proposes her lingua franca core (LFC) to demonstrate how her proposal can be implemented. In it, she advocates the notion of English as an international language (EIL), intelligibility principle and the primacy of suprasegmentals. Despite a relatively universal support for Jenkins' intelligibility-based pronunciation pedagogy, scholars such as Levis (2005) hold that Jenkins' views seem to operate more in English as a Second Language (ESL) context compared to English as a Foreign Language (EFL) context.

This study aims at investigating the feasibility of an ELF approach in general and the LFC in particular by studying EFL teachers' attitudes in Iran in which English is described as a foreign language. More specifically, and to examine Levis' view (2005), it is intended to examine Iranian teachers' beliefs and views about the applicability or acceptability of intelligibility-based pronunciation teaching.

2. Method

2.1. Participants

Twelve male and female Iranian high school teachers took part in this study in 2014. As for the teachers' experience, it ranged from 5 to 26 years.

2.2. Instrumentation and data collection

Standardized open-ended interviews were conducted. The interview protocol was developed following Jenkins' 2005 study. The interviewees answered 12 questions on 'their attitudes to and identification with NNS (non-native speaker) and NS (native speaker)

English accents, their perceptions of others' attitudes and identification, and their beliefs about teaching these accents'.

2.3. Data analysis

Interview transcriptions were coded based on interview questions.

3. Results

3.1. Accent attitude

There was a general consensus among the participants that pronunciation teaching needs to comply with NS norms and conventions. Additionally, the interviewees highlighted their inclination toward American pronunciation due to two factors. Firstly, the participant teachers regarded American pronunciation 'easier to comprehend' for their learners. For example one of the participants noted that:

> *I have examined both… American and British… Students understand American pronunciation much easier and find the other difficult. They are right… American speakers do not drop 'r's, for example. So students find it easier. (Participant No. 3)*

Secondly, they maintained that their learners are more enthusiastic and passionate about American pronunciation—compared to British pronunciation—because of the cultural dominance of the US in the globalized world. According to the teachers, Americanization is there in the classrooms and in students' minds. The sense of membership in that community and the desire to acculturate with it is a further push. For instance, one teacher stated that:

> *Students tend to favor American pronunciation more. I assume this goes back to their passion to and interest in the country [the US] first. They love the country… simply that… so they go for it. They tend to sound like them in their pronunciation especially in private language schools where I teach some other students. (Participant No. 7)*

These views are reminiscent of Levis' (2005) argument that, "speakers speak the way they do because of the social groups they belong to or desire to belong to" (p. 374).

Contrary to Jenkins' findings, all participants were satisfied with their accents. They believed that they are relatively acceptable models of native speaker pronunciation norms. Moreover, if their accent were mistaken for that of a NS, most (nine teachers) would feel 'happy'; the other 'unhappy' or would have 'no feeling'. This is a further indication of the fact that native-speakerism still prevails among teachers in EFL context and that the belief is institutionalized.

Lastly, if they spoke Turkish-English or Persian-English, their professional proficiency would be challenged. For example, one of the female interviewees asserted that:

> *I always do my best to sound as close to native speakers as possible… I believe all English teachers should do this… No, I don't like to speak Turkish English… not only that, but I try not to have L1 traces … or … signs in my*

English pronunciation. Of course, I guess my students don't like pronunciation affected by L1. (Participant No. 5)

3.2. Teaching LFC accents

Except for two, the participants expressed disagreement with LFC-informed, *Turkified* or *Persianized* pronunciation pedagogy. American NS pronunciation was recognized as the 'correct and original model'. The participants believed their colleagues would also discourage such a pronunciation proposal. Such a widespread and deeply-entrenched pronunciation ideology indicates that L1-influenced pronunciation has little place for the English teachers in this small-scale study and probably for other teachers in similar settings in EFL contexts.

To accept ELF in theory but not in practice (Jenkins, 2005) was also evident among the participants. Similar to Jenkins' findings, teachers in this study recognized the status of English as the lingua franca of the globalized world but described EIL-based pronunciation as 'deviant' from accepted conventions and as incorrect variants. One of the interviewees argued that:

> *Ok… English is an international language but there are some rules … or norms of pronunciation in dictionaries for example. We cannot violate these norms … just because English is an international language. Without these norms, every student … every teacher might follow his pronunciation style and at the end we might end up with a… a kind of … chaos, you know. (Participant No. 11)*

Unlike the findings of Sifakis and Sougari (2005) in which accented English is viewed a matter of pride for Greek teachers, Iranian teachers made no reference to such a point. Furthermore, the participating teachers agreed that their colleagues would also oppose to and resist against intelligibility-based pronunciation teaching. The potential reason, they maintained, might be the similar perceptions, views, and understanding that they have about 'correct' pronunciation. In addition to the ideological and theoretical unacceptability of such pronunciation approach, the practical dimensions and difficulties of it were also mentioned by one of the teachers.

4. Conclusions and discussions

The findings are revealing from different perspectives. First and foremost, the applicability and feasibility of intelligibility-based pronunciation instruction in two contexts (i.e., ESL vs. EFL) can be discussed vis-à-vis the findings of this study and similar investigations. In ESL contexts, L2 learners come from different linguistic backgrounds and might show a "… tendency … to converge toward more internationally intelligible pronunciation" (Jenkins, 2000, 371). In EFL context, however, L2 learners as well as teachers are typically norm-dependent (Kachru, 1988) and NS pronunciation—whether Received Pronunciation or General American English— is seen as "yardstick for intelligibility" (Golombek & Jordan, 2005, 520).

Following the above argument, and even though intelligibility principle is chronologically superior to its preceding counterpart, i.e. the nativist principle, the context of instruction seems to overshadow such superiority. Despite its general acceptance in the outer or extended circles (Kachru, 1988), EIL-based and LFC-informed pronunciation approaches seem to be entangled with a resistance from teachers in expanding circles. Essentially exonormative nations, including Iran, tend to remain norm-bound and consider the inner circle the birthplace of norms and conventions.

Norm-dependent EFL teachers are thus expected to feel satisfied if their pronunciation sounds as native as possible. Of course, for the participants of this study, American pronunciation is more native than RP. The interesting finding is the desire of some students—as expressed by their teachers—to associate culturally with L2 community. Such a tendency in EFL contexts might remind one of the fact that as globalization waxes, the classic borders between old dichotomies wanes.

Findings are used to conclude that the ambivalence and contradiction of ideas (i.e. love-hate relationship with English) among teachers and observed by Jenkins (2005) in the expanding circle is not pervasive in all nations of this circle. Findings are used to argue that LFC-based and localized pronunciation proposals stand little chance of being adopted unless teachers' and students' membership in an international community (ELF) is established first. In other words, without internationalism being established first, it makes little or no sense to speak about pedagogically new proposals that put internationalism in their hearts. Put another way, international affiliation is needed for the appreciation and recognition of EIL and LFC pedagogy.

Finally, it is maintained that membership in and affiliation to the international community is not a pedagogical notion only; rather, it goes beyond pedagogy and touches upon pedagogy-influencing factors such as international relations, politics, IT, economy … in globalization era.

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A study of phonological variants in English lexical items

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1. Introduction

The study describes research dealing with the variants in pronunciation of specific lexical items in English (e.g. /i:-, e-/ in the first syllable of *economic*; or antepenultimate vs. ultimate stress in *cigarette*). Following previous studies (Henderson, 2010; Mompean, 2010; Wells, 1999, 2003), the aim was to gather information about the degree of variation in a number of items exhibiting this variation and the reasons for it.

2. Method

A corpus of RP English newscasts from 1990 to 2014 (BBC) was compiled and 40 items exhibiting phonological free variation were chosen. These included, among others, items such as *restaurant*, *success*, *Obama*, *January*, *exam*, *example*, etc. The analysis involved a three-step procedure: a) identification of the target words in the written corpus; b) listening to the relevant audio from the website; and c) recording, for each instance of the words studied, the speaker's name and variant produced. For the second and third steps, three judges working independently participated in the task. A decision on the variant used was reached when the three judges coincided. In cases of doubt, the opinion of a fourth judge was considered and the items in question were inspected with SFS/WASP.

3. Results

The rates of occurrences of the variants and rates of the speakers producing the variants were obtained. The results show that most of the tendencies the data reveal agree reasonably well with data from pronunciation polls carried out for lexicographic purposes (e.g. Wells, 2008). For example, they agree with reported tendencies in the increasing use of yod coalescence (e.g. schedule), increase in spelling pronunciations (e.g. of[t]en), etc. When they do not, explanations are provided for the results obtained.

4. Conclusions

The data obtained are useful in understanding the variation in the pronunciation of certain items in their canonical form and they can be used, for example, to update information about pronunciation provided in dictionaries. The study is limited in that the researchers

have no control over the type and number of items that can be studied and diachronic differences are also difficult to see. These limitations and others suggest directions for future research (e.g. further corpus studies, use of other sources of data such as elicited items under experimental conditions, etc., a comparison of different accents, etc.).

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The production of English /h/ by French speakers

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1. Introduction

Inaccurate pronunciation of French learners of English obviously stems from the phonological differences of the two languages. The main goal of this study is to investigate the production of English consonant /h/ by advanced French learners. The perception and production of the glottal fricative /h/ is one of the most tenacious difficulty they face. The often-observed loss of progress in the pronunciation of /h/ consonant among French learners leads us to consider this phenomenon as a "fossilized" error, Selinker (1972). The pronunciation of /h/ is "fossilized" because the incorrect production of this fricative consonant became a habit in spite of the advanced level in English. The /h/ consonant in French is one of the silent letter**s** known as *"muet and aspire*", Ostiguy, Sarrasin, & Irons (1996). French learners tend to omit the /h/ consonant and pronounce a hard vowel like an /a/ sound or a glottal stop instead**.** So most of the times there are confusions between words like *(hungry/angry, hair/air, hit/it, hate/ate, hair/hare, hill/ill…)* and mispronunciation of other words like *(hello, have, him, had, horse, happy, house, hospital…)*. This mispronunciation problem affects intelligibility, obstruct comprehension and could hinder communication. This pilot study investigation examines acoustic deviation of word-initial /h/ production by French learners of English as a foreign language.

2. Background

2.1 H Dropping in English

Sociolinguistic studies have frequently analysed the H-dropping case in British English, showing its origin and social status as explained by Ramisch (2010: 175), "'H-dropping' – a feature commonly found in various European languages and also widely used in varieties of British English. H-dropping refers to the non-realization of /h/ in initial position in stressed syllables before vowels, as for example in *hand on heart* [ˈænd ɒn ˈɑːt] or my *head* [mɪ ˈɛd]. It is one of the best-known nonstandard features in British English, extremely widespread, but also heavily stigmatised and commonly regarded as 'uneducated', 'sloppy', 'lazy', etc. According to Wells (1982: 254), it is "the single most powerful pronunciation shibboleth in England", he confirms that "H Dropping has been known in popular London speech since at least the eighteenth century" Wells (1982: 255). For Gimson (1998:174), H-dropping is "usually considered characteristic of uneducated speech". The majority of words in English beginning with a silent /h/ are deemed to be borrowed from French as explained by Mugglestone (1995: 110), "French loans regularly 'dropped their [h]s', and at

some date, such habits seem to have been extended into native words as well, though the exact time of this development is a matter of some dispute" . Words with French origin can still be found in English, e.g. *honour*, *honest* etc. Lopez (2007: 160) clarifies that "Initial aspiration used to be the current realisation of initial */h/* in Old English. However the confusion between *[h]* and zero-realisation for initial */h/* seems to have been due to the influence of French loan words, which passed on into English after the Norman Conquest (1066)". The IPA lists two sounds as "glottal fricatives": voiceless *[h]* and voiced [ɦ] when it appears between two vowels, e.g. *ahead*. Voiceless */h/* is characterized by a *Fortis* force of articulation but with a *Lenis* allophone. Acoustic features of */h/* show a continuous noise in the spectrogram extending between 500 - 6, 500 Hz. It also manifest formant transitions most of the time where the voiceless */h/* mirrors the formant structure of the following vowel, Gimson (1998). In French */h/* is rarely aspirated most of the time it is pronounced as a glottal stop /ʔ /. The examples below show the English */h/* onset [Praat] in *heed* and *had* and the Oscillogram and spectrogram of the words "*Humpty*", "*horses*", and "*heat*" pronounced by a French learner.
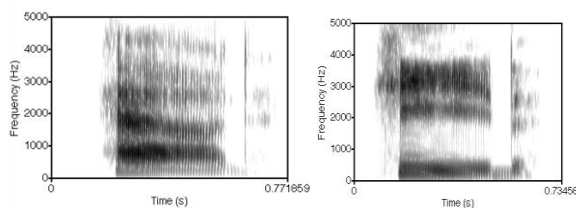
/h/ in *heed*

Figure 1

/h/ in *had/*

Figure 2
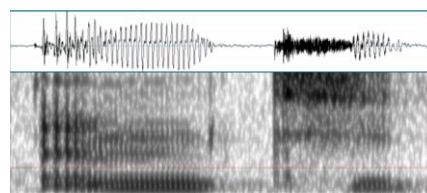
/h/ in *Humpty,* by a French learner as "*'amti*"
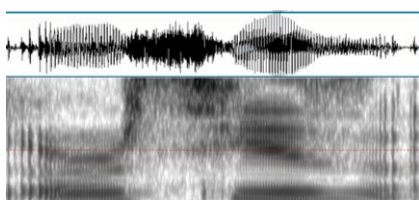
Figure 3

/h/ in *Horses,* by a French learner as "'*orses*"

Figure 4
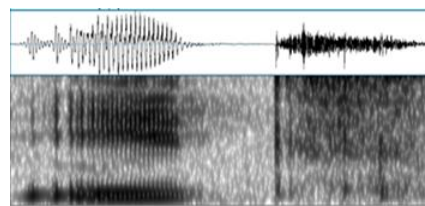
/h/ in *Heat,* by a French learner as "'*eat*"

Figure 5

2.2 Omission of the /h/ sound at the beginning of words

Most of the teaching methods of English as a foreign language used in France are based on British English: vocabulary, spelling, expressions… and the recording for the pronunciation labs are in Received Pronunciation (RP) variety. In this variety the consonant */h/* is aspirated except for some words, therefore French learners are used to hearing this aspirated */h/*. Through our long experience as a teacher of English as a foreign language to French learners we often heard our students omitting the */h/* consonant even at a very advanced level, in different situations and expressions mainly in word- initial. For example at the beginning of a class I often heard a "*ello*" greeting instead of "*hello*", or "Eere 'e

is" instead of *"Here he is,", 'I ate sharks"* instead of *"I hate sharks" or "I like MacDonald 'appy meal"* instead of *"MacDonald's happy meal" etc.* The various pronunciation exercises and activities since secondary school do not seem to bear fruit. This pilot study will try to shed some light on how the aspirated */h/* is articulated by French learners and what articulatory mechanism is involved in its production.

3. Method

The qualitative analysis was conducted following the following steps: four university students majoring in English were asked to read the nursery rhyme "*Humpty Dumpty*" four times, the presence or absence of */h/* was determined auditory and visually by using *Praat,* (adapted from) Kamiyama et al. (2011). Second, the students were asked to read the translation of the same nursery rhyme in French with the same name "*Humpty Dumpty".* This is meant to show its phonetic realization and the similarity or difference with the French */h/* in learners' pronunciations*.* Finally, the same students were asked to read four times a set of 4 words with word initial */h/* + vowel: / ɪ, iː, e, ʌ/ /ˈhɪm/, /ˈhiːt/, /ˈhed/ /ˈhʌŋgrɪ/ *(him, heat, head, hungry).* The words were inserted in a carrier sentence (*Say………….again*). French learners' */h/' were* spectrally analysed, formant values were taken and compared with reference values given by Wells (1982) for RP.

4. Results

Three students out of four dropped the */h/* in either "*Humpty*", "*had*" or "*horses*", three students out of four dropped all the */h/*'s in *"horses*". Concerning the words list, all four students dropped the */h/* in *"heat"* and two dropped the */h/* in "*hungry".* The Oscillogram (top part) and spectrogram (bottom part) show the absence of the */h/* onset in these words (figure 3 and 4). According to the study of (Kamiyama et al. 2011), the irregular pitch periods detected at the beginning of he spectrogram indicate that the glottis is closed before the articulation of the following vowel. In other words this shows that there is no aspiration noise, whereas in British English there is a continuous noise showing the */h/* voiceless fricative manner of articulation. It also suggests that the cords are lax, which means that it may take on the voicing of adjacent vowel (see Ladefoged, 1996). The glottal fricative */h/* normally has weak formant structure and noise excitation, French learners' spectrograms show the presence of clear formant pattern at word initial mainly in (*Humpty, heat* and *horses)*, (see figures 3, 4 and 5) and a total absence of audible friction. F1, F2 and F3, values match with reference values for /ʌ/, /iː / and /ɔː/ vowels. Learners' productions of the nursery rhyme in French illustrate */h/* omission in "*Humpty"* and very close formant values to the omitted */h/* in English.

5.   Conclusions and discussion

Preliminary results show the absence of the */h/* onset in French learners' productions. Although the results are not statistically significant, three students out of four dropped most

of the word-initial */h/s* and pronounced a vowel onset or a glottal stop instead. Acoustic analysis showed close values in learners' productions between the English and French */h/*. This might be interpreted as a L1 interference or cross-linguistic influence. Unfortunately French learners do not seem to be aware of this issue and its importance in spite of their advanced level in English. Early awareness and regular focused practice like hierarchy of listening skills, detection, discrimination and production exercises are needed to avoid significant errors. We do suggest a series of exercises and learning strategies to approach the */h/* problem in class, insisting particularly on the */h/* production mechanism, the difference of */h/* between the two languages and showing the relevant importance of an accurate */h/* pronunciation for a better understanding and communication.

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Phonetic inspirations in authentic materials: stimulating students' phonetic awareness

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1. Introduction

This paper discusses the use of authentic materials in a pronunciation syllabus to boost learners' metaphonetic competence (Sobkowiak, 2003). The aim is to present some humorous resources in the form of excerpts of films, billboards, advertising slogans, cartoons and podcasts (Rashtchi, 2011; Steinbrich, 2014) which can sparkle the phonetic discussion, raise students phonetic awareness and competence.

Celce-Murcia, et al. (1996) and Szpyra-Kozłowska (2014) recommend using a variety of real materials, and the Internet lore to develop learners' pronunciation skills and autonomy and to make pronunciation teaching more attractive. In addition a reasonable number of authors (Elson, 1996; Cauldwell, 2002; 2003, 2004, 2013, 2014; Field, 2008; Shocky, 2003; Hewings, 2004; Hancock, 2012) point to the great importance of listening skills and explicit formal instruction of casual speech processes for good understanding of colloquial conversational English, which can be achieved through the application of authentic resources.

2. Method

For the purpose of this analysis we have adopted Sobkowiak's (2003) taxonomy of phonetic trivia. We group them according to the phonetic features included in the traditional descriptive grammar course such as segments, suprasegments and prosody, etc. We also present some socio-phonetic topics and focus on accent variation.

The topics covered include:

(a) segmental features, e.g. the negative transfer from Polish into English, exemplified by the substitution of a voiced interdental fricative with a Polish dental /d/ (Decathlon's advertising slogan *The Cathlons*),

(b) suprasegments: misinterpretations (Bond, 1999) often referred to as 'slips of the ear' or 'mondegreens', e.g. "Gladly, the cross-eyed bear/cross I'd bear" or "The axe/acts of God" etc.

(c) prosody: the phenomenon of *uptalk,* e.g. Lucy's speech (Siobhan Hewlett) in Hugh Laurie's film *Fortysomething*, Valley-Girls' uptalk,

(d) the spelling-to-sound correspondence: unpredictable pronunciation of names, e.g. an Irish name *Siobhan,* or *Cockburn* and *Chipotle* in advertisements (Swift, 2014) and making use of pronunciation databases such as Forvo, Inogolo etc.

(e) accent-related issues:

- the British accent and the negative associations of posh RP (the Jaguar 2014 commercial *Good to be bad*) and its attractive appeal (*Love actually* film and *Dilbert's cartoon),*

- stereotypes concerning native and non-native English accents (Ellen's DeGeneres's *Heads-up, a* comedian Catherine Tate's language translator).

3. Results

Results of our practical examination suggest that a phonetic course can be enriched by selected authentic materials which comprise a number of phonetic issues. It has been presented that some instances of the Internet lore can stimulate a phonetic discussion and can exemplify a pronunciation-oriented topic in a convincing, humorous and memorable way.

4. Conclusions and discussion

It is believed that this presentation will encourage pronunciation teachers to implement authentic materials in their pronunciation teaching not only in order to make the course more attractive for learners but to make the students responsible for their own pronunciation and development of their receptive skills as well as knowledge which in turn should lead to their greater sensitivity as listeners and gradually greater intelligibility as English users.

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The interlanguage speech *credibility* benefit

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1. Introduction

Several studies document the so-called interlanguage speech intelligibility benefit (ISIB) (Bent & Bredlow, 2003; Hayes-Harb et al., 2008), i.e. greater intelligibility of non-native (relative to native) speech to non-native than native listeners.

Secondly, native listeners consider foreign-accented statements less truthful than native-sounding ones (Lev-Ari & Keysar, 2010; Evans & Michael, 2014). Lev-Ari and Keysar (2010) attributed the effect to reduced fluency of processing foreign-accented speech. However, Souza (2012) found no difference in credibility between clean and noise-masked speech. Thus, the effect may simply be due to prejudice.

The present study joins these two lines of research. We aim (1) to determine whether foreign-accented statements are relatively more credible to non-native than native listeners, and (2) to test whether difficult-to-process (i.e. less comprehensible (Munro & Derwing, 1995) utterances are less credible.

2. Method

The stimuli were 44 trivia statements (from Lev-Ari & Keysar, 2010). Twenty-two (11 true) were produced by 4 native English (NatEn) speakers, and 22 (11 true) by 4 mildly foreign-accented Czech learners of English (CzEn). All statements were mixed with speech-shaped noise (0dB SNR).

Experiment1 measured the comprehensibility of each stimulus to 3 NatEn and 18 intermediate CzEn listeners. Participants pressed a button upon understanding the meaning of each statement and then rated on a scale their difficulty of understanding the words.

Experiment2 measured the credibility of each stimulus to 6 new NatEn, 18 new intermediate CzEn, and 7 non-native English-speaking listeners with various first-language backgrounds. Participants rated statements on a scale from definitely false to definitely true.

The data were submitted to repeated-measures ANOVAs and post-hoc Tukey HSD tests.

3. Results

Experiment1 found no significant differences in reaction times (RT), although CzEn listeners tended to be faster with CzEn than with NatEn stimuli. For the comprehensibility scores, there was a significant interaction between listener group and stimulus accent ($p<.001$): NatEn listeners' scores for CzEn stimuli were lower than (i) their scores for NatEn stimuli ($p<.001$) and also than (ii) CzEn listeners' scores for CzEn stimuli ($p<.05$).

Experiment2 found an interaction between listener group and stimulus accent for credibility ($p<.001$): only the NatEn listeners, not the CzEn or mixed-first-language listeners, rated NatEn stimuli as significantly more truthful than CzEn stimuli ($p<.01$).

Finally, we calculated correlations between the mean comprehensibility score, as well as the mean RT, and the mean credibility score of each stimulus for NatEn and CzEn listeners. None were significant, except for the correlation between credibility (Experiment2) and RT (Experiment1) for CzEn stimuli and CzEn listeners ($r = -.47$, $p<.05$).

4. Conclusions and discussion

The lower comprehensibility of non-native than native-sounding stimuli to native listeners found in Experiment1 confirms previous findings (Munro & Derwing, 1995). The greater comprehensibility of CzEn stimuli to CzEn than NatEn listeners is an equivalent of a matched ISIB for listeners (see Hayes-Harb et al., 2008, for terminology).

The native listeners' results in Experiment2 replicate earlier findings (Lev-Ari & Keysar, 2010; Evans & Michael, 2014). The non-native results are novel and can indeed be described as a matched and mismatched interlanguage speech credibility benefit for talkers. Finally, the lack of correlation between comprehensibility and credibility indicates that social bias rather than processing fluency caused the native listeners to believe native statements more than foreign-accented ones.

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Schwaless or schwaful? The nature and occurrence of vowel reduction in Czech English

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1. Introduction

The process of vowel reduction in English frequently materializes as a mid central neutral vowel schwa. In close proximity to stressed syllables this inconspicuous vocalic element inherently bound to unstressed positions largely contributes to creating salient prominence contrasts that lie at the core of sounding English. Speakers coming from schwaless linguistic backgrounds (in this case Czech) tend to struggle with this phenomenon in both perception and production domains (Volín, 2005; Volín & Poesová, 2008; Volín et al., 2013; Weingartová et al., 2014). The purpose of this qualitatively-oriented study is to map the nature and occurrence of schwa and its numerous realizations in Czech English using the British standard as reference accent for all measurements. Specifically we aim at providing a detailed examination of Czech users' ability to reduce English unstressed vowels and unveiling the possible reasons of their anticipated failure to do so.

2. Method

The data were collected from four Czech speakers of English (2 males and 2 females) at an intermediate level who exhibit a relatively strong Czech accent. Both are fluent, intelligible and confident users of English who learnt the language in a formal setting and did not undergo any phonetic training. The reference accent is represented by two male and two female standard British speakers. All participants were recorded reading a list of 112 sentences in the sound-treated studio of the Institute of Phonetics in Prague. The material was manually labeled in *Praat* software with a special focus on vowel qualities. All positions with a canonical schwa occurrence (Wells, 2000), i.e. unstressed syllables in lexical words and weak forms of grammatical words, were analysed.

3. Results

From the total amount of 1135 possible schwa instances in the text, the Czech speakers realized 40% as a pure or rhotic schwa, 50% as a full vowel and the remaining 10% as a consonant (predominantly syllabic consonants in words such as *admiration* or *level*),

whereas the British speakers produced correctly 89% of all schwas. The correct realizations (albeit rhoticized) in case of the Czech speakers were identified mainly in words ending with *-er* or *-re* (such as *never* or *metre*), and in articles *the* and *a*. Other weak form words were in 90% pronounced with a full vowel. We hypothesize that the lack of vowel reduction can be explained by several factors or their combination: spelling, overgeneralization of pronunciation rules, transfer from the mother tongue (particularly in words with Czech near-equivalents) or word frequency. The analyses will be supplemented by acoustic measurements of duration, formants and spectral slope of the examined vowels. Furthermore, selected findings about the speech behavior of Czech respondents in the area of vowel reduction will be verified on a larger set of data provided by a corpus of Czech-accented English news reading.

4. Conclusions

The findings can help ELT practitioners set priorities in pronunciation teaching and approach the investigated area more effectively. Furthermore, raising awareness about vowel reduction, which is largely rule-governed, may speed up the acquisition of this phenomenon and/or overcome certain fossilized forms which may be associated with foreign accentedness.

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How Austrian Students Learn the Pronunciation of English (HALPE)

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Determining which factors make some learners more successful than others has long occupied educators and researchers alike. In the realm of pronunciation, these factors are numerous and can be difficult to define. While two learners may devote equal attention and time to the matter, the outcomes may vary due to complex and wide-ranging influences, from differences in personality to discrepancies in formal education. The Language Strand at the Alpen-Adria University, responsible for English language instruction, was interested in identifying learner strategies and experiences in the acquisition of English pronunciation in order to determine which factors distinguished successful learners from their less successful counterparts. In doing so, we hoped to be able to isolate self-study practices, life experiences, and classroom methods that could be used in the learning and teaching of pronunciation.

In order to address the questions above, we had to determine what defines a 'successful learner of English pronunciation' in our study. To that end, we used our department's panel exams (*Fachpruefung*), selecting students who scored a one (excellent) on the pronunciation component of the oral exam. These students were then invited to semi-structured interviews, the results of which were mined for common practices and experiences that perhaps contributed to learner success. These factors were then used as grounds for drawing up a questionnaire, which was distributed to a wider pool of students at the Department of English, including those who earned one's in the exam and those who were graded as five's (insufficient). Students were asked to complete the forms anonymously and submit them for analysis.

Although data collection is still in progression, some initial conclusions can be drawn. Rather surprisingly, time spent abroad in an English-speaking environment was not found to be a key factor in determining success. Many of our successful learners reported that they had spent little to no time abroad, which we initially had predicted would be prevalent among this group. Affective depth seemed to be a common factor in both the interviews and the completed questionnaires. This appeared in the form of close emotional relationships with a native English speaker or simply a 'love' of the language or a particular accent. Determination also seems to be a shared trait among successful learners, who report that 'native-like' pronunciation is both something that is important to them and a quality which they are willing to work hard to develop.

In summation, the factors contributing to the successful acquisition of English pronunciation constitute a rich and varied field for exploration. Although we do intend to create a complete taxonomy, we hope that identifying several key factors will move us

towards a better understanding of the complex interplay of processes that influence the acquisition of pronunciation. This understanding, developed through the ongoing and intertwined processes of data collection and analysis, will help us to improve upon both teaching and learning practices in English pronunciation.

Comparing Instructional Approaches for Attaining Oral Proficiency in Adult English Language Learners

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1.   Introduction

In 2013 the U.S. Census Bureau reported that 60.6 million people in the United States speak a language other than English at home (U.S. Census Bureau, 2013). Additionally, the U.S. Bureau of Labor Statistics reported an increase in hiring people with native languages other than English (U.S. Bureau of Labor Statistics, 2013). Consequently, there are more adults learning English than ever before. One of the most challenging aspects of second-language learning is attaining oral proficiency, or the ability to communicate effectively outside of the classroom. As a result of limited oral proficiency, English language learners (ELLs) may face overt discrimination, fewer employment opportunities, and barriers to social mobility (Derwing & Munro, 2005). One resource for ELLs in the U.S. is English as a Second Language (ESL) programs, which provide English language instruction to adult learners.

Traditional ESL classrooms typically include multiple nationalities, widely differing native languages, and disparate education levels. While the ESL teacher is trained in teaching English, a review of the literature indicates that many ESL teachers lack the confidence and knowledge needed to correct pronunciation (Thomson, 2013). According to Thomson's (2013) survey of English language teachers (ELTs), approximately half of ELTs surveyed believed that a foreign accent is a speech disorder. Furthermore, 75% of ELTs surveyed agreed that "errors in pronunciation result from not having speech muscles that are properly toned for English sounds," and 41% of the ELTs surveyed agreed that "improper airflow is a common cause of a foreign accent" (Thomson, 2013). These conclusions regarding foreign accents reveal significant misconceptions by ELTs in the area of pronunciation.

Speech language pathologists (SLPs) have specialized training in "sharpening auditory discrimination skills and shaping oral motor behaviors" (Sikorski, 2009), which aligns well with teaching oral proficiency. Accordingly, the American Speech-Language-Hearing Association (ASHA) added accent modification services to the SLPs scope of practice (ASHA, 2007). Given ELTs' knowledge of teaching English as a second language, and the SLPs' knowledge of teaching pronunciation skills, a collaboration between the two professions may address issues in improving oral proficiency.

A review of such interdisciplinary inquiries exposes no accepted 'best practice' for teaching oral proficiency. Thomson (2013) acknowledges, "there now exists a plethora of competing beliefs and practices, many of which are not evidence-based" (p. 224). Additionally, there is a lack of existing evidence supporting the efficacy of learning another language using self-study programs (e.g. Rosetta Stone, TELL ME MORE) as an alternative to classroom

instruction (Nielson, 2011). Examining identifiable methods for teaching oral proficiency to ELLs in a classroom setting is therefore warranted.

2.   Method

This study attempts to determine the effects of training factors on aspects of oral proficiency by comparing and evaluating two different approaches to teaching adult ESL learners. Materials used to teach American English, specifically oral proficiency (oral use of the language) are compared.

Group I utilized academic vocabulary obtained from the established ESL classroom curriculum. Vocabulary items were selected from the materials used by the classroom teacher. Vocabulary was selected for specific frequently mispronounced phonetic targets of American English (e.g.: /i/, /ɪ/, /θ/, /ð/, /ʃ/, and /tʃ/). Additionally, vocabulary was marked for intonation patterns, syllabification, dynamic stress, and phonetic placement.

Group II utilized meaningful, functional vocabulary (words relevant to everyday items, terms, and/or greetings). Although the vocabulary was different from Group I, identical phonetic targets and vocabulary markings were used with this group.

2.1 Participants

This study involved 34 adult English language learners from an Ithaca College (Ithaca, NY) communication enhancement program addressing accent modification (CEPAM). Participants in this study were comprised of adult students from a traditional Level III ESL classroom. All participants were pre- and post-tested to measure change in oral proficiency skills. A prospective, non-randomized group design was used. The participants were divided into two groups. Group I was comprised of 24 participants with multiple native languages, while Group II had 10 participants with multiple native languages.

2.2 Procedures

A standard procedure for assessing the participants was established. The *Foreign Accent Screening Tool* (2014) was developed by the authors to measure pre-treatment and post-treatment oral proficiency skills. Each participant was evaluated individually for articulation, intonation, and rate of speech. SLP graduate student clinicians provided accent modification instruction once a week for one hour sessions, over two fifteen-week semesters. Each session consisted of structured programming that included oral proficiency targets of articulation, intonation, and rate of speech.

2.3 Analysis

Four evaluators completed all data analysis of each section: articulation, intonation, and rate of speech. Inter-rater reliability was assessed for all studied areas. After compiling data from each participant, the mean and standard deviation of the scores were calculated. Following initial analysis, individual ratings (from each content area) were

compared using the Pearson-r correlation test. A correlation matrix revealed moderate correlations among the content areas.

3. Results

Results indicated that both groups improved in oral proficiency. Group I (curricular vocabulary) showed improvement in only one parameter (intonation), while Group II (functional vocabulary) improved on all pre and post-test measures. Rate of speech did not vary significantly between the two groups. Initial contact with both sets of vocabulary produced a reduction of the rate of speech at the onset, but this feature did not remain constant for either Group. Measured changes across both groups for all three areas appear in *Table 1*.

	Articulation	Intonation	Rate of Speech
Pre-Test – Group 1	8.43	2.3	2.5
Post Test – Group 1	8.36	2.86	2.57
Pre-Test – Group II	5.5	2.83	2.67
Post Test – Group II	7.67	3.0	2.67
% of Change – Group 1	-0.6%	14%	1.75%
% of Change – Group II	18%	4.25%	0%

Table 1: Comparison of pre- and post-test scores in each context

4. Conclusion and Discussion

This paper proposes statistically significant outcomes for this adult ELL population and offers the implication that the potential for improved generalization skills of oral proficiency is enhanced when functional, meaningful vocabulary is incorporated into the instructional program.

Although this study contained a small sample size, it provides specific information regarding intervention approaches that may result in improved intelligibility and oral proficiency in adult English language learners.

Data analysis indicates that Group I improved more in intonation, while Group II showed more improvements in articulation and rate of speech. The use of functional vocabulary likely increased the number of exposures and practice opportunities in participants' daily lives, leading to the improved overall articulatory abilities of Group II. In contrast, Group I's articulation skills did not show as much improvement because the vocabulary was not as salient for daily functioning. It is suspected that Group I made more significant gains in the area of intonation due to an increased exposure to choral rehearsal during expressive activities. Choral rehearsal may have provided students with a greater number of peer models for appropriate intonation and immediate self-correction of intonation during tasks. Given the differences in group make up, Group II did not see a significant gain in

intonation scores. Throughout treatment, Group II maintained a moderate rate of speech. Alternatively, Group I's average rate of speech increased from pre to post-test results. When assessing oral proficiency, moderate rates of speech are desired; intelligibility tends to decrease as rate of speech increases. Group II's ability to maintain a moderate rate of speech suggests enhanced intelligibility to unfamiliar listeners.

Despite notable speaker differences and variations in learning approaches, this study provides useful information on oral proficiency and the measures needed to achieve communication success. Results verify that the use of functional vocabulary carries a more meaningful impact on oral proficiency when learning to speak American English. However, these conclusions remain tentative due to study limitations. One possible source of bias is that participants were not randomly selected; they were volunteers. Additionally, attendance in the program was inconsistent for some of the participants. Further investigation is necessary to obtain representative non-native speakers and to evaluate other training approaches.

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Full and partial phonetic and phonological adaptations of English loanwords: the production of personal names adopted by Brazilian subjects

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This paper aims at pointing out phonetic and phonological *adjustments* made by Brazilian speakers while pronouncing foreign personal names, especially those derived from English speaking countries as their native language. The survey, whose topic is connected to the determination of a phonological identity of Brazilian Portuguese (BP), is conducted in the light of nonlinear phonological models (HOGG; McCULLY, 1999; SELKIRK, 1980) that recognize the important role played by the syllable in phonological theory. In such model, the syllable is viewed as a phonological constituent and serves to organize segments in terms of sonority. Similarities and differences are highlighted concerning the sound system of the source language, American English (AE), and the receptor language, BP, so that linguistic accommodation can be better understood. The *corpus* comprises anthroponyms typical of the English language as well as created names that reflect features of English orthography. The names selection was based on attendance sheets from public schools on the outskirts of São Luís, MA, northeast Brazil. Recordings were carried out with both native English and Portuguese speakers, aiming at mapping the main phonological processes employed by Brazilian subjects when producing the foreign anthroponyms.

Motivated by speakers' native phonological system, analyses revealed adaptations such as: a) addition of the epenthetic vowel /i/ (in both word-initial and word-final position), resulting in resyllabification from changing original syllabic structure; b) change in word stress placement; c) vocalization of /l/ in syllable coda; d) fricativization of /r/ in syllable onset and coda positions; palatalization, of /t/ and /d/ before /i/; f) deletion of /r/ in syllable coda; g) nasalization of vowels preceding a nasal consonant; h) substitutions of English specific segments (like *schwa*) by BP segments with close phonetic features. Conclusions drawn from the study indicate the occurrence of phonological adaptations influenced by BP writing system as well as the opposite process, orthographic adaptations guided by the source language sound system. The research attempts to demonstrate how these two linguistic systems are related and how they influence each other, considering that a single anthroponym can reveal the presence of both languages on phonological and orthographic basis, what brings consequences to the definition of these names linguistic identity. Findings also reveal the strength of individuals' subjectivities, considering they decide how foreign or native they want to sound.

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Acquisition of Unstressed Vowels by Brazilian Speakers of English

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1. Introduction

Vowel reduction is a process that changes the quality of unstressed vowels in many languages. This process occurs both in English and in Brazilian Portuguese (BP), but in different ways. While in English full vowels are replaced by a *schwa* [ə], this process rarely occurs in BP. As a result, Brazilian speakers of English tend to produce full vowels instead of *schwa* in unstressed syllables, which alters the rhythm of the target language and characterizes a foreign accent. There are two types of vowel reduction (cf. Marusso, 2003): obligatory and non-obligatory. Obligatory vowel reduction refers to the process in which an underlying full vowel is reduced, making the occurrence of a full vowel impossible in native speech (ex.: s[ə]r'prise - *s[ʊ]r'prise). Non-obligatory vowel reduction, on the other hand, refers to the alternation in the surface between full vowels and reduced vowels, which is very common in function words in English. A few studies investigated the production of *schwa* by Brazilian speakers of English (Christiano 1984; Watkins 2011; Marusso 2003; Fragozo, 2010), but none of them analyzed the perception of this vowel. Therefore, this research aims at understanding how acoustic properties of the vowel *schwa* in English are processed cognitively by Brazilians both in obligatory and non-obligatory contexts. The hypotheses that guide this work are: a) The subjects will find it easier to classify *schwa* as the correct option in obligatory reduction than in non-obligatory reduction; b) In addition to the quality of the vowels, the duration will be a key aspect for the perceptual judgment (cf. Escudero, 2002); c) The underlying full vowel may influence the choices of the subjects; d) The correct perception of *schwa* becomes more frequent according to the subjects' proficiency level.

2. Method

The sample was composed by 12 subjects divided into three groups: 4 intermediate learners, 4 advanced learners and 4 English teachers. The test contained 15 words with obligatory vowel reduction in pretonic position, i.e., contexts that do not permit the occurrence of any vowel other than *schwa* (ex: [ə]'bove - *[æ]'bove). In order to verify if the underlying full vowel could influence the perception of *schwa*, the 15 words of the experiment were divided into three groups: 5 words with underlying vowel /æ/ (ex: *a'gree*); 5 words with /o/ (ex: *po'lice*); and 5 words with /ʊ/ (ex: *su'pply*). Words with underlying vowels /e/ and /i/ were not included in the experiment because they are usually reduced to

[ɪ] in pretonic position, and not to [ə] (ex: *elicit* - [ɪ]'licit). We also included 20 sentences containing the function words *at, for, from, of* and *to*, the same analyzed in Fragozo (2010), in order to verify the perception of *schwa* in non-obligatory positions. A native speaker (N1) of American English, who has a PhD in Linguistics, produced the words and phrases that were judged by all the subjects in the perceptual test. Her knowledge in phonetics and phonology was essential for the recording procedure. Following the methodology used in Diettes (2010), we asked N1 to pronounce each word and each sentence twice, once with a *schwa* and once with a corresponding full vowel (ex: [ə]bove - [æ]bove; I have the lab [ə]t home - I have a lab [æ]t home), without changing the stress pattern of words and sentences. Then, the participants listened to the pairs of words and sentences in random order and selected the option with "the best" pronunciation. In order to analyze the influence of vowel quality and duration, the formants and the duration of each vowel produced by N1 were verified.

3. Results

The participants were supposed to choose the *schwa* as the best option, and the results of the perception test were based on the percentage of correct answers. The hit rate corresponding to the 12 participants can be seen in Table 1 below. In total, the participants hit 350 out of 420 words and sentences included in the experiment, which corresponds to 83.33% of correct answers. The participants recognized the *schwa* as the correct option in 87.22% of the words and 80.41% of the sentences.

Table 1: Total hit rate

	Hits/Total	%
Total	350/420	83.33
Words	157/180	87.22
Sentences	193/240	80.41

Table 2 shows the hit rate according to the underlying vowel. The results show that words with the underlying vowel /æ/ (ex: *above*) and /o/ (ex: *polite*) presented the same hit rate among the participants (85.41%), but words with /ʊ/ (ex: *supply*) presented a lower hit rate (77.08%).

Table 2: Hit rate by underlying vowel

	Hits/Total	%
æ - ə	41/48	85.41
o - ə	41/48	85.41
ʊ - ə	37/48	77.08

In order to check if the greatest the difference in duration between the full and the reduced form produced by N1, the easiest it is for the subjects to recognize the short version of the

vowel as the correct one, the mean duration of the vowels *a, o* and *u* in content words is presented in Table 3:

Table 3: Mean duration of the vowels in milliseconds

	Reduced	Full	Difference
a	0.087	0.110	0.023
o	0.059	0.097	0.038
u	0.049	0.089	0.040

It is possible to see that the vowel *a,* both in the reduced form and in the full form showed the highest mean durations, that is, 0.087 ms and 0.11 ms, respectively. In addition, it presented the smallest difference between full and reduced vowels (0.023 ms). The vowel *o*, despite having the same hit rate as the vowel *a* (85.41%), had the smallest difference in duration between reduced and full vowels, that is, 0.038 ms. Finally, the vowel *u* was the one with the lowest mean duration both in the reduced form (0.049 ms) and in the full form (0.089 ms), and the highest difference between the two versions (0.04 ms). Thus, in the case of content words, it seems that the length of the vowels was not a relevant aspect in the perceptual test, as it was expected that the subjects would have a higher hit rate when the mean difference between the two versions of the vowel was higher, which did not occur.

Table 4 below shows the hit rate per function word. The function word *of* had the highest hit rate (87.5%), followed by *from* (85.41%), *to* (81.25%), *at* (79.16%) and *for* (70.83%).

Table 4: Hit rate by function word

	Hits/Total	%
of	42/48	87.50
from	41/48	85.41
to	39/48	81.25
at	38/48	79.16
for	34/48	70.83

In order to verify the relation between the duration of the vowels in the function words and the subjects' hit rate, the mean durations of these vowels are presented in Table 5:

Table 5: Mean duration of vowels in function words

	Reduced	Full	Difference
of	0.048	0.123	0.075
at	0.057	0.118	0.061
for	0.034	0.082	0.052
to	0.032	0.073	0.041
from	0.075	0.095	0.020

As we can observe, the vowel with the highest difference in duration between the full and the reduced vowel was the one in the word *of*, with 0.075 ms, and this was also the function word with the highest hit rate (87.5%). This result shows that the participants noticed that the vowels in function words are usually very short in native speech. However, despite the fact that the vowel *at* also presented a significant difference in duration, that is, 0.061 ms,

this word presented one of the lowest hit rates among the five function words (79.16%). The vowels in *for* and *to* presented the shortest durations, both in the reduced form (0.034 ms and 0.032 ms, respectively) and in the full form (0.082 ms and 0.073 ms, respectively). Finally, the vowel in *from* had the longest duration in the reduced form (0.075 ms) and, therefore, presented a lower difference in duration between the two forms (0.020 ms). In this case, the difference in duration between the full and the reduced vowel was not relevant as this was the second word with the highest hit rate (85.41%).

To verify if the perception of *schwa* as the correct option in the words analyzed becomes more frequent as the experience of the participant with the language increases, Table 6 shows the hit rate related to the three groups of subjects.

Table 6: Hit rate per group of subjects

	INTERMEDIATE		ADVANCED		TEACHER	
	Hits/Total	%	Hits/Total	%	Hits/Total	%
Total	108/140	77.14	124/140	88.57	118/140	84.28
Words	49/60	81.66	56/60	93.33	52/60	86.66
Sentences	59/80	73.75	68/80	85.00	66/80	82.50

As expected, the speakers in the intermediate group presented the lowest hit rate (77.14%). However, contrary to the initial hypothesis, the advanced group had a higher hit rate than the teachers (88.57% and 84.28%, respectively). Besides having had more contact with the language than the advanced learners, all the teachers in this research have a degree in Languages and, therefore, have already had pronunciation classes. Surprisingly, none of these facts were relevant for the perception of *schwa* in this research.

4. Conclusion

This study aimed at analyzing the perception of *schwa* by Brazilian speakers of English as a second language based on four hypotheses. According to the first hypothesis, it would be easier for the subjects to choose *schwa* as the best option in contexts of obligatory reduction, which was confirmed. According to the second hypothesis, vowel duration would be a significant aspect in the perceptual analysis. This hypothesis was partially confirmed, as the difference in duration was not relevant in the results related to content words, but was significant in the results of some function words, since the vowel with the greatest difference in duration had the highest hit rate. The third hypothesis was that the underlying full vowel could influence the results of the perceptual test in some way. The results showed that words with the vowels */æ/* (ex: *above*) and /o/ (ex: *polite*) had the same hit rate among the participants, whereas words with the vowel /ʊ/ (ex: *supply*) had a lower hit rate. The last hypothesis was related to the groups of subjects in this research, which assumed that the subjects in more advanced levels would present a higher hit rate in the perception test. This hypothesis was partially confirmed, as even though the students in the

advanced level had a higher percentage of correct answers than the subjects in the intermediate level, the English teachers did not present more correct answers than the subjects in the advanced level.

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Stress clash marks from Brazilian speakers of English as a Foreign Language

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1. Introduction

Stress clash is a phenomenon in which two syllables bearing primary stress are adjacent in different words forming a phonological phrase such as [ma**RÉ BRA**va] (high tide). This paper aims to analyze how stress clash is produced during the phonetic realization of English as a second language (L2) by native speakers of Brazilian Portuguese (BP) and what strategies are used to solve these clashes.

We tested the hypothesis that stress clash is mostly solved by native speakers of BP - in their mother tongue or English - through the silent demibeat (SD) strategy (Selkirk, 1984), rather than stress retraction favored by native speakers of English (Liberman & Prince, 1977). They do so regardless of syntactic or prosodic uniformity factors as well as of phonological re-operationalization such as assimilation, resyllabification and other sandhi processes.

The studies of stress clash have their basis on the rhythm of languages. The strategy of stress retraction or SD is preferred according to the rhythmic features that each language presents (Selkirk, 1984; Hayes, 1995).

As far as rhythm is concerned, languages are classified as stress-timed – when rhythm is based on stressed syllables of words in an utterance that occur at apparently regular intervals - and as syllable-timed – when rhythm is based on the syllable, each syllable taking a similar amount of time in its production (see Pike, 1945).

On the one hand, Major (1981), Dauer (1983) and some theoretical frameworks in Brazil there is stress-timing in BP. On the other hand, other frameworks and our research present evidence of syllable-timing for BP based on acoustic analysis.

2. Method

For this study, we collected audio data of one native speaker of English (an American speaker) and three Brazilian speakers of English as a foreign language. For the BP speakers, we applied the Oxford Online Placement Test (OOPT) to established three different levels of proficiency in English language. C1; B2 and B1. Our data consisted of tem sentences – five in BP and five in English - read in both languages.

In each sentence, there was a P-Phrase composed of words with adjacent stressed syllables triggering stress clash. For each phonological event, we grounded our analysis on acoustic data in order to obtain values of duration of the first syllables bearing primary stress in a clash environment to determine which strategy was used for clash alleviation by the speakers. To reach these values acoustically, we used the computational program PRAAT free software (version 5.3 36).

After obtaining the tokens, we normalized our data. For vowel normalization of our set, we took F1 and F2 values of vowels in clash-triggering syllables and submitted them to Nearey (1977) method (without F3 measures) in order to avoid anatomic differences in vocal tract. These values were extracted in the dynamic portion of the vowels. For duration normalization, we used the Ramus, Nespor & Mehler (1999) method.

The vowel measurements in section 3 present solely the production of Brazilian speakers in order to account for the object of our study.

3. Results

Table 1 and 2 present vowel duration values from an in-clash environment produced by BP speakers of English as L2. We also provided their raw and normalized values in vowel space for English and BP vowels respectively in figure 1, 2, 3 and 4 as seen below:

BP φ	Vowel 1						Vowel 2					
	Info 1	Info 2	Info 3	Median	Stdev	Stdev (%)	Info 1	Info 2	Info 3	Median	Stdev	Stdev (%)
1	116.4	106.1	151.3	124.6	23.7	19.0%	122.9	110.2	101.6	111.6	10.7	9.6%
2	70.0	12.8	136.6	73.1	62.0	84.7%	171.5	191.9	190.3	184.6	11.3	6.1%
3	203.2	156.6	190.0	183.3	24.0	13.1%	172.4	181.6	142.6	165.5	20.4	12.3%
4	148.5	118.1	152.6	139.7	18.8	13.5%	225.4	200.2	136.2	187.3	46.0	24.6%
5	172.5	165.7	136.6	158.3	19.1	12.0%	197.2	289.6	190.3	225.7	55.4	24.6%

Table 1: English p-phrases production from BP speakers.

English φ	Vowel 1						Vowel 2					
	Info 1	Info 2	Info 3	Median	Stdev	Stdev (%)	Info 1	Info 2	Info 3	Median	Stdev	Stdev (%)
1	85.3	68.0	85.4	79.6	10.0	12.6%	103.6	95.4	76.9	92.0	13.7	14.9%
2	167.4	95.5	117.6	126.8	36.8	29.0%	218.5	125.2	152.3	165.3	48.0	29.0%
3	95.7	69.2	94.8	86.6	15.0	17.4%	169.0	131.6	198.4	166.3	33.5	20.1%
4	48.0	37.0	55.0	46.7	9.1	19.4%	97.2	78.7	109.5	95.1	15.5	16.3%
5	75.1	59.0	53.2	62.4	11.3	18.2%	162.4	164.7	109.5	145.5	31.2	21.5%

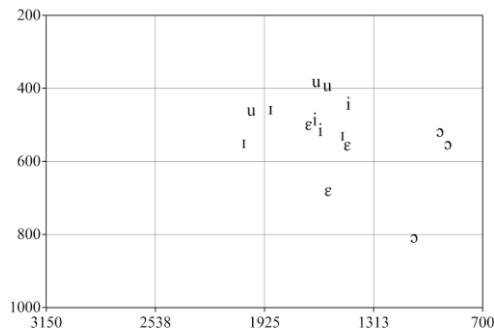Table 2: BP p-phrases production from BP speakers.

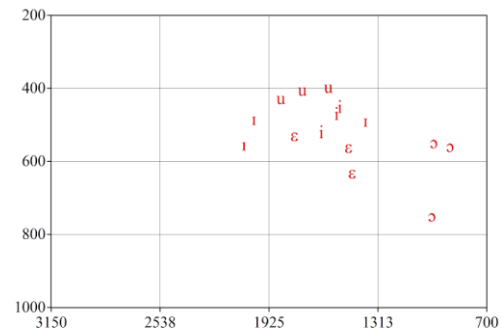Fig. 1 – Raw values of English vowels from BP speakers

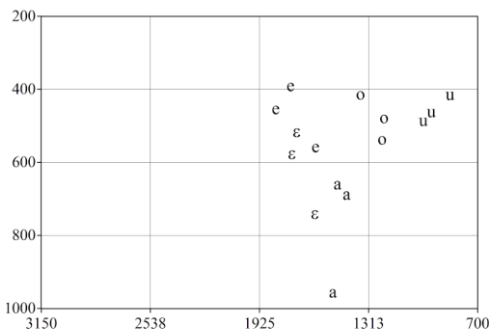Fig. 2 – Normalized values of English vowels from BP speakers

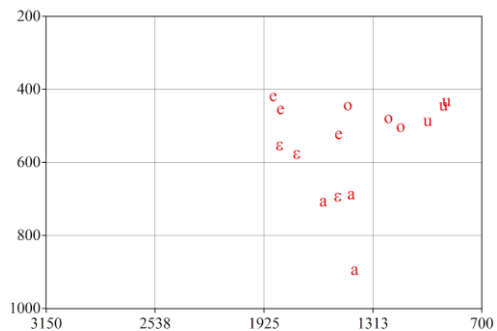Fig. 3 – Raw values of BP vowels from BP speakers

Fig. 4 – Normalized values of BP vowels from BP speakers

The results show that, unlike the American speaker, there is no favoring of stress retraction from Brazilian speakers when facing stress clash environment - either in English or BP p-phrases. These findings thus show that there is a tendency in Brazilian Portuguese to [+ syllable-timed] language in relation to rhythmic features opposing the stress-timing in English language.

4. Conclusions and discussion

In our research, we conclude that there exists influence of rhythm in the production of English by BP speakers. Perception and acoustic analysis differ considerably when we take into account discreteness measurement of rhythm in languages. For further studies, to test the robustness of our results we intend to apply our data to different linguistic/prosodic contexts where distinctiveness of speech styles may appear enabling the checking of stress clash in sentences or topics in conversational turns (See: Chun et al., 2008). A larger corpus composed of a larger number of both English native speakers and BP native speakers may be required to test our hypothesis.

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Acoustic Correlates of Temporal Structure in North-Vietnamese English

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1. Introduction

The aim of this study was to calculate the acoustic correlates of the rhythm class for English spoken by North Vietnamese speakers (inhabitants of Hanoi) according to Ramus et al. (1999), Grabe & Low (2002) and Wagner & Dellwo (2004), and compare the outcome with values extracted for RP British English and the Vietnamese language spoken in Hanoi. Global temporal metrics of RP Standard have been calculated in numerous studies and the results have always shown a clear tendency towards stress-timing. To our best knowledge, calculations for Vietnamese English and Vietnamese itself have not been carried out yet. Vietnamese scholars claim Vietnamese to be a syllable-timed language but they do not support their claim with any empirical evidence (Cao Xuân Hạo, 1998; Nguyễn Văn Phúc, 2005). Their claim might be advocated with reference to a relatively simple structure of Vietnamese syllables. However, the prosodic manifestation of the metrical structure (appearance of lengthened and shortened syllabic nuclei) might alter the surface rhythmic impression. We wanted to know whether the global temporal metrics can capture the differences between Vietnamese and Vietnamese English and relate them in a meaningful manner to the Southern British Standard.

2. Method

Twelve young adult speakers of Vietnamese English were recorded in Hanoi. The recordings were segmented and manually labeled in Praat. The rhythm metrics were calculated using Praat scripts programmed at the Prague Institute of Phonetics and compared to rhythm metrics extracted from RP English recordings of BBC presenters retrieved from the database of the Prague Institute of Phonetics. The final step was to record Vietnamese (also 12 inhabitants of Hanoi) and calculate rhythm metrics of the Vietnamese language itself as it has never been done before and it could yield important information regarding the temporal characteristics of Vietnamese and Vietnamese English.

3. Results

The values for British English turned out to be quite similar to the values previously published in various studies. Therefore, we can assume that our methodology was accurate and the results relevant. The values of global temporal metrics for native Northern Vietnamese (Figure 1) suggest rather contradictory implications. Normalized Pairwise

Variability Indices for both vocalic and consonantal intervals achieved higher values than in British English. That would classify Vietnamese as leaning more towards stress-timing. The %V metric, however, achieved higher value for Vietnamese, which points towards syllable-timing. So do the consonantal measures ΔC and its normalized variant Varco C. To sum up, there is stronger evidence for Vietnamese to be more syllable-timed than British English but the situation in not unambiguous. What is even more surprising, all the metrics that were used resulted in values for Vietnamese English that suggest even stronger tendency towards stress-timing for Vietnamese English than for the British Standard.
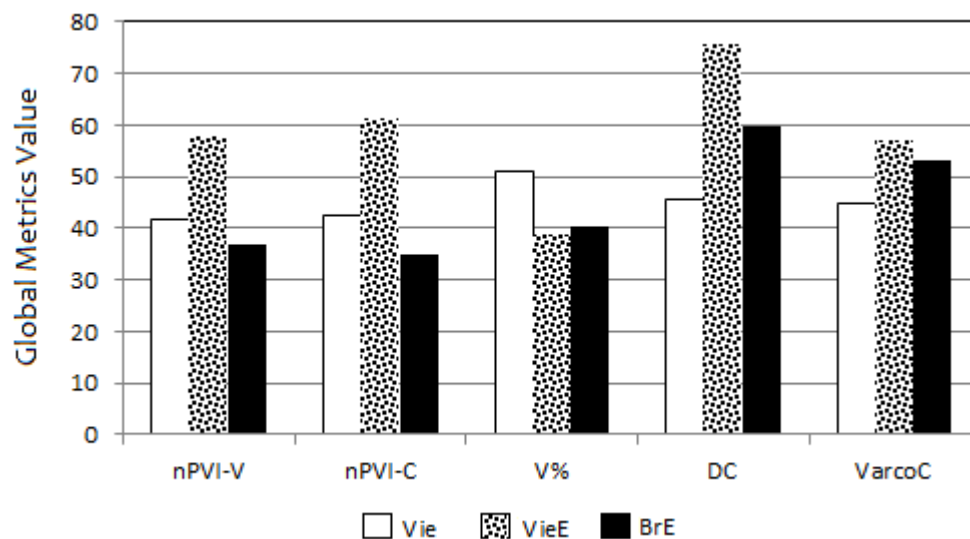

Fig. 1. Mean values of five most common global metrics of temporal structure.

4. Conclusions and discussion

Considering the presumption that Vietnamese is a syllable-timed language (which was not convincingly corroborated in our experiment), the results for Vietnamese English seem to be rather surprising. According to the interference theory, Vietnamese English should lie between RP English and the Vietnamese language, i.e., somewhere between stress-timing and syllable-timing. However, it is possible that the young Vietnamese speakers of English attempted to imitate the native rhythm of English to the verge of hyper-correctness. Alternatively, the discrepancy might result from the fact the speakers of Vietnamese English were somewhat dysfluent in their foreign language production and their slightly hesitant speech brought about the effect that the global rhythm metrics reflect as stress-timing.

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A musical application to aid second language learners' development of pronunciation features

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1. Introduction

Developments in mobile technology have the capability of extending the reach of the classroom, providing level-appropriate material on a personalised schedule for many students (Stockwell, 2010), especially those in foreign language learning contexts. The material that is most easily available to learners via mobile devices is, however, not always curated to match their level of proficiency (Brandl, 2002). Such materials also do not offer the support typical to most learning environments where students can be guided through their material (Brandl, 2002; Chapelle, 2003). The delimitation of the type of support useful to learners outside of the classroom is multifaceted and will depend on the learner and the technology, but as Doughty and Long (2003) have argued, the principles of language learning are the same regardless of environment and should be transferred accordingly to technological tools. Chapelle (2003) echoes this by calling for the integration of technology with language learning pedagogy in a student-centred manner.

The goal of this study is to apply research on second language (L2) acquisition to the development of a mobile music application to help L2 learners improve their pronunciation skills. The application is not language specific, although thus far the development has only been completed for learners of French, with a prototype ready for learners of English. Since the majority of the data is available for French, we discuss the development of the application in relation to French, bearing in mind that the equivalent process is being applied in the development of the English version. First, we will provide a brief account of the literature supporting the rationale for this tool, the methods used for development, which will be evaluated against recent computer-assisted language learning (CALL) literature (e.g., the accepted praxis for on-screen textual enhancements and Nation & Newton's 2009 four strand's framework), and, finally, a description of the application.

According to Murphey (1992), the speech rate in English pop music is about half of that found in regular speech, for this reason and because of the slow repetition of high-frequency words, he dubbed this genre "musical motherese". Repetition is well known for being an important aspect of language learning (Chapelle, 2003; King & East, 2011; Trofimovich & Gatbonton, 2006) and music is naturally repetitive (Murphey, 1992). One result of this repetitiveness is that "it gets stuck in your head" - informally referred to as an earworm. Earworms are even reported to happen in one's L2 when the content is comprehensible to the learner (Salcedo, 2010), a rather serendipitous phenomenon to language learners because they retain pitch and rhythm true to the original (Sacks, 2007).

In addition to repetition, research has shown that accent variability is important when forming phonological categories and prosodic competence in an L2 (Bybee & Cacoullos, 2008; Thompson, 2011). Through exposure to artists from different speech communities, learners are introduced to a variety of accents. Variation and repetition demonstrate on a broad level some of what music can offer L2 learners for the development of their pronunciation skills, but there are other benefits. First, songs usually last no more than a few minutes, which corresponds with the type of engagement one can expect from mobile learning environments (i.e., short, bite-sized learning sessions). Second, it has been shown that certain pronunciation features such as tonal boundaries are learnable more efficiently alongside music (Schön et al, 2008). This latter finding supports Patel's (2003) hypothesis that, although language and music may be stored independently, they may be processed similarly. These ideas served as the basis for the design and development of a musical application, as will be discussed in the next section.

2. Method

The proposed music application is a database of songs that have been selected based on a number of criteria (e.g., vocabulary, country of origin, genre) and delivered to learners online. In order to promote pronunciation and speaking practice, a type of focus-on-form, learners need material that is meaningful (Nation & Newton, 2009). To foster this environment, the songs have been graded by vocabulary level so that learners can select their songs based on their proficiency level. By listening to songs that do not introduce a lot of new vocabulary, learners can shift their attention towards other features such as oral fluency (Nation & Newton, 2009).

To build the music database, the songs were collected with all their metadata—artist, gender of singer, origin, genre of music, and lyrics—in order to allow learners to select music according to their interests and accent variety. The lyrics were used to compile a corpus that could be analysed and graded by vocabulary band. This was done using the vocabulary profiler on www.lextutor.ca (French v.5, containing a corpus of the 1-25k most frequent lemmas in the language). Following the collection, the songs were turned into videos with textual enhancements, phrase-level navigation, optional translations into the L1, and tool for adjusting the playback speed (e.g., slowing the music down to 75% of the original speed). Textual enhancements and translations were included to accommodate a number of recommendations to aid learning (e.g., colour-coding to increase salience, L1 and L2 text; see Chapelle, 2003; Doughty & Long, 2003; Taylor, 2006). The video editor used was Camtasia 2 for Mac because of the ease of adding translations and outputting HTML files for use on the web. The navigational arrows were developed in order to facilitate repetitive playback at the phrase level. If a learner has trouble singing along at the same speed as the song, they are able to replay the previous phrase repeatedly until they develop fluency with the phrase, improve individual segments and suprasegmental features such as across-word resyllabification (linking, liaison), etc.

3. Results and discussion

Based on potential users' feedback and after numerous prototypes, the interface illustrated in Figure 1 was selected. The application is compatible with the most common mobile devices (e.g., iOS and android) as well as with computer browsers.
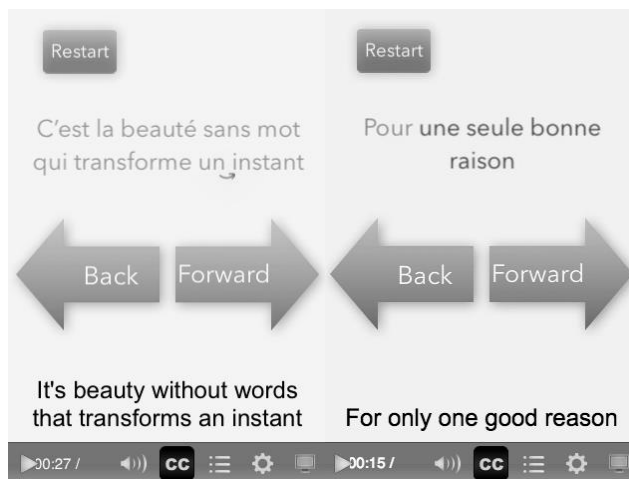

Figure 1: The interface, which shows the highlighting of the liaison and gender in French and L1 subtitles.

In order to recognize strengths and weaknesses of our application, it was aligned with Nation and Newton's (2009) four strands (see Figure 2 below) for teaching L2 speaking. This framework allows us to stress the features and functionality that are included in the application while simultaneously highlighting deficiencies. The evaluation demonstrates that the application is a useful complement to other learning activities (e.g., interactive classroom exercises). For example, looking at the figure below, translations, lyrics, and the graded vocabulary help ensure that learners can listen and focus on meaning, which Macalister (2011) describes as being a good prerequisite to language-focused learning. Textual enhancements, on the other hand, promote the noticing of features (e.g., the /d, t, əd/ allomorphy of regular past tense formation in English, liaison in French). The songs' lyrics included in the database had a minimum of 85% of their lemmas as part of the 1000 most frequent word band in French.

Four strands	Meaning-focused input	Meaning-focused output	Language focus	Fluency development
Features in application	Translation, lyrics	Earworms	Textual enhancements	Repetition, earworms
	Graded vocabulary	Singing along	Lyrics	Navigation buttons for repeating chunks

Figure 2: The musical application within the four strands framework (Nation & Newton, 2009).

4. Conclusions

Though access to music has expanded in recent years through the proliferation of mobile devices, seldom is it used in ways that enhance learning. This study focused on the development of a tool to aid pronunciation/speaking practice and potentially other L2 features such as listening, writing, vocabulary, and morphosyntax. Whether the use of the proposed musical application and some of its features (e.g., textual enhancement, glosses) affect the development of these L2 skills deserves further investigation. Some of the limitations to this tool are that it does not encourage free-form output or provide feedback to learners, and finally, it is not targeted towards beginner learners.

Based on the current CALL/mobile literature (e.g., Cardoso, 2011; Liakin, Cardoso & Liakina, 2015), we predict that learners will perceive the autonomous and game-like approach to learning via a musical app in a positive manner.

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Pronunciation of L2 sounds at word boundaries: Stop-Stop sequences in Czech English

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1. Introduction

Even highly proficient learners of a second language (L2) are often rated as less fluent than native speakers (Kormos & Dénes, 2004). The perception of speech as fluent is a product of a number of factors, including global factors such as speech rate and pausing. In this study we are interested in local fluency, i.e. word-to-word transitions in connected speech. Typical for these transitions in English speech are various boundary processes (see Cruttenden, 2014). Their application is affected by the prosodic organization of speech (Nespor & Vogel, 1986) because a boundary process is more likely to take place when the adjacent words do not straddle a strong prosodic boundary. In this way, boundary processes link words that form prosodic chunks.

In non-native English speech the boundary phenomena are often sporadic (e.g. Nguyen & Ingram, 2004). They are post-lexical processes difficult to acquire for non-native learners (Zampini, 1997) and in L2 speech may be subject to non-native constraints. One such L2 constraint was proposed by Cebrian (2000). His 'interlanguage word-integrity effect' is a mechanism that "treats every word as a separate unit and prevents the articulatory synchronization of sounds belonging to different words" (p. 19). Cebrian suggests that interlanguage post-lexical processes only apply within a phonological word. Zsiga's (2003) study of stop-stop sequences found a partial support for this effect although a recent study of voicing assimilation in L2 (Simon, 2010) does not support it. Additionally, L2 learners are known to speak more slowly than native speakers even at advanced proficiency levels (e.g. Lennon 1990), which may result in inhibiting post-lexical processes and producing a smaller gestural overlap compared to native speech. Sporadic occurrence of boundary phenomena in non-native speech contributes to perceived foreign-accentedness, perceived hyper-articulation, but also reduced intelligibility due to distorted prosody.

In the current study, we examined production of two adjacent stop consonants, e.g. in *dig deep*, which in native English are typically realized without an audible release of the first stop (e. g. Ladefoged, 1993). 'Unreleasing' is usually treated in phonetic literature as a result of gestural overlap (e.g. Hardcastle & Roach, 1977) and has been shown to interact with the relative place of articulation of the two stops in such a way that if the two stops have the same place of articulation, the first one is unreleased, if the second stop in the sequence is labial, the release of the first stop is less likely (Henderson & Repp, 1982), and more generally, if the second stop is more anterior, an audible release of the first stop is less likely because it is effectively hidden by the constriction of the second stop (Zsiga, 2003).

However, in a study of spontaneous American speech this was found to work only word-internally (Davidson, 2011) and some studies report the opposite effect (Byrd, 1996).

In Czech-accented English the stop-stop sequences are often realized with an audible release of the first stop. This may be taken as interference from the first language (L1) since unreleasing is not typically discussed in textbooks of Czech phonology (e.g. Palková, 1997). However, in a relatively recent acoustic study of spontaneous Czech (Šimek, 2010), about a third of first stops were in fact unreleased. In English productions by the advanced Czech learners we work with at Palacký University, we observe quite a lot of between- and within-speaker variation. It is this variation that we explore in this study, considering interference of L1 timing of articulatory gestures, the relative place of articulation of the two stops, the interlanguage word-integrity effect, and speaking rate.

2. Method

2.1. Participants

The participants were 6 Czech advanced learners of English as a foreign language (4 females), all third-year BA students majoring in English who had reached the level C1 according to the Common European Framework of Reference for Languages. The baseline English data were collected from 4 English native speakers (2 females). The baseline Czech data were collected from 6 female Czech speakers who reported low proficiency in foreign languages. The three speaker groups, coded as CzEn, En, and Cz respectively, were matched for age.

2.2. Stimuli and procedure

To elicit productions of the target stop-stop sequences, we used 90 English and 90 Czech sentences, manipulating 2 factors. The first one, 'Boundary', was whether the target sequence spanned a word boundary between two lexical words, as in *met Pam*, or only a syllable boundary within a compound, as in *output*. The second factor was the place of articulation of the second stop relative to the first one ('Place of S2'), which was either homorganic (18 word-boundary sequences) or heterorganic (72 sequences). The heterorganic group was split between 'back-front' combinations, as in *met Pam*, and 'front-back' combinations, as in *keep calm*. After familiarization, speakers read the sentences in random order off a PC screen, each twice.

3. Results

For each participant, we calculated the percentage of unreleased first stops (% unreleased) and the mean speech rate across their sentences in syllables per second. To estimate the amount of gestural overlap, we also calculated the mean duration of the closures of both stops together normalized for speech rate (closure duration × syllables per second).

A repeated-measures (RM) ANOVA on % unreleased with the between-subject factor Group (CzEn, En, Cz) and the within-subject Place of S2 (fronter, backer) and Boundary (word, syllable) found a significant main effect of Group ($F(2, 13) = 9.83$, $p = .00251$). As is shown in Figure 1 left, the English speakers released the first stop about 3 quarters of the

time while the Czech monolinguals only released it about a quarter of the time. The CzEn speakers were in-between and (as shown by a post-hoc Tukey HSD test) differed significantly from the English natives ($p < .05$) and not from the Czechs. Factor Boundary was not significant and no interaction between Boundary and Group was found. Another RM ANOVA with the same factors found an significant effect of Group on the mean rate-normalized closure duration of S1+S2 ($F(2, 13) = 76.86$, $p < .001$). Figure 1 (right) shows that the durations of combined stop closures were the shortest for the English, the longest for the Czech monolinguals, and in-between for the learners who differed significantly from both the Cz ($p < .001$) and the En ($p < .05$) groups.
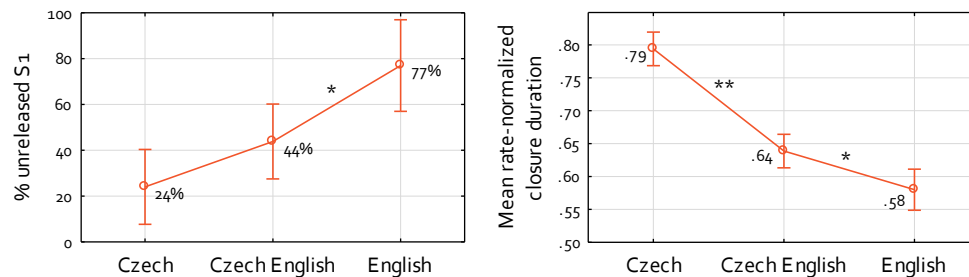

Figure 1: Percent unreleased S1 (left) and mean rate-normalized closure duration (right) by speaker group.

A RM ANOVA on % unreleased only in word-boundary sequences with Place (homorganic, fronter, backer) as the within-subject factor showed this factor had a significant main effect ($F(2, 26) = 29.53$, $p < .001$) and it did not interact with Group. A post-hoc Tukey test showed that the % unreleased for homorganic sequences (78%) was higher ($p < .005$) than for sequences with a fronter S2 (60%), which in turn was higher ($p < .005$) than for sequences with a backer S2 (37%).

Finally, we examined speech rate. A one-way ANOVA found an effect of Group on the mean speech rate ($F(2, 13) = 5.89$, $p = .015$). A post-hoc Tukey test revealed that the CzEn learners were slower than the Czechs ($p < .05$), which was the only significant difference. The correlation between the 6 CzEn speakers' mean speech rates and their % unreleased was significant ($r \sim .95$, $p < .01$) only after excluding one outlier (i.e. 16.66% of the data). We also used *t*-tests to assess speech rate *within* each CzEn speaker. For only a third of the CzEn speakers was there a significant difference in speech rate between sentences they produced with unreleased S1s and those produced with a release (even with $\alpha = 0.1$).

4. Conclusions

Our learners, in terms of the percentage of their unreleased first stops, were intermediate between the monolingual speakers of either language. Interestingly, the percentage of unreleasing was inversely related to the duration of the two stop closures, indicating that a greater gestural overlap coincides with unreleasing. What explains the difference between the learners and native English speakers in unreleasing? First, the place of articulation of the second stop affected unreleasing for *all* speaker groups, possibly reflecting a linguistic universal. Second, the interlanguage word integrity effect is unsupported by our data and so

can provide no explanation. Finally, the relationship between speaking rate and unreleasing was unclear. Therefore, we ascribe the lower frequency of unreleasing in the Czech learners' English to transfer from L1 Czech.

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Why is Japanese pitch accent so difficult for English speakers?

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1. Introduction

This paper focuses on the acquisition of pitch accent by English learners of Japanese. It sheds light on a misunderstanding common among language teachers and linguists regarding pitch in English, and illustrates the dynamic process of pronunciation acquisition. In Japanese, word pairs such as *haSHI* 'bridge' and *HAshi* 'chopsticks' are distinguished by pitch. This differs from English stress (e.g. the noun *OBject* and the verb *obJECT*) in two ways. Firstly Japanese pitch accent has no accompanying changes in duration, intensity, or vowel quality (Beckman, 1986). Secondly, pitch in English is not a correlate of stress but is determined at phrase level (Beckman & Pierrehumbert, 1986; Sluijter & van Heuven, 1996). English learners of Japanese therefore have to learn that pitch is lexical, without any cues such as duration, intensity, or vowel quality, to guide them. This paper investigates to what extent English learners of Japanese acquire Standard Japanese pitch accent (i.e. produce words with their Standard Japanese *accent types:* initial, medial, final, unaccented), and describes their accent systems.

2. Method

Two groups of learners took part in the study, a less experienced group (n=13) who had completed up to two years of a Japanese degree in the UK, and a more experienced group (n=8) who had completed a four-year Japanese degree with a year in Japan. All were L1 speakers of Standard Southern British English. The learners read aloud 180 Japanese words, varying in syllable number, lexical class, and Standard Japanese accent type, in three different contexts: in isolation (e.g. *ame* 'rain'); before a clitic (e.g. *ame da* 'it's rain'); and sentence initial (e.g. *ame ga furu* 'rain falls'). The accent types produced by the learners were then identified by phonetically-trained Japanese native speakers. The words and contexts used were motivated by previous research (Horiguchi, 1973; Kuno, 1998; Taylor, 2012; Toki, 1980; Yamada, 1994; Yoshimitsu, 1981) and were expected to be known to the learners.

3. Results

The accent types of all learners showed a low match with Standard Japanese, regardless of experience (mean 43% SD 5). The learners' accent types were unstable, with 80% of words showing an accent-type change across contexts. There was striking inter-learner variation,

both in the proportion of each accent type produced, and in the relation between accent type and syllable number, lexical class and context.

4. Conclusions

This study shows that Japanese pitch accent is difficult for English speakers, and that learners vary in their accent system. The first finding highlights the fact that pitch is not a correlate of stress in English, something that is often misunderstood by language teachers and linguists (Beckman & Edwards, 1994). The second finding fits with our current understanding of language as a dynamic system (de Bot, Lowie & Verspoor, 2007), where SLA processes such as L1 transfer and implicit tallying (Ellis, 2007) result in individual learning paths. Longitudinal research is needed, as well as research investigating implications for pronunciation teaching; evidence may suggest that teaching pitch accent is unnecessary, since accent systems show considerable regional variation throughout Japan.

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The effect of experience on trust attributions varies between two British accents

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1. Introduction

Regional accents may affect initial judgements of personality traits, such as trustworthiness. We examined whether accents interact with behavioural patterns to modify initial trustworthiness attributions, using an iterated trust game in which participants make investments with virtual players, which are associated with two British English accents.
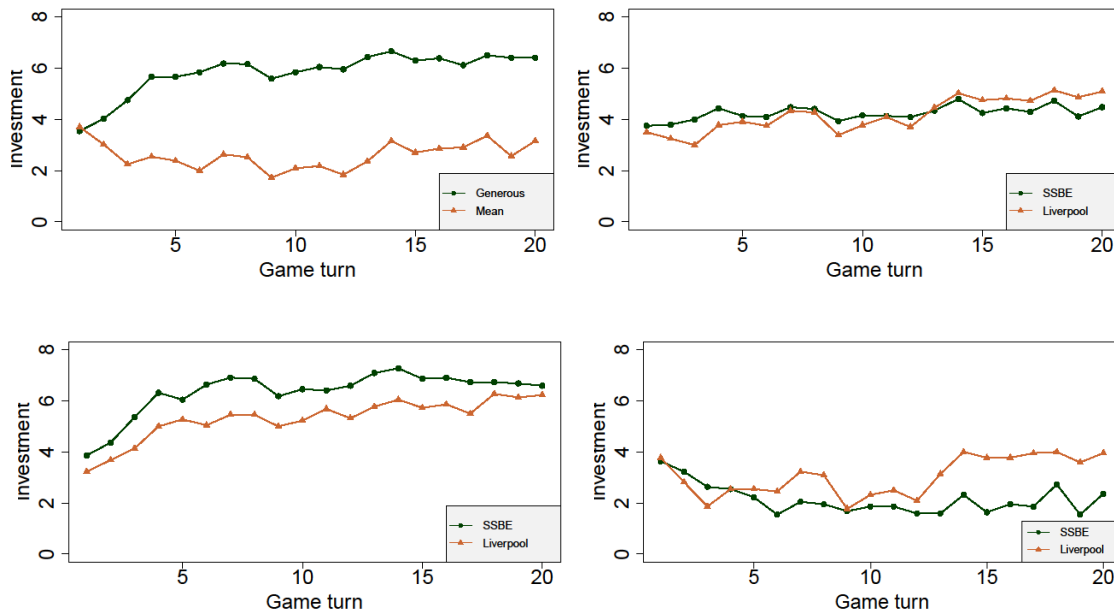
2. Method

A game derived from game theory was used to judge the trustworthiness of two English accents. Similar games have been widely used in research on trust (cf. Krumhuber et al., 2007; Tortosa et al., 2013 and Chaudhuri et al., 2013), but, to our knowledge, they have never been applied to study trust attributions to voices. In our version, the first player (the experiment participant) is endorsed with £8 at beginning of each round (20 in total), and can decide whether to invest all, part, or none of it to a virtual player, who receives three times the invested amount. The virtual players were associated with either a generous behaviour (always returning between 120% and 240% of the invested money to the first player) or a mean behaviour (returning 0% to 120% of the invested money). Thus, if both players invested/returned the money they were given, they would end the round with more money than they started with. The virtual player was also associated with an English accent, in the form of sentences previously recorded from two male native speakers of SSBE and Liverpool English, which were played at the beginning of each round. Each subject played the game twice, first with one accent and then with the other. Finally, the recorded sentences were counterbalanced across the virtual players, resulting in a 2 (accent) X 2 (return behaviour) X 2 (block of sentences) design. 44 native English speakers (35 females, 9 males), aged 18-45 (mean 22.05) participated in the experiment.

3. Results

As expected, the virtual players' behaviour influenced the participants' decisions more than their accents (Fig. 1a-1b). However, considering the two behaviours separately, when the virtual player was generous (Fig. 1c) participants consistently invested more with the SSBE-accented player throughout all the game, supporting findings of relative

trustworthiness of SSBE (Bishop et al. 2005). When the virtual player was mean (Fig. 1d), participants initially invested more with SSBE, but after a few rounds the pattern reversed, and they consistently invested more with the Liverpool-accented player, even though the pattern of investment return between accents was the same.

Fig. 1a (top left): mean investments in the generous and mean conditions. **Fig 1b** (top right): mean investments to SSBE and Liverpool. **Fig. 1c** (bottom left): mean investments to SSBE and Liverpool in the generous condition. **Fig. 1d** (bottom right): mean investments to SSBE and Liverpool in the mean condition.

4. Conclusions

The novel methodology used in this study provides the first clear evidence of implicit behavioural bias in trust due to regional accents, confirming the subjective ratings gathered from the questionnaire data used in previous studies. These results show that the initial trust attributions based on a speaker's voice affect the interpretation of a speaker's subsequent behaviour. Participants demonstrated the belief that a person with a "prestigious accent", such as SSBE, would be more likely to reciprocate the trust placed in them than a speaker with a provincial accent, but also reacted more negatively when they discovered that this trust was misplaced.

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Initial <e> reduction in English: phonological change and pedagogical implications

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French advanced learners of English often display a very good realization of stressed vowels, but they tend to fail pronouncing unstressed syllables properly, and more particularly reduced vowels. This is due to the fact that the two languages are rhythmically completely different since French syllables can hardly ever be reduced. Although there exist clear rules governing the reduction process in English, it remains difficult for learners to know which vowel they should produce when they realize a reduced vowel. Herment (2010) gave clues for the choice of the reduced vowel in medial and final positions, but showed that the initial position is very complex, especially as far as <e> is concerned. Many combinations of variants appear in both reference dictionaries, which do not always agree: to take but one example, the first syllable of *emotion* should be pronounced /i/ or /ə/ according to LPD3 (Wells, 2008) and /ɪ/ according to EPD18 (Jones, 2011).

In response to this complex situation, this study investigates the realization of reduced <e> in initial syllables in English so as to compare the results obtained to dictionary data and to attempt to establish trends for the realization of unstressed initial syllables. The data analysed derive from the multilingual corpus AixOx (Herment et al., 2012, 2014), in which English natives (innovative RP) and French learners of English read the same 40 short texts. 38 words with <e> in an initial unstressed syllable (47 occurrences) were extracted from the speech of 10 native speakers (5 females and 5 males), amounting to 470 vowels. Their pronunciations were first checked in the 2 dictionaries previously mentioned. Phonetization and automatic alignment were performed on the corpus with the SPPAS software (Bigi, 2012). The vowels under scrutiny were then analysed according to four parameters: F1, F2, F3 and duration (using PRAAT, Boersma & Weenink, 2001).

The results show that there is great variability, both inter- and intra-speakers. The distribution of the unstressed vowels unsurprisingly follows the pronunciations given by both dictionaries but also confirms the possibility given by LPD3 -but not by EPD18- to pronounce a schwa in all cases. We show, using R (*cf.* references), that for most words, the reduced initial vowel is a central high vowel, ranging from [ə] to [i], with a concentration in the more central zone (a Lobanov normalisation procedure was applied for both the formant and duration values).

The results are very enlightening as far as phonological change is concerned: in innovative RP, allophonic processes emerge, like for example weak vowel tensing in high vowels in final position (known as *happY-tensing*) and, as the present study shows, weak vowel

centralizing in initial position, with a neutralization of the opposition between /ə/ and /i/ in this context.

Our research contributes to understanding the distribution and realisation of unstressed vowels by native speakers and also opens on pedagogical implications. It is acknowledged that learners often produce a transfer from L1 to L2 (Gut 2009) so vocalic reduction will hardly be produced by French learners. The present study could reveal a great help for learners (and teachers), in that it confirms the possibility of pronouncing a high central vowel in almost all cases of initial unstressed vowels.

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Pronunciation training as a "local practice"

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1. Purpose of the study

If noticing plays an important role in successful L2 acquisition, leaners will need to be made explicitly aware of phenomena in their L1 or L2 that may have escaped their attention, but which may still hinder their efforts to communicate efficiently with native, or proficient, speakers of an L2. Especially when it comes to pronunciation training, individual learners will fail to see the relevance of such a contrastive approach if the L1 features discussed are merely based on the national standard language, and are absent from their own local variety.

In countries which exhibit immense linguistic variation, such as the People's Republic of China, it would be important to investigate to what extent the English pronunciation training curriculum can modified to accommodate the needs of local learners who either do not speak the national standard language widely used in contrastive analyses, or pronounce this with a strong regional accent. An auditory analysis of the English pronunciation features of local users would provide information that could form the basis for a "hierarchy of error" (cf. Collins & Mees, 2003; Van den Doel, 2006; Szpyra-Kozłowska, 2014) to be included in a localised pronunciation curriculum more directly tailored to their needs.

2. Method

To demonstrate how an analysis of this type might be conducted, an example is provided from an exploratory survey conducted in Jiangsu province in China – a region which is split linguistically into two different groups of dialects: Lower Yangtze Mandarin and Northern Wu. Based on descriptions of these dialects such as those provided in Chao (1976) and Norman (1988), predictions were made about the English pronunciation features of speakers with such backgrounds, which were compared and contrasted with the accent features actually attested in recordings of such speakers. All recordings consisted of reading passages and free speech collected from third-year student teachers at Jiangsu Second Normal University in Nanjing.

3. Results

Despite the limited scope of the study, it emerged, as predicted, that there were clear differences between speakers with either a Mandarin or a Wu background, especially as

regards the realisation of English /ð/ and English final /n/. However, both groups of speakers also shared a number of pronunciation features which may be seen as typical of the province, but which would be absent in non-regional speakers of the standard language.

4.   Conclusions and discussion

There appeared to be enough variation in the pronunciation of English, both between different groups of speakers from Jiangsu province and as compared to speakers of Standard Mandarin Chinese, to warrant a larger-scale investigation of the same type into the localized pronunciations of Chinese learners of English. This could be used to corroborate the preliminary findings presented here, and provide enough data to develop materials tailored to the needs of different groups of learners, both in Jiangsu province, other parts of China and beyond. These suggestions for further research will also be contextualised with examples drawn from multidialectal and multilingual settings in the Netherlands.

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Weak Structural Words in British and Czech English

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1. Introduction

Pronunciation of certain monosyllabic structural words in British English is typically reduced or weak, i.e., the words exhibit the lowest degree of prominence in the metrical structure of an utterance (Roach, 2009; Cruttenden, 2001; Underhill, 1994). They are relatively short, without pitch accents and with low sound level. The nucleus of the monosyllable is usually a schwa or a close-mid vowel. Czech English as a specific foreign accent of the internationally used language often lacks reductions (Volín et al. 2013; Volín & Skarnitzl, 2010). Since the monosyllabic structural words are of high frequency in spoken texts, it might be useful to know the scale of the differences. Also, it might be of interest to see how coherent the *weak form words* are as a class. In other words, do Czech speakers of English treat individual words in the same manner? Such knowledge could be used in more realistic modelling of Czech-accented English, which, in turn, is necessary for experiments focused on various effects of the sound of Czech English on the listener.

2. Method

Ten most frequent structural words or their forms were identified and manually labelled in read bulletins of radio news. They were: *a, the, from, in, of, on, to, and, has, have*. We used recordings of five Czech speakers of English and five speakers of Standard Southern British English, of whom one was a professional news reader for the BBC World Service. The resulting sample comprised 1190 words. As all the subjects read the same text, the targeted words occurred in identical contexts and were directly comparable. Analyses were carried out in Praat software (Boersma & Weenink, 2012) and were aimed at durations of words and their constituting phones, melodic and amplitude differences between vocalic nuclei of the words and the nearest stressed vowels, and also the segmental content itself including the regard to glottalization of word-initial vowels (cf. Volín, 2003).

3. Results

The Czech subjects spoke at a rate of 12.5 phones per second, whereas the British speakers produced articulation rate of 14.7 ph/sec, which means that they were by about 17.5% faster. The grand mean duration of the words investigated was about 137 milliseconds for Czech English and 90 milliseconds for British English, which is far beyond the hypothetical linear effect of different articulation rates. Repeated-measure

ANOVA for individual structural words returned highly significant result even for values corrected for the articulation rate difference: $F(1,9) = 36.3$; $p < 0.001$. (For means normalized with respect to articulation rate see Figure 1) Interestingly, individual words displayed non-uniform contribution to the effect. Not only do they display different degrees of resistance to reduction in Czech English, but they also manifest different willingness to attract the glottal stop to their initial vowel. Furthermore, the behaviour of the constituting phones revealed quite specific trends. Analogous results were produced by amplitude and fundamental frequency analysis.
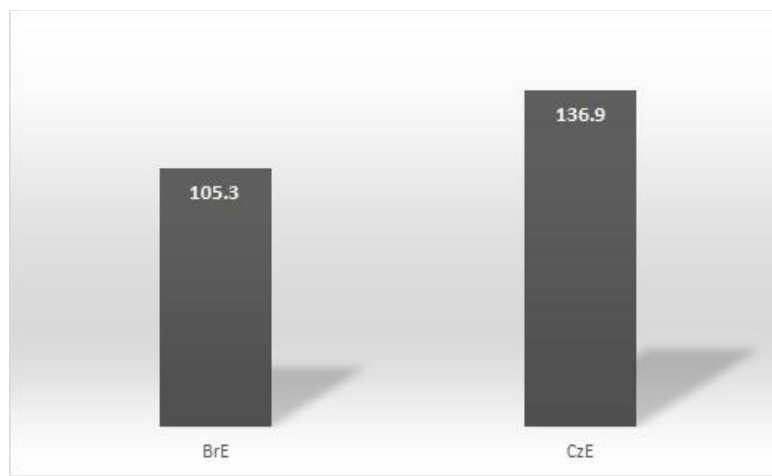

Fig. 1. Mean durations in milliseconds of the ten weak-form words after the correction for the articulation rate differences between British (BrE) and Czech (CzE) speaker of English.

4. Conclusions and discussion

It is known that foreign-accented speech differs from native pronunciation standards. Our study offers quantification of these differences. Moreover, it shows that there are no across-the-board recipes or formulae that would transform one accent into another. Neither consonants nor vowels can be treated as homogenous groups. Similarly, structural words display strong individual differences within their own class.

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Perceptions of foreign-accented lecture-style speech: Please take this seriously

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1. Introduction

Foreign-accented speech has been shown to affect human behaviour very strongly at the level of subconscious processes. In spite of the fact that most people would subscribe to overt tolerance, subconscious language-based discrimination, in the form of latent perceptual stereotypes and prejudice, is a well-documented phenomenon. Various studies have demonstrated that foreign-accented speakers tend to be associated with lower "status" ratings, including lower intelligence or competence (i.e., Brennan & Brennan, 1981; Bresnahan et al., 2002; Lindemann, 2003). Additionally, statements pronounced by non-native speakers have been perceived by native listeners as less truthful (Lev-Ari & Keysar, 2010).

This study also investigates the ratings of foreign-accented speaker status and, specifically, focuses on the evaluation of lecture-style speech (cf. Rubin, 1992; Kavas & Kavas, 2008). Evaluations of credibility, competence, and truthfulness of Czech and French speakers of English are compared with those of native speakers of English.

2. Method

Several speakers (female and male balanced) of British, Czech and French English delivering lecture-style passages were selected for the experiment. The testing required longer (ca. 40 words) and shorter (ca. 15 words) items. Care was taken to select phrases which contained no dysfluencies or hesitations and which could be evaluated on the three target dimensions – credibility, competence, and (most importantly from this respect) reliability. The phrases were compiled into a two-stage perception test which was administered to 21 Czech and 19 French listeners in small group settings. In the first stage, the respondents were asked to indicate their preference for one of two speakers, based on the shorter phrases exposed in pairs. In the second stage, respondents evaluated the longer phrases, each on three seven-point Likert scales, where the statements concerned the speakers' reliability and punctuality, memory and ability to see implicit links among events, and effectiveness.

3. Results

The results suggest that, in general, foreign-accentedness does influence the perception of speaker status in the expected direction, with native speakers of English receiving superior evaluation. The results of the first stage show a clear preference for native speakers of English over the non-native ones, but Czech speakers were chosen more often than French speakers. Similarly, Czech speakers were preferred when they were paired with French speakers; a strong and surprising outgroup preference occurred here, with French respondents preferring Czech over French speakers considerably more often.

As illustrated in Figure 1, the native speakers of English received much better evaluations in the second stage, but the two non-native groups again differ, with Czechs being evaluated more positively than the French on all three dimensions. A more detailed analysis reveals outgroup preferences on the part of the Czech and French respondents.
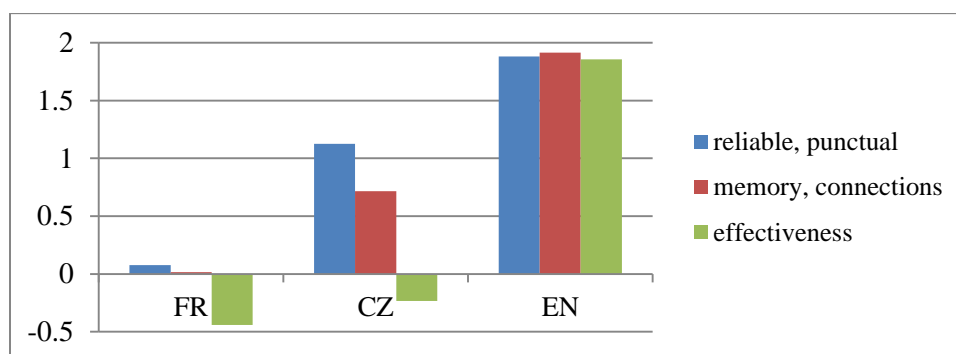

Figure 1: Mean evaluations of French, Czech, and native English speakers on three dimensions. Evaluations of Czech and French respondents are pooled together.

4. Conclusions and discussion

The study points to the complexity of the perception of indexical characteristics. It is clear that in studies which examine the evaluation of speakers' personality – whether in their native language or when speaking a foreign language – great emphasis must be put on experimental design, specifically on eliminating any undesirable variables. Moreover, trends only become visible with comparatively high numbers of respondents.

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Formants of English and Polish vowels in proficient Polish learners of English

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1. Introduction

There is essentially no comparative acoustic data on English and Polish vowels in bilingual or highly proficient learners of English. Existing comparative literature (e.g. Sobkowiak, 2004) is not based on acoustic data and seems to refer to older forms of "Received Pronunciation". The present paper is an attempt to address this gap by comparing the formant values of (Standard Southern British, SSB) English and Polish vowels in highly proficient learners.

2. Method

Eight highly proficient native Polish speakers of English (four females, aged 23–33; four males, aged 24–51) took part in the study. All were professional users of English (university instructors, researchers, interpreters, etc.). They were resident in Poland at the time of recording, with limited histories of residence in English-speaking countries. All had acquired English in instructed settings. Impressionistically, all of the speakers had what could be termed "near native" accents. Five out of the eight scored within native control range in an accentedness survey with native respondents from south-eastern England.

Two separate sessions, one for English, and one for Polish, were recorded under laboratory conditions (sound-treated booth, large diaphragm condenser microphone). The speakers read sentences containing target words with eleven English and six (i.e. all) Polish monophthongs embedded in comparable carrier sentences, with ten repetitions per vowel. The first three formants, F0, and duration were measured in all the target vowels, with formant readings at 50% of duration. The resulting formant measurements were normalised using the Lobanov procedure of the NORM vowel normalisation package (Thomas & Kendall, 2007). Euclidean distances and angles between English and Polish vowels were calculated in a manner similar to Fabricius (2007).

3. Results

Some aspects of the vowel systems were not fully compatible with existing comparative literature, e.g. Sobkowiak (2004), but aligned well with standalone descriptions of modern SSB English (such as e.g. Ferragne & Pellegrino, 2010) and Polish (such as e.g. Jassem,

2003). The most important differences against Sobkowiak (2004) were as follows. TRAP (keywords as per Wells, 1982) had the highest F1 values for all the speakers, thus it was not located between Polish /ɛ/ and /a/. DRESS did not have a relatively low F1; in fact, it had a higher F1 than Polish /ɛ/ in seven out of the eight speakers. LOT was very similar to Polish /ɔ/. GOOSE was not "more extreme" than Polish /u/.

4. Conclusions

There seems to be a need to update existing comparative Polish–English materials to reflect the modern state of the SSB vowel system. In terms of methodology, using highly proficient L2 speakers enables a very robust comparison of the two vowel systems and is fully warranted in instructed settings outside of the L2 home country.

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Perceptual Training Intensity Effects on the Perception and Production of English /ɪ/ and /iː/ by Cantonese ESL Learners

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1. Introduction

The High Variability Phonetic Training (HVPT) which utilizes perceptual stimuli in multiple phonetic environments produced by various speakers has shown to be efficient in training the perception and production of L2 segmental contrasts in many studies (e.g. Bradlow et al., 1997; Lambacher et al., 2005; Wong, 2014). However, the training intensity has usually been pre-set as a constant. This factor has been overlooked, but how intensive a treatment should be to achieve optimal results or whether different intensity levels will generate diverse training effects are important parameters that should be investigated for the benefits of language teachers and learners in particular. The present study thus investigated and compared the effectiveness of delivering HVPT in an intensive (Group I, 10 sessions per day for 2 days) and a standard (Group S, 2 sessions per day for 10 days) setting to Cantonese ESL learners on their modification of the perception and production of English vowel contrast /ɪ/ and /iː/. This pair of non-native vowel contrast has been reported as posing perceptual and production difficulties among the learners (e.g. Hung, 2000; Meng, Zee & Lee, 2007).

2. Method

Group I had 9 (3 male and 6 female) subjects who were trained under the intensive HVPT whereas Group S had 8 (2 male and 6 female) subjects receiving standard HVPT training. All subjects recorded their production of the target minimal word pairs before identifying the /ɪ/-/iː/ minimal pair in the perception pretest. Then all subjects received HVPT under the two intensity levels by using a two-alternative-forced-choice identification test with immediate feedback from a computer program. No production training was given to them. The posttest (same as the pretest) together with generalization tests (both perceptual and production) testing learning to new words/speakers were administered at the end.

3. Results

Both Group I and Group S had significant improvement (both at $p < .001$, for an average of 21.25% and 18.89% respectively) from pretest to posttest in perception, but the performance of the two groups did not differ significantly ($p = .903$). Perceptual

generalization to new words and/or speakers was also found for both groups. All the trained subjects also had a robust improvement in production (both at $p < .001$, 28.13% for Group I and 27.28% for Group S). The difference in production performance between the two groups was again insignificant ($p = .745$). The formant frequencies and duration of the vowels produced by the two groups after the training were also closer to native-like production.

4. Conclusions

The present results suggest that learners who were trained under HVPT, even in different intensity levels, could benefit from the training to a similar extent. Although this factor requires more investigation in L2 speech research, the current research finding suggests that language teachers may try to deliver highly intensive training to language learners as this is as effective as those spread over a longer period of time, which is the preferred norm in language classrooms. This will help modify pedagogical strategies and planning in language lessons. Another speculation to the null effect of training intensity is that perhaps it is the *active ingredients* of the training that matter more (Baker, 2012; Lee, Kaye, & Cherney, 2009). Active ingredients in this training are the adoption of perceptual stimuli with high variability, identification tasks, immediate feedbacks, etc. which had all already become the contributing parameters leading to the successful learning of the non-native contrast, overriding possible influence brought by the intervention intensity. Still, this reconfirms that HVPT is a useful training paradigm that benefits learners in perceiving and producing non-native contrasts.

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Accommodation to native and non-native interlocutors in L2 pronunciation

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Accommodation can be described as the phenomenon of adjusting one's speech towards the speech of another individual in the process of social interaction (e.g. Giles et al., 1991). Previous studies on phonetic accommodation in non-native speech have examined the phenomenon by focusing on interactions between speakers communicating in the same L2 (e.g. Trofimovich & Kennedy, 2014; Trofimovich et al., 2014) or interactions between L2 learners and native speakers (e.g. Beebe, 1981; Zuengler, 1982; Lewandowski, 2012). An interesting aspect of phonetic accommodation that remains yet to be explored is the comparison of convergence strategies in the two types of interaction. The aim of the current study was to address this issue by investigating whether accommodation strategies in L2 speech vary as a function of the interlocutor being a native or a non-native speaker. Additionally, the study tested a new experimental method, where a controlled, laboratory-based design was modified to contain an element of social interaction - the presence of an interlocutor.

The participants were 25 native speakers of Polish, majoring in English Studies and recruited from the University of Łódź. There were also two model talkers: a native speaker of Standard Southern British English (SSBE) and a native speaker of Polish (a qualified phonetician imitating a heavy Polish accent in English). The experimental procedure consisted of several blocks. First, the informants were instructed to identify the target words in an auditory naming task (the baseline). Next, they were asked to listen to pre-recorded English words provided by the two model talkers. Finally, the subjects were required to read the target words for the two model talkers to listen to at a later time (thus making the model talkers act as interlocutors). The subjects were also required to fill in a questionnaire designed to measure their attitudes towards native and Polish-accented English. An additional aim of the questionnaire was to provide a fuller account of the informants' accommodation strategies by asking them to comment on their speech behaviour during the experimental tasks. The phonetic variables under investigation were voicing lag values in English word-initial /p t k/ and voicing lead values in English word-initial /b d g/. Due to a marked cross-language difference in the realisation of word-initial stops in Polish and English, the variables were expected to have distinct realisations in native and Polish-accented English.

The results of the study show that accommodation strategies varied as a function of the native/non-native status of the interlocutor and the phonetic variable under investigation. Questionnaire responses indicate that the observed convergence patterns were interrelated with the subjects' attitude towards L2 pronunciation. Also, the data obtained in the baseline

task raise the possibility that the magnitude of accommodation may be conditioned by the stage of acquisition of a given pronunciation feature in the learners' interlanguage. On the whole, the findings suggest that accommodation strategies in L2 pronunciation may be modified by certain social-psychological and psycholinguistic factors.

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