Proceedings of the
Phonetics Teaching and Learning Conference
UCL, London, 8–10 August 2013

Editors
Joanna Przedlacka
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Proceedings of PTLC2013

Papers from the Phonetics Teaching and Learning Conference, London, 8–10 August 2013

edited by

Joanna Przedlacka, John Maidment, Michael Ashby
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About PTLC

The Phonetics Teaching and Learning Conference was set up as one of the deliverables of a project funded by the Higher Education Funding Council for England and the Department of Education of Northern Ireland. The project, which ran from 1997 to 2000, had UCL as its lead institution and partner institutions at the universities of Cambridge, Central England, Newcastle, Ulster, Westminster and York.

The first meeting of PTLC was at UCL in 1999. This meeting included presentations of 17 papers by colleagues from 10 countries.

PTLC2001 met at Royal Holloway College in the University of London. There were 17 papers by presenters from 13 countries.

PTLC2005 met at UCL. Colleagues from 17 countries presented 46 papers. This meeting was the first to have an invited speaker. David Crystal gave a lecture entitled 'You can never have too much phonetics'.

PTLC2007 was again at UCL. There were 36 papers from 13 different countries. The invited speaker was Beverley Collins, whose lecture was entitled 'Daniel Jones and UCL – a hundred years of phonetic history'.

PTLC2009 at UCL included 20 presentations from 12 countries. The invited speaker was John Wells, who gave a lecture entitled 'Dear Professor Wells'.

Although no separate PTLC conference took place in 2011, PTLC was linked instead with a Special Session at the International Congress of Phonetic Sciences in Hong Kong, August 17-21 2011, with the title "Phonetics Teaching and Learning: Recent Trends, New Directions". In addition, further PTLC2011 papers were separately accepted for online publication.

These proceedings of PTLC2013 held at UCL contain 23 papers from 13 countries. The invited speaker was Sue Fox and her lecture had the title 'Pedagogical applications of sociolinguistic research'

JOHN MAIDMENT (CHAIR)
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TOWARDS A HISTORY OF TEACHING, LEARNING AND ASSESSMENT IN PHONETICS

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ABSTRACT
Against the background of recent developments in the historiography of phonetics, this paper aims to identify and illustrate some of the scholarly resources available for the study of the history of teaching, learning and assessment in phonetics, and to indicate areas where further enabling work is needed. We repeatedly emphasize that the history of phonetics teaching is much more than a succession of ‘schools’ and must be seen in its full social context.

Keywords: pronunciation training, historiography, assessment, modern language education.

1. BACKGROUND AND AIMS
There are signs of a growing international engagement with the historiography of linguistics and phonetics. One is the establishment of an ISCA/IPA Special Interest Group in the History of Speech Communication Sciences following an inaugural special session at the 17th International Congress of Phonetic Sciences in Hong Kong in 2011. A second initiative, in the field of applied linguistics, is the AHRC-funded research network project Towards a History of Modern Foreign Language Teaching and Learning (MFLTL) (2012–2014) [8]. While based in the UK, this has already created an international network of researchers, and it is plain that the history of applied phonetics (pronunciation training) is one of the major transnational themes which require to be traced.

The history of phonetics is relatively little studied, and the history of teaching and learning of the subject especially so. Our aim in this paper is to outline and exemplify some resources which are already available, and identify others it is desirable to assemble, to permit systematic study of the field.

2. TEACHING
“Any treatment of the teaching of phonetics ought to be able to consider the contexts in which teaching is undertaken, the programmes and syllabuses followed, the methods, materials and assessments employed, and the validation of standards.” [3]. But there is nothing approaching a comprehensive survey even for the contemporary situation, let alone a historical account. We can put dates to certain beginnings (modern phonetic lectures began at UCL in 1903, for example, being given by E. R. Edwards), and for particular institutions we can locate lecture lists, such as the UCL Calendars. But we lack even a simple chronicle of the proliferation of institutions where phonetics was taught in the UK in the post-WW2 period of expansion in linguistics, let alone any analysis of their subsequent all-too-frequent contraction and extinction.

In addition there are whole vanishing genres of teaching provision, such as evening classes and vacation courses, which require historical exploration. The UCL Summer Course in English Phonetics, commonly known as SCEP, started 100 years ago. It may now appear unique, but at the time of its inception it was only one among many phonetics and pronunciation-oriented summer courses held in Britain and on the continent. The history of the clientele, syllabus, teaching staff and finances of such courses remains to be charted. An analysis of the setting in which those courses flourished and factors leading to their subsequent disappearance would help focus future efforts to reestablish the teaching of phonetics outside degree curricula, to non-academic professional audiences.

2.1. Textbooks
Textbooks provide the most accessible and permanent indication of the content and methods of phonetics teaching, and there is an understandable tendency to regard the history of phonetics teaching as encapsulated in a succession of big names such as Sweet, Daniel Jones, Ida Ward, Gimson and Ladefoged. But there are important provisos. First, remarkable contributions can be lost to history [6], [15]. Secondly, without
information on the sales and extent of adoption of particular works, we cannot gauge their impact. Laura Soames produced what is probably the first teacher- and student-friendly introduction [16]. She is now a virtually forgotten figure, though her practical influence on her contemporaries (for example, in recruiting large numbers of school teachers into the IPA) may have been greater than that of Sweet (by whom she was unfairly disliked).

A very desirable first step would be the creation of simple annals of relevant publications, linked, if resources permit, to a physical or digital repository of the works. A model—and a possible nucleus—exists in the Warwick ELT Archive [18], a collection of resources such as course books, methodology textbooks, dictionaries, journals and some unpublished papers spanning a period from the late 19th century up until the 1990s. Most of the material relates to English language teaching in the UK and abroad, but the archive also contains a selection of books by seminal phoneticians who shaped language teaching in the first half of the 20th century such as Jones, Passy, Palmer and Lloyd-James. The archive is work in progress and cataloguing is still incomplete, but already in its present shape the collection provides abundant resources for studying the history of EFL.

It would be possible to augment this existing textbook collection in the direction of pronunciation training materials, or if resources can be found, to create a parallel archive specifically for the field of phonetics. This could include phonetics textbooks, published practical training materials, and where available unpublished handout material and course notes. Contemporary book reviews, bibliographies and reading lists can all help to provide insight into the teaching methods and perspectives at various times. The creation of a really comprehensive historical bibliography and archive could best be undertaken as a collaborative international project. Such a collection should extend beyond pronunciation teaching for EFL, to cover applications of phonetics to the description and teaching of other languages, and to clinical work and speech training.

2.2. Technology

Technology has played a role in the teaching of phonetics since the earliest days, and being more newsworthy than conventional classroom activities has probably left a disproportionately large historical footprint. Indeed, one might wonder cynically if one of the main uses for technology has been to generate publicity. A number of 1920s newspaper articles [11] indicate that Daniel Jones was apparently not unwilling to be linked with what appear rather far-fetched claims for the kymograph as a teaching aid. Around the same time, a newspaper account of the UCL Summer Course [10] describes an ethos and student body not unlike those of today, but gives prominence to the use of equipment such as the lioretgraph—a cumbersome and laborious method of waveform plotting that can have found little use in practical pronunciation teaching.

Equipment is rapidly superseded, and though photographs are fairly common and some rare film [2] has survived, much apparatus is probably now lost for ever. There are some small museum collections (though virtually nothing of significance in Britain) and there is a need for an international survey of holdings and concerted efforts at preservation and curation. In the field of phonetics applied to language teaching, one remarkable collection which deserves to be better known is the Language Laboratory archive held at Kansai Gaidai University in Osaka. There, specimens of all the university’s successive language laboratory installations are preserved, together with generations of audio-visual apparatus from the language-teaching classroom.

2.3. Media

Audio recordings clearly constitute a key phonetics teaching resource, and have been produced for this purpose since the very earliest days of sound recording. But both in Britain and internationally, historical holdings are haphazard and incomplete. There is no international union catalogue of audio material, nor even, it would seem, a serviceable conspectus of sound archives around the world. The British Library National Sound Archive started only in 1955, and even from that date acquisitions have been dependent on voluntary donation rather than legal deposit requirements. It is not uncommon to find that copies cannot be located of recordings known to have existed, or that accompanying printed materials such as course books are preserved, and the recordings themselves lost. Even after preservation and cataloguing, audio material may be difficult to search thematically since crucial information such as date of production and identity of speaker may have been
missing from the record labels which provide the primary information for indexing.

We have been able to make a significant addition to the archive of audio resources in Britain in the form of the UCL Phonetics Collection. At the time of the Phonetics Department’s move from its long-established home in Gordon Square in spring 2008, some 500 gramophone records came to light, dating predominantly from the inter-war period of the twentieth century, and including both commercial and unpublished recordings, covering lectures, performances, and extensive teaching materials for English and many other languages. Daniel Jones is strongly represented, as are various colleagues who were to be seminal figures in their own right. A detailed catalogue was prepared, enabling the British Library to confirm that a significant proportion of the UCL collection was apparently unknown in the Sound Archive. An accession agreement was drawn up and eventually approximately 80% of the collection was accepted and catalogued. A search of the Sound Archive catalogue currently shows some 409 items tagged as “UCL Phonetics Collection”, and further additions are scheduled.

Of course, preservation and cataloguing are merely a beginning. Ideally, the entire collection should be digitized and made freely available online, though attempts to gain funding for that have so far failed, and only a small proportion of the collection has yet been digitized. Nevertheless, the research potential of the collection has already been adequately demonstrated [14].

3. ASSESSMENT

As experienced teachers know, “[w]hat and how students learn depends to a major extent on how they think they will be assessed” [4]. But it seems there has never been a comprehensive account or critique of assessment in phonetics. A century of phonetics teaching and examining at UCL has left a legacy of assessment materials (examination question papers, oral examination materials, etc) “which potentially charts the history of teaching in the subject just as clearly as do generations of lecture notes or the succession of textbooks” [1]. In 2007 funding was obtained to assemble and digitize some 230 items stretching back to 1929.

The next step was the creation, using Microsoft Access, of a database to facilitate reference. Items were classified according to their date, the academic programme which they served (for example, the MA Phonetics, the Diploma of Licentiateship of the College of Speech Therapists, etc), and their type (written examination, oral examination, etc.). Certain aspects of the internal structure of question papers are also represented; in particular, there is a long tradition for including a practical transcription task as one of the choices within a paper otherwise consisting of ‘essay’ type questions, and this was made apparent by including a sub-category ‘Style of assessment’. Copies of the completed archive and database are available on request to interested researchers.

In the early twentieth-century heyday of its influence in language teaching, phonetics was assessed in a variety of contexts, and not only within specific phonetics programmes. For instance, the Cambridge Certificate of Proficiency in English (CPE) is taken by language professionals, many of whom work in the EFL industry. But it may be a surprise to note that in the early years of the last century CPE used to have a compulsory 90-minute written phonetics paper [18]. This inclusion was in line with contemporary teaching approaches, which considered phonetics to be an indispensable tool of a language teacher’s trade and reflected the influence of Daniel Jones (whose Pronunciation of English was the sole recommended text). The paper was demanding, consisting of two passages to transcribe, one in a careful, the other one in a conversational style, and several theory questions, testing the understanding of phonetic terminology, articulatory phonetics and teaching of English pronunciation to a non-native learner. Phonetics was eventually perceived as a factor discouraging entrants from the examination, and was removed from the exam in 1932. CPE survived and flourished, but proper phonetic training is often sadly lacking from a teacher’s repertoire of skills today.

4. LEARNING

Whereas teaching and assessment to some extent leave their own record in the form of the necessary textbooks and examination papers, learning, being largely a subjective experience, is much more difficult to document. We must turn to personal records such as memoirs—but when, as often, these are written long after the event and contributed to tributes and Festschriften dedicated to teachers, they may need to be interpreted with caution. In the long term, for example, Daniel Jones became a globally preeminent figure and

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those who had been taught in his early classes tended retrospectively to idealize their time at UCL [12]. But looking at the actions and writings of alumni nearer the time does not suggest that Jones was immediately seen as charismatic or inspiring. For example, Smimasa Idichi (1884-1984), who was to become Professor of English at Waseda University, followed phonetics courses in 1911-1912, become a member of the IPA, and published in Le Maître Phonétique, but strangely makes no mention of Jones or of phonetics in a lively account of his time as a foreign student in London, published in 1914 [9].

There are indeed some remarkable historical insights to be found into the experience of learning phonetics, though at present they remain scattered and need to be collected and analysed. Alice Herbage, the wife of E. R. Edwards, published a thinly fictionalized account of Edwards’s time as a phonetics research student in Paris [7]. Her vivid description of his doctoral defence merits comparison with a factual account of the same event, published by Passy [13].

Oral history is another source. The interviews with phoneticians conducted by Beverley Collins in the 1980s as background research for [5] include, for instance, reminiscences by Mrs Eileen Whitley of the experience of being in an ear-training class conducted by J. R. Firth, and of how much more discursive and interactive it was compared with those of Daniel Jones.

5. CONCLUSIONS

We have called attention to a range of scholarly resources but at the same time have had to point to serious gaps. The last hundred years of teaching in phonetics have coincided with great changes in society and education, and the history of phonetics teaching cannot be studied in isolation from such momentous factors as gender and social class. Enough has been said, perhaps, to establish that the history of phonetics teaching, and of its practical application in pronunciation training, is much more than a succession of ‘schools’ or approaches, and deserves to be studied in as broad a context as possible.

6. REFERENCES


[10] London’s Hall of Babel. The Straits Times (Singapore), 15 September 1923.


THE ‘IPA EXAM’ –

CERTIFICATE OF PROFICIENCY IN THE PHONETICS OF ...

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ABSTRACT

Once familiar worldwide to teachers of phonetics and pronunciation, the scope and demands of the International Phonetic Association’s Certificate examination are not always fully appreciated by candidates coming forward to take it today. Apart from the IPA’s website [6], little is written about it. This paper describes the content and structure of the examination, its background and present-day value.

Keywords: IPA Certificate, ETD, articulatory description, transcription.

1. INTRODUCTION

1.1. Origins of the Certificate examination

At the beginning of his career, in 1905, Daniel Jones (1881-1967) joined the Association Phonétique Internationale (API) and in 1906 attended classes in the phonetics of French given by Paul Passy (1859-1940) at the Ecole des Hautes Études in Bourg-la-Reine, France. Jones sat what became the Certificate examination of the API in the phonetics of French, achieving an exceptional 56 out of 60, his Certificate signed by Passy.

The following year, Passy published this Certificate scheme for French in Le Maître Phonétique (MF) [8]. Here, too, we read that the scheme was pre-dated by a German version, run by Wilhelm Viëtor (1850-1918). In the next number of MF, Jones replied with a parallel format for an English examination [7]. In 1908, following approval by Council to run the examination for the three languages (English, French and German), the English version was offered for the first time at University College London where Jones himself was now a member of staff. The role of English Examiner was at first held by Dr Ernest R. Edwards (1871-1947). This part of the history is summarised in the Association’s Handbook [5]:

A further aspect of the Association’s activities since 1908 has been the organization of examinations in phonetics, leading to the award of Certificate of Proficiency in the phonetics of English, French, or German. Daniel Jones took over as English Examiner on a permanent basis following elections for the post in 1910 [8], and a nice touch in the early years was the publication in MF of successful results for all the languages together under the heading rgzamé d fãnêtik, as in this 1909 example [4]:

le person də le nɔ sɥi:v s sibi akev lez eprœ:v də l egzam ð fãnêtik:
pur le frâ:sə: J.H.B. Lockhart, Eagle House, Sandhurst, Berks, Angleterre;
Prebleton, Canterbury, Nouvelle Zélande.

In its heyday, the number of entrants increased annually and more international links were established including the setting up of a diploma in “Elementary Phonetics for Indian Students” in 1913 at a slightly lower level than the Certificate examination itself and including work in the candidate’s mother tongue [3].

The Certificate met a real need, signalling both knowledge of and practical ability in phonetics. This was especially important in the period before phonetics became an established subject in degree syllabuses.

1.2. The Certificate examination today

While the examination has changed very little in content and structure, training and practice in practical phonetic skills is rapidly disappearing in both post- and undergraduate courses. Numbers taking the examination are dwindling. Nonetheless, the award is still coveted and holding the award is a badge of phonetic ability. For some employers in both the public and private sectors, it has become a required qualification (in the BBC Pronunciation Unit, for example, and an increasing number of private language colleges). And even if not a formal requirement, it is a qualification that can make all the difference, distinguishing otherwise equal applicants for speech-related jobs. The award
is sought today not only by language teachers but by accent coaches, speech and language therapists, educational psychologists, actors, singers, and many others, and is appropriate for both native and non-native speakers.

2. THE EXAMINATION IN DETAIL

The present examination is in three parts: a written theory paper (which also tests the ability to transcribe without reference to pronouncing dictionaries), an ear-training dictation test (covering spoken English and the sounds of the International Phonetic Alphabet), and an individual oral examination.

2.1. The written theory paper

Completed in a 2½ hour period without access to reference materials of any kind, the paper consists of a passage for transcription plus three further, questions: the articulatory description of a short word or phrase (around seven segments in length) and two essay questions, focusing on the segmental and suprasegmental phonetics and phonology of the language in question. All must be attempted and are equally weighted. For many years, the language of focus has been exclusively English.

2.1.1. The transcription passage

Question 1 is always a transcription passage, a short text of ‘spoken’ English, some 100-120 words in length. To encourage chunking into short intonational phrases (IPs), systematic use of weak forms and evidence of connected speech processes (assimilation, elision, etc.), the style reflects spontaneous speech as closely as possible. Non-native speakers of English transcribe a standard accent such as non-regional British English (RP, as was), General American, etc., but native speakers may opt to transcribe any accent, although if this is a non-standard one, a statement of accent is required. For widely documented accents (General American, Australian, etc.) it is enough to name the accent, but for less well documented accents, key features deviating from the standard will need to be listed. The text typically includes small challenges – dates, numbers, temperatures – all to be transcribed as if spoken: £6,000,000 of debt, for example, 21°C, or on 1 May (/ˈsiks miːljan ˈpaonz əv ˈdeɪt/, /ˈtwenti wʌn diːˈɡriːz/ selˈɛksəs, /ən ðɪ fəst/ selˈɛm/) strange names or foreign words, where an educated guess may need to be made (such as Nestlé from the August 2005 paper where /ˈneslɛt/ or /ˈneslɛ/ would both be accepted while */ˈnesleɪt/ or */ˈnesleɪ/ could each be considered to include a segmental error and */nes ˈlɛt/ a stress one). A typical passage is the following, from the May 2010 paper:

'It's tough being Prime Minister. Billions in debt to repay, wars in far-flung lands, and the press after your blood. So what do you do? Go for a walk. Luckily, one of the perks that comes with the job is a house set in the heart of some of the finest walking country in England. Chequers, near Princes Risborough, in Buckinghamshire. Margaret Thatcher said she didn't think anyone had stayed there long without falling in love with it. Sadly, I don't personally rate a prime ministerial dinner invitation (yet!), so the best I can do is put on my walking boots, get out the map, and set off to see if all the superlatives are merited.

2.1.2. Articulatory description

Question 2 requires candidates to write an articulatory description of a short word or phrase, for example scribbled (August 2005), in case you... (May 2011).

Unfortunately, articulatory description (a widely taught and practiced skill in years gone by) is much less widely taught today. Nonetheless, this still has value, homing in as it does on both the general phonetic detail of the segments involved and on English pronunciation habits, and most importantly on the understanding of coarticulation. Additionally, there is often scope for phonological variation (as in in case you, where /s ju/ can become /ʃ ju/ or even /ʃu/).

Help is offered to prospective candidates in the form of online advice on the IPA examination web-page where a model answer using the word creamcake is provided, complete with guiding annotations [6]. The exercise can also be studied and practiced in at least one recent textbook [1].

The question also provides an opportunity for demonstrating the ability to produce more detailed phonetic transcription of the language and to draw and label diagrams (the parametric representation of velum and vocal-fold action, a vowel diagram, and an appropriate vocal tract drawing which will ideally also exemplify coarticulation).

2.1.3. General essays

Finally, the paper contains two general essay questions. Typically, one of the questions will focus on general phonetic theory and the segmental
phonetics of the language while the other focuses on suprasegmental and more phonological topics. The paper includes an element of choice since each essay question normally has an either/or format.

Detailed and comprehensive answers are expected, showing a thorough grasp of general phonetic theory, plus the ability to apply this to the description of a specific language, provide phonetic detail in transcription where appropriate, select a range of correct examples, and draw diagrams of all kinds that will support and illustrate the theoretical concepts under discussion.

For example, candidates describing states of the glottis would be expected to identify the glottis, explain production of modal voice, explain and exemplify voiced vs voiceless sounds ([t, m, b, z] vs [m, p, s], etc.), place of articulation ([f, h, ñ]) pitch (in intonation and lexical tone) as a consequence of f0, and other phonation types (creaky voice, breathy voice, etc.). Likewise, candidates discussing aspiration will also need to show understanding of VOT, unavoidably going beyond simply the phonetics of English, and so on.

2.2. The ear-training dictation (ETD) test

Simulating fieldwork, this part of the examination (taking approximately 45 minutes) is in two parts: English dictation and nonsense words.

2.2.1. English dictation

The English dictation (in London, this is delivered using a non-regional British English accent) is transcribed in the accent in which it is dictated, just as if one was working with an informant in the field, but using broad/phonemic transcription, marking sentence stress (but not intonation), and including IP boundaries as far as possible. The text is from 100 to 150 words in length and presents challenges to the candidate in terms of unfamiliar content (place names, for example) and sophisticated processes (extreme contractions, unusual assimilations, etc.). The following example from the August 2012 examination is typical, including the American place names Poughkeepsie and Ashtabula, as well as both incorrect and correct pronunciations of the British Wymondham, contraction of for + example, assimilation of [m] to alveolar in sometimes, and r-liaison after fibula (all highlighted):

1 /lændən/ ɔr ˈjus tu hæŋ əʊnˈvæsɪz ˈvɪznəz /
2 ˈstræŋɡɪŋ wɪd ʊn tu ˈʌs ɔr ˈveri fa ˈmɪljo ˈples neɪmz ||
2.3. The individual oral

The third element of the examination is an individual oral examination conducted by two examiners, working together. The oral consists of reading from transcription (a passage of English and then six non-English sounds), identifying substitutions, and the production, identification and description of intonation tunes.

2.3.1. Reading from transcription

The oral examination focuses not only on a candidate’s ability to recognize sounds, but also on ability to perform them. Traditionally, the oral begins with the candidate reading aloud a passage of English transcribed in the accent appropriate for the examination in question (non-regional British English for London-based examinations, for example) and for which they have 15 minutes to prepare. The passage is demanding and the reading is evaluated impressionistically by the examiners for accuracy and fluency. One examiner will then ask the candidate a brief theory question after the reading is completed based on a feature noted in the candidate’s performance or the relevance of the candidate’s first language to aspects of English pronunciation, etc. Japanese-speaking candidates, for example, might be asked about certain final consonants or consonant clusters, while a native-speaker of English might be asked about differences between items in the reading passage and the citation forms of those items.

The candidate is then asked to sight-read six non-English sounds from transcription. These consist of three vowels and three consonants (the latter presented intervocally) such as one of the following sets from the August 2012 examination:


2.3.2. Substitutions

The second exercise undertaken in the oral examination involves two sets of substitutions one performed by each examiner. Here candidates are required to identify and label consonants substituted (usually for an intervocalic consonant) in a given carrier word. The examiner will initially perform the item twice and the candidate may then ask for further repetitions, as required. For example, instead of intervocalic [t] in fighting, the candidate heard: 1. [kl], 2. [c], 3. [n], 4. [k] for each of which (s)he is required to provide the full Voice Place Manner label, and the same for a second set involving substitutions for the intervocalic [l] in tally, 1. [l], 2. [j], 3. [d], 4. [d] (all examples from the August 2012 examination).

2.3.3. Intonation

For this final exercise, the candidate is first given four tonal patterns to sight-read, such as:

1. please ‘call me’ 2. please call ‘me’ 3. please ‘call me’ 4. ‘please call me’

(example again from the August 2012 examination).

Next, the candidate is given a short IP (on paper) such as he offered to buy me a new one || and asked to say it aloud a couple of times (using an identical tune on each occasion) before describing the tune they have used, using an established descriptive framework such as Wells [10], ToBI [2], etc. An examiner will then say the IP again, using a different tune from the one produced by the candidate and the candidate describes the examiner’s version.

3. CONCLUSION

In conclusion, taking into account the trend to remove traditional phonetics from modern degree courses, in spite of these traditional skills still being widely needed, it is clear this Certificate examination still has an important role to play, testifying to a basic minimum of phonetic training.

4. REFERENCES

ANXIETY IN A FOREIGN LANGUAGE PRONUNCIATION COURSE

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ABSTRACT

The main aim of this paper is to share observations on what can make a course of foreign language (FL) pronunciation, run with a group of students (rather than in the form of individual tuition) in a traditional classroom (rather than in a language or computer laboratory), anxiety-breeding. The source of data is learners’ reactions and opinions on particular tasks they were involved in during a pronunciation course. What follows the presentation and analysis of students’ comments are a few suggestions on how the level of anxiety can be reduced by the teacher.

Keywords: anxiety, FL pronunciation self-image, self-efficacy and self-assessment, fear of negative evaluation.

1. INTRODUCTION

Despite the fact that many learners studying English as their major at tertiary level are usually linguistically talented and highly motivated to achieve native-like pronunciation, some of them appear not to benefit much from a pronunciation course, making very little, if any, progress in this language aspect.

There are many reasons to suggest that the cause of taking limited advantage from the course might be anxiety. According to the interference model of anxiety, it is said to significantly debilitate cognitive processes involved in learning, making it less efficient. More specifically, anxious students are said to have problems with focusing on and performing learning tasks, since they constantly concentrate on scanning the learning situations, materials, and stimuli for potential sources of threat and danger to their ego [2]. At the same time, several studies have proven that the most anxiety-generating skill is speaking, particularly in front of other learners, and that the FL aspect which learners are most concerned about and which most frequently causes apprehension and fear of ridiculing oneself is pronunciation, e.g. [3], [4], [6]. The subjects of the research conducted by Price [4: 105] point out that it is their “terrible accent” which leads them to “great embarrassment.”

Taking into consideration the facts presented above, it may be hypothesized that a pronunciation course run with a group of students in a traditional classroom can be particularly anxiety-provoking, which may hinder benefiting from it.

What sheds more light on the matter of anxiety in the context of pronunciation learning is a recent preliminary study [1] in which a statistically significant negative correlation was found (r=-.45 at p<.005) between the level of anxiety experienced by learners during a pronunciation course and their pronunciation skills represented after it. Moreover, the research revealed that the most important correlates of the anxiety accompanying pronunciation practice are pronunciation self-image (beliefs about the way one looks and sounds like when speaking a FL), pronunciation self-efficacy and self-assessment, and general oral performance apprehension, which together are assumed to form the variable of fear of negative evaluation.

The present study was launched to verify the quantitative data achieved in the above-mentioned research and to understand better students’ feelings accompanying the performance of different activities offered during a pronunciation class, so as to be able to plan ways to lower the level of anxiety experienced by learners during the course.

2. METHOD

2.1 Participants

To learn about the emotions of learners evoked by different tasks performed during a FL pronunciation class, a study was conducted among first-year extramural students (N=28-34) of the School of English at the University of Wrocław (UWr), Poland. The average age of the learners was 21, ranging from 19 to 24. Before beginning their studies at the university, most of the learners passed a final external examination in English in their high schools at a B2 or C1 level (according to the CEFR). Many of them attended additional courses of English in language schools. However, neither of the courses offered formal instruction and practice in pronunciation. 46% of the participants had paid short visits (from one week to two months) to English-speaking countries (mainly Great Britain) at the age of 15-22.

The subjects were either highly (23%) or very highly (77%) motivated to achieve a native-like level of pronunciation. Where the model of English pronunciation is concerned, 86% declared they were more attracted to Received Pronunciation (RP), while the remaining 14% chose General American (GA) as the norm to approximate.
2.2 Course description

The School of English at the University of Wrocław offers extramural students a two-year course of pronunciation at the BA level, with thirty 90-minute classes in each year. While the first year is focused mainly on segments, the second is devoted to suprasegmentals. It is one of the obligatory practical courses in English, in addition to writing, grammar, integrated skills (a course focused on developing receptive skills and vocabulary), and conversation classes. It is important to clarify that the extramural students are only briefly introduced to English phonetics and phonology during one of the 90-minute lectures run on ‘Introduction to linguistics’. Since phonological competence has proven to facilitate progress in pronunciation learning, e.g. [5], some theoretical issues, such as the place and manner of articulation of consonants, vowel characteristics, aspects of connected speech (weak forms, assimilations, elisions, linking), word stress and rhythm, features of RP and GA were briefly discussed during the pronunciation course. Another tool used in each pronunciation class was IPA, introduced to the learners from the very beginning of the course. The ability to transcribe lexical items was tested regularly via short transcription tests taken approximately three times each semester, and was necessary to complete the course. The other criteria of students’ evaluation were phonetic competence and, most importantly, their actual pronunciation, i.e. the level of accentedness, word pronunciation (e.g. words commonly mispronounced by Poles and lexical items from the more advanced level of proficiency) and consistency in using one of the accents (RP or GA).

Most of the classes of pronunciation attended by the participants of this study began with reading texts and vocabulary practised during the previous classes, followed by a theoretical introduction e.g. to a new consonant. Its place and manner of articulation were provided by means of various techniques appealing to different modalities and senses of the students. An attempt was made to use the inductive approach, i.e. the learners tried to observe and come up with their own hypotheses about how particular segments in English are pronounced and how they differ from Polish counterparts. The practical part of the lesson would usually start with a few exercises warming up the articulators, borrowed from speech pathology. What followed was repeating words and sentences, in which the sound appeared in different contexts. Finally humorous dialogues were listened to and then read aloud in lockstep (by all the students together in chorus), and then privately in groups of three or pairs. While the students were practising reading dialogues in pairs and small groups, the teacher monitored their work, coming up to each pair and offering further help if needed. After having practised reading with a friend, a few learners read the text aloud to the rest of the group. The controlled tasks were supplemented with game-like activities, more meaning-focused tasks (e.g. role-plays), in which usually authentic materials (e.g. films) were used, and presentations of volunteers based on project work, e.g. on different English accents. Additionally, about 15 minutes of each lesson were devoted to transcribing vocabulary items that appeared in the read texts, which the learners were required to know for the written IPA tests. The students would first try transcribing the words individually or in pairs and then chosen students (usually volunteers) would write down their versions on the whiteboard, so that all the students could see the correct transcription. In the case of erroneous transcription, the teacher guided students to the proper form, encouraging self-correction.

2.3 Instrument

In January and February 2013, when the participants had already participated in ten 90-minute pronunciation classes, directly after each of the next five lessons they were asked to fill out reflection sheets anonymously. Next to each activity/stage of the lesson, the learners specified their level of anxiety on a scale of 0 to 5, where 0 indicated ‘no anxiety’, 1 ‘low anxiety’, 2 ‘rather low anxiety’, 3 ‘rather high anxiety’, 4 ‘high anxiety’, and 5 ‘very high anxiety’. Additionally, the subjects were encouraged to share feelings and opinions about each task, writing them either in their mother tongue or English.

3. RESULTS

Table 1 depicts the anxiety load of chosen activities, resulting from averaging the digits provided by the subjects present during particular lessons.

The activities from the top of the list (ranked from I to IV), i.e. those that proved to be the most anxiety-generating, are all tasks demanding that the learners perform individually. Among the comments provided by the learners to the oral tasks were the following:

- “I am terribly stressed because I know others are assessing me.”
- “When somebody reads, you can hear all the mistakes; I like to learn from others, but I don’t like to read out aloud myself.”
- “I know it’s a good exercise but I worry I might pronounce something incorrectly, making a fool of myself.”

In their comments on individual performance tasks students more or less directly referred to their FL pronunciation self-image and self-assessment, which they usually built by comparing themselves to others:

- “I like my pronunciation, so I don’t mind reading aloud.”
- “I know I look silly when pronouncing the ‘th’ sound, so I was really stressed reading all those words.”
The comments were echnically interesting. The students’ L1 pretending to be ‘high’, ‘high’ or ‘very high’ were lassified making these strange faces. 

ue that as more confident and more sense when the reading, speaking or repeating was assessed. Additionally, some learners pointed to their general tendency to feel stressed when performing in public and their specific personality trait (e.g., perfectionism) as the reasons for them feeling uneasy when reading, speaking or repeating:

- “That’s just the way I am, I don’t like public performance.”
- “I always get nervous when I know I am observed by others.”
- “I’m shy.”
- “I get stressed because I always want to achieve the best results.”

The least anxiety-provoking tasks (XIII-XV) were those performed in groups and pairs. Among the comments provided about these activities were the following ones:

- “I don’t feel discomfort when repeating together with others and can focus on the task, trying to repeat as accurately as I can. Besides, I love the dialogues, they’re so funny.”
- “I like repeating after the teacher or recording with my friends. I think this is what helps me most.”
- “Very helpful in forming proper habits.”
- “I like reading in pairs with my friend. But it has more sense when the teacher comes up to us. Then we are more confident that our pronunciation is ok.”

Although nobody considered chorus repetition and reading particularly stressful, a few learners considered this form of practice ineffective and annoying, e.g.:

- “I don’t see the point of reading aloud with others. They read in a slower pace and this irritates me.”

To help students realize what the differences between the L1 and English phonetic systems are, a task was suggested involving reading a dialogue in pairs in the students’ L1 pretending to be native speakers of English. The exercise clearly showed that some students drew significant attention to their pronunciation self-image and had problems changing and accepting it, which made them stressed and probably unable them to benefit from the task. Others claimed the exercise made them anxious, since they found it difficult. Among the comments were the following ones:

- “I don’t like this type of exercise. It makes me sound ridiculous. I can’t relax and have fun from it as others.”
- “I don’t know how to make myself sound that way and, besides, I don’t want to.”

On the other hand, some participants wrote:

- “I felt like an actress. What a great idea!”
- “I wasn’t embarrassed at all. It was funny and I had a great time.”

What evoked extreme reactions in the students was also articulatory gymnastics, i.e. an exercise borrowed from speech therapy, aimed at warming up the articulators and raising the participants’ awareness of the positions and movements of the organs of speech when producing L1 and FL sounds. An attempt was made to lower the affective filter by seating the students facing the teacher rather than each other and by asking them to keep their eyes closed after having seen what their task was. Here are some of the opinions about the activity:

- “That was awesome!”
- “I have never taken part in an exercise like that. I really enjoyed it and felt I am ready for further practice.”
- “That was relaxing and fun! Thank you!”
- “What a nightmare! A stupid idea!”
- “I felt embarrassed making these strange faces. Luckily, nobody saw me (I hope!).”

Furthermore, it appears that also listening to presentations, performing written exercises and game-like activities can fuel anxiety (anxiety load = 2.50 - 3.45). In their comments the subjects referred again more or less directly to their low self-efficacy, self-esteem, low phonetic competence and pronunciation skills as sources of their discomfort. Among the reflections of students who assessed their anxiety in this task as ‘rather high’, ‘high’ or ‘very high’ were the following ones:

- “I always have problems with identifying the place of articulation. I just can’t see it. I always get stressed then.”

<table>
<thead>
<tr>
<th>Rank</th>
<th>Activity</th>
<th>Anxiety load</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Reading aloud individually (dialogues)</td>
<td>3.75</td>
</tr>
<tr>
<td>II</td>
<td>Transcription test</td>
<td>3.72</td>
</tr>
<tr>
<td>III</td>
<td>Transcribing on whiteboard</td>
<td>3.64</td>
</tr>
<tr>
<td>IV</td>
<td>Reading aloud individ. (words)</td>
<td>3.61</td>
</tr>
<tr>
<td>V</td>
<td>Pretending English NS reading in L1</td>
<td>3.57</td>
</tr>
<tr>
<td>VI</td>
<td>Identifying places of articulation of post-alveolars</td>
<td>3.45</td>
</tr>
<tr>
<td>VII</td>
<td>Bingo – practising perception of minimal pairs</td>
<td>3.42</td>
</tr>
<tr>
<td>VIII</td>
<td>Articulatory gymnastics</td>
<td>3.25</td>
</tr>
<tr>
<td>IX</td>
<td>Written game-like activities (based on IPA)</td>
<td>2.76</td>
</tr>
<tr>
<td>X</td>
<td>Presentation (weak forms)</td>
<td>2.54</td>
</tr>
<tr>
<td>XI</td>
<td>Written exercise on weak forms (identification and transcription)</td>
<td>2.50</td>
</tr>
<tr>
<td>XII</td>
<td>Individual transcription with help of dictionaries in pairs</td>
<td>2.45</td>
</tr>
<tr>
<td>XIII</td>
<td>Practising reading dialogues in pairs</td>
<td>2.06</td>
</tr>
<tr>
<td>XIV</td>
<td>Reading dialogues aloud in chorus</td>
<td>1.98</td>
</tr>
<tr>
<td>XV</td>
<td>Repeating words in chorus</td>
<td>1.50</td>
</tr>
<tr>
<td>XVI</td>
<td>Song (comprehension check, cloze, sound hunt, singing)</td>
<td>1.35</td>
</tr>
</tbody>
</table>

Table 1: Anxiety load of chosen activities performed during pronunciation classes.
"I was terribly embarrassed 'cause I couldn't tell what the differences in the place of articulation between the L1 and FL sound was."

"I couldn't tell which word was which, so the game was not fun at all." [bingo]

"I found the exercise difficult and stressing. I am still not sure when the words are 'weak.'"

On the other hand, the participants considering the task anxiety-free explained:

"That was easy, so I didn't feel any stress."

"I liked the idea that we were doing the task together. It made it less stressing."

"It wasn't too easy, but I didn't worry because I knew that together with my friend we would manage."

Finally, although most students felt relaxed while performing various exercises with a song, one of the students declared high anxiety (4), adding the following explanation:

"I felt embarrassed listening to a song about love in the presence of other students."

4. DISCUSSION AND IMPLICATIONS

Opinions and reflections of the learners participating in the present research seem to lend support to quantitative study, in which the fear of negative evaluation was found to be a key correlate, related to the FL pronunciation self-image, self-efficacy, self-assessment, and general oral performance apprehension (personality). Moreover, unlike in the quantitative study, this time transcription practice also proved to be an important source of anxiety, particularly when the tasks required the students to demonstrate their ability to transcribe in front of others.

It seems that one of the ways of lowering the anxiety level experienced by learners during a phonetics class can be ensuring that their ego will not be endangered during the lessons. An attempt can be made to avoid tasks and situations evoking high anxiety or use them sparingly, particularly at the beginning of the course, when phonological competence and pronunciation of the learners are at a lower level. As the comments of the participants imply, lockstep can be used for chorus practice rather than individual performance or place of error correction. The tasks during which students feel most secure and claim to be able to focus on actual practice are those performed in pairs and groups. These exercises, however, seem to be considered by the students more effective when the teacher monitors their performance, i.e. walks up to pairs/groups to correct mistakes, offer assistance and further explanations. This is not to mean that individual performance should not take place during the lesson. However, it might be worth allowing some learners more time to tune in and accept their new FL images, giving them the ‘right to pass’, asking students with a lower pronunciation level to perform easier tasks, particularly at the beginning of the course, so as to minimize their level of anxiety.

Furthermore, as generally agreed, students will experience less stress when the atmosphere in the classroom is positive. The importance of classroom dynamics has been emphasized by a few participants of the study, who stated:

"Luckily, I feel secure in my group, so I don't mind making mistakes."

"Now I don't feel embarrassed, but when new people join our group next semester, it will take some time before I feel comfortable again."

Needless to say, it is also the teaching style, teacher-student rapport, manner of providing feedback and correcting errors, and concern for students’ progress that determine classroom dynamics.

Besides choosing activities with a low anxiety-load and nurturing positive classroom dynamics it seems crucial to help the students build a positive FL pronunciation self-concept. This can be achieved by helping them set realistic long-term and short-term goals, i.e. those whose successful realization is possible and observable in a particular period of time. What is equally important is adjusting the exercises, topics, presentation techniques and pace of work to the learners’ level, and thus allowing them to succeed. Furthermore, tasks consisting in observing and listening to oneself speaking the target language systematically can help students come to terms with and accept their FL pronunciation self-image. Additionally, the self-assessment of the students can be raised by developing their understanding that the process of learning FL pronunciation is usually long-term and effortful. Finally, the learner should be shown how anxiety can be lowered and encouraged to search for strategies that for him/her are the most effective.

6. REFERENCES


PRODUCTION ERRORS IN THE LEARNING PROCESS OF FALLING AND FALLING-RISING TONES

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ABSTRACT

Results obtained from both perception and production experiments performed in pre-test and post-test conditions indicate that L2 Spanish speakers of English perform better in perception than in production tasks in which the following were tested respectively: (i) the discrimination between English falling and falling-rising tones, and (ii) the production of such tones. A detailed analysis of the incorrect responses obtained in the post-test production experiment reveals that the nature of such errors may be either phonological, or phonetic, or it may result from the combination of these two factors. Specifically, the phonological errors consist of (i) an incorrect tune-meaning mapping, or (ii) an interference of L1 phonological categories. The phonetic incorrect responses show tonal misalignment with the segmental string, tonal undershooting, and abuse of vowel length as the only strategy to implement the fall-rise. Teachers should become aware of the nature of such errors in their teaching and learning strategies if they want to improve students’ performance.

Keywords: falling tones, falling-rising tones, pragmatic meaning, allophonic variation of tones.

1. INTRODUCTION

Learners of English as a foreign language either neglect the close connection between prosody and pragmatics, or they transfer their L1 prosody-pragmatics relations to L2, something which results in abnormal effects and also communication failure, as already reported by Ramírez Verdugo [9]. In order to improve and better understand the acquisition process of the L2 English prosody-pragmatics interface, and to ultimately enhance student’s learning process, we undertake a series of perception and production experiments which evaluate individually the acquisition of the falling and falling-rising nuclear tones together with their pragmatic interpretations. The results presented in section 3 indicate that after attending a course on English intonation - based on the theoretical description proposed by O’Connor and Arnold [7], and on the practical exercises included in Estebas-Vilaplana [3] - there is a significant improvement in subject’s perception and production. However, such a progress is unbalanced, i.e. their gain in perception is greater than that in their production. A detailed analysis of the incorrect responses in the production tests in terms of their phonetic or phonological nature, as described by Mennen [5], reveals that the teaching methodology adopted during the course on intonation requires a set of adjustments which will eventually prevent subjects from making such errors.

2. EXPERIMENTAL DESIGN

The experimental design integrates prosody and pragmatic effects, following House [4] and Prieto [8] by incorporating brief contextual descriptions which favour unequivocally the intended interpretations typically linked to the aforementioned tone types in English: following Wells [10] (25-27), an utterance produced with a fall indicates “that what we say is potentially complete (sic) and that we express it with confidence, definitely and unreservedly”; an utterance produced with a fall-rise indicates that “the speaker typically states one thing but implies something further […] perhaps some kind of reservation or implication”.

Stimuli are presented to subjects in the form of both perception and production tests, the former aimed at the subject’s assessment of tonal adequacy in the contexts provided, and the latter focused on the appropriateness of the student’s prosodic performance in the communicative situations offered. The stimuli for the perception test consist of recordings of t-shirt slogans of the type This land is your land. They are recorded twice so that one rendition is produced with a natural intonation pattern (that is, fitting the context provided), and the other exhibits an unnatural intonation pattern (that is, not fitting the
context). Subjects are asked to judge their degree of naturalness on a two point scale (1= natural; 0 = unnatural). In the production test, they are requested to record their own rendition of contextualized t-shirt slogans. Such recordings are then judged by a trained phonetician. The subjects involved in the experiment are 16 Spanish B2-level learners of English (Common European Framework, CEF). They take the experiments before and after being instructed in terms of both perception and production together with the tune-meaning mapping of the tones under study. Each subject listened to a total number of 10 paired stimuli in the perception test, and produced a total number of 10 recorded t-shirt slogans.

3. RESULTS

Statistically, the distribution observed in the aggregate score before and after students are instructed (the total number of correct responses by all subjects) reveals that there is an improvement both in the perception post-test situation (figure 1), and in the production post-test condition (figure 2). Furthermore, a non-parametric Wilcoxon test shows that these differences are statistically significant in the case of perception (p-value 0.001) and of production (p-value 0.002).

4. ANALYSIS AND DISCUSSION

A detailed analysis of the utterances in the incorrect responses shows that the production errors made by the subjects in the post-test condition fall either into the category of phonological mistake or into what is best described by Mennen [5] as a failure to produce the correct phonetic detail. Alongside this two-fold distinction, the L1 pragmatic effects associated with distinct tunes carry over into the pronunciation of English as a second language. Thus, the complete picture of why the subjects stand short of achieving the right intonation patterns results mostly from the actual nature of the error as phonological, or phonetic influence, or as a combination of both.

4.1. Phonological error

The following case types have been found in the students’ production: (i) the subjects can produce both a falling and a falling-rising tone but fail to associate the prosodic form with the meaning intended in the context; and (ii) the subjects end the intonation phrase with what is perceived as a fall to mid pitch instead of a fall to the baseline, as illustrated in Figure 3 over the intonation phrases Fishing is not a sport and It’s a way of life which both belong to a single slogan.

We first addressed (ii) as an incorrect use of range due to L1 phonetic influence, since it is a well-known fact that Spanish makes use of a narrower span when compared to English. Consequently, the students were instructed and trained specifically to widen their range following the strategies proposed in Estebas-Vilaplana [3]. Although some of them did succeed in rendering the expected complete fall, a few still persisted on such a timid descent. The reason for this may arise from the following situation: there is a recurrent intonation pattern described by Navarro Tomás [6] in Spanish declarative utterances that consists of a fall which ends well away from the baseline. The modeling of Navarro Tomás’s description in terms of the Sp_ToBI framework following Cabrera-Abreu et al. [2] treats this tune as a distinct phonological category, H* L%. However, the phonological representation in Wells [10] definite fall would be H* L% using ToBI annotations. Clearly, we can now observe the interference of a transferred L1 phonological category associated with the meaning ‘non-definitive’ with a different phonological category in English, whose meaning is ‘definitive’. Teachers on English intonation should become aware of the source of this particular error: rather than phonetic, we are confronted with a phonological issue.

4.2. Phonetic implementation

By phonetic implementation we refer to the tokens in which the students’ realization of the intonation nuclear pattern exhibits examples of the following: i) misalignment of the pitch signal with the segmental string, ii) gross undershooting of tonal height, or iii) abnormal extra-long valleys.

In English, if the fall rise occurs on the last monosyllabic content word of an utterance - as in the word nice in our slogan If you can’t play nice - the peak, associated with the beginning of the vowel, is followed by a rapid fall, which in turn is followed by an equally rapid rise to mid pitch, both of them taking place over the vocalic sound. However, our subjects tend to align the peak differently (see Figure 4): where the peak is found on the last accented syllable in English, it is much earlier in our Spanish speakers, to the extent that it is frequently placed on the immediate preceding
accented vowel (/εɪ/ in play). The fall is then realized over the complete last pre-nuclear word, play, and the rise takes place on the accented nuclear syllable, nice.

As for the case of undershooting, there are examples in our data in which the falling section of the fall-rise is absent, as can be seen in the word cox in Figure 5, where a low-rise curve is observed instead of a fall-rise. Close inspection of this contour leads us to suggest that the error is not only of a phonetic nature. Notice that in terms of Sp_ToBI, the modelling of the fall-rise is H* L H%, and the representation which best accounts for our student’s performance is L* H%. Given the fact that there is a change in the category from H* to L*, this issue should be addressed also from a phonological perspective.

One of the instructions that was given to students in order to implement a fall-rise consisted in assigning extra length to the nuclear syllable so that there is enough time to complete the complex pitch movement. Results show, however, that such an instruction has been recurrently abused, for there are many instances in which the subjects have produced an exaggeratedly long vowel (notice the extra-long valley over the word cox which results from exceeding lengthening of its vowel in Figure 6).

We assume that the instruction can be improved if subjects are asked to keep up a rapid tempo, rather than slow it down, which is what they tend to do when duration is increased.

In order to improve students’ performance of the falling rising tone, it seems clear that providing them with the phonological category and phonetic information concerning duration is not enough. Production would sound less foreign-accented speech if an alternative allotonic variant was presented: one in which the valley was absent (due to a narrowing of the pitch range, as described by Crystal [2], and the resulting F0 shape consisted in a nuclear tone with a two-target level, high followed by mid-level pitch.

5. CONCLUSIONS

The aim of this paper was to investigate why there is such an unbalanced improvement in the production of L2 English prosody with respect to the gain in its perception after learners attended a course on intonation. Our research confirms Mennen’s [5] proposal that both phonetics and phonology do participate in the acquisition process, and that such a distinction must be borne in mind when teachers design their materials with their goal of overcoming L1 interferences, and wish their students to achieve a successful learning experience.
Figure 3: F0 curve and ToBI labeling of the T-shirt slogan *Fishing is not a sport, it's a way of life* with falls ending well away from the speaker’s baseline.

Figure 4: F0 curve and ToBI labeling of the T-shirt slogan *If you can’t play nice, play hockey* with the word *play* integrated as part of a fall of an early displaced fall-rise.

Figure 5: F0 curve and ToBI labeling of the T-shirt slogan *You! Read my t-shirt with a low-rise (L* H%) instead of the expected fall-rise (H* L H%).

Figure 6: F0 curve and ToBI labeling of the T-shirt slogan *Rowers! Guided by their cox!* with an extra-long vowel resulting in an abnormal implementation of the expected fall-rise (H* L H%).

6. REFERENCES


1 Although perceptually this is understood as a fall to mid pitch, the graphic representation of the F0 curve remains high. A possible reason for the failure of the F0 curve to show the timid descent may be the presence of the final voiceless labiodental fricative consonant.

2 In this specific token, the subject has aligned a fall-rise tune with two accented syllables rather than with a single one, thus resulting in the sequence !H* L* H%, instead of H* L* H%. 
ARTHUR LLOYD JAMES AND ENGLISH PRONUNCIATION FOR FOREIGN LEARNERS

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ABSTRACT
The present paper concerns an almost forgotten figure in the history of British phonetic studies. Through his work with Linguaphone, the Basic English project and, most significantly, the BBC, Arthur Lloyd James became the public face of phonetic studies during the interwar period. In his various popular works on phonetics, two favourite themes emerge – the pronunciation of English in its social context, particularly as this applies to the concept of standards in speech, and the factors influencing the intelligibility of speech. The aim of this paper is to demonstrate how these preoccupations influenced Lloyd James’s approach to English pronunciation for foreign learners and led him to conclusions not very different from those of modern pronunciation teaching theorists.

Keywords: pronunciation teaching, BBC, standard pronunciation, speech rhythm.

1. BIOGRAPHY
Three years Daniel Jones’s junior, Arthur Lloyd James was born in 1884 in the mining village of Pentre in the Rhondda Valleys. His parents were Welsh speakers, though he did not speak the language himself. As the manager of the local colliery, Lloyd James’s father could afford to have his son educated at a boarding school in Llanelli [2]. On leaving school, Lloyd James first trained as a teacher and then gained a degree in French from the University of Wales before continuing his studies at Trinity College, Cambridge, where he got his MA. He joined the staff of Daniel Jones’s department at University College London in 1920, moved to the London School of Oriental Studies (now the School of Oriental and African Studies) in 1927 to become head of the department of phonetics and was finally made Professor of Phonetics there in 1933. Thus he was, after Daniel Jones, the second person to become Professor of Phonetics at a British university. The manner of Lloyd James’s death contributed significantly to his present relative obscurity – he committed suicide in 1943 at Broadmoor Criminal Lunatic Asylum having killed his wife in 1941 during a nervous breakdown brought on by the stress of the war [2].

2. THE BBC
Two years after Lloyd James took up his post at UCL, an event occurred which would have a profound and lasting influence on the sociolinguistic landscape of Britain – in November 1922 the BBC began its first radio broadcasts. Until this time speakers had only been exposed to the speech of people they met in person, who were naturally limited in number and in geographical and social background. With the introduction of broadcasting, the whole country could simultaneously hear the same voice; a voice imbued with the status and authority associated with the new medium and the cultural content of its programmes. The weight of this responsibility was soon felt at the BBC and from 1925 onwards Lloyd James, who had begun broadcasting programmes on English speech the previous year, was invited to give lectures on speech and pronunciation to BBC staff [14]. This preoccupation with the speech of announcers and the example they were setting to the nation next led to the formation in 1926 of the Advisory Committee on Spoken English, of which Lloyd James was a founder member and later secretary [18]. The committee expanded over the following years with members falling into two groups: scholars, such as Daniel Jones and Henry Cecil Wyld, and public figures, such as George Bernard Shaw and the Poet Laureate, Robert Bridges. The work of the committee consisted of making recommendations for the pronunciation of proper names of words with variant pronunciations. It was, however, made clear that this was done only for the purposes of in-house standardisation in order to ‘provide announcers with some degree of protection against the criticism to which they are,
from the nature of their work, peculiarly liable’ [8].

On behalf of the committee Lloyd James compiled a total of seven substantial booklets of ‘broadcast English’ between 1928 and 1939. After more than a decade of collaboration with the BBC which included broadcasts on English speech for adults and for schools, a very productive role as secretary of the Advisory Committee on Spoken English and extensive work auditioning, selecting and training announcers [10 pp. 21-24], Lloyd James was made linguistic advisor to the BBC in 1938 [13].

During the 1920s and 30s, on account of his broadcasts, the articles he wrote for The Listener, The Radio Times and the BBC Handbooks, and the appeals he made to the public for information on pronunciation preferences and the pronunciation of place-names [10 p. 34], Lloyd James came closer than any phonetician ever has to being a public figure or, in modern terms, a celebrity.

3. STANDARDS AND RHYTHM

There are two particular themes which emerge a number of times in Lloyd James’s various publications: the question of standard speech and the importance of rhythm in English.

Lloyd James’s work with the BBC very much fell into the category of applied phonetics – broadcasting raised practical problems for which there had to be found practical, not idealistic, solutions. It is an indication of the true novelty of the new medium that it was not foreseen that language variation was a potentially provocative issue. However, it very soon became evident that ‘critics, both amateur and professional, were not backward in expressing their opinions of the speech of the announcers’ [10 p. 31]. Thus for Lloyd James the question of standards and acceptability of pronunciation could not be ignored and an unceasing stream of letters written to newspapers, the BBC and the Radio Times was a constant reminder of this.

Lloyd James came to conclude that there were three types of standard in speech [8 pp. 159-168]. The first and most important is the standard of intelligibility because ‘[u]nless speech is intelligible, if fails’ [10 p. 156]. This most fundamental consideration is a natural outcome of Lloyd James’s research with early radio and telephone technologies [10 pp. 156-159], which he admits were ‘only barely efficient’ [10 p. 157] in this respect. An experiment carried out during a BBC broadcast with the public acting as respondents, for example, concluded that of the English voiceless fricatives, only the palato-alveolar ‘preserves its identity’ when broadcast, and ‘the others appear to be quite unrecognisable’ [7 p. 12]. In terms of the more strictly linguistic aspects of intelligibility, he found local dialects to meet this standard when used ‘in their own environment’ [10 p. 156] and he dismisses Robert Bridges’ hobby horse that full vowels be reintroduced in unstressed syllables [1] as contrary to the usual rhythm of English and therefore particularly damaging to intelligibility [10 pp. 158-159]. The second and next most important standard is the social standard, for Lloyd James believed that ‘when all is said and done, speech is Social Behaviour’ [12 p. 168]. This does not mean, however, that he felt that the speech of ‘superior’ people was necessarily superior. He had much evidence from the BBC mailbag to guide him in his judgements of which types of pronunciation were stigmatised, whether that be for sounding too upper-class or too lower-class, and came to the conclusion that ‘the average speech of young University men and women is not particularly acceptable to the majority of listeners in the country’ [10 p. 162]. Lloyd James’s third and least important standard was the aesthetic standard, a standard about which he was rather sceptical, having found elocutionists and public speakers to be the least successful broadcasters, their speech being characterised by unnecessary over-articulation, the use of full vowels in unstressed syllables and unnatural patterns of intonation, which resulted in performances which were coloured by a degree of social aspiration which he believed was offensive to the social standard of speech [10 pp. 164-165].

If Lloyd James is remembered at all in linguistic circles today, it is because he was the first to make the observation that in terms of rhythm, languages tend to fall into two groups. There are those in which stresses appear to recur at equal intervals of time, and those in which it is the syllables which seem to repeat at equal intervals. Following Pike [16 p. 13], these two kinds of rhythm are now typically referred to as stress-timed rhythm and syllable-timed rhythm respectively. Lloyd James, however, had his own more evocative terms – Morse code rhythm for stress-timing and machine gun rhythm for syllable-timing [13 p. 25]. His earliest recorded use of these
terms is in an instructional film made 16 years before Pike’s publication [3], and his confidence in giving them such prominence in the film would seem to suggest that this was a device he had already been using in his teaching for some time.

4. ENGLISH PRONUNCIATION FOR FOREIGN LEARNERS: MODELS

Lloyd James’s work as a phonetician involved a great deal of time spent teaching foreign learners, as he noted in a broadcast in 1932 “…it was my duty to teach English Phonetics to foreigners at University College, London. In ten years of that work you learn something, and the best way to learn the phonetics of your own language is to hear it spoken by foreigners” [10 p. 94]. His work with foreign learners was not limited to his experiences at UCL and the London School of Oriental Studies; in 1927 he recorded and provided the phonetic transcriptions for the Linguaphone English Literary Course for Advanced Students [6] and in 1930 he wrote the Linguaphone Conversational Course [9], besides acting as editor for a series of courses in non-European languages. In addition to this work with Linguaphone, Lloyd James also collaborated with C K Ogden in his Basic English project, a proposed auxiliary language based on English and using a vocabulary of 850 words. He provided a chapter on The Sounds of Basic English for Ogden’s The ABC of Basic English [15] as well as authoring a book of phonetic transcriptions of texts in Basic [11].

Such activities as these not only made it necessary for Lloyd James to apply the experience and knowledge he had gained at the BBC to the field of language teaching, but it also provided an additional forum for the elaboration of his views. It was, however, in a broadcast for native listeners that he best expressed his fundamental approach to the pronunciation of non-native English. Musing on the future of English in the world, he said:

There is only one criterion to apply to the English of to-morrow, only one standard by which the educated speech of to-morrow must be judged, and that is universal intelligibility. Any dialect, i.e. large dialect such as Indian English or African English, must be submitted to one test: it must be understood by all the English-speaking world. There will strange sounds, strange rhythms, and fantastic intonations to be heard in the outlying parts of the world, but so long as the people who use them are understood by the rest, then all will be well. [10 p. 128]

These views are surprisingly similar to those of some modern pronunciation teaching theorists [4]. Such a degree of tolerance to variation in pronunciation might be considered out of place for its time, but Lloyd James was a student of Daniel Jones, who had demonstrated how speech judgements were based on social prejudice [5], and his own work with the BBC had exposed him to the full range of prejudicial criticism and unscientific judgements which language variation arouses.

Despite the similarity of his views to those presently researching lingua franca English and his putting communication between non-native speakers on equal footing with that involving natives [15 p. 182], Lloyd James nevertheless believed that native speakers would provide the model for foreign learners. In his choice of model, however, he again demonstrates great tolerance. He is far less demanding than with his radio announcer pupils and rules that any educated native speaker is a suitable model for imitation. Perhaps because of his own Welsh origin, possible experiences with difficult students for whom all models were equally difficult, or for strictly practical reasons concerning foreigners’ access to native speakers, Lloyd James apparently felt that the exact choice of pronunciation model was a minor question as long as the accent was an ‘educated’ one. This insistence on a particular social variety stems from his belief in speech in its social context and the importance of social attitudes to pronunciation, the social standard, once the standard of intelligibility was met. Yet he still admits that since language must suit its social environment, an ‘educated’ pronunciation could at times be inappropriate, depending on the learner’s circumstances [11 p. 7].

5. ENGLISH PRONUNCIATION FOR FOREIGN LEARNERS: RHYTHM

Lloyd James’s description of speech rhythm as tending to be either ‘machine gun rhythm’ or ‘Morse code rhythm’ was no mere theoretical observation. For him Morse code rhythm was an essential characteristic of English speech and “…inability to reproduce English rhythm is one of the
most frequent causes why foreigners are misunderstood’ [10 p. 157]. Furthermore, the importance of speech rhythm for successful communication was not unique to English, for Lloyd James believed that ‘[t]he easiest way to be unintelligible in a language is to speak it on a wrong rhythm’ [10 p. 86]. It was therefore inextricably linked to his first standard of pronunciation – that of intelligibility. This is demonstrated in his writings on Basic English [11, 15], where greater emphasis is given to the importance of correct rhythm than to the production of individual sounds.

The significance of the role of speech rhythm in intelligibility and its importance in pronunciation teaching is now generally accepted. Roach, for example, dedicates four of twenty chapters to issues relating to stress, prominence and rhythm [17], and it is rare to find a practical textbook of English phonetics which does not dedicate at least some space to the topic. This being said, however, there are very few English pronunciation courses which focus entirely on the goal of improving rhythm, Vaughan-Rees’ *Rhymes and Rhythm* [19] being a rare example.

6. CONCLUSION

Each new generation is inclined to assume the thinking of previous generations must necessarily be conservative and unenlightened. This may be as true in pronunciation teaching as it undoubtedly is in many other areas of life. An examination of the work and career of Arthur Lloyd James, however, demonstrates that earlier generations too have met novel challenges with intelligence and ingenuity, and that the present generation does not have a monopoly on openmindedness and linguistic insight. In fact, as far as the questions of pronunciation models and speech intelligibility are concerned, the present generation may have some catching up to do.

7. REFERENCES

LEARNING ENGLISH PRONUNCIATION: BULGARIAN TERTIARY-LEVEL LEARNERS’ ATTITUDES AND MOTIVATION

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Abstract
In L2 acquisition, students’ language attitudes are considered an important factor, closely related to motivation, success and identity, particularly so when pronunciation is concerned. The aim of this paper is to examine the attitudes and motivation of tertiary-level Bulgarian students of English to learn English pronunciation, as well as to check whether these attitudes and motivation have changed when compared to the previous surveys carried out in this field among first-year students at the Department of English and American Studies, the University of Sofia, to study their attitudes to English pronunciation and their accent preferences. The questionnaire they were given contained various questions concerning students’ attitudes to English pronunciation, the perceived importance of correct pronunciation in ESL, self-evaluation of their pronunciation, previous experience with English, etc. The results suggest that learners’ attitudes and motivation have not changed and are an important factor influencing learners’ success in the acquisition of correct L2 pronunciation.

Key words: English pronunciation, tertiary-level Bulgarian students.

1. INTRODUCTION
At the beginning of the 21st century English has undoubtedly established itself as the language of international communication. This global spread has taken place with unprecedented rapidity because more and more people need to use English for social, educational, and professional reasons in all kinds of contexts, locally and internationally and because the development of electronic technology has effectively diminished the constraints of space. It is essential, therefore, that people who use English to communicate have a high level of intelligibility. This makes efficient communication one of the primary aims of foreign language teaching and poses the question of the importance of teaching English pronunciation to foreign learners at all levels of proficiency. A further consideration in support of the importance of teaching pronunciation is the fact that students themselves find this important for their language learning. Most want their pronunciation to be easily understandable and are often prepared to work hard to achieve it. They are motivated by their wish to get their message across and to have a good command of English pronunciation. If students give a high priority to learning pronunciation, then we as educators, have to recognize and respond to this in our teaching. In order to do so we have to investigate what students want, or maybe what they think they want, to learn in their Practical Pronunciation classes. This is true both of the course’s aims and objectives as well as of the pronunciation model(s) it offers to the students. This paper reports the results of a survey conducted in October 2012 among first-year students at the Department of English and American Studies of Sofia University.

2. BACKGROUND
Although teaching English pronunciation, be it in the form of the old ‘Remedial Phonetics’ classes or, much more often, in some more up-to-date form, is indeed an inextricable part of the academic curriculum, one could argue that at least to some extent this may be due to tradition, and that in teaching tertiary-level students native-speaker accents should be abandoned. The latter idea has recently found a number of proponents as well as critics (see for example Jenkins [5], [6], Seidlhofer [8] as well as Wells [9], among many others).

The pros and cons of teaching a simplified form of international English pronunciation - the Lingua Franca Core (LFC) put forward by Jenkins [5] - have been widely debated since the publication of
her book. On the face of it, the LFC allows us to spare a lot of classroom time and effort, and yet make certain that our students will be able to understand and to be understood, at least when they speak to other non-native speakers. But, as aptly pointed out by Wells [9], students should not be made to choose between EFL and ELF. Both at tertiary level as well as later at work, young people should be able to use English both for communication with other non-native speakers as well as with native speakers of the language.

Seidlhofer [8] observes that in many English Departments throughout Europe students learn in their applied linguistics courses about EIL and are urged to question native speakers’ ownership of English. “But then, these very same students go from their applied linguistics course to a room next door for their English language class, where they are taught, and are usually eager to learn, English idiomatic expressions and proverbs originating in the UK and the US as well as American English and English English intonation patterns, th-sounds and flapped t’s; …” [8]. Maybe a key expression in this quote is “…are usually eager to learn…”!

Seidlhofer goes on to admit that “…there may be learning purposes for which adhering to native-speaker models is a valid, or at least arguable, option” [8], and university English departments are likely to be one of the first among these. If students are indeed “eager to learn” native-speaker pronunciation, then is it right to deny them the opportunity to do so?

Given that even the most ardent proponents of ELF acknowledge the fact that it is ultimately up to the learner to choose his/her goal, we must accept that “even a learner whose target community is an ELF one may prefer a native rather than an ELF variety as their goal” as stated by Jenkins [6].

Perhaps the most important outcome of recognizing the complexity in the setting of goals in teaching pronunciation is to find out what our students know about pronunciation, what they want to learn about it and what they would like to achieve in their English pronunciation. They can also be encouraged to consider who they want to sound like when they speak English and what pronunciation model(s) they prefer. The present paper reports some of the results from an investigation which tries to address some of the problems outlined so far.

3. THE INVESTIGATION

3.1 The Questionnaire

In order to answer some of the questions raised above, a survey of students’ knowledge about and attitudes to English pronunciation was conducted among the newly-admitted first-year students at the Department of English and American Studies, University of Sofia. The questionnaire was compiled by drawing on our previous experience and on similar research reported in the literature. Therefore, some of the questions were borrowed from sources such as Celce-Murcia et al. [1], Pennington [7] and Hewings [4] adapted in accordance with the aims of the survey.

3.2. Subjects

All first-year students who attended their first Practical English Phonetics class – 87 students in all – were asked to respond in writing to the twelve questions in the questionnaire at the start of the class. The students’ age was between 18 and 30, the majority of them being between 18 and 21. Twenty-three students were male and sixty-four were female.

3.3 Results and Discussion

The aim of Questions 1 and 2 was to collect information about the students’ experience in learning English. The responses to Question 1 show that they had learned English for an average of 9 years before coming to university. During this period, they were taught predominantly by Bulgarians, but also by native (British or American) teachers. Most students reported that they had communicated with friends or colleagues from Britain, the USA, Australia, or that they had worked abroad for a couple of months. A few of the students, however, said that they had had virtually no contact with native speakers of English prior to university. Question 2 asked students about the main accent to which they had been exposed. Figure 1 sums up the replies. The majority of the students (41%) reported having had more experience with American English. Thirteen students (15%) replied that they had been more exposed to British English and thirty-two students (37%) described their previous experience as mixed exposure to both accents. Some students from this latter group commented that they had used British English at school, while outside
school they had been exposed mostly to American English – through movies, TV, other forms of popular culture, the Internet, etc.

**Figure 1:** Previous experience with British or American English.

Question 4 asked the students whether they had ever had communication problems due to pronunciation. Their answers are presented in Figure 2.

**Figure 2:** Communication problems attributable to pronunciation.

While a majority of 57 students (approximately 63%) answered that they had never been misunderstood, 22 (approximately 25%) admitted to having been misunderstood while working abroad, talking to native speakers abroad, because of mispronouncing a particular word, etc. These results emphasise the need to train tertiary-level students to be able to communicate efficiently with all sorts of speakers, including native English speakers.

Question 5 asked the students to assess their own pronunciation on a scale from 1 (high) to 5 (low) by circling the correct number. None of the students circled number 5, and only four students (4.56%) thought their pronunciation was particularly good and circled 1. Most of the students thought their pronunciation was reasonably good and circled 2 and 3, 34 students (39.08%) and 33 students (37.93%) respectively. Sixteen students (18.39%) did not find their pronunciation very good and circled 4 on the scale. In their answers to Question 6 the students had to say what feature(s) of their pronunciation they thought needed improvement. Many of them gave more than one answer. 25 students said that they thought all aspects of their pronunciation had to be improved, 24 mentioned intonation, 14 – stress, 21 – individual sounds, 15 – rhythm, and 7 answered that they did not know. Only 3 students replied that they thought their pronunciation did not need to be improved.

I will particularly focus on the next question, which was designed to collect data about the students’ attitude to their pronunciation and together with the last three questions also find out what the students’ accent preferences are. The question aimed at investigating how important it was for the students to have good pronunciation with different types of speakers. They had to use the same scale from 1 (high) and 5 (low). The answers are presented in Table 1.

**Table 1:** The importance of pronunciation in different contexts.

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<tr>
<td>fellow</td>
<td>75.86% (66 st.)</td>
<td>16.09% (14 st.)</td>
<td>3.45% (3 st.)</td>
<td>1.15% (1 st.)</td>
<td>3.45% (3 st.)</td>
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<td>students</td>
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<td>teacher</td>
<td>75.86% (66 st.)</td>
<td>16.09% (14 st.)</td>
<td>3.45% (3 st.)</td>
<td>1.15% (1 st.)</td>
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<tr>
<td>native</td>
<td>79.31% (69 st.)</td>
<td>13.79% (12 st.)</td>
<td>3.45% (3 st.)</td>
<td>1.15% (1 st.)</td>
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<td>speaker</td>
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<tr>
<td>native</td>
<td>37.93% (33 st.)</td>
<td>39.08% (34 st.)</td>
<td>11.9% (10 st.)</td>
<td>9.2% (8 st.)</td>
<td>2.30% (2 st.)</td>
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<td>speaker</td>
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<tr>
<td>nonnative</td>
<td>37.93% (33 st.)</td>
<td>39.08% (34 st.)</td>
<td>11.9% (10 st.)</td>
<td>9.2% (8 st.)</td>
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It is obvious that for the respondents the importance of their pronunciation varies in different contexts. The majority of the students consider proper pronunciation important for their communication with native speakers (79.31%) and teachers (75.86%) while they do not find it necessary when they talk to their peers or to non-native speakers.

The last three questions were designed to collect data about the students’ accent preferences and hence reveal their attitudes and motivation. Question 10, which comprised three related parts, will be reviewed here only briefly, because a thorough analysis of the answers was presented in
another paper. The tendencies which the answers revealed are as follows: (a) native accents are clearly preferred by the students to non-native accents; (b) American English is the accent which students think is the easiest to understand; (c) American English is also the accent which they find most easy to imitate or to learn.

In their answers to Question 11, the students had to say who they would like to sound like when they spoke English. Naturally, the answers are diverse and hence more difficult to summarise, ranging from the names of popular actors and actresses such as Hugh Grant (2 students), Morgan Freeman (4 students) and Keira Knightley (2 students), to name just a few, through BBC announcers, to the names of some of the lecturers in the department. Among the students who did not name anyone in particular 12 said they would like to sound like a native speaker and 15 pointed out as their preference British native speakers. Of all 87 students only 5 answered ‘like myself’ or ‘as no one in particular’. Question 12 asked the students to name the accent they wanted to model their own pronunciation on by completing the sentence “I would like to sound...”, 48 of them (55%) said that they wanted to sound British, another 18% replied that they wanted to speak like an American, 9 students (10%) wanted to sound Irish, 3 Scottish (3%) and 9 students (10%) replied that they hadn’t decided yet. The students were asked to justify their preferences and they said that RP sounded “classy and interesting”, “talking with British accent is an indicator of the knowledge one has in English”, “it will give me the unique opportunity of being able to communicate with native speakers freely”, “it is the hardest of all”, “it sounds more sophisticated”, “because it’s really hard for me to imitate”, “because it is a proof of fluency and sophistication”, “I like how the British pronounce the vowels”, “sounds more beautiful and graceful”, “it is really cool and it is the right way to speak” etc. These responses fall into four groups of reasons: (i) the attractiveness or aesthetic value of a given accent; (ii) usefulness; (iii) lecturers as role models and (iv) culture- and identity-related reasons.

4. CONCLUSIONS

The answers given by the tertiary-level Bulgarian students of English who took part in the survey reveal a number of interesting tendencies: Native-like pronunciation was generally a priority for the students and accomplishing it was a sign of proficiency and prestige. Among the native-speaker accents, “British English” was viewed as “the best” accent of English.

American English is the accent which students think is the easiest to understand. It is also the accent which they find most easy to imitate, or to learn. British English, on the other hand, is in students’ opinions the hardest accent of English to acquire. Nevertheless, an overwhelming majority of students express a strong preference for RP as their model accent to adhere to. The findings reported in this paper are in line with results from previous surveys which have been conducted both in Bulgaria and in other countries among university students.

Irrespective of the students’ reasons for choosing RP it seems that the tradition of teaching native-speaker pronunciation models to tertiary-level students of English in Bulgaria, and in many other parts of the world, is likely to continue unabated at least for the time being because this is what the overwhelming majority of students want.

5. REFERENCES

TEACHING TO SUPPRESS L1 PROCESSES in L2

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ABSTRACT
Advanced second language learners in a formal setting can suppress many L1) processes in L2 pronunciation when provided with sufficient exposure to L2 and metacompetence. This paper shows how imitation in L2 teaching can be enhanced on the basis of current phonetic research and how complex allophonic processes such as nasal vocalization and glottal stop insertion can be suppressed using “repair” – a method of providing learners with adequate input, so that they can use the L1 processes to improve L2 pronunciation.

Keywords: suppressing L1 processes, imitation, metacompetence, “repair”, formal setting.

1. INTRODUCTION

Pronunciation has usually been taught by means of repetition after the model and explanation of the target language phonemic category compared to that of L1. This paper advocates improving the two methods on the basis of recent research on imitation and the idea that L1 processes can be used to enhance L2 pronunciation if learners are provided with appropriately modified context. Our proposals are formed as suggestions for pronunciation coursebook design and classroom use.

1.1. Processes in Natural Phonology

While phonetics deals with regularities in speech typical for a given language, phonology looks for phonemically meaningful regularities, and tries to explain them and determine why they occur in a given language. The phonology of a language organizes and changes its categories and processes within a system that serves speech production and speech perception. The task of a phonologist is then seen as a search for phonetic details that are crucial in a given language, the word ‘crucial’ referring to phonemic differences and phonetic details responsible for the characteristic of a given language or its accents.

1.2. Phonetic detail in L2

Phonology in second language acquisition has to incorporate phonetic detail, as reasoning based on phonemic categories only is not capable of accounting for second language speech phenomena. Haspelmath [9] emphasized: “an important consequence of the non-existence of pre-established categories for language typology is that comparison cannot be category-based, but must be substance-based, because substance (unlike categories) is universal.” Similar as L1 and L2 sounds might seem, phonemes in L1 and L2 do not reflect identical, pre-defined categories, but are specified by each language separately; the phonology of each language chooses from a wide range of options that phonetics offers [3].

Second language learners do not know how categories are specified in L2. At their disposal, correlated with the morphological and syntactic structures they have learned, in terms of L2 speech influence learners have only the acoustic signal, phonetic detail. In terms of the influence of their first language, they are used to paying attention to some details, but disregarding others. Second language learners do not have access to the phonological system of the second language otherwise than through phonetics. The acoustic signal is deciphered according to first language processes, and in doubtful cases universal processes apply. The application of L1 and universal processes to L2 acoustic signal leads to the determination of interlanguage underlying representations. What is produced by second language learners is produced on the basis of these often misperceived underlying representations. Pronunciation training or mastering consists in learning which phonetic detail to disregard, and to which phonetic details attention should be paid. Thus teaching or learning L2 pronunciation consists in teaching or learning what L2 phonology chooses from phonetics.
1.3. The task of an L2 learner
L2 adult learners do not start learning L2 in a vacuum. It has long been suggested that L1 acts as a ‘sieve’ filtering out speech features which are not significant in the first language phonological system [11, 13]. A particular contribution of Natural Phonology to second language phonology research is that L2 learners are equipped with L1 categories, or to be more precise, underlying representations as specified by L1, and that L1 dynamic, preference-based, subconscious processes are used to shape sounds and sound sequences in interlanguage. In new contexts, universal processes, whose use is not evident in either L1 or L2, are used in second language acquisition. The use of universal processes, not used in either L1 or L2, is present when the process did not have a chance to emerge in L1 because of the lack of a specific context, its use is restricted or suppressed in L2, but L2 learners have not managed to limit the process in accordance with L2 phonology (e.g. as it often happens with Japanese learners of English who devoice final obstruents, although Japanese does not have final obstruents, so it is not a process transferred from L1) [13, 7]. With time, more universal and L2 processes come into play, as the learner notices that L1 processes are not sufficient to represent L2 sounds.

2. IMITATION
Repetition has long been used in pronunciation teaching. Phonetic research, however, has mainly been focused on L1. Nevertheless it uncovers certain tendencies which could successfully be used in teaching L2 pronunciation.

2.1. Word imitation
Goldinger [8] in a single-word shadowing task showed the effects of episodic traces in speech production. Stronger imitation effects were observed for low-frequency words than for high-frequency words and for subjects who were exposed to a higher number of repetitions. It is clear that the more students repeat the more accurate their pronunciation is likely to become. Nevertheless, it seems worth noticing that low-frequency words are better imitated than high-frequency words. Usually pronunciation coursebooks offer practice based on fairly basic vocabulary on the assumption that students should focus their attention on pronunciation rather than on looking up the unfamiliar vocabulary items in a dictionary. It may be the case, however, that learners have fossilized pronunciation for more frequent words and it is difficult for them to substitute the erroneous pronunciation with an appropriate one. It may be easier to master a new sound, sound sequence or process using lesser-known words. Only then should we proceed to eliminating erroneous or fossilized pronunciations of frequent words.

Shockley, Sabadini and Fowler [12] showed a significant VOT imitation effect for voiceless stops with artificially extended VOTs. Artificial extension of VOT seems to be a good idea for L2 learners whose L1 does not employ aspiration and whose L2 does. Exaggeration is, certainly, only to be recommended in the beginning, so that students notice the difference between aspirated and unaspirated sounds.

2.2. Social aspects of imitation
Pardo [10] showed that phonetic accommodation takes place during conversational interaction. Babel [1] explored how social factors facilitate the process of phonetic convergence. There are conclusions to be drawn from these two papers for pronunciation teaching. Effectiveness of imitation is likely to rise when learners like the person or the voice they are expected to imitate and when they can identify with the model. This means that the model’s voice needs to be perceived as friendly but also respectable (personal experience: 20 students ridiculed a model when asked to repeat the phrases after a model who sounded too girlish and naive to them). Preferably the voice to imitate should be a peer’s voice, as this will allow for student identification with the model, which should result in higher convergence. Students should also be motivated to accommodate more if they believe that the model is positively disposed to them. Imitation should be enhanced by the choice of a positive and friendly peer model.

2.3. Experiment
As a part of a larger project on sandhi in L2 speech, Schwartz, Balas and Rojczyk have examined how imitation reduces glottalization and devoicing in Polish-accented English. Our objective was to study the link between liaison, glottalization and devoicing. We analyzed acoustically C#V word boundaries in 35 sentences,
in which there were 20 tokens with final /d/ and 15 other tokens, including voiced clusters and voiced fricatives. 16 advanced Polish learners of English completed reading and repetition tasks. The assumption was that in Polish-accented English L1 interference in the form of glottalization reinforces the context for final devoicing. It was hypothesized that successful production of liaison should enhance native-like production of final voiced obstruents. In the imitation experiment 35 C#V tokens were excised from a sentence list read by native speakers of English and then we asked Polish subjects to imitate the English models.

English native speakers produced 27 liaised tokens out of 35, in six tokens a vowel was inserted, and a two tokens were una liaised and glottalized. Liaison and vowel intrusion were conducive to voicing.

**Table 1:** The overview of task effects on the percentage of consonant voicing, vowel/consonant ratio, percentage of liaisons and percentage of intrusive vowels.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Reading</th>
<th>Imitation</th>
<th>Native model</th>
</tr>
</thead>
<tbody>
<tr>
<td>% voiced</td>
<td>46.5</td>
<td>64.6</td>
<td>76.2</td>
</tr>
<tr>
<td>10*V/C</td>
<td>23.2</td>
<td>27.8</td>
<td>43</td>
</tr>
<tr>
<td>% liaison</td>
<td>14</td>
<td>47</td>
<td>77</td>
</tr>
<tr>
<td>% intrusive</td>
<td>27</td>
<td>17</td>
<td>17</td>
</tr>
</tbody>
</table>

The results presented in Table 1 indicate that imitations were closer than read tokens to the native speaker model across all parameters. More detailed results showed that certain speakers did not improve on vowel/consonant ratio, but a closer analysis revealed that they employed much more vocal intrusion in the reading task and that they turned to liaisons in the imitation task. These imitation results show that acquisition is within reach.

3. “REPAIR”: EXPLOITING L1 TO ENHANCE L2 PRONUNCIATION

3.1. The idea of “repair”

The idea behind the “repair” strategy is that speech is actually in the ear of the listener. If we try to replicate the listener’s subconscious mental operations upon hearing a word in L2, we may understand how “repair” guides the listener from an unfamiliar intention to a familiar production (see [3] for details). When a native speaker of English hears a Polish word *ptak* [ptak] ‘bird’ s/he tries to mentally map it on a familiar L1 string of sounds. The mapping fails, because there are no words beginning with [pt] in English. There appear certain near matches as *potato* or potentially in which the [pt] cluster is broken by an unaccented vowel. An English native speaker then assumes that the speaker of Polish must have deleted a vowel in the word *ptak* and in their careful speech s/he decides to suppress the deletion – this being a moment of repair, where deciphering an unfamiliar intention leads to a familiar production [p*tak]. It is a suppression of a putative vowel deletion process of a second language – a putative lenition which actually manifests itself as a vowel insertion in the learner’s careful production a second language word, i.e. a case of fortition.

Supposedly, the learner suppresses the vowel deletion process since there is no vowel deletion or a /pt/ sequence in L1. Let us check if it is really the case. In fact, in casual speech *potato* is pronounced as [p*ttou]. Native speakers of English are not aware of it, because their underlying form contains a vowel /a/ between /p/ and /t/.

A solution to an unwelcome “repair” should be looked for in the L2 learner’s native language. We should look for a process suppressed by “repair”, for example, in the learner’s casual speech phonology. To make the learner use the same process in the relevant context in a second language, we should provide him/her with an appropriate input to the process, i.e. an underlying intention different from the actual L2 output we want to achieve. In the case under discussion, the learner should try to say /p*ttak/, which would be expected to trigger the application of his/her native English unaccented vowel deletion to arrive at the target /p*tk/. To facilitate this procedure, adult learners should be made aware of the process applying in their own casual speech (cf. also [14]).

3.2. Examples of L1 processes modified to be used in L2

Nasal vocalization in sequences of vowels, nasals and fricatives and glottal stop insertion are transferred from Polish to English even by advanced learners [2]. Apart from telling learners not to vocalize nasals in English and asking them...
to imitate native speech, we can suggest using processes from Polish in a modified context. Nasal vocalization in Polish requires a fricative after the nasal. Having localized a problem with an English word sense which has its Polish counterpart sens [sewɛs], we can ask learners to say sen [sen] ‘sleep’, then we add a consonant after the nasal sen Bası [sen bai] ‘Basia’s sleep’, then we add a fricative [sen swabi] ‘weak sleep’. In English we try to split the word sense into [sen.s] and then we gradually shorten the pause between the nasal and the fricative, ensuring that the nasal is pronounced.

When trying to eliminate glottal stop insertion in the beginning of words starting with a vowel, we first need to make sure that learners know what a glottal stop is, as many Polish speakers are not aware of its existence, because it does not have a phonemic status in Polish or a letter corresponding to it. We ask students to say panna [panna] ‘maiden’ and then to say [p.an-na] slowly and then we compare [p.anna] to Anna [ˈanna] ‘Ann’ where a glottal stop is inserted by Polish native speakers, as it is usually the case before word-initial vowels. Emphasizing correspondences between L1 and L2 processes, even if applied in different contexts, can help students use the processes in L2.

4. CONCLUSIONS

The paper has proposed imitation and “repair” methods for enhancing pronunciation teaching to second language learners in a formal context, in accordance with current research in phonetics and phonology.

Imitation tasks for pronunciation practice should be consciously designed by pronunciation coursebooks’ authors and teachers so that they maximally enhance phonetic accommodation by using less frequent words, exaggeration, and employing friendly peer models with whom learners will be eager to identify.

The notion of “repair” has been proposed to account for the way in which listeners subconsciously react to second language speech. Upon hearing foreign speech, the listener tries to decipher the signal using their own native language processes. When “making up what has gone wrong in L2,” the listener suppresses processes which “must have happened in L2” to result in the output s/he hears. The suppressed processes can often be found in the listener’s native casual speech. If so, we can make learners aware of these processes, and exploit them in a prepared context which is challenging in L2. Similarly to conscious learning of syntax and morphology, conscious knowledge of grammar is advocated on the level of phonetics and phonology.

Enhancing imitation and enabling students to use L1 processes in L2 should result in more effective L2 pronunciation training.

5. REFERENCES


Acknowledgements

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**TL_ToBI: A NEW SYSTEM FOR TEACHING AND LEARNING INTONATION**

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**ABSTRACT**

The goal of this paper is to present a new methodology for the teaching and learning of English intonation in a self-tuition environment based on a simplified version of the ToBI system. The new proposal aims at teaching students how to identify some of the most common tunes of English intonation and how to reproduce them in a distance learning setting. This is achieved with the help of audio and visual aids, as well as with an adaptation of the main tenets of the ToBI framework. Some of the differences between the new proposal and the original ToBI system include: 1) the presence of three tones (H, L, M), 2) the separation of metrical and tonal information, 3) the simplification of pre-nuclear accents, and 4) the incorporation of bitonal boundary tones.

**Keywords:** ToBI, level tones, bitonality, audio and visual aids, distance learning.

1. **INTRODUCTION**

For more than two decades, a framework wisely used for the study and modeling of intonation has been the **Tone and Break Indices** system, commonly known as ToBI. Based on former works on Autosegmental and Metrical Phonology ([8], [5], [6]), the ToBI framework was devised for the description of English intonation ([1]) and later applied to a huge variety of languages. ToBI models intonation as a sequence of High (H) and Low (L) tones which are associated to the stressed syllables and to the edges of major and minor prosodic domains, *i.e.* the intonation phrase (IP) and the intermediate phrase (ip).

Each phonological category not only contains tonal information but also metrical details, which are signaled by means of a series of diacritics. An asterisk indicates that L* and H* are associated to rhythmically prominent (stressed) syllables. A percentage means that L% and H% are located at the end of an IP and a hyphen (L-, H-) signals the end of an ip. Tones associated to stressed syllables are called *pitch accents*, whereas tones located at the end of a prosodic domain are known as *boundary tones* (for an IP) and as *phrase accents* (for an ip). Whereas pitch accents can be both monotonal or bitonal (*e.g.* L*+H* or L+H*), edge tones only contain one tone.

The ToBI system accounts for the intonation contours by means of two tones only because H and L do not correspond to specific F0 values, but to different pitch levels. For example, when several H tones appear within the same intonation phrase, each accounts for an F0 peak scaled at a lower level than the preceding one. This phenomenon, known as *downstep*, is specified within the ToBI conventions by means of !. Thus, !H* stands for a high tone which is lower than the preceding H*. Sometimes H* can be *upstepped* (¡H*) indicating that it is higher than the H* before.

2. **PROS AND CONS OF THE ToBI SYSTEM**

The great impact that the ToBI framework has had on the modeling of intonation is due to its concise tonal description tools, reduced to two tones, and the clear-cut location of such tones with respect to the segmental layer. These assets have been particularly beneficial for speech synthesis and speech recognition.

Despite the several advantages of the ToBI system, it has hardly ever been used for pedagogical purposes. In teaching students the intonation of (especially) foreign languages, the reduced number of tones may turn out to be a drawback since it is really difficult for untrained students to grasp the meaning of categories that look pretty much the same (*e.g.* H*, L+H*, L*+H, H*+L, L+H*, etc.). Thus, despite the great impact of the ToBI system on intonational modeling, the teaching and learning of English intonation have rarely benefitted from its insights and, for more than fifty years, most training materials for intonation have been designed within another tradition of intonational description, the British...
School [2, 7, 10]. This School is characterized by: 1) a configurational analysis of pitch (i.e. each intonation phrase is divided into a nuclear configuration and a pre-nuclear configuration), 2) the lack of boundary tones, since the last accent accounts for the pitch movement till the end of the contour, 3) a tonal inventory based on pitch trajectories (e.g. rise, fall, fall-rise, etc.), and 4) the description of intonation by means of tunes, that is, the most recurrent tone patterns for given types of sentences.

Though the benefits of the British model for the teaching of intonation have been widely attested, this framework presents some hindrances for autonomous and distance learning. Students in a non-face-to-face setting feel it difficult to grasp the alignment of pitch-trajectory tones to the segmental string. The aim of this paper is to propose a new methodology for the teaching and learning of English intonation which actually combines the ToBI and the British traditions. Whereas the notation and association conventions of the new proposal emerge from ToBI, the types of tunes and nuclear configurations are based on the British approach.

In this paper, the TL_ToBI model (ToBI for Teaching and Learning) is presented so as to help students to learn the most common tunes of English intonation in a distance and self-tuition environment. Two main steps are taken into consideration: 1) the audio identification or perception of the tunes with the help of a graphic representation of the pitch movements and the tonal categories, and 2) the (re)production of such tunes from the visual aids (graph and tones).

3. THE TL_TOBI SYSTEM

The main differences between the original ToBI system and the TL_ToBI proposal can be grouped into four areas: 1) the representation of metrical vs. tonal information, 2) the number of pitch levels, 3) the number of phrases, and 4) the modeling of nuclear and pre-nuclear accents.

3.1. Metrical vs. tonal information

The phonological categories proposed by the ToBI system include not only tonal information but also metrical information. The metrical structure, represented with diacritics that accompany the tones, indicates whether H or L are associated to stressed syllables (as in H*) or to the edges of a pitch contour (as in H- or H%). In the new proposal, the metrical and the tonal information are kept apart so that the students concentrate on the characterization of the pitch movements alone. Thus, the metrical structure is not included in the tone but indicated in the segmental string. For example, in I’m *sure she’ll *call you to*morrow, the stressed syllables are marked with an asterisk. The usage of the asterisk to mark rhythmic prominence has been attested in several studies ([2], [10]). By keeping the asterisk on the segmental string, students can clearly see the potential sites to associate a tone. Tones will then be located under the syllables marked with the asterisk and at the end of the sentence. The syllable with the final accent is underlined. This shows the most prominent syllable of the contour and it also indicates that the tones located after this syllable are no longer pitch accents but correspond to categories that account for the tonal movements at the end of the phrase.

Along with the audio input and the stress distribution of utterances, students will be given a graph which shows the pitch contour depicted within the limits of each syllable, as shown in (1).

![Pitch Contour Graph](image)

Each box stands for a syllable and the shaded boxes represent stressed syllables that have a relevant pitch movement and thus become accented. In (1), all stressed syllables (*sure, *call, and -*mor) are accented since they show a high pitch (H). The final syllable of the phrase (-row-) is produced with a low pitch (L).

From the last shaded box onwards, the tones are no longer linked to stressed syllables but to the edges of the utterance and thus, they expand till the end of the contour, no matter the number of unaccented syllables. Example (2) exhibits the same sentence as in (1) but with the main accent on sure.

![Pitch Contour Graph](image)

I’m *sure she’ll *call you to *mor row.

H H H L

(2)
3.2. Pitch levels

The original ToBI system describes pitch movements by means of H and L, which account for an F0 peak and an F0 low target respectively. Whereas L tones usually correspond to a rather constant F0, H tones show more variation in their scaling and are sometimes downstepped (!H) or upstepped (¡H), i.e. produced at a much lower or higher F0 levels than a previous H. Traditionally, downstep and upstep have been described as relational features since the presence of !H or ¡H seemed to depend on the scaling of the previous H. More recently, several studies, such as [9], have shown that in some languages differences in the scaling of H tones are contrastive and thus a threetonal contrast (H, M, L or ¡H, H, L) has been incorporated in the tonal system.

Even though the traditional frameworks for the teaching of English intonation within the British School do not use level tones but pitch trajectories, such as high-fall or low-fall, the tonal categories proposed within this tradition do suggest the necessity to incorporate three levels of pitch description. For example, whereas a high-fall indicates a HL movement, a low-fall stands for a ML (mid to low) trajectory. The new TL_ToBI proposal considers it necessary to incorporate a mid level tone (M) since its notation is much more transparent than !H. Thus, TL_ToBI includes three tones: H, M, and L. These tones can occur both on stressed syllables and at the end of a pitch contour. Figure (3) illustrates the difference between ML (low-fall) and HL (high-fall). Figure (4) exhibits a final LM (low-rise). The M tone is associated to a stressed syllable in (3) and to the end of the contour in (4).

3.3. Phrasing

Even though the ToBI system distinguishes two domains of phrasing, associated to different kinds of edge tones (boundary tones and phrase accents), the TL_ToBI proposal does not maintain the two-domain approach. Alternatively, students should only focus on the presence of a boundary, no matter whether it signals a major or a minor domain. For example, an enumeration is usually described as a series of ip ending with an IP. In the enumeration presented in (5), the end of each phrase is described in the same way, irrespective of whether it is a major or a minor phrase. When a phrase ends in an oxytone word, the pitch accent and the boundary tone are located on the same syllable, as illustrated in (5).

3.4. Nuclear vs. pre-nuclear accents

One of the main differences between the British tradition of intonational modeling and the American frameworks, including ToBI, has been the treatment of pre-nuclear and nuclear accents. In the British School pre-nuclear accents differ from nuclear accents since nuclear accents not only account for the pitch movement of the last accented syllable but also for the pitch trajectory at the end of the contour. For instance, whereas a high-fall is a tone that can only be associated to a nuclear position since it also describes the final movement of the phrase, a high tone can only be linked to a pre-nuclear accent. In the ToBI system, the same types of tones are associated to stressed syllables irrespective of their position, since the final pitch movement is described by means of edge tones.

In the TL_ToBI proposal, the idea that the same tones can be linked to both final and non-final accented syllables is maintained, as well as the presence of edge tones to account for the final pitch trajectory. However, relevant changes have been incorporated with respect to the tonal entities. In the original ToBI system, pitch accents can be both monotonal and bitonal whereas edge tones are only monotonal. In the TL_ToBI proposal, the reverse pattern is put forward since it includes monotonal pitch accents and boundary tones that can be both monotonal and bitonal.

The idea to use only monotonal pitch accents is linked to the differences in the semantic load of the nuclear and the pre-nuclear parts of a pitch.
contour. Even though the pre-nuclear component obviously contributes to the creation of a tune, it is the nuclear configuration that is usually responsible for the final meaning of the sentence (see [4]). According to this, the TL_ToBI model induces students to focus on the pitch movements of the final part of the contour (last pitch accent and boundary tone), and hence reduces the detail in the description of pre-nuclear accents. The inventory of tones for both the final and the non-final accented syllables is L, M and H.

The inventory of boundary tones, on the other hand, includes both monotonal (L, M, H) and bitonal entities (LH, HL). Bitonal tones have been incorporated to account for complex final F0 movements, consisting of two tonal targets. In the original ToBI system, edge tones were only monotonal since complex F0 movements could be described by the combination of a phrase accent and a boundary tone. Since the new proposal only considers one level of phrasing, only one type of edge tone is put forward, namely, boundary tones. The presence of final complex movements creates the necessity of incorporating boundary tones with two targets. Bitonal boundary tones have already been attested in other ToBI systems, such as Cat_ToBI or Sp_ToBI. (6) shows an example of a bitonal boundary tone which accounts for a final fall-rise pattern.

The combinations of tones presented in the TL_ToBI methodology reflect the tonal configurations (nuclear and pre-nuclear) of the British tradition as seen in Table 1.

4. CONCLUSION

In this paper a new methodological proposal (TL_ToBI) to teach intonation in a distance learning setting has been proposed. The new model, which is an adaptation of the ToBI system, combines some of the main tenets of this framework with the traditional teaching insights of the British School. As with the original ToBI framework, tones are associated to stressed syllables and to the end of an intonation phrase so as students following autonomous tuition can clearly detect where to produce the relevant intonation.

The new TL_ToBI proposal differs from the original system in: 1) the incorporation of visual aids (graphs) along with the audio material to outline the F0 movements, 2) three levels of tonal description (L, H, M), 3) one level of phrasing signalled by a boundary tone, 4) (only) monotonal pitch accents, and 5) monotonal and bitonal boundary tones (HL, LH). The TL_ToBI proposal is currently used and tested in [3].

Table 1: TL_ToBI tonal combinations and their correspondences with the conventions of the British School.

<table>
<thead>
<tr>
<th>British School</th>
<th>TL_ToBI</th>
<th>British School</th>
<th>TL_ToBI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear tones</td>
<td>Pitch accents</td>
<td>Boundary tones</td>
<td>Pre-nuclear tones</td>
</tr>
<tr>
<td>High-fall</td>
<td>H</td>
<td>L</td>
<td>High</td>
</tr>
<tr>
<td>Low-fall</td>
<td>M</td>
<td>L</td>
<td>Low</td>
</tr>
<tr>
<td>High-rise</td>
<td>M</td>
<td>H</td>
<td></td>
</tr>
<tr>
<td>Low-rise</td>
<td>L</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>Mid-level</td>
<td>M</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>Fall-rise</td>
<td>H</td>
<td>L H</td>
<td></td>
</tr>
<tr>
<td>Rise-fall</td>
<td>L</td>
<td>H L</td>
<td></td>
</tr>
</tbody>
</table>

5. REFERENCES

L2 LEARNERS’ SPEECH AFTER FRENCH PHONETICS TEACHING

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ABSTRACT

In this study, 32 adult learners of French completed a 15-week listening and speaking course prioritizing connected speech processes. Learners also wrote journal entries to elicit measures of language awareness. A read-aloud pre- and post-test task showed a significant improvement solely in learners’ segmental production. Learners’ performance on several pronunciation measures was significantly correlated to the nature of their language awareness, as shown in journal entries.

Keywords: L2 French, pronunciation instruction, connected speech processes, language awareness.

1. INTRODUCTION

In 2012, Saito [7] published a review of research studies which explored the effects of second language (L2) pronunciation instruction. From 1990 until 2012, Saito identified only 15 quasi-experimental studies investigating the teaching and learning of L2 pronunciation, with 9 of those studies focusing on L2 English learners.

Multiple textbooks target French phonology and pronunciation (e.g., [1]). However, little research has been published on the effects of pronunciation instruction for L2 French, so teachers and learners rely on intuition, course materials, and past experience to guide their teaching and learning activities. It is hoped the current study will contribute to the knowledge base about the effects of pronunciation instruction for L2 learners of French.

1.1 Research on L2 French pronunciation

Studies on the pronunciation of L2 French learners have typically used one-time measurements of learners’ speech, focusing on learners’ proficiency level [3] or different contexts of learning/use [8].

To date, the few longitudinal studies on the learning of L2 French pronunciation have been set in university contexts. [5] tracked the use of liaison over one year by second-year learners in a weekly three-hour French language and literature course at a Korean university. Learners showed significant increases in their production of obligatory and optional liaison in word pairs over 12 months. The authors did not describe the instruction received by the second-year learners.

The effects of training aimed specifically at the pronunciation of L2 French learners was explored by [4] at a university in Ontario, Canada. Students in a beginner-level French as a second language (FSL) course completed an hour of listening and pronunciation exercises for 12 weeks, presented on cassette tapes in a language laboratory. The exercises targeted French intonation, rhythm, and segments. Learners did active listening tasks such as discriminating between sounds, rhythmic groups, and intonation patterns. They also repeated or transformed model utterances. A comparison group of learners at the same level completed listening comprehension exercises.

Before and after the training period, learners did an elicited imitation task with sentences containing various intonation contours and rhythmic patterns. The learners’ recordings were rated by native French speakers on four five-point scales for segments, intonation, rhythm, and global impression. The scores of trained learners and comparison group learners were not significantly different on any pre-test ratings. However, the post-test ratings of the trained learners were significantly more nativelike on all four scales than the same learners’ pre-test ratings. For the comparison group, only their ratings for segments significantly improved pre- to post-test.

In another university study, [6] investigated how the pronunciation of beginner-level learners of French developed with two instructional approaches. Students were taught four sets of French vowels in four 15-minute lessons, with two lessons taught using one instructional approach and two lessons using the other. In the International Phonetic Alphabet (IPA) approach, learners were presented with IPA transcription of the vowels as well as basic articulatory explanations. In the
keyword approach, learners were presented only with the orthographic transcription of common words containing the vowel sounds.

No pre-test was completed, but at the end of the course all students read-aloud a list of 40 unfamiliar words targeting the instructed vowel sounds. The vowel production of each word was rated as accurate or inaccurate. No statistically significant differences between words learned with either instructional approach were found.

1.2 Motivation for current study

Few studies have explored the effects of instruction on the pronunciation of L2 French learners. Of those studies, only one includes both a description of the instruction and pre- and post-test measurements, and no study has investigated how learners’ understanding of French pronunciation is related to their production. Teachers wishing to draw on research-based findings in order to enhance the effectiveness of their pronunciation instruction have little information to go on.

In the current study, two research questions were investigated regarding effects of pronunciation instruction.

Research question 1: How does the pronunciation of French second language learners develop after instruction which highlights connected speech processes?

Research question 2: How is French second language learners’ pronunciation before and after instruction related to the nature of learners’ language awareness?

Presented below, the study findings provide teachers of L2 French an additional source of information about the effects of pronunciation instruction.

2. METHOD

2.1. Participants

Participants were thirty-two adult learners of French as a second language (FSL) who were taking an intermediate-level listening and speaking course at a French-medium university in Quebec, Canada. All learners were enrolled in at least two FSL courses, and none had received elementary or secondary schooling in French. Learners spoke a total of eight first languages. The learners’ mean age was 35.8 years (27-52) and they had resided in Quebec for a mean of 3.2 years (0.25-10). On average, learners rated their French ability at 4.1 on a 9-point scale (1=very poor, 9=excellent) at the beginning of the course.

2.2. Instruction

The 15-week listening and speaking course met once a week for three hours, with one of the three hours spent in a multimedia lab. The main aim of the course was to improve learners’ oral production and listening skills in French. The instructor was the second author, a native speaker of Quebec French with a graduate degree in applied linguistics and 10 years of FSL teaching experience. Both segmental and suprasegmental aspects of spoken French were targeted, including intonation. However, the main focus of the course was on connected speech processes, such as enchâinement (e.g., il a becomes i-la)

Each topic was covered in one class meeting and reviewed in the next class meeting. The meetings typically started with a discovery activity, then the instructor’s explanation of that particular aspect or process, followed by restricted practice. Learners then practiced using more communicative activities, such as roleplay, and fluency practice (e.g., shadowing). The multimedia materials used in the laboratory were audio models of short sentences exemplifying particular aspects. Learners used these materials to complete dictation or production tasks.

2.3. Method and measures

The study used a pre- and post-test design. For the pre-tests, learners completed a set of speaking and listening tasks in the multimedia lab during Week 3 of the course. The focus of investigation in the current study is a read-aloud task. In this task, learners recorded themselves in the multimedia laboratory reading aloud a short text of 163 words. 90% of the vocabulary fell within the 1000-word frequency band. Learners had one opportunity to record the read-aloud in 150 seconds. The post-test was done during Week 15; the same text was read aloud and recorded similarly to the pre-test.

Learners’ language awareness was elicited through weekly dialogue journal entries. Learners were paired and in Week 3 they began writing entries to their partners. Learners were asked to reflect on their learning and to respond to their
partner’s entries. The partners virtually exchanged their entries through a course website for 12 weeks, with a mean number of nine entries per learner and 174 words per entry. Journal entries were not read by the instructor or by other researchers until the course grades had been submitted.

2.4. Data analysis

Learners’ recordings of the pre- and post-test read-aloud tasks were analyzed for the realization of various aspects of speech; these aspects were coded and tallied by a native speaker of French. Because learners read the same text, the tallies are raw numbers and are not corrected for length. They are outlined below:

1. Inaccurate production of segments
2. Phrasal stress – inaccurate and accurate placement
3. Inaccurate realization of intonation patterns
4. Enchaînement – no use and accurate use (optional context)
5. Liaison – no use and accurate use (obligatory context)
6. Mean length of run (between pauses of 400 ms or more)

The measure for learners’ language awareness was derived from [2], who categorized language learners’ conceptions of learning as quantitative or qualitative. This framework was applied to learners’ awareness of the sound system in French and of how pronunciation can be taught and learned. Journal entries could include passages showing quantitative awareness and those showing qualitative awareness. Qualitative awareness was shown when learners described language as a set of items to be memorized, or when learners portrayed learning as a process of assimilating items or rules through effort, practice, and time. Qualitative awareness was shown when learners depicted language as an environment for learning, and when learning was expressed as a way of extracting meaning from a given context. The first author, who had experience using this framework, trained the second author in coding the dialogue journal entries. The two authors then coded five journal entries separately and found 100% agreement for both qualitative and quantitative comments. The second author then coded the remainder of journal entries. In order to control for different lengths of entries, the number of quantitative or qualitative comments made by each learner was divided by their total number of comments. This resulted in ratios of quantitative and qualitative comments, respectively.

To investigate the first research question, the tallies of different aspects of speech at the pre- and post-tests were entered into paired samples t-tests, with Bonferroni corrections made for multiple comparisons. The second research question was explored by running Spearman correlations between tallies for learners’ speech at the pre- and post-tests and ratios of learners’ quantitative and qualitative awareness comments over 12 weeks.

3. RESULTS

3.1. Research question 1

The first research question was: How does the pronunciation of French second language learners develop after instruction which highlights connected speech processes?

Results from the paired samples t-tests with corrections for multiple comparisons showed a significant difference for the number of inaccurate productions of segments at the pre-test ($M = 42.0$, $SD = 13.5$) and post-test ($M = 37.2$, $SD = 13.9$); $t(29)=4.21$, $p=.01$. There were no significant differences for any other aspects of speech from the pre-test to the post-test.

3.2. Research question 2

The second research question was: How is FSL learners’ pronunciation before and after instruction related to the nature of learners´ language awareness (primarily quantitative or qualitative)?

Table 1: Significant Spearman correlations - awareness and pronunciation

<table>
<thead>
<tr>
<th></th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inaccurate</td>
<td>Correlation</td>
<td>-.55</td>
</tr>
<tr>
<td>phrasal stress</td>
<td>Sig. (1-tailed)</td>
<td>.001</td>
</tr>
<tr>
<td>- pre</td>
<td>N</td>
<td>30</td>
</tr>
<tr>
<td>Inaccurate</td>
<td>Correlation</td>
<td>.55</td>
</tr>
<tr>
<td>intonation -</td>
<td>Sig. (1-tailed)</td>
<td>.001</td>
</tr>
<tr>
<td>pre</td>
<td>N</td>
<td>30</td>
</tr>
<tr>
<td>Accurate</td>
<td>Correlation</td>
<td>-.44</td>
</tr>
<tr>
<td>enchaînement</td>
<td>Sig. (1-tailed)</td>
<td>.007</td>
</tr>
<tr>
<td>- pre</td>
<td>N</td>
<td>30</td>
</tr>
<tr>
<td>Accurate</td>
<td>Correlation</td>
<td>-.41</td>
</tr>
<tr>
<td>enchaînement</td>
<td>Sig. (1-tailed)</td>
<td>.01</td>
</tr>
<tr>
<td>- post</td>
<td>N</td>
<td>30</td>
</tr>
</tbody>
</table>
Generally, only a few aspects of speech showed significant and moderate correlations to the nature of learners’ language awareness (see Table 1). These correlations appeared mostly at the pre-test.

The more errors in phrasal stress placement and intonation patterns learners made in the pre-test, the more quantitative awareness comments the learners made in their dialogue journals \((r = .55, p = .001)\). The reverse relationship held for learners making qualitative awareness comments. However, in the post-test there was no significant relationship between awareness and phrasal stress errors or intonation patterns. A more persistent significant relationship was found between the accurate use of *enchaînement* and learners’ language awareness. For both the pre- and post-tests, the more accurately learners used *enchaînement*, the more qualitative awareness comments were made by those learners \((r s = .41-.44, ps = .01-.007)\). The reverse was true for learners making quantitative awareness comments.

4. DISCUSSION

At first, the findings for learners’ pronunciation at the post-test seem somewhat discouraging. The only significant improvement was for the pronunciation of segments, which was not prioritized in the instruction. No significant improvement was found for the two connected speech processes which were measured, although connected speech processes were an important focus of instruction.

These findings may demonstrate the length of time it takes for learners to move from accurate understanding or perception of an aspect of pronunciation to the accurate *production* of that same aspect. Although this study did not include a control group, the learners’ mean length of residence in a French environment (3.2 years) suggests that any changes seen over 15 weeks were likely due to the instruction. In [9], the same learners showed significantly improvement in their ability to *decode* spoken sentences containing multiple connected speech processes. The effects of instruction may thus be more immediately obvious in learners’ listening ability than in their pronunciation. In addition, the use of a read-aloud task may have implicated learners’ ability to decode written text and not simply their pronunciation. Results from learners’ spontaneous speech are currently being analyzed.

In terms of learners’ language awareness, the degree to which learners demonstrated quantitative awareness was consistently linked to greater inaccuracy in various aspects of pronunciation. However, this relationship existed primarily for pre-test scores. This could be interpreted to mean learners’ pronunciation became less linked to the nature of their language awareness over time. However, the pre- and post-test link between more accurate *enchaînement* and more ‘qualitative’ learners suggests that language awareness did play a role for some aspects of pronunciation. Learners who were oriented towards language learning as a way to uncover meaning seem also to be better at producing at least one connected speech process.

5. CONCLUSION

The instruction described above was linked to a significant improvement in learners’ production of segments in a read-aloud task. Instructional effects for L2 French learners’ spontaneous speech, as compared to a control group, are currently under investigation. As more research on L2 French pronunciation instruction is available, teachers and learners will be able to make more informed choices about teaching and learning pronunciation.

6. REFERENCES

USING VIDEO TO PREPARE STUDENTS FOR COMPONENTS OF PHONETICS ORALS

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ABSTRACT

The viva voce exam is an assessment in many phonetics courses, as it allows production skills to be tested, and perception and understanding to be demonstrated under pressure. The viva, and particularly the oral aspect, can make students feel unsure and anxious. We compared three methods of increasing knowledge and decreasing anxiety - written information, a practice session and a video of a mock viva - by asking students to rate their knowledge and anxiety after each. None of the sources of information had any effect on anxiety. In general the video increased knowledge over and above the practice session, except for the intonation session where both exercises were necessary for students to know what was required.

Keywords: viva, oral exam, symbolic modeling.

1. INTRODUCTION

A key skill for any phonetician is to produce a full range of speech sounds. This is an important activity in its own right, but also allows students to demonstrate an enhanced understanding of theory [1]. Production skills, along with description and transcription skills, are traditionally tested in a viva voce examination. Our focus here is on the vivas taken by speech and language therapy students as part of their training. The ‘oral’ part of the viva is an individual exam typically lasting 15 minutes, with one or two examiners. In a typical oral, students produce non-native sounds from International Phonetic Alphabet (IPA) symbols, recognise and label sounds produced by the examiner in a substitutions exercise, and describe the intonation of a sentence produced by themselves, and then by the examiner.

Although in some ways a specialist assessment, the phonetics oral is similar in many ways to orals in other disciplines. Orals in foreign language studies and PhD vivas also require students to think on their feet, and to respond to material without consulting notes or preparing for particular questions, and responses must be given orally.

Whilst they give a unique insight into students’ abilities, oral exams tend to give rise to a great deal of anxiety and uncertainty for students across disciplines. Arndt et al [2, 277], found ‘a disproportionally high degree of anxiety in candidates, the level being substantially higher than a typical selection interview’. Similarly, [3] and [4] found that many students noted pre-viva anxiety concerns. Clearly this is an issue, as, if anxiety levels are too high, learning will not be facilitated (e.g. [5]). Furthermore, most students are visibly nervous during the viva itself, as would be expected, but very occasionally individual students express too much anxiety to take part.

As well as problems with anxiety, students in our cohorts have regularly suggested via module feedback that they need to know more about the oral, indicating problems with their knowledge of the format. The issue of knowledge seems to relate to how prepared students feel. [3] note, for example, that for marketing vivas, ‘Students thought greater understanding of the viva process and more practice in class would help reduce anxiety prior to the viva’. In addition, [6] note that anxiety levels for PhD vivas can be reduced by preparing students through careful guidelines and mock-vivas, whilst [4] notes that a role-play was useful in helping students overcome their fear.

Previous strategies we have used for increasing knowledge and decreasing anxiety about the oral are giving out written information earlier, and providing additional practice sessions. Typically, written information about the format of the oral is available seven months in advance, a two-hour practice session occurs four months in advance, and there are two two-hour practice sessions in the weeks prior to the oral. However, students still express a great deal of uncertainty about the oral’s format, and anxiety about their performance.

Thus, our aim in this study was to find ways of addressing students’ knowledge and anxiety about
their oral exam. We can conceptualise additional ways of addressing students’ knowledge and anxiety in terms of classic work by Bandura (e.g. [7]), which identified four sources of self-efficacy. These are ‘performance accomplishments’ (such as mock orals), ‘verbal persuasion’ (being told about the oral and how to act), ‘emotional arousal’ (desensitisation and relaxation techniques), and ‘vicarious experiences’ (watching others engage in an oral). Here we investigate the utility of a vicarious experience by showing students a video of a mock-oral, which acts as a symbolic model of behavior. Video can be used as a vehicle for modelling in a number of fields within and outside education (see [8] and a review by [9]).

Our research questions are 1) Can a symbolic model change students’ ratings of knowledge and anxiety about components of their oral exam? And 2) How does the symbolic model compare to the previously used written information and practice session for individual oral components?

2. METHOD

We filmed a video of a mock-oral exam, featuring an experienced oral examiner, and a student who had passed her oral the previous year. As people are considered more likely to attend to a model who is similar to them (e.g. [10]) we chose a student of the same gender as those in the cohort, and of similar age and ethnicity to the majority. As we expect her behaviour to be imitated, we chose a student who could be relatively in control, not especially anxious, humorous and relaxed. The examiner and candidate were each reminded about the components of the oral, but to make the video as valid as possible, the candidate did not see the oral material prior to the video being filmed.

We filmed the entire process of the oral from the student waiting beforehand, to leaving after the exam, and also showed a clip of the oral material card with symbols for production and a sentence for use in the intonation component. We filmed continuously to make the video representative of a real oral. However, we edited to remove extraneous material, and inserted place-holder screens highlighting which component was next. The final video clip was 14 minutes in duration.

Participants were 41 students in their 2nd year of a BSc (Hons) in Speech and Language Therapy at a metropolitan university in the UK. All students received written information about the viva at the same time, and then watched the video and engaged in a practice session, but in different orders, as explained below.

The written information was that always provided to students, and included details of the components of the oral, what the candidate would be required to do, and how it would be marked. Before watching the video, students were asked to imagine themselves in the position of the candidate, to try to work out the answers they would give in her place, and to consider if her responses were correct.

In the practice session the lecturer presented an exercise from each section of the oral for the class to work on as a group, and then fed back on correct responses and clarified any difficulties. In terms of Bandura’s sources of self-efficacy, the written information and practice session are most akin to verbal persuasion as students are told what to expect and how to act. In the practice session there is some element of performance accomplishment, but only in terms of practicing material rather than being in a viva situation. The video represents a vicarious experience via a symbolic model.

We assessed student knowledge and anxiety by gathering self-ratings at three time points. The first was a baseline when students had received written information two months previously, and was the same for all students. For the next two testing times the cohort was divided randomly in half. Group 1 (n=20) attended the usual practice session immediately followed by watching the video. Group 2 (n=21) watched the video first, immediately followed by the practice session. Both groups gave ratings at the end of each activity.

Students responded to two questions about each component of the oral at all testing times. Question 1 was ‘I know what I will have to do in the production/substitution/intonation section’ and question 2 was ‘I am anxious about the production/substitution/intonation section’. Ratings were on a 5 point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree and 5 = strongly agree. Thus our scales are the inverse of one another. A positive result on the knowledge scale is a high rating, whilst a positive result on the anxiety scale is a low rating. Students also had space to give free-text comments. Students used a pseudonym so that their ratings could be directly compared across testing times.
3. RESULTS

Table 1: Mean (sd) ratings.

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group 1</td>
<td>Group 2</td>
<td>Group 2</td>
</tr>
<tr>
<td></td>
<td>Written</td>
<td>Written</td>
<td>Practice</td>
</tr>
<tr>
<td>Production</td>
<td>1.9 (1.1)</td>
<td>2.3 (1.2)</td>
<td>3.2 (0.8)</td>
</tr>
<tr>
<td>Substitutions</td>
<td>2.4 (0.9)</td>
<td>2.5 (1.1)</td>
<td>3.1 (1.1)</td>
</tr>
<tr>
<td>Intonation</td>
<td>2.0 (1.1)</td>
<td>2.3 (0.9)</td>
<td>3.9 (0.6)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>4.0 (1.2)</td>
<td>4.1 (1.0)</td>
<td>4.0 (0.9)</td>
</tr>
<tr>
<td></td>
<td>4.2 (0.8)</td>
<td>4.1 (0.7)</td>
<td>3.9 (1.0)</td>
</tr>
<tr>
<td></td>
<td>4.2 (1.2)</td>
<td>4.2 (0.8)</td>
<td>4.1 (1.0)</td>
</tr>
</tbody>
</table>

For each component of the oral (production, substitutions, intonation) the difference in ratings across all testing times was analysed using Friedman’s test, which, when significant, was followed by posthoc Wilcoxon tests between all pairs of testing times. There was no significant effect of either the practice session or the video on ratings of anxiety, which remained high across testing times for all components, never dropping below 3.9 out of 5 for either group.

Table 2: Results of Friedman’s test for anxiety ratings.

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>$\chi^2(2)$=2.2, $p=.34$</td>
<td>$\chi^2(2)$=2.2, $p=.33$</td>
</tr>
<tr>
<td>Substitutions</td>
<td>$\chi^2(2)$=4.2, $p=.12$</td>
<td>$\chi^2(2)$=0.1, $p=.98$</td>
</tr>
<tr>
<td>Intonation</td>
<td>$\chi^2(2)$=6.9, $p=.71$</td>
<td>$\chi^2(2)$=1.9, $p=.39$</td>
</tr>
</tbody>
</table>

Table 3: Results of Friedman’s test for knowledge ratings.

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>$\chi^2(2)$=27.6, $p=.00$</td>
<td>$\chi^2(2)$=20.4, $p=.00$</td>
</tr>
<tr>
<td>Substitutions</td>
<td>$\chi^2(2)$=24.6, $p=.00$</td>
<td>$\chi^2(2)$=29.2, $p=.00$</td>
</tr>
<tr>
<td>Intonation</td>
<td>$\chi^2(2)$=32.7, $p=.00$</td>
<td>$\chi^2(2)$=28.8, $p=.00$</td>
</tr>
</tbody>
</table>

For the production and substitution components, knowledge increased across testing times but in different ways for each group. Knowledge ratings for group 1 increased from the baseline to the practice session, and still further after watching the video. For group 2 knowledge rose from the baseline to watching the video, but, although the mean rating then increased again after engaging in the practice session, this was not significantly different to that obtained after the video. Thus, for these sections, the video added to students’ knowledge whenever it was shown, but the practice session did not significantly affect knowledge when it occurred after the video.

For intonation the situation was different; knowledge increased at each time point regardless of the order of practice session and video.

4. DISCUSSION

We compared the effects of different types of information on student knowledge and anxiety about the phonetics oral exam. Neither written information, nor a practice session, or a video of a mock-oral exam affected anxiety, which was high at all times and for all oral components. For knowledge, the practice sessions and video were more effective than the written information, but the details of the results relate to the components of the viva. Knowledge of substitutions and production was addressed by the video alone, whilst knowledge about the intonation component was addressed by both the practice and video.

There are several issues arising from this study, beginning with why anxiety was not affected by any of the information provided. This initially seems like an unusual finding as fear has been successfully treated with symbolic modelling (e.g. [11]). One reason for this lack of anxiety reduction in the current study might relate to the rating scale used, which did not measure how anxious students were, but instead asked them to agree or disagree with the statement ‘I am anxious about the [component] part of the oral’. It is perhaps too much to ask that any educational intervention will reduce anxiety so much that students will move into the range of disagreeing with, or even being neutral about, this statement. In future we will investigate alternative ways of measuring anxiety, such as the State-Trait Anxiety Inventory for Adults ([12]) to see if a measure of the degree of anxiety might reveal a reduction across testing times and after specific interventions.

A surprising aspect of the anxiety ratings is that students were equally anxious about all the components of the oral. Whilst students express anxiety about production and intonation in class, they rarely mention the substitutions component as
especially anxiety provoking. In addition the anxiety does not seem to relate to the elements that are most practiced or assessed. Students in this cohort had been practicing substitutions for a year and a term, and had been formally assessed on them. Intonation was also a component of previous assessments, albeit in less detail than in the oral. Only production was a complete unknown, yet the oral nature of all three components appears to make them equally stressed, meaning additional strategies need to be found to manage this anxiety.

For all components, both the practice session and video helped students feel their knowledge was improved. This is perhaps surprising as we might have thought this information to be clear from the written details, which included notes about each section, what would be covered, and how marks would be allocated. However, an additional question at the first time point revealed that only six students in group 1, and four in group 2 had read this information. Thus, one effect of both the video and the practice session was to confront students with information in a way that could not go unnoticed.

For production and substitutions, knowledge was affected by the order of video and practice session. Knowledge ratings increased still further for those who saw the video after the practice session, but not for those who attended the practice session after the video. [3] noted that students would have appreciated improved briefing, practice and preparation for vivas. The results of this study indicate that briefing for these two components is more effective when a symbolic model is employed than when either written information or a practice session is provided.

Nevertheless, the question remains why the video was more effective than the practice session. It seems likely that students feel a lack of knowledge because they cannot imagine what the viva will be like. They might worry about things that cannot be shown in writing or in the practice session, such as how friendly the examiner will be and how much assistance they will get. In short, the video situates learning in a realistic context, as per constructivist principles (see e.g. [13]).

However, the same result was not found for intonation, which required both the practice session and video in order for students to feel that they knew what would be required of them. A possible explanation for this is that they had had little practice giving a full analysis of intonation, having concentrated so far on the position of the nucleus and identifying the nuclear tone.

Another explanation might be that there are a number of optional elements to an intonation phrase, such as the pre-head, head and tail, which might make students feel less sure about what they need to do. This is less true for the other aspects of the oral: Production is a fairly easy concept to grasp, and substitutions largely require an answer in terms of VPM labels. The practice session was able to demonstrate and manipulate the optional aspects in a way that was not possible for the video. Thus, it is possible that the intonation exercise required all forms of information because it is less practiced, and because it is conceptually more complex than the other sections.

5. REFERENCES

DEVELOPING INTONATION AWARENESS: THE CASE OF TV COMMERCIALS

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ABSTRACT
This paper discusses the use of real-life spoken data in building and developing intonation awareness in non-native students of English. Although TV commercials exhibit a very specific style of speech, they can be a useful tool to illustrate how variations in tonality, tonicity, as well as pitch heights and movements affect the organization and the overall image of a commercial with the purpose of boosting the product’s value and sale. The paper proposes five steps in building intonation awareness.

Keywords: TV on-line shopping commercials, intonation, English.

1. INTRODUCTION
Native speakers (NS) are normally not conscious of intonation, but they are nevertheless sensitive to it, especially when it runs counter to their expectations. When they hear an unusual intonation pattern, they search for an implied meaning. If they cannot find it, they are at first bewildered, but if the intonation pattern persists, they may even find it irritating. What about non-native-speakers’ (NNS) perception and awareness of intonation of L2, in our case English? It is reasonable to believe that their judgment of intonation will be made against the intonation patterns of their L1, in our case Slovene, which differs from English in number of tones (no fall-rise tone) and is neither in favour of level heads nor pitch jumps or slumps.

The traditional teaching of intonation to students of English at our department follows the British approach to the study of English intonation as described by O’Connor and Arnold [3], Wells [4] and Brazil [1]. The course on English intonation is part of the BA studies of English language and is taken in the second year (30 teaching hours, 2 semesters). It begins with a test of students’ perception of three tones: fall, rise and fall–rise (the latter is an unfamiliar tone for Slovene speakers) in different distributions, ranging from monosyllabic words to phrases and clauses. This test regularly shows that students confuse the pitch height with the pitch movement and hence perceive falls as rises and vice versa; as for the fall–rise, they regularly recognise it as a simple rise. The students are then introduced to the basic principles of tonality (i.e. division into IPs) and tonicity (i.e. nucleus placement), the structure of an IP, as well as the number of tones and pre-tonic pitch movements. With detailed guidelines on how to listen to intonation, a lot of ear–training and production exercises, which involve both auditory and visual stimuli (the latter in the form of tadpole transcription, as well as pitch tracks generated by SFS/WASP), they learn to hear and produce different tones and tunes. A test carried out at the end indicates that the recognition of tones improves: falls and rises are no longer confused, while the fall–rise is correctly recognised by the majority of students [5].

But practicing intonation in isolated sentences which are taken out of a larger context of interaction is not sufficient to develop a reliable awareness and hence confidence in understanding and using intonation in spontaneous speech. In the second semester students first learn about the default and marked grammatical and pragmatic functions of tones and tunes as proposed by O’Connor and Arnold [3] and Wells [4]. In addition, they are told about the basic discourse functions of falling and non-falling tones as understood by Brazil [1]. Then they are encouraged to analyse and discuss the use of intonation in short extracts from real-life spoken data, such as TV news, different interviews, entertainment shows and TV commercials.

Discourse intonation (30 teaching hours, 2 semesters) is an elective course in the MA programme in English language and requires the students to be familiar with the basic theoretical and practical knowledge of intonation, as well as the theory of discourse analysis. The students learn about the discourse functions of intonation as
proposed by Brazil [1] and are encouraged to understand how grammatical, discourse and pragmatic functions of intonation intertwine in everyday spoken interaction.

2. FIVE STEPS TO DEVELOP INTONATION AWARENESS

We propose five steps in building intonation awareness and developing a critical but objective attitude towards the communicative value of intonation. These steps include: 1) a preliminary survey of students’ awareness of intonation and their sensitivity to it, 2) analysis of tonality and tonicity, 3) analysis of tones, 4) analysis of whole tunes, and 5) discussion of prosodic features and their contribution to speech styles.

To test students’ sensitivity to the intonation used for advertising purposes, we have chosen a 1.17 minutes long TV commercial of a household product for cooking eggs called Eggies, as seen on Highstreet TV [2]. The commercial exhibits very specific stylistic features typical of TV on-line shopping in which the product is described with superlatives and presented as a magical solution to the problem of cooking eggs. The product’s name and its benefits are repeated at regular intervals and with an equal amount of emphasis at every mention. The style is gushing in all aspects: from the choice of lexis and syntactic structures to intonation, especially in terms of tonality, tonicity and the choice of tones and tunes.

2.1. Preliminary survey

The purpose of a preliminary survey is to check the degree of students’ general awareness of intonation and its impact on the overall make-up of the speech style under investigation. It includes students’ judgments of the appropriateness of intonation for the situation. The survey consists of a short questionnaire where students are required to agree or disagree with statements about the intonation used in the presented speech sample, as well as to express their own views on the subject.

2.2. Analysis of tonality and tonicity

Tonality (i.e. division into intonation phrases – IP) and tonicity (i.e. the nucleus placement) are two important processes by means of which speakers package information into small chunks and give prominence to important pieces of information. In unmarked contexts, tonality often follows grammatical division into clauses, whereas in marked contexts, IP boundaries may occur between phrases, words or even syllables. Since each IP has at least one pitch–prominent syllable, marked tonality produces utterances which are felt as extremely emphatic and appropriate only for limited contexts of interaction.

The second step towards better intonation awareness is the analysis of tonality and tonicity used in the TV commercial. The students are given a transcript of a commercial and have to divide the text into IPs and mark the pitch–prominent syllables – both nuclear and pre–nuclear. Then the results are compared and a discussion on the communicative value of tonality and tonicity follows.

2.2.1. Tonality and tonicity in Eggies

The Eggies commercial is 1.17 minutes long and has 233 words. As presented in Table 1, the text is divided into 71 IPs which gives the average of 3.3 words per IP. More important than the average of words per IP, is the number of lexical items (LIs) per IP since these affect the density of the message. Table 1 also shows that 70.4 % of IPs contain one or two LIs per phrase, 24 % have three LIs, whereas only 5.6 % have four LIs per phrase. One third of IPs have only one pitch–prominent syllable (i.e. the nuclear syllable), whereas the remaining two thirds have two pitch–prominent syllables (i.e. a pre–nuclear one and the nuclear syllable).

<table>
<thead>
<tr>
<th>Text</th>
<th>Eggies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration (in minutes)</td>
<td>1.17</td>
</tr>
<tr>
<td>Number of words</td>
<td>233</td>
</tr>
<tr>
<td>Number of IPs</td>
<td>71 (=3.3 w/IP)</td>
</tr>
<tr>
<td>1 LI/IP</td>
<td>21 (29.6%)</td>
</tr>
<tr>
<td>2 LI/IP</td>
<td>29 (40.8)</td>
</tr>
<tr>
<td>3 LI/IP</td>
<td>17 (24%)</td>
</tr>
<tr>
<td>4 LI/IP</td>
<td>4 (5.6%)</td>
</tr>
<tr>
<td>Nucleus</td>
<td>24 (33.8%)</td>
</tr>
<tr>
<td>Head + Nucleus</td>
<td>47 (66.2%)</td>
</tr>
</tbody>
</table>

This indicates an emphatic interpretation of the text which is confirmed by a closer analysis of the grammatical structure of IPs. The students, familiar
with the neutral (unmarked) tonality guidelines, immediately recognize that the division into IPs in *Eggies* is heavily marked since many clauses are broken down into a number of short IPs, as illustrated in the following example:

Fast and fresh egg sandwiches or simply slice an egg over a scrumptious salad

Analysis of tonicity further supports the assumption of heavily marked interpretation. The students are asked to look closely at the location of nuclear syllables. It does not take them long to realize that some words, phrases and even clauses are repeated in the text at regular intervals. They are, however, surprised to realize that these IPs are always spoken with the nucleus located on the same LI which is in contradiction with the basic principle of tonicity, i.e. the nucleus should occur on a LI expressing new information. Table 2 shows three LIs with the same tonicity at every occurrence. Only four IPs, in which these LIs are nuclei, are simple IPs (having only the nucleus), the rest are complex IPs (having the onset and the nucleus).

<table>
<thead>
<tr>
<th>IP</th>
<th>Number of occurrences</th>
<th>Nucleus</th>
<th>Fall</th>
<th>Fall–Rise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egg</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Shell</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 3 shows the distribution and frequency of occurrence of the five basic nuclear tones in *Eggies* commercial.

Table 3: Nuclear tones.

<table>
<thead>
<tr>
<th>Tone</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>47 (66.2%)</td>
</tr>
<tr>
<td>Rise</td>
<td>8 (11.3%)</td>
</tr>
<tr>
<td>Fall–Rise</td>
<td>10 (14%)</td>
</tr>
<tr>
<td>Rise–Fall</td>
<td>0</td>
</tr>
<tr>
<td>Level</td>
<td>6 (8.5%)</td>
</tr>
</tbody>
</table>

It is not surprising to find that over 66 % of all tones are falling. According to Brazil [1], the discourse meaning of the fall is to express something which is not yet part of the common ground between the speaker and the listener. In other words, it is used to proclaim new information. O’Connor and Arnold [3] provide pragmatic meanings of the tone, claiming that it indicates definiteness, confidence and involvement.

Fourteen percent of non–falling tones are fall–rises. This is best explained by again referring to Brazil’s discourse approach to intonation according to which the non–falling tones are used to refer to pieces of information which are already part of the common ground. In other words, they have the anaphoric cohesive function, as opposed to the falling tones whose function is cataphoric. And indeed, five fall–rises occur on pieces of information which are repeated at regular intervals (see Table 2).

In the pragmatic approach to the study of intonation, the fall–rise is often referred to as the implicational fall–rise whose function is to express contrast, reservations and doubt. The following example illustrates the interplay of the discourse and pragmatic meanings of the fall (\(\downarrow\)) and the fall–rise (\(\uparrow\)):

\[
/\rangle\text{Peeling just }\textit{one egg} \text{ the }\textit{regular way} \text{ can be messy } \text{ and }\textit{take }\textit{time}/
\]

2.3. Analysis of nuclear tones

The third step in the intonation awareness process is the analysis of nuclear tones as recognized by O’Connor and Arnold [3]. Students are asked to mark the tones as they hear them. Their results are checked, discussed and often compared with the pitch tracks generated by SFS/WASP. On the basis of statistical analysis, students can get a better picture as to which nuclear pitch movements are most frequent and what they contribute to the overall interpretation of the text.

2.4. Analysis of whole tunes

The fourth step in the intonation awareness process is the analysis of whole tunes, i.e. combinations of pre–tonic and tonic pitch contours. O’Connor and Arnold [3] refer to the syllables from the onset as head, and recognize four different types: high, low,
falling and rising. Together with the nuclear tones they form ten different tunes.

Table 4 shows the combinations of different heads and tones and their frequency of occurrence in the commercial for Eggies.

<table>
<thead>
<tr>
<th>Head + Nuclear tone</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>High H + Fall</td>
<td>16 (34%)</td>
</tr>
<tr>
<td>High H + Level</td>
<td>2 (4.3%)</td>
</tr>
<tr>
<td>Low H + H Fall</td>
<td>2 (4.3%)</td>
</tr>
<tr>
<td>Falling H + Fall-Rise</td>
<td>5 (10.6%)</td>
</tr>
<tr>
<td>Falling H + Fall</td>
<td>12 (25.5%)</td>
</tr>
<tr>
<td>Rising H + High F</td>
<td>10 (21.3%)</td>
</tr>
</tbody>
</table>

The table shows that the most frequent tunes in the commercial are the high head combined with a fall, the falling head combined with a fall and the rising head combined with a high fall. The high head with a fall is the default tune for statements, whereas the rising head and the high fall is more marked because of its gradually ascending pitch movement, beginning very low in the pitch range and rising to the upper half of it from where the high fall begins. Due to this extensive pitch movement, O’Connor and Arnold associate it with the attitude of “protest, as if the speaker were suffering under a sense of injustice” [3:73].

The opening IPs of the commercial are a good example of an implied protest of the speaker against the traditional cooking of eggs. They all contain the rising head (↗) and the high falling tone (\)

\ Messy \ shells | ↗broken \ whites | ↗dirty \ hands \ Well | ↗not any \ more /.

O’Connor and Arnold claim that commands said with the rising head and the high fall “are not so much orders as recommendations for a course of action” [3:74]. And indeed, the commercial ends with a recommendation uttered with this tune:

/\Get an \Eggies/!

2.5. Discussion of the speech style

Having done all the analyses of individual prosodic features, students are encouraged to engage in a discussion of the speech style typical of TV on-line shopping commercials.

In the case of the Eggies commercial, they may conclude that the presenter uses marked tonality and tonicity in order to give emphasis to all important pieces of information about the new product for cooking eggs. Further on, the speaker mainly uses the falling tone whose function is to expand the common ground between the speaker and the addressees, on the one hand, and to express confidence, reliability and assertiveness, on the other, in order to convince the addressees to buy the product. The fall-rise is used to express the anaphoric reference to the common ground, as well as to imply contrast with the obvious facts. Those parts of the text which describe the problem and the addressees’ dissatisfaction with cooking eggs, are spoken with protesting intonation which consists of a gradually ascending pre–nuclear segment and a high falling nuclear tone.

3. CONCLUSION

In the paper we discuss the use of a TV on-line shopping commercial Eggies for the building and developing awareness of different prosodic features and their contribution to the over–all make up of this gushing and assertive speech style. We propose a five–step approach which can be used at the B.A. as well as the M.A. level of English language studies. It consists of a thorough analysis of tonality, tonicity, nuclear tones and whole tunes and ends with a discussion of discourse and pragmatic meanings expressed via these prosodic features. One of the benefits of this approach is that the students learn to understand the effects that intonation may have on the interpretation and transmission of the message from the speaker to the addressee.

4. REFERENCES

THE EFFECT OF PHONETIC KNOWLEDGE ON EVALUATED PRONUNCIATION PROBLEMS

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ABSTRACT

Raising learners’ awareness of the target language phonology is one of the aims in foreign language teaching. Different methods are used for this depending on the learner’s age. Courses on phonetics are often used for these purposes at university level. This paper focuses on the development of pronunciation awareness and how it is affected by phonetics teaching. Finnish university students of English attended a pronunciation test, and also listed words that they found problematic to pronounce. This study compares learners’ pronunciation with their subjective evaluation of their pronunciation problems. The evaluations collected before and after a course in English phonetics are compared. According to the results, the subjects’ evaluations were partly affected by awareness-raising. The results also show a considerable difference in the evaluation of liquids.

Keywords: EFL, awareness, pronunciation, phonetics.

1. INTRODUCTION

The deep orthography of English creates challenges for EFL learners. This is especially true with learners whose native language has a shallow orthography where graphemes and phonemes have a more straightforward relationship. In these cases, phonetics teaching is an essential part of EFL teaching as it raises the learners’ awareness of the target language sound system and the phonological forms of words. This study focuses on the effect of explicit theoretical phonetics and practical pronunciation teaching on learners’ awareness and evaluation of their pronunciation problems.

The role of consciousness, becoming aware or noticing certain features of the target language, is important in language learning. In fact, Schmidt [11] introduced the noticing hypothesis, according to which learners have to first notice features of the target language before input can become intake. His theory has received some criticism, but awareness-raising is yet considered to be an important part in foreign language teaching and facilitating the learner’s development [8]. In general in foreign language learning, an awareness of form makes the learning more efficient [15].

In pronunciation teaching, awareness-raising or noticing exercises are used [2]. They are especially helpful when they make learners who are used to shallow orthography in their native language think about the phonological forms of words in the target language. Seidlhofer [12] mentions that especially mature learners benefit from cognitive analysis, which includes, for instance, phonetic training and a comparison of the native and target language sound systems.

Teaching phonetics has been discovered to facilitate pronunciation learning in a foreign language (e.g. [1, 6, 9]). Learning seems to be clearer after longer periods of practice including various kinds of exercises on production, perception and self-analysis. Despite this, there are also concerns that phonetics – or pronunciation as a whole – is often a neglected area in language teaching [3] and in foreign language teacher education [4].

This paper reports on a study where Finnish university students of English were asked to identify problem areas in their pronunciation of English. The subjects were asked the same question before and after a course in phonetics and pronunciation training sessions. Their answers were analyzed with reference to their performance in a pronunciation test.

The present study was inspired by Szpyra-Kozlowska’s [13] findings on Polish learners of English. She set out to study words that were stored in incorrect phonemic forms in the learners’ memory. She analyzed 250 words, and her study showed that, in addition to the anticipated problems with word stress, consonant clusters, spelling-induced forms and words that are similar in form in the native and target languages, also word length, the number of liquids, morphological...
alternations and high front vowels were frequent sources of phonetic errors. This study follows the same methodology with the exception of an additional pronunciation test. This allows comparisons between real and assumed difficulties. In a related study [14], learners were shown to have a limited awareness of their problems.

In addition, the longitudinal aspect of the present study enables us to see how theoretical and practical phonetic and pronunciation training affects students’ evaluations of their own skills. Other differences between this study and [13] are that one of Szpyra-Kozlowska’s aims was to reveal problematic areas of her subjects’ pronunciation that were not traditionally focused on. In the present study the focus was on the link between awareness and pronunciation. Here we also focus more on sounds than words.

2. METHODOLOGY

The present study was conducted in three parts: the subjects attended a pronunciation test and filled in two questionnaires (a pretest and a posttest on phonetically difficult words). The pronunciation test was held before the first questionnaire. The purpose of the pronunciation test was to reveal the actual phonetic difficulties of the subjects.

In the pronunciation test the subjects were given a short text and a word list. The word list included all phonemes of English with a special emphasis on phonemes that Finnish learners of English typically find problematic (e.g. [5], [7] or [10]). The subjects were given ca. 10 minutes to prepare, after which they had to read the text and the individual words out loud while being recorded. 69 subjects (out of the total of 156 subjects) were randomly selected for a closer analysis by two experienced pronunciation teachers.

The methods used for collecting subjective evaluations of phonetically difficult words followed those of Szpyra-Kozlowska [13]. The subjects were all first-year students of English who had just begun their university studies. The first test was organized during their first teaching week before they had been taught any phonetics or had had any pronunciation exercises. They were asked to write down English words whose pronunciation they thought was particularly difficult. They were also asked to underline the difficult part of the word so as to be able to identify the phonemes they referred to. A similar posttest was conducted at the beginning of their second term at the university.

Before the second test the subjects were supposed to complete a lecture course (24 hours of teaching) on English phonetics where the sound system had been explained and a practical pronunciation course (45 hours of teaching) during which they had had various pronunciation exercises and a few exercises on phonemic transcription. This means that they should have been aware of the sound system of English and able to analyze written words in their phonemic forms. In the second test, only those subjects who had taken these courses were analyzed for the present study. Altogether 156 subjects took part in the pretest and 78 in the posttest, which means that the non-completion rate was quite high.

3. RESULTS

In this section the results of the study will be presented. The pronunciation test is focused on first. Then we look at the difficult word tests. Finally we will compare the results. The order of the results section follows the chronological order of the tests.

3.1. Pronunciation errors

As mentioned, 69 randomly selected subjects were analyzed in a pronunciation test by two experts who were asked to pay attention to phonemes, phonemic oppositions or other features that the subjects had problems with. Problems related to fluency and prosody were excluded as they are difficult to show in the word list part of this study. A rank order of pronunciation problems was established based on how many of the subjects had problems with a certain phoneme or a feature of English. The rank order of the ten most common pronunciation errors is presented in Table 1.

| Table 1: Pronunciation errors (N=69). |
|---|---|
| 1 | v/w | 69.6% |
| 2 | ʒ | 63.8% |
| 3 | ʒ | 58.0% |
| 4 | ʒ | 52.2% |
| 5 | z | 39.1% |
| 6 | θ, ð | 34.8% |
| 7 | f | 24.6% |
| 8 | θ | 23.2% |
| 9 | i | 14.5% |
| 10 | aspiration | 13.0% |
As seen in Table 1, consonants caused most of the problems for the subjects. The most problematic feature was the phonemic opposition /r/ - /w/. In addition, the sibilants (excluding /s/), affricates and dental fricatives were among the most difficult phonemes. The dental fricatives were treated as one unit as those subjects who had problems with one dental fricative also had problems with the other. The consonant cluster /ŋg/ was also found frequently problematic. In general, voiced consonants seemed to be more problematic than voiceless ones. The only vocalic feature that was found relatively problematic was the quality of the lax /l/, which was slightly more problematic than aspiration in general. These results correspond very well to earlier findings on Finnish learners of English [5, 10].

3.2. Difficult words in the pretest

Altogether 156 subjects took part in the pretest. Out of these, 133 (85.3%) wrote down some words. 20 subjects (12.8%) had not underlined anything. Therefore it was not always possible to know which sound was referred to. The subjects wrote down 1-10 words each, in total 423 words. The most common words were particular(ly) (19), which was also mentioned in the instructions, acquisition (11), intelligible/-bility (11), squirrel (9) and suggest(ion) (7). The rank order of the most commonly mentioned features is in Table 2.

<table>
<thead>
<tr>
<th></th>
<th>% of subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>/l/r</td>
</tr>
<tr>
<td>2</td>
<td>/ʃ</td>
</tr>
<tr>
<td>3</td>
<td>/dʒ</td>
</tr>
<tr>
<td>4</td>
<td>word stress</td>
</tr>
<tr>
<td>5</td>
<td>θ, δ</td>
</tr>
<tr>
<td>6</td>
<td>z</td>
</tr>
<tr>
<td>7</td>
<td>/tʃ</td>
</tr>
<tr>
<td>8</td>
<td>v/w</td>
</tr>
<tr>
<td>9</td>
<td>aspiration</td>
</tr>
<tr>
<td>10</td>
<td>aspiration</td>
</tr>
</tbody>
</table>

As the table shows, the most commonly mentioned problems were related to /r/ or /l/ or to words that had more than one liquid in the same word, such as regularly, rural and literally. Based on earlier work on Finnish learners’ pronunciation problems in English, this is an unexpected result. Interestingly, Szpyra-Kozlowska [13] has the same result in her study. Finnish has phonemically the same sounds although there is some variation in the phonetic qualities. The other feature that was not commented on in the pronunciation tests was word stress. Word stress is often problematic for Finnish learners, but it may be that the judges focused more on sound segments in the pronunciation task. The other sounds and features are commonly known pronunciation problems for Finnish learners and were also mentioned in connection with the pronunciation test. Vowels were quite rarely and unsystematically referred to.

When the sources of problems were analyzed, many subjects listed words with many syllables (e.g. prejudice, determiner, communicative), various consonant clusters (e.g. three, grab, structure), silent letters (e.g. debt, listen, wrath) and with the spelling and pronunciation less transparent (e.g. Derby, lawyer, opaque). Also words that share very similar orthography but different pronunciation between Finnish and English were mentioned (e.g. Egypt, psychology, vagina). This implies that the subjects often evaluated pronunciation difficulties on a word level, with respect to the phonetic environment, and did not always focus on the individual segments in the word, which agrees with [13].

3.3. Difficult words in the posttest

Out of the 78 subjects in the post-test, 6 subjects (7.7%) did not list any words and 12 (15.4%) had not underlined any parts of the words. The subjects wrote down 1-10 words each, in total 229 words. The most commonly mentioned words were particular(ly) (11), decision(s) (10), suggest(ion) (9), squirrel (7) and English (6). Some subjects also responded by giving a phonetic symbol, e.g. /v, r, θ/. When analyzing the words given, vowels were not often underlined. Again some words had to be interpreted, and underlining many adjacent phonemes was very common. The most commonly underlined units are presented in Table 3.

<table>
<thead>
<tr>
<th></th>
<th>% of subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>/l/r</td>
</tr>
<tr>
<td>2</td>
<td>v/w</td>
</tr>
<tr>
<td>3</td>
<td>θ, δ</td>
</tr>
<tr>
<td>4</td>
<td>/ʃ</td>
</tr>
<tr>
<td>5</td>
<td>/dʒ</td>
</tr>
<tr>
<td>6</td>
<td>/tʃ</td>
</tr>
<tr>
<td>7</td>
<td>z</td>
</tr>
<tr>
<td>7</td>
<td>word stress</td>
</tr>
<tr>
<td>9</td>
<td>/ʒ</td>
</tr>
</tbody>
</table>

As the table shows, the most commonly mentioned features were /l/ or /r/ or /ʃ/ or /dʒ/ or /tʃ/ or /z/ or word stress. These results correspond very well to earlier findings on Finnish learners of English [5, 10].
Table 3 shows that the subjects’ results corresponded fairly well to the pronunciation test. The answers had so much variation that even the most common sound was pointed out by less than one fourth of the subjects. The most common phonemes were again the unexpected /l, r/ sounds. The very commonly mentioned words particularly and squirrel formed a large part of the answers in this category. Silent letters were mentioned by 2 subjects and consonant clusters by 3.

When we compare the two tests on difficult words, we can see that the liquids are evaluated as the most difficult sounds. This can partly be explained by the fact that certain individual words were very common. After the teaching period, the subjects rated /v, w, ð, θ/ more problematic than before. Also /z/ was clearly higher in terms of the percentage. /z, tʃ/ were fairly unaffected, whereas /ʃ, dʒ/ were evaluated less problematic. Another difference was that in the posttest proportionally more subjects were able to answer the question in the first place and their answers were more linked to individual sounds than whole words and sound combinations as in the pretest.

3.4. Comparison of pronunciation errors and subjective evaluations

When looking at the results presented above as a whole, the liquids stand out. It seems that the subjects evaluated words containing liquids as very problematic, but in the pronunciation test they did not seem to have many errors in these sounds. It has to be borne in mind that in the pronunciation test the words were very short, whereas the subjects often evaluated long words difficult. If we think of how a more thorough awareness of phonemics and pronunciation through teaching affected the subjects’ evaluations, we can see that the higher ranking of /v, w/ and marginally of /ʒ, ñɡ/ can be explained by this. It seems that teaching also affected the subjects’ ability to list words that they evaluated difficult and partly changed their answers from the word to the phonemic level.

4. DISCUSSION

The purpose of this study was to compare real and assumed problems in the pronunciation of advanced Finnish learners of English. In addition, we wanted to see what effect explicit phonetics teaching and practical pronunciation exercises had on the learners’ subjective evaluation of their common problems. The subjects were partly aware of their problems and their awareness increased through teaching. When it comes to the explicit teaching of pronunciation skills and phonetics, it seems that by focusing on sound systems and individual phonemes learners also start evaluating their pronunciation accordingly.

Although this study mostly focused on sounds, the findings support Szpyra-Kozłowska’s [13] claim that the word level should be taken into account when teaching or testing second language pronunciation. This study only focused on the subject group. More results can be obtained by studying individual learners and their progress.

5. REFERENCES

INFLUENCE OF FORMAL INSTRUCTION IN ENGLISH PHONETICS AND PHONOLOGY ON POLISH LEARNERS’ PRODUCTION OF ENGLISH /æ/

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ABSTRACT

Learning a second language is always a complex and complicated process [1]. It requires acquisition of numerous skills and elements, L2 phonetic system among them. Since phonetic systems of various languages differ greatly, achieving correct pronunciation in one’s second language always poses a serious challenge for L2 learners [9]. /æ/ has been regarded as one of the most difficult vowels to acquire for non-native speakers of English [3].

The production of this vowel frequently reflects the intensity of a foreign accent, in languages such as Polish. The aim of this paper is to investigate whether L2 learners are able to separate a new vowel category (/æ/) from their native, neighbouring vowels (Polish /a/ and /ɛ/) and to what extent an academic course on English phonetics and phonology can facilitate this complex process.

Keywords: TRAP vowel, speech production, vowels, L2 acquisition.

1. INTRODUCTION

1.1. Learning the L2 sound system

It is widely known that second language acquisition is always a complex phenomenon and consists of various steps. Although L2 learners usually focus on vocabulary, grammar or different communication skills, if they want to become successful learners (and communicators), they need to acquire the L2 sound system. It cannot be denied that the acquisition of the L2 sound system should be regarded as one of the vital aspects of SLA as it enables learners to communicate with both native speakers of this target language and other learners from various countries [7]. However, since sound systems of various languages differ greatly, this task frequently turns out to be a very difficult one, especially for adult learners [9], and some learners never master the TL pronunciation at a satisfactory level [7]. Furthermore, there is no ready phonological representation of L2 automatically available to a learner so every learner must construct one of their own [2].

1.2. Learning the L2 sound system

It is frequently highlighted that English /æ/ poses great difficulties in production for non-native speakers of English [3] and also Polish learners of English encounter many problems in the acquisition of this vowel. Since English /æ/’s nearest neighbours in Polish are front mid /ɛ/ and open front /a/, according to Sobkowiak [11], English /æ/ is equally likely to be assimilated either to Polish /ɛ/ or Polish /a/, and the actual choice of either alternative in the learners’ pronunciation probably depends on personal preferences. Also according to the Speech Learning Model [4], as English /æ/ is usually perceived by Polish learners of English as similar to Polish /a/ or /ɛ/, these learners are likely to merge it with one of the Polish vowel categories and encounter difficulties in separating these vowels one from another.

Previous research on Polish learners’ production of English /æ/, shows that although it is difficult, Polish learners of English are able to acquire correct production of /æ/ to some extent. Nowacka’s [8] longitudinal study on Teacher Training College students showed gradual improvement in vowel quality in the case of English /æ/ produced by these students. Although this vowel was frequently pronounced as Polish /ɛ/ or Polish /a/, e.g. in accent /ˈaksent/ or /ɛˈksent/ or language, this tendency faded out with time. Her students were taught English phonetics and phonology during their first and second year of studies. It is noteworthy that the realization of the problematic vowel /æ/ progressed only slightly during the first year, but it improved markedly after the second year of the study. Thus, it might be suggested that students need more than a year to internalize this “strang-sounding”, “exaggerated,” (as Nowacka reported they called it), vowel in their speech. However,
the assessment of students’ production was based on auditory impressions and not on acoustic measurements in this study. Rojczyk [10] also conducted a study examining the production of the English /æ/ vowel by advanced Polish learners of English, recruited among students of the University of Silesia, Poland. He wanted to determine the production and perception of English /æ/ by Polish learners of English relative to English vowels /e/ and /æ/ and Polish vowels /ɛ/ and /a/. The study was based on acoustic measurements. The study results showed that both English /æ/ and /ɛ/ produced by the subjects were partially assimilated to the Polish /a/ category. The computed Euclidean distances indicated equal proximity of /æ/ to both /ɛ/ and /a/ and a 2.5 times larger distance to /ɛ/. What was also noteworthy was the fact that /æ/ was characterised by a lack of stability along F2 dimensions. This was evidenced by its relatively great standard deviations of F2 frequencies (155Hz). This study also showed that English /æ/ was almost completely subsumed by Polish /a/ and shared a significant amount of acoustic space with English /æ/ [10].

2. THE STUDY

2.1. Aims and procedures

The procedures and results described here are a part of a larger project aiming to investigate Polish learners’ of English production of English vowels relating to Polish vowels. The aim of this paper is to check whether Polish learners of English are able to separate English /æ/ from Polish /a/ and /ɛ/ and how the formal instruction in English phonetics and phonology influences this process.

The subjects in this study were recruited from first-, second- and third-year students at the Institute of English, University of Silesia. There were 51 study participants, 14 male (≈27%) and 37 female (≈73%). They had attended no-, a half- and a full academic course in English phonetics and phonology, respectively. These three groups were chosen in order to determine to what extent the amount of formal instruction in English phonetics and phonology and the number of years participants had been studying English in general would affect their correct production of English vowels. They all volunteered and were not paid for their participation. None of the subjects reported any speech or hearing disorders.

The material used in this study was the same for all subjects. All examined vowels were embedded in a /bVt/ context. There could not have been used a standard /hVd/ context since while English uses a glottal fricative /h/, Polish has a velar /x/ [6]. This fact would have made vowels from both languages incomparable because of the possibility that consonantal effects might persist throughout the whole vowel portion, its target included [5]. The target /bVt/ words were embedded in carrier sentences I said /bVt/ this time in English and an equivalent phrase Mówię /bVt/ teraz in Polish in a non-final position. This position was preferred because previous research has shown that there exists a significant influence of utterance final position on spectral properties of different sounds [9]. The sentences were presented to the study participants on the computer screen.

All the sequences were recorded by a qualified phonetician in a sound-proof booth in the Acoustic Laboratory at the Institute of English, University of Silesia. The signal was captured with a headset condenser microphone Sennheiser HME 26-600S, preamplified with USBPre 2 (Sound Devices) into .wav format with the sampling rate 48 kHz, 16 bit quantization. The recordings were subsequently stored in a notebook hard drive memory also as .wav files ready for inspection. The speakers were asked to produce sentences slowly and distinctly. The Praat 5.3.12 speech-analysis software package was used to scroll through the audio files in order to locate an onset and offset of target vowels. Frequencies of F0, F1, F2 and F3 were measured at vowel midpoint, where the moment of formant movement is minimal, so as to avoid transition movement from and to the neighbouring consonants. Each group was divided into two, according to the speakers’ sex because of physiological differences between males and females which make comparison of speech produced by two speakers of opposite sex impossible. Then the mean formant values of analysed vowels were calculated, and the vowels were plotted on the vowel plane using the Praat 5.3.12 speech-analysis software package. All analyses were also performed using Praat.

2.2. Results

The correct position of the analysed vowels should be as follows:
Group One, consisting of subjects recruited from the first year students at the Institute of English, University of Silesia, was expected to encounter the biggest difficulties in the correct production of /æ/ since they had never received any training in English phonetics and phonology. Group Two, consisting of subjects recruited from the second year students, was expected to have fewer difficulties in production of English /æ/ and to produce this vowel with greater accuracy than Group One. They had undergone half of the university course in English phonetics and phonology. This part of the training focused on segmental phonetics and included practice in correct production of English vowels. Hence it was supposed that study participants from this group should have created a separate category for the English /æ/ vowel.

Moreover, as it can be seen in Figure 1, English /æ/ ought to be somewhere between Polish /a/ and Polish /ɛ/, but much closer to the latter vowel.

The results obtained by both female and male study participants from Group Two show that, after a year of intensive training in English phonetics and phonology, they were able to separate English /æ/ and Polish /a/ and to create two different categories for these vowels. However, the results of females were slightly better than the results of males. Women from Group Two moved their /æ/ category a little more in the correct direction than men. In comparison to the correct vowel position presented in Figure 1, the females’ /æ/ is in the almost most desirable place, whereas the males’ /æ/ is still slightly too...
close to /æ/. Nevertheless, the results achieved by the members of Group Two are much better than the results of informants from Group One.

Group Three, consisting of subjects recruited from the third year students, was expected to obtain the best results among all groups of informants and to produce /æ/ with the greatest accuracy. Their members had completed the whole academic course of English phonetics and phonology, including both segmental and suprasegmental phonetics. It was supposed that study participants from this group would have created a separate category for the English /æ/ vowel.

Figure 6: The results obtained by females from Group Three.

Figure 7: The results obtained by males from Group Three.

However, the results are surprising. Although the female subjects from this group succeeded in forming a separate vowel category for /æ/ positioned in the correct place regarding P /a/ and P /æ/, the male informants from Group Three misplaced their /æ/s. The women’s /æ/ category was in accordance with Figure 1, whereas the men’s /æ/ category was characterised by too high F1 values, higher than those for P /a/. It moved their /æ/s in the wrong direction. Although one must not forget that these are the mean values and they reflect the group’s achievements and not individual participants’ performances, what is intriguing, is the fact that all male participants and only one female informant misplaced their /æ/ vowel. That amounts to 6 subjects or 33.33% of members of this group.

3. CONCLUSIONS

Summing up, the study results prove that although this vowel may be difficult for Polish learners of English to produce, they are able to separate it from Polish vowels. Formal instruction in English phonetics and phonology is helpful in this process. However, as the results of Group Two and Group Three are almost the same, it can be stated that only the first part of the course (focusing on segmental phonetics) seems to influence students’ vowel production, while further practice (concentrating on suprasegmental phonetics) does not significantly affect this aspect of pronunciation. Nevertheless, L2 learners who are trained in English phonetics achieve much better results in the production of L2 vowels than students who study the language without attending classes devoted to correct L2 pronunciation.

4. REFERENCES

USING AUTHENTIC MATERIALS IN THE INTONATION CLASSROOM

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ABSTRACT
Teaching intonation can be a daunting task given the complexity of English intonation and students’ difficulty in trying to understand, internalize and use it effectively. For many years, traditional pedagogical practices have consisted in students either drilling isolated pieces of spoken discourse and/or being exposed to artificially-designed audio materials meant for TEFL.

This paper describes the practical experience of two teachers of English intonation with sophomore students at an Argentine university, following Barbara Bradford’s approach to practising intonation but using an authentic piece of spoken English (a weekly radio program on BBC). The purpose of this paper is to offer EFL educators strategies to teach intonation through real audio materials and to make them aware of the importance of exposing our students to this kind of materials if we wish them to use English intonation more effectively.

Keywords: intonation, free practice, authentic materials, spontaneous oral discourse, TEFL.

1. INTRODUCTION
Although a whole body of literature on the description of English intonation has been available for and used with EFL learners (O’Connor & Arnold [3], Brazil [2], Tench [7], Wells [8]), not as much has been published on the practice of this aspect of pronunciation in a free and spontaneous discourse. Given the common perception that “intonation is an immensely difficult and complicated subject” that is “not teachable and possibly not learnable either” [5] or that “it can be best acquired by a long-term exposure to the target language” [4], many times the teaching of intonation is limited to explaining in detail the theory underlying English intonation to raise learners’ awareness and sensitivity about the way English speakers use this prosodic aspect.

In the course Oral Discourse II at Universidad Nacional de Mar del Plata, Argentina, we felt the need to find a better link between the theory that students are taught and the actual practice they have. For a long time many of the exercises students did in the course consisted of simple and long-established “listen and repeat” tasks and the use of unauthentic materials that aimed at helping students internalize the different intonation patterns with the hope that they would eventually be used by the learners. Without dismissing this traditional methodology, we wanted to go beyond it and design activities in which learners are exposed to authentic material and can apply the theory to scenarios in which they do not merely recognise and analyse the different intonation patterns used in real life, but actually produce them in spontaneous speech.

The framework for designing the activities was adapted from the approach used by Barbara Bradford [1]. In this approach, the different stages of “sensitisation,” “explanation,” “practice,” and “imitation” pave the way to the final stage, i.e. “communication,” in which students work hands on with the features of intonation they have studied without having to produce specific or controlled answers.

2. INTEGRATING THEORY INTO PRACTICE

2.1. Method

2.1.1. Setting and subjects

Oral Discourse II is an 8-hour weekly course in which students are trained in the theory and practice of English intonation. The activities described here were designed for a two-hour practical class following the 5 stages of Barbara
Bradford’s approach to practising conversational discourse by retelling an anecdote. One hour is taught to the whole group of students in the classroom. Another hour is taught in an audio lab in smaller groups, which allows the teacher to monitor the students’ performance individually as well as make interventions and corrections as they practise. In the lab the students also work in pairs monitoring and offering feedback to each other. The classroom and lab classes are taught consecutively.

2.1.2. Activities

Activity 1: The first activity starts in the classroom setting and it is meant to expose students to a piece of oral discourse that demonstrates different intonation features, which Barbara Bradford refers to as “sensitisation.” In this stage students focus on the content and context of the audio material through a set of questions:

1- Listen to Adam Buxton from *The Adam & Joe Show* [6], a weekly radio program on BBC, telling Joe Cornish about a childhood anecdote. Then, answer the following questions:
   a. Who does Adam talk about?
   b. What was the problem?
   c. Was the problem solved? How?
   d. What is Adam and Joe’s accent? How can you tell?
   e. How is intonation relevant in understanding the speakers’ ideas, feelings or attitudes?

Activities 2 and 3: The next activities in the classroom consist of having students identify different aspects and/or features of intonation and explain the speakers’ intonation choices by referring to the theoretical concepts they have studied so far (Bradford’s “explanation” stage):

2- Your teacher will divide the class into groups and assign to each a passage of the anecdote’s script (one group will only focus on Joe’s interventions). With your group, listen again while you read your passage. Mark and discuss the following aspects of the speakers’ intonation:
   - Tone: intonation patterns used by the speakers to ask questions, clarify/correct ideas, make exclamations, state facts/narrate events, etc.
   - Tonality (chunking)
   - Tonicity (prominence and non-prominence, broad/narrow focus)

3- Share your group’s findings with the rest of the class justifying them with the theory on prosody studied so far.

In the following sample from the recording, students are expected to identify, for instance, the narrow focus on a personal pronoun, the use of the implicational fall-rise, of a falling tone in a wh-question, of a mid-level tone for non-finality, and of a leading non-fall tone, among other intonation features:

   “Adam: Yeah…and he said ‘where did you get this gum? I didn’t buy you any chewing gum. You’re not allowed ‘gum’. And I…I >said: ‘It was on…uh…I got it in…it was on…it was on the floor, it was broken!’ And he >said: ‘You’ve just stolen something! This is stealing, Adam. You stole this! You didn’t pay for it! We could go to prison! If the police found out, you could go to prison’.”

Activity 4: The next stage in Bradford’s approach is “imitation,” which consists in students repeating a section of the audio material presented in the sensitisation stage to focus on and practise the intonation feature(s) observed in Activities 2 and 3. In order to do this, students work in the lab in individual booths where they record a passage and repeat at intervals while the teacher monitors their performance:

4- Record a passage from Adam and Joe’s script and try to imitate their accent, focusing particularly on their intonation.

Activity 5: Bradford then moves into the “practice activities,” which allow students to produce the features of intonation observed in context:

5- The teacher gives the students a script form another section of the anecdote and tells them they have to mark tone, tonality and tonicity based on the theory and discussions they have
worked so far. Then, the teacher plays the recording and tells the students to compare their choices with the ones made by the actual speakers. Finally, the students share their findings and discuss those choices that, without being necessarily wrong, do not coincide with the ones used by the speakers in the recording.

Activity 6: The last activity (part of the “communication” stage) allows students to continue practising in a freer style the features of intonation pointed out while interacting with a classmate:

6-

a. Individually, write brief notes about a childhood anecdote in which you learned a lesson. Do not write the complete story but simply jot down notes or key words in chronological order. Make sure you do not share this anecdote with your classmates yet. Have a look at the notes on your anecdote and take a few seconds to think about how you would tell a partner about it.

b. The teacher will set you up in random pairs to record your anecdote. Student A will retell the anecdote while Student B makes appropriate interventions.

c. Once you finish retelling, switch roles with your partner, who will now tell you about his/her anecdote while you make interventions.

d. When both students are finished, stop the recording. Each student should listen to his/her own part again and self-assess his oral discourse. The teacher will monitor your work.

e. Now, listen to your partner’s part and assess his/her oral discourse. Provide him/her with feedback. The teacher will monitor your work.

3. CONCLUSIONS

The activities outlined above have proved to be very useful in helping students integrate theory into practice in different ways. On the one hand, they help students not only to identify and analyse the speakers’ intonation choices from a theoretical standpoint, but they also help them to apply the theory in controlled identification and repetition activities and move toward others that require them to produce the intonation features studied.

On the other hand, students have benefited more from listening to authentic pieces of oral discourse as opposed to artificially-designed audio materials. The former expose students to real intonation models that can more effectively help them integrate theory into practice and produce spontaneous speech in real contexts. In addition, using real exponents of the language is always more enticing for students as they are assured that the intonation they are trying to imitate is what actually occurs in real life.

Finally, following Bradford’s approach has helped students to transition gradually from one stage to the next of their learning of English intonation. The step-by-step approach gives time for students to become aware of intonation subtleties and produce them themselves.

4. REFERENCES


INCORPORATING LOCAL PROSODIC FEATURES IN THE TEACHING OF PRONUNCIATION

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ABSTRACT
This paper will provide an overview of the current scenario in the teaching of pronunciation in Malaysia. This includes the neglect of pronunciation teaching and the general perception towards it among teachers. The new Malaysian English syllabus will also be examined. However, this paper will argue against the Malaysian syllabus which states that the standard or model for English pronunciation should be standard British English (BrE). Instead, local prosodic features based on the findings of Noor [18] will be examined. This paper suggests that incorporating local features such as the prosodic features found in Noor [18] could provide a basis for a local standard or norm which is more attainable for teachers and learners alike.

Keywords: Malaysian English (ME), Malay Speakers of English (MSE), pronunciation teaching in Malaysia.

1. INTRODUCTION
In Malaysia, the teaching of pronunciation has always been a neglected area in ELT [10, 16]. However, this phenomenon is not peculiar to Malaysia, and as noted by Underhill [25] and Jenkins [11], in many ESL and EFL countries, the teaching of pronunciation is not given the same emphasis or priority as other language skills.

For Malaysian teachers, pronunciation teaching has always been a problematic area [10, 16, 22]. Firstly, teachers feel they lack the training and the confidence to teach pronunciation [16]. Most teacher trainee institutions rarely offer phonetics and phonology or the teaching of pronunciation as courses [16] since the focus is more on the four language skills – reading, writing, listening and speaking. Secondly, most teachers are still unclear on how to actually teach pronunciation [16] and bridge the gap between the theoretical phonetic training received into practical pronunciation activities in the classroom [22]. Thirdly, the issue of standardisation, i.e., what standard or norm should teachers follow has always been an area of great contention [10, 20, 22, 26]. The situation is further complicated by the fact that while Malaysian teachers and learners are exposed to an array of English accents from the mass media and internet, the new Malaysian curriculum, KSSR [15] insists that only one standard should be adhered to in the teaching of pronunciation.

2. CHANGING PERCEPTION AND ATTITUDES
In general, the perception and attitudes of Malaysian teachers towards pronunciation is mixed. There are some teachers who believe that English pronunciation should be based on a Native Speaker (NS) model [10, 21, 22]. They view the Malaysian English (ME) spoken by the average Malaysian as incorrect or merely a sub-standard variety that is inferior to NS, inner circle models [10, 16, 22] and thus aspire to teach native-like pronunciation to their students [22]. On the other hand, Jayapalan and Pillai [10] noted that there is a growing preference among some teachers to use a local Malaysian pronunciation although they realised the conflict between what they preferred (the local pronunciation) and the prescribed standard stated in the Malaysian English syllabus [10, 22].

3. THE MALAYSIAN ENGLISH SYLLABUS
Before 2011, the Malaysian syllabi for primary and secondary schools were respectively called Kurikulum Bersepadu Sekolah Rendah (The Integrated Primary School Curriculum), for short KBSR and Kurikulum Bersepadu Sekolah Menengah (The Integrated Secondary School Curriculum), for short KBSM. In both the English KBSR and KBSM syllabi, there was no specific pronunciation model or standard that teachers had to adhere to. However, in the recent Malaysian curriculum, Kurikulum Standard Sekolah Rendah (KSSR) which began in 2011 and is being
implemented in phases in Malaysian schools, it clearly states that, “Teachers should use Standard British English as a reference and model for teaching the language. It should be used as a reference in terms of spelling and grammar as well as pronunciation for standardization.” [15]

The fact that standard BrE is used as the only model for pronunciation seems to be a rather outdated and narrow view of pronunciation. Recent developments in pronunciation teaching and research suggest that NS norms are not really necessary in a world where English is a global language that is used mostly in international contexts between Non Native Speaker (NNS) and other NNSs [4, 6, 8, 12, 13, 14]. Inevitably, more and more New Varieties of English (NVEs) are being recognised as legitimate varieties of English. These include Singapore English [3, 5], Philippine English [24], Indian English [17] and Hong Kong English [9, 23] which have all developed from a nativisation and emersion of local features of that country.

As such, within this current global view [4, 6, 8, 12, 13, 14], the Malaysian KSSR English syllabus seems to be a step backwards rather than ahead [10, 26]. It raises many questions as to why the Malaysian Ministry of Education insists on such a specific standard. Why a NS, Inner Circle pronunciation? Why not a standard local variety such as ME or Singapore English? Why a standard BrE as opposed to other NS models such as Standard American English and Australian English? Is the syllabus still glorifying and perpetuating linguistic imperialism [19] by insisting a standard BrE?

From a World Englishes perspective, NS norms are now considered irrelevant and even seem to be “an obstacle” to the development of English as an international language [8, 12]. Models such as the Lingua Franca Core by Jenkins [12, 13] for example, have proposed a set of core features which are based on NNS data and interaction. It outlines the main aspects of pronunciation that should be taught to attain international intelligibility. As such, NNS and NVE models and norms are becoming more and more relevant as a reference and standard.

4. LOCAL PROSODIC FEATURES

In the following sections, some local prosodic features which were found among ten proficient and educated female Malay Speakers of English (MSE) will be examined [18]. Some interesting features were found which included the cooperative rise (CR), the rising head, the fluidity of the tonic syllable, shift towards final syllable and tonic placement in compound nouns. These local features will be discussed in relation to the teaching of pronunciation in Malaysia. It should be noted though that the data found was limited to the collected sample. However, the point of this paper is to show that with more conclusive studies, these local features could be incorporated to form a basis for a local Malaysian standard.

4.1. The cooperative rise (CR)

The CR is a distinct rising tone that was found among the participants of the study [18]. In terms of form, it is a more gradual rise than the rise or fall-rise of standard BrE as described in Brazil [2]. An example of the CR taken from Noor [18] is shown below.

Figure 1: An example of the CR

// CR just follow the TRACK //

It was a popular tone used by MSEs in the study and, in fact, one out of three rising tones used by MSEs were found to be the CR [18].

The data seems to suggest that the CR is the default tone used by MSEs instead of the fall-rise tone which was rarely found in the data. Although the origin of this distinct tone is still unclear and ambiguous, the data suggest that it is most probably a transfer of L1, i.e., the prosody and intonation of Malay or other substrate languages in Malaysia. This distinct tone indicates a preference among MSEs to use a tone which is perhaps more local and familiar to their ears than the fall-rise which was uncommon in the data. In fact, it is suggested that there is a tendency to avoid the fall-rise because of the connotations it is associated with [18]. According to Goh [7], Singaporean speakers avoided using the fall-rise because to them it sounded too British which was equated
with being snobbish. As a consequence, it is suggested that the use of the CR is a means to create a more local tone which sounds more Malaysian/ Malay rather than using a ‘foreign’ tone which perhaps sounds more artificial. Whether consciously or unconsciously aware, by using the CR tone, these MSEs are asserting a Malaysian/ Malay identity which is more appropriate and suitable within the Malaysian context.

In terms of its discourse function, the CR is a referring tone which has a more cooperative and participatory function than the fall-rise in standard BrE [18]. The finding suggests that the five standard tones of standard BrE were insufficient to describe the prosodic patterns and meanings used by MSEs. In relation to the pronunciation teaching of pronunciation, the CR should be an acceptable tone that can be used by Malaysian learners. It should not be dismiss it as incorrect or wrong by teachers. Furthermore, the CR did not seem to impede intelligibility among MSEs in the study [18].

4.2. The Rising Head (RH)

The rising head (RH) is arising on the word or syllable preceding the tonic syllable in which the tone is either a rise or CR. It has not been found or documented in any other Asian variety and is possibly a distinct feature of Malay English. Some examples are given below in which the RH is in italics.

/CR JUST move ON/ (M07: 110.0s)
/CR you walk AHEAD/ (N04: 52.2s)

In terms of its discourse function, the RH was found to alert and notify the hearer about important information that would be coming in the tonic syllable. Thus, by an initial rising just before the actual tonic syllable the RH seemed to provide extra support to the hearer [18]. As such, in relation to pronunciation teaching, the RH can actually enhance intelligibility rather than impede. As such, if the RH is used by Malaysian learners, it should a local prosodic feature that is acceptable.

4.3. Fluidity of the tonic syllable

Another feature found among the MSEs in the study was the shift in the tonic syllable of a word. MSEs within the same tone unit or nearby tone units would shift the placement of the tonic syllable. For example, the same speaker would say /MONestery/, /moNAStery/ and /monasteRY/ within a short span of time in the same conversation. Interestingly, the fluidity of the tonic syllable among these speakers did not seem to impede intelligibility among other MSEs or NNS [18].

In terms of pronunciation teaching, this feature again is a distinct local feature which could be associated with the fact that the notion of stress in their mother tongue, i.e. Malay is less significant or emphasised. If this feature does not seem to impede intelligibility, then is it really necessary to place so much emphasis on word stress? Is it fundamental that we follow the stress patterns of standard BrE as the model for Malaysian learners?

4.4. Shift towards the final syllable

While Noor [18] found that MSEs shifted their tonic syllable around as discussed in the previous section, it was not a random movement. Rather, there was a systematic tendency among MSEs to shift the tonic syllable to the final syllable. The shift to final syllable again is most probably associated to the transfer of Malay prosodic features or other substrate languages. Similar to section 4.3, the shift towards the final syllable did not impede intelligibility [18]. As such, in terms of pronunciation teaching, this local feature could be an acceptable variation in the stress placement of words that is typical of MSEs’ speech.

4.5. Placement of stress in compound nouns

Related to 4.3 and 4.4, is the placement of stress in compound nouns. Noor [18] found the stress placement of compound nouns among MSEs was different to standard BrE. The placement was not necessarily on the first syllable of the first word. In fact, the tonic syllable was usually on the second word or final syllable of the compound noun. So instead of /FOOTbridge/ it was usually /footBRIDGE/ or /telephone BOX/ rather than /TElephone box/. As such, the compound nouns behave in a way that is similar to a pre-modifier + noun. These speakers did not seem to distinguish the difference in the stress placement for compound nouns versus pre-modifier + noun. While this feature is uncommon in standard BrE pronunciation, this local feature again did not seem to impede intelligibility. There was no communication breakdown among MSEs.
interacting with other MSEs and NNS due to the wrong placement of stress in compound nouns [18].

5. CONCLUSION

This paper has given an overview of the current state of pronunciation teaching in Malaysia. It has highlighted some questions and issues faced by Malaysian teachers and argued against a NS standard. Instead, it has proposed that the teaching of pronunciation should be based on a model that is more local and realistic. Examples of such features are given based on a recent study by Noor [18]. Although the study only examined the prosodic features of female MSEs, it provides evidence that local features do not necessarily have negative implications as shown in other studies such as Deterding [6]. In fact, two of the local features, i.e., the CR and the RH, actually seem to assist or enhance intelligibility among the speakers [18]. The other features which primarily involved the movement of the tonic syllable indicate varying forms that are acceptable since they too do not impede intelligibility [18].

It is argued that although these features differ to the standard BrE pronunciation that the Malaysian English syllabus aspires to achieve, these features indicate a local standard that is perhaps more realistic for Malaysian teachers and students to achieve. It is hoped that the prosodic features found in Noor [18] can be incorporated as a basis for a local standard in the teaching of pronunciation. Ultimately, the findings from Noor [18] indicate that Malaysian teachers should be more open in accepting and embracing local features used by their students for as long as these features are intelligible in the local and international community.

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EDWARD GAUNTLETT’S PHONETICS (1905)

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ABSTRACT

This paper calls attention to the life and work of Edward Gauntlett (1868-1956), who settled in Meiji Japan in 1890 and became a pioneering teacher of English pronunciation. His 1905 textbook Phonetics, though now forgotten, provided a brilliant contrastive analysis of English and Japanese, and the content and methods of his teaching were strikingly original and modern. His story shows that the history of phonetic pedagogy is more than a succession of theories and approaches. The local and particular achievements of those who flourished outside the academic mainstream also deserve attention.

Keywords: Edward Gauntlett, Japan, phonetics teaching, textbook.

1. INTRODUCTION

After Japan opened up its ports to the West in 1854 and especially after the start of the Meiji era in 1868, the country became desperate to modernize and catch up with the rest of the world, and in order to achieve this end, the government hired numerous specialists (as many as 600 to 900 persons a year) in various fields from the USA, UK, Germany and France. George Edward Luckman Gauntlett (1868-1956) was one such foreigner, a Briton born in Swansea, Wales, who studied music in London and later went to the USA and Canada before landing in Japan as a missionary. Gauntlett came to Japan in 1890, taught English in high schools and played the pipe organ at the Hongo Central Church in Tokyo. In 1898 he married Yamada Tsuneko, older sister of Yamada Kohsaku (1886-1965), later famous as composer and conductor. Edward Gauntlett taught Western music to his young brother-in-law, and had a major influence on the life of the boy who was to become the best-known composer in Japan.

In 1900, just after their marriage, the Gauntletts moved to Okayama where Edward was appointed by the Japanese government to teach English and Latin at the newly founded Okayama Number Six College, now Okayama University. Later, he taught in similar, ‘numbered’ high schools in Kanazawa and Yamaguchi prefectures before the family returned to Tokyo. While teaching in Yamaguchi, Gauntlett surveyed the limestone caves of Akiyoshidai and announced his findings through the Royal Geological Society. On top of achievements as an English teacher, musician and surveyor, Edward Gauntlett is remembered for disseminating Esperanto in Japan; in 1906 he was among the founding members of the Japan Esperanto Association [12], [16].

2. THE ELEMENTS OF ENGLISH AND JAPANESE PHONETICS

So Gauntlett was an extremely versatile man, and his name is known in various circles in Japan. However, it is much less known that he was the author of a remarkable phonetics book [8] published in 1905, during his Okayama years (1900-1907), aimed at teaching pronunciation to Japanese teachers of English. He writes in the preface: ‘Several years of teaching in Japan have convinced the writer that many difficulties in pronunciation might be overcome if only the teachers who instruct beginners had some practical knowledge of the subject treated in this book.’

2.1. Appearance of the book

The small book (11.5 x 17cm, 72 pages), published by Sanseido, an established publisher in Tokyo, is unusual in containing seven photographs, showing English and Japanese boys pronouncing consonant sounds known to be difficult to Japanese learners of English, namely the labio-dental and dental fricatives, and the lateral consonant (see Figure 1). As far as we can establish, Gauntlett’s was the first phonetics textbook anywhere to make use of photographs in this way. The unnamed Japanese boy who appears in the pictures is almost certainly Yamada Kohsaku in his teens, judging from photographs of him in adulthood.

In addition to the seven photographs, there are many illustrations and diagrams of the type that one would see in a phonetics textbook today. The
first, on a fold-out page, shows a large clear outline of the vocal organs in mid-sagittal section (see Figure 2), very similar to the one published four years later by Daniel Jones as Figure 1 in the first edition of *The pronunciation of English* [10]. The two are alike in using a single line which traces the upper and lower surfaces of the oral cavity without irrelevant anatomical details (such as the vertebrae and internal structure of the nasal cavity) which are found in most nineteenth century antecedents. In a second fold-out Gauntlett provides a table of the Japanese alphabet and its Roman transliteration.

**Figure 1:** Photographs from [8] showing ‘an English and a Japanese boy’ properly pronouncing the ‘letter’ f.

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2.2. **Phonetic terminology and description**

The book comprises 19 chapters and an appendix. After introductions to the organs of speech and the functions of the larynx, chapters III through V define and explain the nature of consonants and vowels, giving Japanese ‘letters’ as representative sounds. For vowels, Gauntlett gives a $3 \times 3$ grid of ‘high, mid, low’ and ‘front, mixed, back’ to show the position of the tongue.

The following chapters, VI to XII, give attention to ‘difficulties’ in pronunciation that a Japanese student is likely to encounter when learning English. Gauntlett begins with a concise and accurate differentiation of accent (stress) and intonation in English, contrasting this with the pitch-accent system of Japanese. He then considers in turn the pronunciation of stops, fricatives, nasals, /l/ and /r/, the semivowels and /h/, before dealing with the English vowels in chapter XIII. Most of the difficulties he identifies are still familiar today, and the strategies for improvement which he suggests have clearly been developed in observant practical classroom experience.

Consonant clusters receive a whole chapter to themselves, with practical advice on nasal and lateral release, assimilation and elision (chapter XV). Nearly seven pages of pronunciation exercises are provided towards the end of the book, and the last chapter is advice on how to achieve fluency, with many insightful remarks on phrase division in English, and strategies for overcoming the Japanese tendency to insert breaks between words. The strategies include resyllabification of consonants across word boundaries, so that the syllable structures being attempted more nearly match Japanese patterns (for example, *not only* is attempted as *no-tohni*), and the use of his repelling pseudo-transcription to suggest the grouping of strings of function words and other unaccented syllables into word-like conglomerates that should resist spurious division or vowel epenthesis. So the first three words of *As is well known* become *A-zi-zwell*.

**Figure 2:** Gauntlett’s vocal tract outline.
transcription for reading. The reviewer in Le Maître Phonétique [9] bemoans not so much the failure to use IPA transcription, but the fact that Gauntlett has not employed any ‘simple and clear phonetic alphabet’. To some extent he uses re-spelling in ordinary English letters, such as ch for [tʃ], zh for [ʒ]. But he has no complete set of representations for vowels and diphthongs; none is given for “the obscure vowel” (schwa), while the vowels of TRAP and SQUARE are both written A (page 63). The avoidance of unfamiliar symbols matches the practice of Laura Soames [13], who employs a phonetic representation using only ordinary letters of the alphabet. But Gauntlett is unlike Soames in particular details. She uses dh for the voiced dental fricative and th for the voiceless, whereas Gauntlett (pages 25-27) uses th for both, with a note that there are both voiceless and voiced sounds of this type. In a table (page 20) and then at last once later (page 59) he distinguishes the two by using Th for voiceless and Þh (italic) for voiced, but this use is not consistent; elsewhere in the book he uses italics for all letters representing sounds. An inconsistency also appears in the representation of [tʃ]; on page 28 it is given as “Ch in church”, but on page 66 the pronunciation of which is indicated as whitsh.

We have to conclude that phonetic symbolization and transcription were not of great concern to Gauntlett. In this he is unlike most of the contemporary sources on which he might have drawn. True, he does have a detailed section (paragraph 35, page 16) where he discusses the ‘irrational system of orthography’ as ‘one of the chief difficulties to be encountered by the student of English’. Here he compares English with other languages and with Japanese kana. But unlike other authors, he does not draw the conclusion that an unambiguous phonetic notation is necessary. On the contrary, he seems to assume that the learner (or at least the teacher) will be sufficiently familiar with English spelling to be able to understand a phonetic re-spelling which depends upon some of the chief letter-to-sound rules, as well as such an innovation as zh. In the same way a modern pronunciation teacher may choose to be guided by phonetic method and insights without specifically introducing students to phonetic symbols and transcription.

Gauntlett’s treatment of phonetics is in some ways amateurish, suggesting wide reading without rigorous training. This is particularly true of Chapter XVI, “Phonetic changes in other languages”, which consists of examples of assimilation, elision, and other phonological processes from languages as diverse as Latin, Welsh, Persian and Korean. It reads like the random compilation of a language enthusiast, and its usefulness to the ordinary teacher or student of English in Japan in the early 1900s cannot have been very great.

Another aspect of Gauntlett’s presentation which jars badly with a critical modern reader is his failure to insist on a distinction between the terms letter and sound—though there is every indication that he distinguished the concepts perfectly well. Perhaps he was continuing a much older usage in which ‘letter’ did actually mean an element of speech rather than just a written sign.

3. GAUNTLETT’S SOURCES

Educated and talented as he was, Gauntlett was not primarily a phonetician, and he will have had to consult works on phonetics available at the time in order to write his textbook, though he does not identify the sources on which he drew. Gauntlett had previously developed and published a comprehensive shorthand system for Japanese [7], based on that of Pitman for English. Pitman shorthand is phonetic in its principles, and though chiefly remembered as the inventor of a successful shorthand system, Pitman also made fundamental contributions to phonetics itself: [1]. The successive editions of Pitman’s Phonomography, first published in 1840 [14], each begin with a brief exposition of phonetic classification. It seems safe to suppose that at least some of Gauntlett’s phonetics was acquired from Pitman. The work on shorthand obviously implies a familiarity with Pitman, and Gauntlett’s Phonetics does have one mention of Pitman: a footnote on page 41 specifically acknowledges Pitman as the source of some example sentences. Equally, it is clear that Pitman cannot have been Gauntlett’s only source. Another very likely source is Ellis, who was not only Pitman’s collaborator, but interestingly combines phonetic and musical perspectives in a way that might have appealed to Gauntlett: [5], [6]. And as the most teacher- and student-friendly treatment in English prior to Gauntlett’s own, Soames [13] is another plausible candidate, though as yet there is nothing to clinch this conclusion.
4. IMPACT

Although there is a bust of Edward Gauntlett in the Akiyoshidai Museum and a stone monument in front of a Buddhist temple marking the place where ping pong was first played in Japan by Gauntlett, his phonetics book does not seem to have left much of a lasting footprint in either linguistics or pedagogy. The book is now uncommon, found in only six university libraries in Japan: one in Kyoto and the remaining five in universities in and around Tokyo—that is, none in Okayama or Yamaguchi prefectures—and there is apparently not one copy in the UK.

Thirteen years after Gauntlett’s book came the publication of [11], aimed squarely at the foreign learner of English (‘prepared with a view to giving the foreigner all the information … that he is likely to require for learning “educated Southern English”’…”), and it was to become an international standard for years to come. One cannot resist comparing the two books, which were published in distant countries 13 years apart but when the authors were exactly the same age (37) at the time of writing. There are striking resemblances in the way the two authors attempt to meet the need for a practical textbook for pedagogical purposes. It is just possible that Jones might have followed Gauntlett’s lead in some respects, perhaps unconsciously—for example, in the use of effective figures and photographs. But we do not know for certain whether Jones ever saw Gauntlett’s book. He became acquainted with Paul Passy and joined the IPA at just about the same time as Gauntlett’s book appeared and passed through Passy’s hands for review. The oblivion into which Afzelius’s remarkable pronouncing dictionary of 1909 sank reminds us that the emerging phonetic establishment did not always go out of its way to recognize the merit of outsiders who were a little different. Almost all of the reasons enumerated by Collins and Mees [4] to account for the lack of impact of Afzelius’s dictionary apply with equal force to Gauntlett’s book: a foreign publishing house, an unknown author, use of a non-IPA transcription, a meagre review in *Le Maître Phonétique* (only nine lines were devoted to Gauntlett). And Collins and Mees’ speculation concerning a possible ‘hidden factor’ (unwelcome competition for a work already planned or in preparation) may also find an echo, since Jones’s books [10], [11] were to appear within a few years.

Gauntlett’s story casts doubt on the fairly universal assumption that educational innovations are originated in the professional academic mainstream, and then put into practice in the real world of teaching and learning. The real history of phonetics education—real teachers, real students, and real institutions—needs to be studied on its own terms. For a while in the early twentieth century, Gauntlett was teaching pronunciation in a fashion that was astonishingly innovative and original, and well ahead of its time. He deserves to be recognised as the pioneer that he was.

5. REFERENCES

SELF-ASSESSMENT IN THE FRENCH PHONETICS COURSE: A NOVEL ATTEMPT

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ABSTRACT
Here I report on a novel self-assessment activity recently attempted in my French phonetics course. Students enrolled in the course were asked to judge their end-of-semester pronunciation progress by comparing their two recorded diagnostic tests, and by focusing their attention on a list of key features. An analysis of the students’ comments showed that all participants were able to detect some level of progress in their pronunciation, as well as lingering pronunciation difficulties. One of the unexpected results, acknowledged explicitly by a number of the students, was their gain in self-confidence and diminished intimidation about their French pronunciation. The novel attempt described in this report is thus thought to be a useful exercise for students in the specialized phonetics course.

Keywords: French phonetics course, self-assessment, pronunciation progress.

1. INTRODUCTION
In fall 2012 I added a new feature to my French phonetics course: an end-of-term written project in applied phonetics. The project consisted of three parts: a critical book review of the French phonetics textbooks used in the course; a substantial phonetic transcription exercise (French text to IPA notation); and a self-assessment of pronunciation progress. This paper is concerned only with the third part of the project.

Sixty-two students (from three different sections of French phonetics) wrote comparative evaluations of their pronunciation progress at the end of the course. They based their assessments on their two diagnostic tests, recorded at the beginning of the course, and then again at the end. Both recordings took place in the computer/language lab, and were uploaded to Kaltura audio files in Collab where the students could listen to them easily from their home computers or the computer lab.

The diagnostic test itself consisted of two parts: a short reading sample (about a half page in length) and a one-minute free speech sample. The reading passage, an excerpt from Duras’ novel, L’amant (used as a practice exercise in some French phonetics textbooks, e.g. Abry and Veldeman-Abry [1]), was selected because the text is fairly easy to read: most of the sentences are short; the vocabulary is not complicated; and, importantly, all French sounds are represented. The free speech part of the diagnostic (see samples in Celce-Murcia, et al [2]), asked students to speak freely into the microphone of their headsets on an assigned topic, for about a minute (as if talking to themselves or to an imaginary listener!). The assigned topic was “Why I find phonetics an interesting subject”, a theme which had been broached in the course on the very first day when the students were introducing themselves (in French) in class and explaining why they had enrolled in the phonetics course. The reading passage and the topic of the free speech sample were given to the students in advance of the recording sessions, but they were not given an audio or video recording of the reading passage to use as a model for practice prior to the recording. At the end of the semester the exact same procedure was repeated for the second diagnostic test, with one distinction – the students themselves: they were now very familiar with the technology; they were more knowledgeable of articulatory phonetic principles; they knew the sound system of French; they had studied and practiced reading and listening to many French exercises, and the topic of the free speech sample and the reading sample were not new to them (neither had been discussed in class and the students still had not been given an audio recording of the reading to practice).
The assessment guidelines given to the students to aid them in carrying out their evaluations contained general instructions (of the type, listen to the two recordings very carefully as many times as you like; focus your perception on specific features; state the observed differences in pronunciation between the two dianostics; emphasize the “good points” as well as noticeable pronunciation weaknesses, etc.); and a list of key phonetic features to focus on, such as (1) nasal vowels; (2) the vowels /u/ and /y/; (3) the French /R/; (4) vowel tension (especially in the articulation of high and mid-high vowels, e.g., are the vowels /i/, /e/ diphthongized); (5) the substitution of /e/ for /ə/; (6) linking phenomena.

The students were free to present their analyses in the format of their choice, and they were allowed to write their evaluations in French or English. Twenty-five of the sixty-two students wrote in French. The essay format of presentation was the preferred model, though several students presented their results in summary tables, charts, or bullet points, with added commentaries.

2. SELF-ASSESSMENT: OUTCOME

The diagnostic comparisons produced some unexpected results (surprising to me and apparently surprising also to the students). Because it is impossible to comment here on the significant individual remarks of each student’s self-assessment paper, I will present in this section some common threads which run through all of the papers and give a brief account of the main points. Incidentally, not a single student felt unqualified or incompetent to carry out the task.

All participants, without exception, observed some degree of progress in their French pronunciation and felt strongly that their training in phonetics had played a role in the improvement (very encouraging to phonetics instructors!). The evidence varied from student to student (see section 2), and in a few instances appeared to be ‘lacking’ (i.e., not accompanied by specific examples). The following comments, extracted from some of the students’ papers, are characteristic of their improvement observation:

- “Although I made some mistakes, the second recording was a whole lot better than the first diagnostic.”
- “The two recordings are relatively different; there is without doubt a great perceptible improvement.”
- “While listening and comparing my two recordings, I became very proud of the improvement that I have achieved through the course of the semester.”
- “After having listened to the two recordings I reached the conclusion that I have made considerable progress in my French pronunciation.”
- “I definitely do not have perfect pronunciation, but it has greatly improved over the semester and I feel more confident in my speaking abilities.”
- “By comparing the two recordings as I have just done, one can see that this course has improved my pronunciation considerably.”

What reasons did the students provide for their positive feeling about in their improvement? A greater feeling of confidence in their speaking appears to be the principal reason given, as noted in these students’ comments:

- “I was more comfortable with the text the second time around.”
- “My confidence in my accent was hugely improved.”
- “Due to a greater level of confidence in speaking, in part, and to having repeated practice over the course of the semester and learning how to correctly pronounce the different vowels and consonants […] has made my speech more fluid.”
- “I was more comfortable with the text the second time around.”
- “I can conclude that studying phonetics can improve not only my pronunciation but also my confidence with the language (in the first diagnostic, it was fairly clear that I was not comfortable reading the text aloud).”
- “In my second recording I could hear a confidence in my French speaking voice that I did not have during the first recording.”
- “I think that many of my errors in the first recording are because I was more intimidated at the beginning of the course, and it is the first time that I have used this technology. But I was happy to note that the things I improved on are things that we worked on in class.”
- “I have often been self-conscious when speaking French to native French speakers for fear of mispronunciation, but I now have the confidence to use and practice my oral language to a greater extent.”

How much pronunciation progress has actually been achieved? Specifically, what has been improved on; and what has not been improved on? Students focused mainly on the salient features to which their attention had been drawn in the guidelines, and on which typically much class time had been spent, the most frequently mentioned being improvement in the articulation and recognition of nasal vowels, the correct discrimination and articulation of /y/ and /u/, and especially their improvement in the pronunciation of French “r”. The number of comments referring specifically to the improvement of their
French accent was unexpected: most saw accent improvement as a sort of natural consequence of having ameliorated other aspects of their pronunciation. Finally, it should be noted that the level of progress reported even on a given problem varied a lot, from “I have completely corrected my pronunciation [of this feature]”, to “better, but I still need to work on it”, to [one student’s] “no noticeable progress”; and this is perfectly normal, given that the L2 pronunciation level of students on entry into the course was so varied and that the amount of time invested in effort varied, equally. The following remarks (with reference to French “r”) illustrate:
- “For the French /R/ sound, I had always known how it sounded and I was able to mimic it to a point, but through this course I have learned the technicalities behind how the mouth is to be positioned in order to make the proper sound. That was apparent in the most recent recording…”
- “In my first recording I really did not know how to correctly enunciate the /R/; it sounded very American. I worked on this pronunciation throughout the semester and really think that I have improved this aspect to a better extent. There are still times when I struggle with the sound of /R/. While the sound is better in my second recording, it still does not sound exactly the way a French ‘r’ should.”
- “I pronounce /R/ sometimes correctly, sometimes American, depending on its place.”
- “I have always had problems with /r/, pronouncing it the American way, and I don’t see any progress in that between the two recordings.”

Although students were not asked, specifically, if they found the assessment exercise useful, nearly all of them, in their concluding remarks, said they had (and student attitude here is as important as it is in other learning tasks). Some of the most remarkable of their comments are given below:
- “This exercise is great! I believe that hearing yourself improve over one semester makes you realize how much you have learned in class. I am not sure that if I had only done the diagnostic and not this evaluative assignment, I would have gotten the same proof of improvement. The literal listening of the different tests helps solidify these points. Overall, I think the diagnostic test was a good and useful assignment of this class, both from a phonetics standpoint and an overall French language standpoint.”
- “From this exercise I learned that great improvement can happen in a short amount of time, as long as you practice […] this is the first time I have really been able to listen to my French speaking voice and focus on my areas of weakness. Thanks to this course I feel much more confident with my pronunciation of French sounds than I have ever felt before.”
- “This final project was a testament to the value of the class, and the strides made in only a few months.”
- “The experience I gained allows me to go back and catch points that I still need to work on. I believe it is this skill that holds the most value since now I know how each vowel or consonant should sound like and I can continue practicing after the class is done and onward.”
- “I think this exercise was very helpful and that it made me realize how helpful it can be to listen to yourself speak. It is much easier to pick out mistakes and what needs to be improved when listening to a recording of yourself.”
- “I can conclude that I now have the ability to carry out the goals stated on the course syllabus. I am convinced that the study of phonetics is the most valuable tool in learning to pronounce words in a foreign language.”
- “Speaking French and listening to one’s self speak French are completely different, which I never realized before this evaluative process”.

In their comments, only ten students made specific reference to their free speech sample (most references and examples came from the reading part of the diagnostic). There are, I hypothesize, at least three reasons for this: (1) the length of the write-up was limited and thus students who spent a lot of time listening to and evaluating the reading passages used up their allotted space, and perhaps their available time as well, before getting to their free speech sample. (2) Students may have found the recorded reading passages easier to compare as they appeared more tangible—they had a printed text in front of them and could more easily focus on some of the features mentioned in the guidelines, going back and forth between the two recordings as needed to verify their perceptions and their judgments. In the free speech recordings, students would have had more difficulty finding tangible or comparable things to focus on, even though the subject was the same in both diagnostics; and furthermore, in many instances there were long hesitations and unfilled gaps in the recordings, making the listening painful and at times incomprehensible, especially in the first recording. (3) A third possibility is that my instructions were ambiguous in this respect to some students leading them to assume that they only had to compare the pronunciation of the reading passages (for students, the printed word almost always takes precedence!).

3. CONCLUSION

The novel self-assessment activity reported in this paper gave students in the French phonetics course in 2012-2013, the opportunity to comment on their pronunciation progress by comparing their two recorded
diagnostic tests and focusing on key phonetic features. Having completed the semester-long phonetics course before beginning their evaluation, the students were knowledgeable of the subject and felt comfortable with the assignment. In addition to observing at least some noticeable progress in many aspects of their French pronunciation, they also recognized their lingering pronunciation difficulties and the amount of work ahead of them in order to accomplish their pronunciation goals. A number of the students also indicated that they will continue practicing and improving their French pronunciation through activities such as study abroad and living in the French House. The outcome of my endeavor is thus viewed in a positive and favorable manner.

Finally, this study owes its inspiration to the practical suggestions offered on ‘testing and evaluation’ in Celce-Murcia et al. [2]; also to the interesting technique of noticing-reformulation described in Smith, Beckman [6]; to Dlaska and Kler’s [5] study on assessment authenticity (reminding us that we cannot always put stock in what students say about their pronunciation); and to several papers of Derwing, including [3] and especially Derwing, Munro [5], in which we are cautioned about quasi-scientific research based on classroom data/projects.

4. REFERENCES

PREPARATION FOR PHONETIC TRANSCRIPTION:
AN EXERCISE IN STUDENT ENGAGEMENT

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ABSTRACT

Students in the second year of their BA in English Language at the University of Reading undertake a module called English Phonology, part of which is devoted to broad phonetic transcription. This paper describes the process through which student engagement is currently developing a pre-module event to prepare students for sounds, symbols and transcription.

Keywords: broad phonetic transcription, English phonetics and phonology, student engagement.

1. INTRODUCTION

Student engagement is defined by the Higher Education Academy [1] as follows:

Student engagement encompasses ways in which students become active partners in shaping their learning experience. This ranges from students influencing national policy on learning and teaching, to students developing their own individual learning agendas. In between there are examples of students engaging in institutional and departmental discussion on curriculum design and delivery.

As with most universities, the University of Reading is keen to involve students in the design, development and delivery of curricula for programmes and modules, and offers some funding support for tutors wishing to undertake student engagement activities. This paper looks at the process by which students in the second year of their BA programme in English Language have become involved in the support of first year students’ transition to the more demanding second year module in English Phonology.

2. CONTEXT

The module English Phonology has the following as its stated learning outcomes:

By the end of the module it is expected that the student will be able to:

- Identify and explain the major elements and structures of English at the levels of phonetics and phonology;
- Transcribe English from a variety of sources using appropriate notation;
- Organize their knowledge and articulate their arguments effectively in writing under timed conditions.

As part of the assessment for the module, students undertake an in-class dictation test in which they are expected to transcribe a passage using broad phonetic transcription. This part of the assessment is worth 30% of the module mark, and includes aspects of connected speech (assimilation, elision, coalescence and r-liaison) and the indication of intonation patterns. The course text for this module is Roach’s English Phonetics and Phonology [3] and the transcription conventions observed are from this text. The module tutor delivers the dictation, which is in an accent often described as Southern Standard British English (SSBE). Students undertake a written examination for the remaining 70%, which addresses the materials covered in the first bullet point above.

2.1. The dictation test

The dictation test using broad phonetic transcription consists of 10 lines which are each single tone units. Students start with 100 marks. Each error results in the loss of one mark, to a maximum of 10 errors in each line (i.e., if a student makes 12 errors in one line they will not lose more than 10 marks). Students are expected to do the following, using the conventions described in [3]:

- Give an English broad phonetic transcription, including connected speech phenomena (linking, assimilation, elision, coalescence, weak forms), /i/ and /u/, where appropriate;
- Underline the tonic syllable and give a suitable tone diacritic to the left of the syllable;
- Indicate a low or a high head, using suitable diacritics;
- Indicate any other stressed syllables.

The dictation test is delivered in Week 10 of the module, i.e., the last week. From Week 5 of the module onwards, students do weekly practice transcriptions in class, with Week 7’s transcription
taken in and marked with formative feedback given. This feedback usually covers things like ensuring symbols are drawn correctly and consistently, pointing out where students have missed an opportunity to show a connected speech process has occurred, upbraiding them over stressing schwa vowels (never stressed in this accent), and indicating that only one syllable should be underlined to indicate the tonic syllable in the tone unit.

2.2. Additional support

For additional practice, four dictation passages are provided as audio files via the university’s virtual learning environment, Blackboard, and a solution is made available. Blackboard allows the audio files to be automatically released weekly from Week 6 and for the solution to appear later, to give the students a chance to ‘have a go’ first.

The students are also directed to other practice materials, such as Lecumberri and Maidment’s English Transcription Course [2] and the Web Transcription Tool (http://www.wtt.org.uk/).

2.3. Post-exams sessions

The academic year at Reading currently consists of three 10-week terms. During the summer term, there are two weeks of revision classes followed by the five weeks of the examination period. Finalists’ exams are held towards the beginning of this period and first year exams towards the end. In Weeks 7 and 8 of the summer term, some departments hold mainly formative post-exams sessions for students to prepare them for activities such as field trips or, in our case, to look forward to what they will be doing in the second or third year of the degree.

In the post-exams period, first year students have preparatory sessions in English Grammar (mostly parsing technique) and do additional work on academic study skills (there are Academic Writing sessions throughout the first year of the programme). When our department offered programmes in Linguistics, it was usual for first year students to do post-exams sessions in articulatory and acoustic general phonetics. As students on the BA in English Language are no longer required to study general phonetics, this practice was phased out when the programmes in Linguistics were lost. However, student representatives in the second year cohort 2012/13 asked whether there could be preparatory sessions in English transcription similar to the parsing sessions held for grammar.

2.4. Student engagement

Students proposed that main aims of the post-exams sessions would be:

- to help first year students understand what would be expected of them in the English Phonology module; and
- to give students resources, or indicate where resources could be found, which they could access prior to starting the module in the Autumn term of the second year.

The current second year students also wished to have input into the academic content of the sessions, as follows:

- materials development;
- location of useful resources; and
- acting as facilitators during the sessions.

In addition, they asked to come into the first year revision lectures at the start of the summer term to encourage first year students to attend the post-exams sessions, as attendance can be poor for a variety of factors. To encourage attendance, the department had discussed the possibility of credit-bearing activities in the post-exams sessions which would count towards the students’ following year module marks, but the University Board for Teaching and Learning had not been keen on that.

The entire cohort of second year students who had just finished the Autumn term module English Phonology were contacted by email to see who would be interested in getting involved in the development of the plans. Four students out of a cohort of 69 replied, one of whom ultimately withdrew.

It is worth giving some statistics here which describe performance of the 2012/13 cohort in the dictation test. The average grade was 52.06, with the lowest mark at 3 and the highest at 90. The students taking part in the student engagement process had the following marks: 33, 68 and 69. The previous cohort had performed better on average (66.53) which is one reason why the approach by the 2012/13 students was seen as very welcome.

3. DEVELOPMENT

A meeting was set up with the three volunteer students in the first half of the spring term 2012/13. It was necessary to discuss what could be achieved
in two 90-minute post-exams sessions, and what would be maximally useful to students as preparation for the second year module.

3.1. Brainstorming

The brainstorming session during the first meeting with students was enlightening. The ones who attended were obviously very interested in what we had covered in the module, but it was not the case that all had achieved high scores on the dictation test. I was surprised but encouraged to have the student with a mark of 33 in the group.

During the group session, students proposed some of their own learner strategies for the post-exams sessions, and also discussed what they had found most difficult and what had been more straightforward. Overwhelmingly, it was agreed that vowels were difficult.

We then discussed what strategies the successful students had used when trying to learn the symbols for the 20 vowels of RP/BBC English (not including non-phonemic symbols [i] and [u]) as specified in [3]. Students proposed grouping symbols into logical sets and learning them in ‘bite sized’ chunks.

This was followed by another discussion of consonant symbols; it was agreed that the focus should be on those which differed in use from spelling – e.g., if a word was spelt with a letter c it was never going to be a [c] in broad phonetic transcription – and those which differed in form from orthographic script – e.g., I/ʃ/ for spellings such as sh, tʃ/ and /dʒ/, and so on.

We then covered what resources students had found to be most useful. The Sounds app from Macmillan Education [4] received most approval.

3.2. Formulating the plan

It was decided that the ultimate aims for the two 90-minute sessions were as follows:

1. to develop familiarity with phonetic symbols – recognising and drawing;
2. to discuss strategies for learning symbols;
3. to look at resources to support students’ learning; and
4. in session 2, to discuss problems students had encountered in session 1 with current Part 2 students and the module tutor.

The content of the first session will be as follows:

• (Re-)introduction to symbols (students had been introduced to English phoneme symbols during the autumn term of the first year and had done a small amount of transcription work with them);
• Grouping symbols into logical sets;
• Drawing difficult/unusual/similar symbols correctly;
• Thinking about learner strategies.

Homework will be to transcribe a short poem (second year students will source something suitable), to take a true/false questionnaire on Blackboard, and to find one or more online resources.

The second session will cover the solution to the homework exercise plus discussion, a troubleshooting session with the second year students, and feedback to the tutor (i.e., me) on how the sessions went. Students will also be given a phrase to prepare for the first week of term of the second year which contains easily confused sounds, or words which are often affected by spelling when students transcribe them.

I emailed the three participating students with the plan of action on 11th March 2013, telling them that I would produce some materials for them to comment on ahead of the sessions, but that they should also let me have their ideas in the meantime.

4. CURRENT STATE OF PLAY

The three students involved in this process have all written back very enthusiastically in response to the plan of action. One student writes (names changed):

Regarding materials, I wondered if Tam, Heather and I should discuss the strategies that we used to help learn the symbols as then you could suggest a few of them in the first session? Also, I know I found the sheet you gave us that broke the symbols down into smaller groups very useful as it made it seem more manageable. This was the handout titled 'List of phoneme symbols in English.'

Another student had the following to say:

The ideas and plans look really useful and effective for the revision sessions! I’ll let you know in the meantime if I have any more ideas!

[I am delighted that phonetics is so exciting.]
sessions went once we get to the end of the second 90-minute session. I will be able to report on this at the PTLC conference.

I will also follow this process up to see whether the students who attended the sessions do any better in the dictation test in the second year module which follows in autumn term 2013/14. I will again involve the 2012/13 students currently engaging in this process to help me collect feedback from the class of 2013/14. However, as the 2011/12 year group’s average score was over 10 marks higher than this year’s, it will be difficult to attribute any improvement directly to this process.

5. REFERENCES

PERCEPTUAL TRAINING EFFECTS ON PRODUCTION OF ENGLISH /r/-/l/ BY JAPANESE SPEAKERS

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ABSTRACT
English /r/-/l/ perceptual training for Japanese speakers can improve production. However, it is unclear whether Japanese speakers actually improve their production of the primary acoustic cue for English /r/ and /l/, the third formant frequency (F3). The present study tested whether an English /r/-/l/ identification training program improves Japanese speakers’ production of these phonemes in terms of F3. The results demonstrated that Japanese speakers lowered their F3 in English /r/ production after 5 training sessions, whereas F3 in /l/ production did not significantly change. This may be because F3 of Japanese lateral flaps [r] is more similar to English /l/.

Keywords: second language, speech perception and production, training, improvement.

1. INTRODUCTION
It is well known that high-variability perceptual training for second language (L2) phoneme contrasts can improve the identification ability of its phonemes. Not only perception itself, but also production of L2 phonemes can be improved by perceptual training. Bradlow et al. [1] tested how English /r/-/l/ perceptual training for Japanese speakers affected their production, and they demonstrated that perceptual training improved both the perceptual ability of identification and production intelligibility. However, there has not been a study investigating what aspect of English /r/-/l/ production is improved by perceptual training. This study aimed to test whether perceptual training of English /r/-/l/ teaches Japanese speakers the distinction of the primary acoustic cue between English /r/ and /l/, the third formant frequency (F3), in terms of production.

2. METHOD
2.1. Subjects
A total of 20 native Japanese speakers (14 females; 6 males) completed 5 training sessions and pretest/posttest. Eleven speakers were tested in the UK and 9 speakers were tested in Japan. Their age ranged from 20 to 61 years old (median = 25.5 years old). They had no history of hearing impairment.

2.2. Training
Five training sessions of a computer-based English /r/-/l/ identification training program were given to subjects using their own laptops. Subjects listened to stimuli through headphones or earphones, and they were allowed to change the loudness to a comfortable level. They had one training session per day except one subject, and it was verified that all subjects completed all 5 sessions by checking all training logs. These logs were automatically recorded in their laptops and cannot be accessed by subjects due to protection by password.

The training task was perceptual identification of English /r/ and /l/. The stimuli were 50 word-initial /r/-/l/ minimal pairs (100 words) repeated 3 times each, so that 300 trials were randomly given in each session. The stimuli were produced by 5 talkers and each session had a different talker. In the task, subjects saw a word-initial minimal pair on screen (e.g., rock vs. lock), heard a word, and clicked on a word which they thought they heard. When they had a correct answer, they heard a cash register sound and a repetition of the trial. If they had a wrong answer, they heard two beep sounds and two repetitions of the trial. It took approximately 30 minutes to complete a session.

2.3. Pretest/Posttest
Subjects took the same production tests before and after the 5 training sessions. The tasks were (1) reading 40 word-initial /r/-/l/ words (20 minimal-
pairs) in isolation and (2) reading the first third of The Rainbow Passage.

For word recordings, subjects read single words from a screen. The words and talkers used in pretest and posttest were not the same as used in the training stimuli. The word order was randomized, but it was same between pretest and posttest. In the passage reading task, subjects read the rainbow passage on the screen, and 7 word-initial /r/ tokens and 6 word-initial /l/ tokens in the passage were analyzed.

2.4. Analysis

The F3 of /r/ and /l/ were measured for each token, and a linear mixed model with two fixed factors, testing block (pretest and posttest) and material (i.e., reading words in isolation and reading a passage) were used for the analysis. The random factors were subjects and pronounced words nested into subjects.

All 13 tokens from the reading passage task were used for the analysis, but for the task of reading words in isolation, 5 of 20 minimal-pairs were chosen for the analysis due to subjects’ mispronunciation of the following vowels. In total, there were 920 tokens produced by 20 Japanese speakers, but F3 of 43 tokens were not able to be measured and were excluded from analysis.

3. RESULTS

Figure 1 displays the F3 values in English /r/ production including both tasks of reading words and reading a passage at pretest and posttest. The F3 values were normalised to the median F3 in the passage for the figure, but this step was not necessary for the statistical analysis. The linear mixed model demonstrated that there was a significant main effect of testing block, $F(1, 228) = 20.68, p < .001$, and the mean of F3 decreased by 107.81 Hz from an average of 2239.97 Hz at pretest to 2132.16 Hz at posttest. This result suggests that Japanese speakers learned the rhoticity of English /r/ after 5 training sessions.

Figure 2 shows the normalised F3 values in /r/ production for each material, reading words and a passage, at pretest and posttest. There was a significant main effect of material, $F(1, 218) = 46.17, p < .001$. Across testing blocks, the F3 average of 2063.18 Hz in reading words in isolation was significantly lower than the F3 average of 2278.86 Hz in reading a passage, suggesting that subjects pronounced a more rhotic /r/ when they read English words in isolation. As displayed in Figure 2, the interaction between testing block and material was not significant, $F(1, 228) = .18, p > .05$, suggesting that subjects learned the rhoticity of English /r/ in both reading words and reading a passage.

Figure 3 displays the normalised F3 values in /l/ production of two different tasks, reading words in isolation and reading a passage. There was a significant main effect of material, $F(1, 192) = 6.59, p = .011$, and the F3 average of 2709.77 Hz in reading words was significantly higher than the F3 average of 2595.92 Hz in reading a passage. This result suggests that subjects pronounced more distinctive /l/ when reading words than when reading a passage.

Figure 4 displays the normalised F3 values in English /l/ production of word reading and passage reading at pretest and posttest. There was no significant effect of testing block, $F(1, 193) = 1.28, p > .05$, or no significant interaction between testing block and material, $F(1, 193) = .020, p > .05$, suggesting that subject did not change F3 in /l/ production from pretest to posttest in either reading words in isolation or reading a passage.

4. DISCUSSION

Our results demonstrated that Japanese speakers improved their production of English /r/ in terms of F3 after 5 perceptual training sessions. The F3 in /l/ did not significantly change, but it is consistent to the prediction of Flege’s Speech Learning Model (SLM; [2]). SLM predicts that it is more difficult to learn L2 phonemes when they are closer to an L1 phoneme category. Because Japanese lateral flap [ɾ] is more similar to English /l/ than /r/ in terms of F3 [3], 5 training sessions may not be enough to change F3 of English /l/ production for Japanese speakers.

This result is in accord with SLM, but it is not consistent with the previous study [1]. Their result demonstrated that identifiability of both English /r/ and /l/ productions were significantly improved. The result of the improvement in identifiability of English /l/ production in the previous study may be due to Japanese speakers’ improvement in the production of another acoustic cue such as transition duration and closure duration, but not F3.

Japanese speakers did not improve English /l/ production in terms of F3, but this may be explained by best exemplars of English /r/ and /l/ which Japanese speakers already had before
training. Hattori and Iverson [3] demonstrated that Japanese speakers did not have native-like best exemplar of F3 for English /l/, although they have better perceptual exemplar of F3 for English /r/. This suggests that Japanese speakers might be able to change their production of F3 for English /r/ easily, because they already had its better exemplar in their mind. In case of English /l/, they may not have had native-like exemplar of F3 in English /l/, so that it may have been very difficult to improve the F3 for English /l/.

On the other hand, there seems to be another explanation for the smaller improvement in F3 for English /l/. There may not be enough space for the F3 improvement in the case of English /l/. For English /l/, the F3 produced by Japanese speakers is similar to English speakers’ F3. However, F3 for English /r/ produced by Japanese speakers is not very similar to English speakers’ production [3]. These differences suggest that the perceptual training would easily contribute to improve the production of English /r/, but it would be less effective for English /l/.

The current study’s result also gives a clue to understand how Japanese speakers learn perceptual identification of English /r/ and /l/. Many studies have been conducted to improve Japanese speakers’ perceptual identification ability of English /r/ and /l/, and Iverson et al. [4] concluded that Japanese speakers learn a strategy of labelling such that they label English /l/ if a stimulus is similar to their L1 lateral flap [ɾ], and they identify English /r/ if it is not similar to Japanese flap [ɾ]. However, if this conclusion is true, Japanese speakers cannot improve their production. In this study, it is demonstrated that subjects learned the rhoticity of English /r/. Therefore, it may be plausible to consider that Japanese speakers may have learned a lower level of acoustic perception as well as this strategy.

To investigate how Japanese speakers learn perception and production of English /r/ and /l/ through perceptual training, a future study testing the perception and production of more detailed acoustic cues is needed. Such a study could contribute to clarify the learning process of L2 phonemes and the link between perception and production.
Figure 3: Boxplots of normalised F3 (Hz) in English /l/ production in reading words and in reading passage.

Figure 4: Boxplots of normalised F3 in English /l/ production in reading words (white) and reading passage (gray) at pretest and posttest.

5. REFERENCES


SCRAMBLE YOURSELF TO SUCCESS: METHODS IN TEACHING TRANSCRIPTION

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ABSTRACT

This paper summarizes the results of a study that tested and evaluated two methods for teaching phonemic transcription to German EFL students at university level. The research design included a control group and two training groups receiving treatment with different methods: one based on the transcription of auditive stimuli, the other based on a phonemic adaption of the board game Scrabble®. The different training methods had significant effects on the improvement of transcription skills. A comparison of the training groups did not yield significant differences – the descriptive statistics, however, suggest that phoneme scrabble cannot be recommended as a uniform teaching method.

Keywords: phonemic transcription, evaluation of teaching methods, experimental study.

1. INTRODUCTION

Courses including phonemic transcription are part of the obligatory requirements of linguistic curricula at university. Providing an unambiguous symbol-to-sound correspondence, transcription is particularly useful in the EFL context as English orthography and pronunciation diverge drastically. Its role in tertiary education is twofold. On the one hand, it is one of the traditional methods in pronunciation teaching [9, 11]; on the other, it is a subject in its own right, a skill that has to be learned and which requires extensive practice [8].

This paper summarizes the findings of a study concerned with the teaching of phonemic transcription to university students. Two activity-based methods of instruction were tested and evaluated: one is based on the transcription of auditive stimuli, the other employs a phonemic version of the classic board game Scrabble®. The objective was to examine the effect of these methods on students’ transcription skills.

The experimental design included two training groups. Conceptualized as tutorials, they were provided to students enrolled in mandatory phonetics courses.

Two research questions were central: (1) Does participation in a tutorial improve transcription skills? (2) Do the methods differ in effect?

2. TEACHING TRANSCRIPTION

2.1. Sources of difficulties for students

Many students consider transcription a difficult task [10]. At the University of Bamberg, majoring in English requires passing the course ‘English phonetics and phonology’. The final exam includes the transcription of a text of about 100 words. From a pedagogical perspective, a more profound understanding of students’ difficulties is necessary. Competent transcribers master three skills:

(i) correct concept of the pronunciation of a word in isolation/context
(ii) productive command of symbols
(iii) knowledge of rules and regularities underlying pronunciation/transcription

Errors occurring in students’ transcriptions can be categorized according to their origin (cf. table 1). The deductions of students with advanced transcription skills typically reflect their inter-language system and include transfer phenomena, developmental errors and mixing of the British and the American standard (hereafter RP and GA). Rules and regularities, though limited in scope, can be employed in instruction to erase systematic errors (e.g., the regular distribution of phonologically conditioned allomorphs). Less systematic errors are typically due to unknown lexemes or carelessness. In transcriptions of written texts, orthography-induced errors usually reflect grapheme-phoneme transfer or wrong inferences from ambiguous spellings. German learners are influenced by their L1 orthography, which has a predominantly phonemic basis [1].
Table 1: A typology of transcription errors of German learners of English: origin of errors and examples.

<table>
<thead>
<tr>
<th>origin of error</th>
<th>examples (taken from the pretest and posttest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>orthography</td>
<td>ambiguous spelling</td>
</tr>
<tr>
<td></td>
<td>grapheme-phoneme transfer</td>
</tr>
<tr>
<td>(i) wrong concept of pronunciation</td>
<td>L1-L2 interference</td>
</tr>
<tr>
<td></td>
<td>final devoicing</td>
</tr>
<tr>
<td></td>
<td>vowel obscuration</td>
</tr>
<tr>
<td>(ii) command of phoneme inventory</td>
<td>GA-RP interference</td>
</tr>
<tr>
<td></td>
<td>overgeneralization [v]→[w]</td>
</tr>
<tr>
<td></td>
<td>overgeneralization voicing</td>
</tr>
<tr>
<td>(iii) unawareness of regularities</td>
<td>neutralized /i/</td>
</tr>
<tr>
<td></td>
<td>weak forms</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2. Motivation for the study

Two unfortunate facts motivated this study: (1) students’ poor performance in phonetics courses and (2) the resulting unpopularity of these courses. Unconventional teaching methods can be a useful remedy for negative attitudes among students. This study was conducted to test whether they also effectively improve transcription skills.

2.3. Description of teaching methods

Two methods for teaching phonemic transcription were tested and evaluated: an audio-based method and one involving phonemic scrabble. The exercise format employed in the audio method included the transcription of recorded stimuli (e.g., words in isolation, cloze tests with weak form words, full sentences). Students’ deductions were corrected and discussed in class. The use of auditory stimuli reduces orthography-induced errors and those originating from a wrong concept of a word’s pronunciation. A central goal of this exercise format is to establish a psychological distance between written words and their pronunciation.

The second method involves a phonemic adaption of the board game Scrabble®. The rules are analogous to the original, but words are built with phonemes (and stress markers) instead of graphemes. Two versions (RP and GA) were designed. The values of the tiles reflect phoneme frequency [2] and didactic purposes (e.g., non-phonemic symbols [i u], difficult vowels and consonants have higher values). Phoneme scrabble reverses the typical transcription process. Learners depart from the passive role of transcribing stimuli to actively creating words from sounds. They abandon orthography and think in sounds. Besides its creative potential, two aspects are crucial to this method: first, while trying to build words, students consult a pronunciation dictionary [12, 13] and actively explore L2 sound structures; second, it is genuinely communicative [4] – words on the board are discussed and corrected and students talk about sounds and symbols.

3. Method and data

3.1. Research questions and research design

A pretest–posttest control group design was chosen for data collection [7]. The dependent variable, transcription ability, was measured prior to and after treatment (i.e., the training). The independent variable, teaching method, was experimentally manipulated and had three levels: a control group, which received no training, and two training groups differing in training method.

Figure 1: Research design.

3.2. Participants

The participants were undergraduates enrolled in identical phonetics courses taught by the same lecturer. The training was offered as an optional tutorial. As demand superseded capacities, a third training group was formed which could not be included in the evaluation (cf. 5.2.). Students not interested in the training automatically formed the control group. Due to experimental mortality, group sizes shrunk to 9 (control), 15 (audio) and 12 (scrabble) for the final evaluation.
3.3. Test

The dependent variable ‘transcription ability’ was measured with a test designed to give a valid measurement of this trait. It consists of two parts. Part one (20 min.) lists 60 words in isolation, which cover the complete phoneme inventory and target systematic errors (of German learners), such as final devoicing, overgeneralization, neutralized vowels [i u], difficult vowels and consonants, and GA-RP segmental differences. The total score for part one is the sum of six sub-variables: vowel accuracy, consonant accuracy, standard accuracy, avoidance of final devoicing, correct stress assignment and number of correct items (words). Part two (10 min.) consists of eight sentences which additionally serve to measure vowel obscuration as an aspect of connected speech. A total of 345 points are attainable.

3.4. Training concept

Each training consisted of five weekly sessions of 90 minutes (cf. table 2). In the first 45 minutes the treatment was identical for both groups and focussed on different aspects of transcription (including various tasks, such as discussion of cartoons, reading transcription and worksheets). In part two the groups received different treatments. Exercises for the audio group were designed in accordance with the aspect of transcription emphasized in part one. Students in the scrabble group played phoneme scrabble in groups of 2-4. These groups were uniformly RP or GA and had a pronunciation dictionary for reference.

Table 2: Training concept.

<table>
<thead>
<tr>
<th></th>
<th>audio group</th>
<th>scrabble group</th>
</tr>
</thead>
<tbody>
<tr>
<td>part I</td>
<td>visual input, reading transcription, 30 min. worksheet-based practice</td>
<td></td>
</tr>
<tr>
<td>part II</td>
<td>auditory practice, phoneme scrabble</td>
<td></td>
</tr>
</tbody>
</table>

4. RESULTS

4.1. Descriptive analysis

The statistics for the pretest and posttest scores are summarized in table 3. The overall range of pretest scores (from 7 to 74% of total) indicates a high heterogeneity among participants prior to treatment. The control group reached the highest mean (\(M = 134\)) in the pretest, but also showed high variation of scores (\(SD = 87\)) compared to the training groups (both \(SD = 51\)). The boxplots in figure 2 illustrate the dispersion of scores and the median as a measure of central tendency.

Table 3: Summary of descriptive statistics.

<table>
<thead>
<tr>
<th>group</th>
<th>test</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>control</td>
<td>pretest</td>
<td>9</td>
<td>134</td>
<td>87</td>
<td>23</td>
<td>257</td>
</tr>
<tr>
<td></td>
<td>posttest</td>
<td>9</td>
<td>178</td>
<td>82</td>
<td>51</td>
<td>313</td>
</tr>
<tr>
<td>audio</td>
<td>pretest</td>
<td>15</td>
<td>119</td>
<td>51</td>
<td>54</td>
<td>210</td>
</tr>
<tr>
<td></td>
<td>posttest</td>
<td>15</td>
<td>232</td>
<td>42</td>
<td>171</td>
<td>310</td>
</tr>
<tr>
<td>scrabble</td>
<td>pretest</td>
<td>12</td>
<td>104</td>
<td>51</td>
<td>38</td>
<td>206</td>
</tr>
<tr>
<td></td>
<td>posttest</td>
<td>12</td>
<td>201</td>
<td>49</td>
<td>104</td>
<td>282</td>
</tr>
</tbody>
</table>

Figure 2: Boxplots of pretest and posttest scores.

4.2. Inferential analysis

The very notion of learning implies growth or change – a pretest-posttest design is thus critical for a quantitative evaluation of teaching methods. Measuring ‘learning’ in terms of gain scores (posttest – pretest) neglects the ceiling effect which occurs for high pretest scores (i.e., a significant negative correlation between pretest and gain scores, \(r = -.43, p < .01\)). An analysis of covariance is the preferred test for pretest-posttest designs [5], as it includes the pretest score as a second independent variable and filters out its effect on the gain score. This parametric test is based on certain assumptions [6], which are not met by the control group data. Comparisons including this group therefore resorted to the non-parametric Mann-Whitney test, which was carried out on gain scores and relative scores (calculated to filter out the ceiling effect bias).

The training groups showed significantly higher gain scores and percent scores than the control group. An ANCOVA on the gain scores of the training groups showed no significant effect of the teaching method after controlling for the effect of the covariate, i.e. pretest score, \(F(1, 26) = 2.62, p >\)
.05, partial $\eta^2 = .10$. The adjusted gain score means are 116 (audio) and 94 (scrabble).

5. DISCUSSION

5.1. Discussion of results

In summary, all groups scored significantly higher on the posttest than on the pretest, indicating that during the five-week time span transcription skills increased regardless of the experimental manipulation. The two training groups, however, showed a significantly higher increase in ability than the control group. This indicates that the trainings offered were effective. The two training groups did not differ significantly regarding the increase in transcription ability, suggesting that the two methods were equivalent in terms of efficiency.

The correlation of pretest and gain scores was weaker in the control group ($r = -.34$) than in the training groups (audio $r = -.60$, scrabble $r = -.48$). The exclusion of one outlier from the control group even yields a positive relationship between pretest and gain scores. This is striking since the acquisition of basic principles, such as the correct reproduction of symbols, can boost participants with a low pretest score. Subjects with a high pretest score, however, need to show progress in more complex areas, e.g. vowel obscuration, non-phonemic symbols and correct transcription of complete items. Students with more advanced transcription skills seem to profit more from seminar instruction than students with poor skills. These tentative findings suggest that enrichment activities are particularly beneficial to weaker students and should be offered early in the term as they balance out the heterogeneity of skills.

A comparison of the standard deviation (SD) of pre- and posttest scores shows that the audio method was more successful in reducing the dispersion of scores. This indicates that phoneme scrabble was an effective method for some but inadequate for others. Comments made in an evaluation carried out at the end of the tutorials indicate polarized opinions about this method. Non-voluntary ‘play’ inevitably results in a lack of motivation, possibly refusal. However, play can generate flow experiences [3] which lead to an intense occupation with phonemic symbols and the sound structure of the English language.

A clear advantage of the audio method is its comprehensive effect – most participants profited from this method. The positive evaluation suggests good applicability in university classes. In contrast, phoneme scrabble cannot be recommended as a teaching method. It should be applied as a voluntary activity, e.g. in station learning settings or for autonomous learners who enjoy playing it.

5.2. Discussion of research design

The implementation of the research design shows two methodological weaknesses. First, due to non-randomized allocation, group threats reduce the internal validity; there is a volunteer (training groups) vs. non-volunteer (control group) bias in the data. This bias could have been eliminated by assigning ‘surplus’ volunteers to the control group. To guarantee fairness, a third training could have been provided after the posttest. Second, the effect of the trainings might be solely attributable to part one, with part two (audio and scrabble) making no contribution to learning. The data collected does not allow conclusions on this issue. An optimal strategy would have been to include a fourth group receiving a training consisting of part one only.

6. REFERENCES

AN EVALUATION OF TASKS IN ENGLISH PHONETICS TESTS

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ABSTRACT

The aim of this paper is to present an analysis of the English Phonetics Tests which make up part of the English Language tests for the 1st year students at the English Department of our Faculty. The analysis includes an assessment of students' achievements in the tests for this academic year. It focuses on the tasks the students are required to carry out, and (on the basis of the results of the tests) offers some ideas on how to avoid the problems concerning the different types of tasks in the tests.

Keywords: English phonetics, testing, tasks, phonemic transcription, allophonic transcription.

1. INTRODUCTION

Two phonetics tests are taken by our students after each semester of Year 1 of the English Language and Literature studies at our department:

• the first one is more basic (focusing on transcription of simple English words) and
• the second one is more demanding, since besides the transcription of individual words also transcription of short English sentences is required.

In both tests, in addition to knowledge of phonemic, also the skill of allophonic (or narrow phonetic) transcription is tested, and also in this regard the first test is less demanding (with the main focus on vowel duration) while there is a more advanced task in the second test due to inclusion of various allophonic features such as devoicing, aspiration, glottal reinforcement, nasalization, and voice and place assimilation). In addition to transcription tasks, in the first test there is a task involving English homophones, while in the second one students have to label RP consonants with regard to voicing, place and manner of articulation.

1.1. The structure of the tests

The structure of the first test is as follows:

• Mark the ALLOPHONIC realizations of the VOWELS with regard to duration (max. score: 10). Examples: leek, boot, pray, float, bath, scared, freeze, perch, cards, board.
• Listen to the pronunciation of the words, put them down and transcribe them in PHONEMIC transcription, marking the stressed syllables (max. score: 15). Examples: crashing, adversity, blushed, refused, careless.
• Transcribe the words below in PHONEMIC transcription, marking the stressed syllables (max. score: 10). Examples: staring, important, thumbs, girlish, conquered.
• Put down the PHONEMIC transcription of the homophones, insert the right word in the right sentence and translate the homophones (max. score: 15). Examples: carrot/carat, flower/flour, least/leased, mayor/mare, stalk/stork. Example of a sentence for stalk/stork:
She trimmed the _ s of the tulips and put them in a vase. We saw a _ walking around in water, searching for food.

The structure of the second test:

• Mark the allophones of phoneme /l/ in the words below (max. score: 2) Examples: told [], double [], million [], cliff []
• Listen to the pronunciation of sentences, put them down and transcribe them in PHONEMIC transcription, including the sentence stress (max. score: 15). Examples: How far is it from London to Manchester? It would be wrong to accept the proposal. We tried it out and threw it away.
• Transcribe the sentences below in PHONEMIC transcription, including the sentence stress (max. score: 12). Examples: 1. There’s no need to change our plans. 2. She took the lift to the third floor. 3. I got into the car and fastened the seat-belt.
• Provide the PHONEMIC AND PHONETIC transcriptions of the words below (max. score:
Examples: praising, retracted, complained.

- Provide VPM (i.e. voice, place, manner) labels for the phonemes below (max. score: 6).
  Examples: /ʃ/, /w/, /n/, /k/, /θ/, /r/.

2. EVALUATION OF THE TASKS

2.1. The choice of standard pronunciation

As can be seen from the instructions, phonemic transcription tasks are based both on listening to words and sentences (where points are awarded also for correct spelling) and the orthographic presentation of these. Of course, in the case of listening, students have to transcribe what they actually hear (which is RP pronunciation), so that all deviations (e.g. providing GA transcriptions or strong forms of the items that were pronounced as weak forms) are considered as wrong. On the other hand, students are free to choose between accents, alternative pronunciations, strong/weak forms etc. when transcribing written words and sentences. If they are inconsistent with regard to the selected standard pronunciation, we have to evaluate which standard accent prevails in their transcriptions and then mark all deviations as errors.

2.2. Listening comprehension of the dictated items

The main problem we have identified with regard to the examples in the tests (both on the level of words and sentences) is the obvious difficulty of distinguishing between some words in the singular/plural and the present tense/past tense forms. As reading takes place in large lecture halls, students sitting closer to the reader (i.e. the teacher) can hear the pronunciation more clearly. Having become aware of the problem, I now feel obliged to warn students (strange as this may seem) that I am pronouncing a word like refused in the past tense form, or gathers in the 3rd person singular. Obviously, a more appropriate solution to this problem would be to provide equal conditions to all students, which would only be possible by their listening to these items using headphones.

2.3. Allophonic transcription: the choice of items and scoring

In the case of allophonic transcription there seem to be several problems. First of all, we need to select very clear-cut cases of allophonic realizations in order not to confuse students with the possibility of choice between different allophones. Thus, when providing examples of vowel reduction, we need to be careful not to include VC sequences in which the duration of vowels is somewhere mid-way between fully long (as in league) and strongly reduced (as in leak).

With regard to consonantal features, there are similar problems. For example, the initial plosive in e.g. poke is aspirated, in spoke unaspirated, but e.g. in hoping it could be described as weakly aspirated, so it is not clear how this would be represented in transcription.

With regard to scoring, there is the question of whether or not we should give students points only for those allophonic symbols which are marked by appropriate diacritics or also for those which have no diacritics because they exhibit unmarked realizations (e.g. clear /l/, an unaspirated plosive, a fully voiced consonant etc.). Our decision in this case was simply to mark all the symbols, although this may often lead to awarding ‘undeserved’ points. Thus students may get a number of points for correctly transcribing a number of sounds without their being aware why the transcriptions are correct. In the case of one particular version of the test in which the allophones of /l/ have to be transcribed, a student may get as much as 40% of points by just using the phonemic transcription, so without actually knowing anything about the different allophones, because there are too many cases of a voiced clear [l] in the test. The same goes for marking of vowel duration: students who simply use the phonemic symbols for all the vowels will have correct answers (i.e. correct allophonic transcriptions) for all short realizations of short vowels and diphthongs and for all long realizations of long monophthongs, and this may again reach up to 50% of the cases if we are not careful enough with the selection of items to be transcribed.
2.4. Allophonic and phonemic transcription: the problem of simplification

With phonemic and phonetic symbols I have recently come across a very specific but important problem of overlap of symbols when I tried to simplify the transcription for a visually impaired student who cannot read the IPA phonetic symbols. I advised her to use, for example, /i/ for the vowel of *bit* and /i:/ for the vowel of *beat*. I then realized, however, that she would have to use the same symbol, i.e. [i], for the reduced allophones of both vowels, and also the same symbol, i.e. [i:], for the allophones of the fully long vowel of e.g. *bead* and the prolonged vowel of *bid*. And this would be, of course, the case also with all other pairs of long and short monophthongs, so my ‘simplification’ could not be applied. I therefore decided to keep the marking of qualitative differences provided by the IPA vowel symbols, and asked the student to use the phonemic symbol /i/ for the vowel of *beat*/*bead* and /i:/ for the vowel of *bit*/*bid*, which allows differentiation among the four allophonic realizations of the two vowels ([I I: i i:]). And then I tried to do the same for all vowels. In the case of the long and short ‘schwa’ vowels (*Burt* vs. *unstressed* *but*), we can use number three (/3/) for the long vowel and perhaps number 2 for the short one. Since this particular student writes the tests on the computer, it should also be noted that number one (/1/) looks completely the same as the symbol for the lateral (/l/), so it cannot be used.

2.5. Alternative solutions in the phonemic transcriptions of sentences

With regard to the transcription of sentences, there is (as mentioned above for both individual words and sentences) an important difference between the transcriptions based on listening and those that are based on the provided orthographic version. In the latter case, in addition to allowing the student to choose between standard BE (RP) and AE (General American), we should also allow at least some variations between the strong and weak forms of function words. For example, I have decided to accept three different versions (rather than just the one in pronunciation dictionaries like [4]) for items like *we, he, she, me, you*, as long as students are consistent and provided that they use only one of these transcriptions for an accented pronoun, of course. We can also tolerate usage or omission of the (optional) linking/intrusive /rl/, different choices with regard to optional phonemic assimilations and elision, as well as different versions of sentence stress distribution, as long as the chosen variants sound reasonably acceptable.

2.6. Homophony: the choice of items and translation

Concerning the selection of homophones, we provide relatively simple English words but we look beyond the examples which the students came across in the exercises in their coursebook [1]. The problem with this is, of course, that we are not really testing what they have learned in class on English phonetics or practical pronunciation classes but count rather on their familiarity with everyday English words from the point of view of both meaning and pronunciation. With regard to this, we advise them to study a collection of English homophones, suggesting that they need not worry about unfamiliar vocabulary (e.g. *buoy* as a homophone of *boy*). A very good collection is the one in the Collins Cobuild English Guides [2]. Translation of homophones has become problematic with the increase of the number of students from abroad. We allow these students to either translate the items into their own mother tongue (if we are sufficiently familiar with their English phonetics or practical pronunciation classes but count rather on their familiarity with everyday English words from the point of view of both meaning and pronunciation. With regard to this, we advise them to study a collection of English homophones, suggesting that they need not worry about unfamiliar vocabulary (e.g. *buoy* as a homophone of *boy*). A very good collection is the one in the Collins Cobuild English Guides [2].

Translation of homophones has become problematic with the increase of the number of students from abroad. We allow these students to either translate the items into their own mother tongue (if we are sufficiently familiar with their mother tongue) or to provide a simplified definition of the words in question.

2.7. Labelling of Consonants

There is no particular problem with this task. In this year’s tests, for example, the average score for this part of the test was approx. 80%. However, students confuse voicing with strength of articulation, and label consonants as weak/strong instead of voiced/voiceless. With regard to learning the labels it should be mentioned that there is a very useful collection of programs on the Internet, the Phonetic Flash Card [3] which gives students twofold practice – labelling of the selected consonant and selecting the labelled consonant, in both cases with feedback on their answers.

2.8. Tests A and B: the level of difficulty

The last point to consider is the level of difficulty of different versions of the two tests, since in order to avoid copying students are not all given the same test but two different (A and B) versions with the same types of task but different test items. It is
practically impossible to make the two tests in each case of completely the same level of difficulty. The most reliable evaluation of this seems to be the average score for tests A and B, which we regularly carry out. This year, we found a considerable difference in the results for the first test (both in terms of average score and the number of students with negative marks - score below 50%), but not for the second one (see Table 1).

<table>
<thead>
<tr>
<th>Table 1: Average scores for tests A1/B1 and A2/B2 and the number of students with score &gt;50%.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test</td>
</tr>
<tr>
<td>Average score</td>
</tr>
<tr>
<td>No of St &gt;50%</td>
</tr>
</tbody>
</table>

2.9. Results of the first (A1, B1) and the second (A2, B2) tests in 2012/13

The table below (Table 2) provides the average scores in % for all of the tasks for both versions of Test 1 and Test 2 for the current academic year. 51 students wrote the first test and 44 wrote the second one.

<table>
<thead>
<tr>
<th>Table 2: Average scores for tasks in A1/B1 and A2/B2 in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test</td>
</tr>
<tr>
<td>Vowel allophones</td>
</tr>
<tr>
<td>Phon. trans. of words (listening)</td>
</tr>
<tr>
<td>Phon. trans. of words (written)</td>
</tr>
<tr>
<td>Homophones</td>
</tr>
<tr>
<td>Allophones of /l/</td>
</tr>
<tr>
<td>Phon. trans. of sent. (listening)</td>
</tr>
<tr>
<td>Phon. trans. of sent. (written)</td>
</tr>
<tr>
<td>Phon. and alloph. trans. of words</td>
</tr>
<tr>
<td>VPM labelling of consonants</td>
</tr>
</tbody>
</table>

What seems to be the most obvious is the high scores for two tasks in the first test (phonemic transcription of words based on listening and the task on homophones) and, as already mentioned, one task in the second test (labelling). On the other hand, phonemic transcription of both words and sentences based on the provided written forms is poor, and even worse is the allophonic transcription.

The results seem to indicate that students are better at tasks which require simply learning by heart (e.g. consonant labels) and of course those for which at least to some extent they do not need to prepare since they test their overall knowledge of English (e.g. familiarity with homophones like *flower/flour*). On the other hand, transcription (in particular allophonic) is much more demanding, so the low percentages for these tasks are not at all surprising.

3. CONCLUSIONS

This brief evaluation of our phonetics tests can be summarized in the form of several points we need to be aware of when preparing individual tasks and questions for the students:

1. We should leave it to the students to select their preferred standard when transcribing written words and sentences, but should be careful with regard to their (in)consistent usage.
2. We should tolerate the students’ choice with regard to different variants in phonemic transcriptions of sentences, but again examine their consistency regarding for example weak forms, assimilated forms, elisions etc.
3. We need to be aware of the technical problems occurring in delivering ‘listening comprehension’ tasks.
4. We have to be careful with the selection of items for allophonic transcription, in order to avoid as much as possible the ‘undeserved’ points for coincidentally ‘correct’ answers. The test results show that allophonic transcription is a difficult skill, so we need to provide a lot of practice to students to help them master it.
5. The level of difficulty of different versions of the test should be as balanced as possible, so we need to revise the selection of items in the tests, in particular when the average results are clearly different.

4. REFERENCES

L2 PERCEPTION OF AN ENGLISH MINIMAL PAIR IN DIFFERENT TYPES OF CLEAR SPEECH

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ABSTRACT
This study investigates the effect of different types of clear speech on cross-linguistic perception with varying levels of babble-noise. An English minimal pair ‘beach’-‘peach’, extracted from two types of clear speech in the LUCID corpus, is presented to the Japanese listeners for the identification at various SNR levels. The results demonstrate that when presented in noise, the ‘peach’ tokens produced to help L2 interlocutors are perceived more easily by them, while the strong effect of the acoustic characteristics of Japanese /b/ is also discovered on the perception of ‘beach’ tokens. Implications of these results on teaching are also discussed.

Keywords: clear speech, L2 perception in noise.

1. INTRODUCTION
The speech perception of L2 listeners is not as robust as that of L1 listeners and they are more susceptible to noise and reverberation [3][4]. Hence, L1 speakers frequently modify their phonetic output to clarify their speech when they realise that the oral communication with their L2 interlocutors provides a challenge for them. For this purpose, a speaking style called clear speech is often employed when communicating with L2 interlocutors, especially in adverse listening conditions such as in noise.

The acoustic realisation of this clear speech is characterised in many ways: segmentally by a more extended vowel space, larger contrast in VOT and duration, and prosodically by decreased speech rate, an increase in the number/duration of pauses and an increase in pitch range and mean F0 (see the papers reviewed in [5]).

However, clear speech is not a unitary speaking style. Hazan et al [6] demonstrate that words produced to counteract speech babble noise are more easily perceived when presented in babble than words produced to counteract a vocoder (i.e. speech heard via a vocoder), which suggests that different types of hyper-articulation are rendered according to the types of adverse speech conditions. This raises the following question: does the L2 perception score differ according to the types of clear speech? Specifically, are the words produced to help L2 interlocutors perceived more easily by them than the words produced for L1 interlocutors to counteract other adverse conditions such as speech babble noise?

Although the effect of clear speech on L2 perception has been extensively studied, (e.g. [2]), little has been found on the effect of the types of clear speech on cross-linguistic speech perception. The aforementioned [6] examined the perception of three types of clear speech but all in L1 conditions. One of the exceptions is our previous study [10], where it was demonstrated that when presented in noise, words produced to help L2 interlocutors were perceived more easily by them than those for L1 interlocutors to counteract babble noise. However, in [10], the noise level was fixed at the signal-to-noise ratio (SNR) of 0 dB, and the effect of the noise with varying SNR still remains to be seen. Hodoshima et al [7] studied the perception of English words by Japanese learners at various levels of SNR and reverberation, but their stimuli were not based on clear speech.

In this study, we aim to re-investigate the perceptual superiority of clear speech for L2 interlocutors discovered in [10]. We also examine whether the superiority holds for different levels of SNR.

To serve this purpose, speech materials intended to combat the L2 condition and babble noise (of the L1 condition) are used as the stimuli, and they are taken from the LUCID corpus [1]. The advantage of using the LUCID corpus is that it rendered a ‘diapix’ task, where two speakers talked to each other to find a number of differences between two versions of the same cartoon picture that contained twelve differences. Each speaker was seated in a separate sound-proof room and
could not see the other party or her picture, and the only way to ‘spot the difference’ was to communicate via headsets with a microphone. This set-up ensured natural, spontaneous speech in different clear-speech conditions. Another advantage is that, by following the procedure of [6][10], which also utilised multi-talker babble materials from the LUCID corpus, the results of this study can be compared with their data.

2. EXPERIMENT

2.1. Materials

In the LUCID corpus, the speakers A and B in a pair completed the diapix task in three adverse speech conditions: when the speaker A’s voice was passed through a three-channel noise-excited vocoder, or it was mixed with multi-talker babble noise (Babble), and the speaker B was a low-proficiency non-native English speaker (L2). The speakers were all native speakers of Southern British English, except in the L2 condition, where the speaker B’s were native speakers of Chinese (Mandarin/Taiwanese) or Korean with a low English command. In this study, materials in the L2 condition were selected, as well as those in the Babble condition, whose L1 perception data is presented in [6]. The materials were taken from the speech of the speaker A.

The diapix tasks of the LUCID were designed to elicit a set of minimal or near-minimal pairs with sounds /bl/-/p/ and /sl/-/ʃ/. In our previous study [10], two minimal pairs, ‘beach-peach’ and ‘self-shell’ were chosen as stimuli, but this study utilised only one pair: ‘beach-peach’. This was because in [10], the pair ‘beach-peach’ showed a larger effect by the added noise. Furthermore, ‘beach’ and ‘peach’ are well established as loan words in Japanese, while the other words used in [6] contain tokens that may not be familiar to some Japanese L2 learners. In LUCID, the keywords were distributed over 12 diapix picture pairs and both keywords in a pair did not always appear in the same picture.

Due to the spontaneous nature of the diapix task, some of the words were whispered or produced in an extremely low intensity. These speakers were excluded, and tokens from two speakers (one male, one female) were selected for stimuli. Since the speakers in the LUCID corpus completed either the tasks of the L2 condition or the Babble condition [1], the words of the minimal pairs came from the identical speaker for each L2 / Babble condition, but not across the two conditions. Each token for the individual minimal-pair word was extracted from the corpus, and in a few cases where there was more than one token that were suitable for stimuli, one of them was selected randomly. All tokens were normalised to a fixed intensity level, using Speech Filing System (ver. 4.8) and then further two conditions were made: one was to present the stimuli without babble noise (Clear) while the other was to present them with babble noise (Noise). In the Noise condition, 100-talker babble noise was added at five levels of SNR, again with Speech Filing System: -15dB, -10dB, -5dB, 0dB and +5dB. This process produced 48 stimulus tokens: 2 token types (beach / peach) x 2 speakers x 2 stimulus conditions (L2 / Babble) x 6 presentation noise levels (Clear / -15dB / -10dB / -5dB / 0dB / +5dB).

2.2. Participants

Two groups of second-year Japanese undergraduate students at Chuo University in Tokyo, aged 19-21, participated in the experiment, with 11 and 10 members respectively. All of them belonged to the same English class, and the participants were tested altogether in the same Language Laboratory room (see details below). None of them had lived in an English-speaking country or reported on hearing / language impairment. They were all right-handed monolinguals. They had studied English as a foreign language for at least six years at school, and their English abilities were judged to be at the pre-intermediate level by one of the authors. They were not paid for their participation.

2.3. Procedure

In [6], the participants were required to identify the initial consonant of the word presented. However, the task of this study was L2 perception, and to reduce their burden, as in [10], the participants were instructed to identify the whole word.

The two groups of participants were tested in a quiet Language Laboratory room at Chuo University, at the same time, with stimuli played through covered-ear headphones at a level adjusted by them. None of them reported that their attention had been diverted by noise, or by the presence of other participants. Each group was assigned with either of two blocks of stimuli. Specifically, one
group (11 members) listened to the stimuli in the L2 condition, while the other group (10) listened to those in the Babble condition.

The participants were seated individually in front of laptop PCs, and their task was to listen to the stimulus token, at a different level of SNR, through headphones and, using a mouse, click the correct word in a minimal pair that appeared on the screen, as quickly and accurately as possible. The locations of the words on the screen, i.e. whether a word appeared on the right or left, were also randomised, and each stimulus token was played in a random order to the participants twice. In total, there were 96 presentations per participant: 2 token types (beach / peach) x 2 LUCID speakers x 6 presentation conditions (Clear, -15dB, -10dB, -5dB, 0dB and +5dB) x 2 button positions x 2 repetitions. The whole experiment process was controlled by Praat (ver. 5.3.34), utilising Experiment MFC objects.

The experiment was preceded by the task demonstration by one of the authors designed to make the participants familiar with the experimental setting and the nature of the stimuli. Care was taken to ensure that the participants knew that they must not click a word on a screen before the whole word was played, through instructions before and after the demonstration.

2.4. Results

In the analysis, the mean percentages of correct responses, as well as the mean reaction time (RT) for correct responses, were calculated for each token type, stimulus condition and presentation condition. Due to the Praat setup, the RT measured in this experiment was approximate, calculated from the onset of the presented token. During this process, one participant in the L2 condition and another in the Babble condition were excluded as a precaution, because RT in a negative value was found in their results. This reduced the total number of the participants to 19: ten for the L2 condition and nine for the Babble condition.

Figures 1 and 2 show the mean percentages of the correct responses for each token type. Figure 1 is for the L2 condition (i.e. the interlocutor was an L2 speaker in the LUCID corpus) and Figure 2 for the Babble condition (i.e. the speaker’s voice in LUCID was originally mixed with babble noise).

Overall, Figures 1 and 2 display a high rate of correct responses when the token was presented without babble noise. However, as the SNR increases, the percentages of correct responses decrease for all tokens although the decrease rate is much smaller in the ‘peach’ token of the L2 condition. This endorses the results of the previous studies [3], [4] and [10]. The two Figures also show that for Japanese L2 listeners, perception of English /p/ uttered in the L2 condition is more robust to noise than that uttered to overcome the babble noise, while the perceptual scores of the initial /b/ in the L2 conditions are close or sometimes lower (in the middle points of the SNR continuum). This difference needs to be further investigated in the next section.

3. DISCUSSION

The results of the experiment show that the performance of L2 speech perception in noise is inversely related to the SNR of the stimuli, which is congruent with the results of the previous studies. It is also discovered that the English /p/ produced to help L2 interlocutors is perceived more easily by them than the English /b/ produced for L1 interlocutors in speech babble noise, implying that the benefit of clear speech for the L2 listeners could be limited to /p/. However, [10] investigated
the perception of English /s/-/ʃ/ contrast by Japanese L2 listeners in noise and without noise, using the ‘sell’-‘shell’ minimal pair, and the results clearly displayed that tokens in clear speech for L2 listeners were more robust to noise than clear speech to counteract babble noise. See Figure 3 below.

![Figure 3: Results from [10].](image)

Then why is the mean correct percentage of /b/ lower in some of the L2 tokens than in the corresponding Babble tokens? To examine this, VOT measurements of the initial plosives were made, and the mean values were calculated. They are displayed in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>/b/ in peach</th>
<th>/p/ in peach</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2</td>
<td>-1.1</td>
<td>44.1</td>
</tr>
<tr>
<td>Babble</td>
<td>-6.0</td>
<td>36.9</td>
</tr>
</tbody>
</table>

In Japanese, the word initial /p/ is weakly aspirated [8] and it would be easy for Japanese listeners to identify its English counterpart, which is strongly aspirated. On the other hand, in the word-initial position, Japanese /b/ is realised often with a long pre-voicing. For example, [9] states that the average VOT for /b/ in the initial position is -89ms, while that for /p/ is 41ms. In contrast, long pre-voicing is very rare in the word-initial position in English. This suggests that Japanese listeners find it more difficult to identify English /b/, which lacks long pre-voicing. As Table 1 shows, the mean VOT of /b/ is lower for the Babble token, which may have led to the higher correct identification score of /b/ in Babble.

**4. IMPLICATIONS FOR TEACHING**

[10] shows that clear speech produced for L2 interlocutors is generally robust in noise when it is perceived by L2 listeners, and the results of this experiment endorse the claim. It is also shown that the benefit of clear speech for L2 interlocutors can be overridden by the strong cue transfer from their L1.

Do the findings of this study suggest anything to the teaching of English at schools in Japan? Traditionally, teachers in Japanese middle or high schools did not put much emphasis on oral communication and spent little time in phonetic training. To improve this situation, many schools have introduced assistant language teachers who are native speakers of English. These teachers speak in a very clear speech mode, as the one used in our experiment, and it will generally enhance the listening comprehension of their students. However, the results of this experiment show that it is still necessary for these teachers to have good knowledge on the acoustic and perceptual nature of Japanese speech sounds, such as the strong effect of the lack of pre-voicing on the perception of English /b/. The importance of the phonetic knowledge for English teachers in Japan should not be underestimated.

**5. REFERENCES**

THE RELATIONSHIP BETWEEN VOWEL PRODUCTION AND PERCEPTION: ADVANCED GERMAN LEARNERS’ PERCEPTION OF NATIVENESS IN LOT AND THOUGHT VOWELS IN RP

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jussiwikstrom@hotmail.com

ABSTRACT
This study sheds light on the range of variation found in F1 for the English LOT and THOUGHT vowels in advanced German learners of English. It looks at the range of variation in F1 which such learners regard as native-like for a Received Pronunciation (RP) accent and the degree of overlap between the learners’ LOT and THOUGHT vowels and the vowel-qualities which they consider RP-like. Seven 18-25-year-old advanced German learners did a production task and a perception test. There was no strong overlap between the participants’ performance in the production and perception tasks. The findings suggest that the learners’ production of the THOUGHT vowel was influenced by General American English (GA) pronunciation and that they did not rely primarily on vowel height as an acoustic cue when judging the quality of the LOT vowel.

Keywords English learning, native German, pronunciation, perception.

1. BACKGROUND
Wikström [10] found that, where female L1 speakers of RP or near-RP are concerned, F1 is used consistently to distinguish between the RP LOT and THOUGHT vowels. F1 varied between 615 Hz (5.87 Bark) and 725 Hz (6.71 Bark) for the LOT vowel and between 415 Hz (4.15 Bark) and 551 Hz (5.35 Bark) for the THOUGHT vowel [10]; the F1 and F2 of the LOT and THOUGHT vowels with the highest and lowest F1 values are shown in Figure 1. Liu and Kewley-Port [3] established that a formant change of 0.37 Bark is sufficient for listeners to perceive a change in vowel quality where vowels are presented in phrases or sentences. Moreover, Wikström [10] showed that L1 speakers of RP or near-RP generally perceived tokens of the LOT vowel where F1 varied between 541 Hz (5.27 Bark) and 758 Hz (6.95 Bark) as native-like and tokens of the THOUGHT vowel where F1 was between 381 Hz (3.83 Bark) and 513 Hz (5.03 Bark) as native-like. Thus the findings from that study suggest that a substantial degree of variation in vowel quality is found in L1 speech production and native speakers regard a range of realisations as native-like. It should be pointed out that the LOT and THOUGHT vowels also differ in terms of vowel duration and roundedness.

Figure 1: The LOT and THOUGHT tokens with the highest and lowest F1 values in the L1 speaker data in [10].

However these factors are not addressed in detail in the present study. Studies looking at L2 learners’ ability to correctly categorise L1 and L2 accents in their L2 have had mixed results. For example, Wilkerson [12] found that L2 learners who studied their L2 at university were typically successful in detecting L2 accents of speakers who shared their L1 as well as in categorising L1 accents as such. However, Scales, Wennerstrom, Richard and Wu [8] found that advanced L2
learners of English who had lived in the United States for several years and studied there were generally unsuccessful in identifying an L1 American English accent. This paper sheds more detail on this issue by looking at the specific range of variation in F1 in the LOT and THOUGHT vowels which advanced German learners of RP associate with RP. While distinguishing between the LOT and THOUGHT vowels in RP is unlikely to be particularly problematic for German learners looking at these vowels seems appropriate for this study as its emphasis is on which vowel qualities are associated specifically with RP.

Studies which have examined the relationship between L2 speech production and perception have had varied results. Studies such as Neufeld [5] indicate that L2 learners’ performance in speech perception develops faster than their performance in production. However, Wikström and Setter [11] found that L1 English-speaking speech and language therapy (SLT) students were more successful in producing cardinal vowels than in identifying them. This paper considers how advanced German learners’ production of the RP LOT and THOUGHT vowels overlaps with their perception of native-like vowel qualities. This is of interest as previous studies have focussed on the degree of overlap between production and perception in maintaining L2 phonemic contrasts or relating perceived ideal vowel quality to production.

2. METHOD

Seven 18-25-year-old female German advanced learners of English were recruited. The seven participants were students of English at the University of Stuttgart, Germany who were taught RP pronunciation at university. English students at the University of Stuttgart were chosen as university students of English in Germany typically aim mostly at an RP or GA accent (Jilka, personal communication) and are advanced learners of English. Only learners whose sole L2 was English were recruited to the study but beginner-level proficiency in another L2 was disregarded.

A Microsoft PowerPoint presentation was used as a prompt in the production tests. The words and corresponding phonemic transcriptions in the production test were: heed /hɪːd/, Keith /kiːθ/, head /hed/, Etty /ˈɛti/, had /hæd/, cat /kæt/, hard /haːd/, cart /kaːt/, cot /koʊt/, odd /ɒd/, caught /kɔːt/, awed /əd/, who’d /huːd/ and coot /kʊt/.

Synthesised tokens of words including the LOT and THOUGHT vowels were produced for the perception test. A phonetically trained female speaker of near-RP was recorded in a quiet room saying the words cot and caught using a falling intonation. Praat speech analysis software [1] was used to analyse the phonetic properties of these tokens.

Akustyk software [7] was used to create synthesised tokens of cot and caught which involved the manipulation of F1 and F2 in 13 auditorily equidistant stimuli in order to create a continuum of stimuli with F1 varying between 381 Hz (3.83 Bark) and 758 Hz (6.95 Bark) and F2 varying between 705 Hz (6.56 Bark) and 1041 Hz (8.77 Bark).

<table>
<thead>
<tr>
<th>ratio</th>
<th>Decibels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1</td>
<td>0</td>
</tr>
<tr>
<td>2/1</td>
<td>6</td>
</tr>
<tr>
<td>3.16</td>
<td>10</td>
</tr>
<tr>
<td>1/10</td>
<td>-20</td>
</tr>
<tr>
<td>10/1</td>
<td>20</td>
</tr>
<tr>
<td>100/1</td>
<td>40</td>
</tr>
<tr>
<td>1000/1</td>
<td>60</td>
</tr>
</tbody>
</table>

Table 1: This is an example of a table showing Decibel (dB) ratios.

A Microsoft PowerPoint presentation was designed for presenting the stimulus material to participants. Each slide included a sound file and the question ‘How would you rate this pronunciation of word?’ and the alternatives provided were consistently ‘1. Produced by a native speaker of Standard British English (RP),’ ‘2. Close to a native Standard British English (RP) speaker’s pronunciation, but slightly odd’, ‘3. Clearly not a native Standard British English (RP) speaker’s pronunciation, but still fairly appropriate for this word’ and ‘4. Seriously different from a native Standard British English speaker’s pronunciation, the word might sound as if it could be another English word’. Each stimulus was presented three times.

The participants were recorded while saying the words in the production test PowerPoint presentation. A Marantz PMD 671 recorder and Shure SM48 cardioid dynamic microphone were used and the data were recorded at a sampling rate of 44.1 kHz with the signal being quantised at 16 bit. After this the participants did the perception
test. The participants were told they could play each sound file three times.

The production data were analysed using Praat [1] as described earlier in this section. The Freeman-Halton extension of Fisher’s exact test was used to test whether any difference in the distribution of participants’ responses was statistically significant for two-rows by four-columns contingency tables by using the relevant Vassar Stats calculator [4].

3. RESULTS

The participants’ F1 varies between 607 Hz (5.81 Bark) and 799 Hz (7.23 Bark) for the LOT vowel. For the CAUGHT vowel, F1 varies between 400 Hz (4.01 Bark) and 719 Hz (6.67 Bark).

The Freeman-Halton extension of Fisher’s exact test revealed no statistically significant difference in dispersion of selections relating to any adjacent cot stimuli in the perception test. All options seem to be selected with an approximately similar frequency for all cot stimuli. As such the participants did not reliably judge any part of the continuum of cot stimuli as native-like.

With regards to caught, the participants seem to prefer option 1 associated with native-like pronunciation more for five stimuli where F1 is between 381 Hz (3.83 Bark) and 485 Hz (4.79 Bark) compared to the remaining nine stimuli where F1 is between 513 Hz (5.03 Bark) and 758 Hz (6.95 Bark). Statistical analysis using the Freeman-Halton extension of Fisher’s exact test does not however reveal a statistically significant difference in the dispersion of selections between the stimulus whose F1 is 485 Hz (4.79 Bark) and the stimulus whose F1 is 513 Hz (5.03 Bark). There is however a statistically significant (p<.05) difference between the stimulus whose F1 is 458 Hz (4.55 Bark) and the stimulus whose F1 is 513 Hz (5.03 Bark). As the Freeman-Halton extension of Fisher’s exact test suggests that the difference between the participants’ selections between the stimulus whose F1 is 458 Hz (4.55 Bark) and the stimulus whose F1 is 485 Hz (4.79 Bark) is greater than that between the stimulus whose F1 is 485 Hz (4.79 Bark) and the stimulus whose F1 is 513 Hz (5.03 Bark) it can be concluded that tokens where F1 is between 381 Hz (3.83 Bark) and 485 Hz (4.55 Bark) are generally pronunciation for those stimuli, i.e. they are judged native-like 17 20 times out of a possible 21, while the stimuli whose F1 is 485 Hz (4.79 Bark) is judged native-like 11 times and the stimuli whose F1 is 513 Hz (5.03 Bark) is judged as native-like 8 times.

Turning now to the relationship between speech production and perception, as noted above the participants did not consistently judge any cot stimuli as native-like. However, F1 only varies between 607 Hz (5.81 Bark) and 799 Hz (7.23 Bark) in production which shows that their performance in the production and perception tasks does not appear to correlate. Where the caught stimuli are concerned it was established that stimuli whose F1 is between 381 Hz (3.83 Bark) and 485 Hz (4.55 Bark) are generally regarded as native-like. However, F1 in the production test varies between 400 Hz (4.01 Bark) and 719 Hz (6.67 Bark). The participants’ THOUGHT vowels do not therefore consistently overlap with those vowel qualities which they associate with RP-like THOUGHT in the perception test.

4. DISCUSSION

It is surprising that there is so much variation in the THOUGHT vowel with variants with F1 values similar to those associated with the RP LOT vowel being used in many cases not least considering that there is a distinction between back rounded vowels with similar F1 values to those associated with RP LOT and THOUGHT in German [2, 6]. The most likely explanation seems to be that some participants are influenced by the General American English THOUGHT vowel which is closer to the RP LOT vowel in quality [9]. This would suggest that interference from another L2 accent may be a significant factor for advanced L2 learners and may need to be taken into account in L2 teaching.

The participants’ more consistent performance on the LOT vowel in production may be because the difference in rounding between the RP and GA LOT vowels is more salient and thus the RP-like quality is more likely to be adopted when a decision is made to aim at an RP accent in particular.

In perception, the participants failed to categorise any of the stimuli with the LOT vowel reliably as native-like. This is also of interest because there is a distinction between a vowel similar to the RP LOT vowel and a vowel similar to the RP THOUGHT vowel where F1 is concerned in the learners’ L1 [2, 6]. It seems
probable that this is because the L2 learners in this study find vowel duration and roundedness to be more important in identifying the LOT vowel than vowel height. This is presumably due to a lack of metalinguistic information about this vowel and underlines the need for sufficient exposure to a target L2 accent for appropriate perceptual representations to be formed.

It is interesting that the participants produce LOT vowels similar to those associated with RP [10] and that this is not reflected in the perception task where no stimuli are clearly judged to be native-like. This could be because the German learners associate the short RP LOT vowel with the back rounded German vowel which is fairly similar to the RP LOT vowel rather than the German vowel which is close to the RP THOUGHT vowel because the more open vowel is phonemically shorter in both German and RP.

The findings relating to the THOUGHT vowel, which suggest that the participants identified closer qualities of the vowel as RP-like while considerably more open vowel qualities were used in the production test, agrees with the substantial body of work in the literature where a perception lead over production in L2 speech learning is reported [5].

5. REFERENCES
