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A comparison of two high variability phonetic training methods for vowel learning: perceptual versus articulatory training

Aliaga-Garcia Cristina

Several perception training studies (Iverson & Evans, 2007; Nishi, & Kewley-Port, 2007) have shown that second-language (L2) learners can improve their L2 perception, also demonstrating significant gains in L2 production (Bradlow, Pisoni, Akahane-Yamada, & Tohkura, 1997). However, research on the assessment of methods other than perceptual training for non-native vowels is still scarce, and none of the previous vowel studies has compared the impact of auditory vs. production-based training on vowels. The purpose of this study was to evaluate two training methods that might be used to improve learners' identification and articulation of the 11 English RP monophthongal vowels (/i: ɪ e ɜ: æ ʌ ɑ: ʊ u:/).

Two groups of bilingual Catalan/Spanish learners of English (N=64) were assigned to different types of audiovisual High Variability Phonetic Training (HVPT) based on natural CVC words from multiple talkers, either identification (ID) or articulatory (ART) training. Both training procedures comprised 10 one-hour computer-based sessions over 5 weeks, which guaranteed exposure to a minimum of 132 trials/ session. Whereas the ID training required learners to focus on the critical audiovisual cues to recognize the vowel category within a vowel subset, ART training learners were expected to focus on the relevant audiovisual cues for more accurate vowel articulation. Auditory feedback provided assistance to correct identification, or to change erroneous articulations.

This paper compares some remarkable effects of perceptual and production-based HVPT on the perception and production of the fullset of English vowels. The two HVPT groups showed higher accuracy in vowel perception, but a clear advantage of the ID group was seen in a better identification of trained words and a lesser degree of error dispersion per vowel. Both HVPT methods were effective in leading to significant formant movement for some vowels, with less spectral overlap, but differences in the amount of spectral shift after each training method suggest that ART training was more effective in vowel production. Training was effective in making the production of contrastive vowels more distinct and revealed a conscious attempt of Ls to produce acoustically distinct vowel quality targets, with a great deal less spectral overlapping. Pedagogical implications will be discussed.

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A multimodal approach for teaching pronunciation to non-specialist students

Nadia Bacor & Pascale Manoilov

This paper deals with new teaching methods of English pronunciation to non-specialist university students. English proficiency is one of the main challenges in the LANSAD sector (languages for specialists of other disciplines), which enables learners to integrate into an international socio-professional environment (Poteaux, 2015). Since incorrect stress and rhythm can cause misunderstanding in communication, what kind of pedagogical systems would fit both teachers and learners needs? Dodane's studies (2003) shows that "an ear taught to listen to music seems to have more ease to perceive certain segmental and suprasegmental peculiarities of a foreign language". According to Frost (2013), "there are two major challenges in teaching pronunciation: helping learners improve their pronunciation to avoid feeling ashamed when speaking, and to help 'non-native' speakers be more easily understood". Acting out a dialogue for improving pronunciation and confidence while speaking has been proved by several studies (Song, 2000; Rieg and Paquette, 2009). It leads us to question **how a multimodal approach can help improve English pronunciation among non-specialist learners?**

This proposal is based on action research carried out at the Sorbonne Nouvelle University since September 2015 within the framework of the Masters course "S'appropriier la prononciation de l'anglais", proposed to students in the LANSAD sector. Twenty-five learners took part in the semester course, during which several teaching techniques involving multimodal and multisensory dimensions were tried out: **a theatrical approach** (Lieberman, 1992), **a musical approach** (Graham, 2006; Pillot-Loiseau, 2013) and **a technology-mediated approach** (Guichon, 2012).

We will report on the pedagogical scenario and on students' perceptions of the use of the different teaching techniques involving multimodal dimensions through three surveys (before, during and after the course – seventy-five answers) and semi-structured interviews conducted with seven learners. The first results show that a multimodal approach allows learners to be more aware of the socio-affective and socio-cognitive aspects of pronunciation, while developing their confidence during oral activities.

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Analysing the emergence of vowel categorisation in a longitudinal learner corpus: the kernel density estimate method

Nicolas Ballier & Adrien Méli

This talk will exemplify detailed analyses of fined-grained annotations of a longitudinal corpus of French learners of English. We investigate whether patterns reflecting interlanguage stages exist in the vocalic realisations of thirteen French undergraduate students at the University of Paris Diderot over three years. Specifically, does the data confirm Escudero & Boersma's Second Language Perception Model, which predicts poor discrimination of the contrast between /i:/ and /ɪ/ because of its closeness to French /i/?

45,261 datapoints were extracted from the spontaneous part of the corpus (3 male, 10 female), corresponding to 7 hours of recordings aligned with SPPAS (Bigi 2012). We used R (R Core Team, 2013) to analyse our data.

Section 1 will detail alignment and extraction procedures, as well as the distribution of vowels across the four sessions recorded over three years.

Section 2 will discuss the possibility of analysing vowel categories with the analysis of kernel density estimates of F1 and F2 produced by learners.

The talk will compare the various results obtained with this longitudinal corpus from session 1 to session 4 using the kernel density estimate method.

Section 3 will discuss the frequency effects (Bybee 2007, 2010) potentially at stake in the stability of the vocalic realisation of the words containing the vowel /ɪ/.

Section 4 discusses the merits of this non-parametric approach and some of the consequences of the algorithms implemented for the computation of the kernel density methods, especially the choice of the bandwidth and of the smoothing kernel used ("gaussian", "epanechnikov", "biweight", "cosine" or "optcosine") in the light of recent works (Gramacki & Gramacki 2015) and R packages (Wand and Ripley 2015). We also discuss the parameters to be taken into account in the analysis of the lexical realisations, such as grammatical category, word frequency, per-token lexical distribution, (native English) phonological neighbourhood (De Cara & Goswami 2002).

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The longer, the better? The effect of consonant prolongation on the perceived persuasiveness of English speech

Elina Banzina

Persuasiveness and power in speech can be expressed in various ways. In American English, one such strategy is to use the so-called “force accent”, or prolonging the duration of consonantal segments in stressed syllable onsets (Kohler, 2006). Previous experimental research shows that when the situation calls for greater emphasis, speakers indeed extend the duration of their consonants way beyond their neutral speech values—and beyond the duration of their vowels as well (Banzina, 2016). But do these phonetic adjustments have the intended effect on the listener?

Perceptual studies have examined the role of such prosodic variables as speech rate, pitch, and intensity on the perceived persuasiveness of the talker. Research shows that normal or fast speech rates are viewed as more persuasive than slow speech rates (Miller, Maruyama, Beaver, & Valone, 1976), and that higher, more varied intensity and large pitch variability are associated with powerful, charismatic speech (Biadys, Rosenberg, Carlson, Hirschberg, & Strangert, 2008), while studies of mean pitch for perceived persuasiveness have brought mixed results (Apple, Streeter, & Krauss, 1979; Rosenberg & Hirschberg, 2009). However, to date there have been no perceptual studies on consonant lengthening. Acoustic studies show that speakers of English, in order to intensify the meaning of certain elements in their speech, apply increased phonatory and articulatory force to stressed syllable onsets, making the consonants significantly longer; interestingly, non-native speakers of English do not demonstrate such uses of consonant length (Banzina, 2016). This raises the question of the perceptual effect of such “intensified” messages on, first, American listeners, and, second, on speakers of other languages that employ other persuasion strategies.

The current experimental study set out to explore the perceptual realm of the force accent and compared the perceptions of native and non-native listeners. American English speakers and Latvian learners of English were presented with pairs of audio-recorded short, meaningful sentences in a forced-choice task. The stimuli in each pair were (i) a naturally-produced sentence and (ii) the same sentence with consonant length modified, where periodic and aperiodic portions were added to/removed from continuants, or closure voice onset time increased/reduced in stops. The listeners had to indicate whether one stimulus in each pair was more persuasive than the other, or the stimuli did not differ in persuasiveness.

Preliminary data show that both native and non-native listeners tend to view the stimuli with increased consonant length as more persuasive. This finding suggests that consonant lengthening does increase speakers’ persuasiveness in American English and that certain persuasiveness strategies could be recognized as persuasive even if not actively used in one’s native language.

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Accommodation of L2 speech in a repetition task

Léa Burin & Nicolas Ballier

This paper investigates phonetic accommodation between non-native and native speakers in a repetition task. The data is a fragment from the ANGLISH corpus (Tortel 2008). 40 French speakers (10 male intermediate and 10 male advanced learners, 10 female intermediate and 10 advanced learners) were asked to repeat a set of 20 sentences produced by British native speakers, resulting in 815 recordings lasting on average 4 seconds. Subjects could read the text corresponding to the sound file that was played. Stimuli are short sentences from the EUROM Corpus (Chan et al. 1995) which increases the comparability of the data with existing speech corpora for natives.

Previous findings for accommodation in spontaneous speech indicate that female informants tend to converge more than male informants (Babel 2009) and advanced learners to converge more than intermediate learners for 'greater L2 usage and proficiency are associated [...] with increased L2 production experience' (Best & Tyler 2007). We expect female speakers to converge more whatever their level but level to play a role in the type of accommodation observed. Convergence in vowel duration in order to sound more native-like (Zajac 2013) and accommodation for low vowels especially within the F1 dimension (Babel 2009) are more likely to be observed. F1-F2 Euclidean distance will be compared for levels and gender.

We will analyse convergence with the realisations of read speech recorded before this repetition task that we have used as a baseline. The idea is to determine whether phonetic accommodation occurs straight after auditory exposure to the model talker. Statistical and acoustic analyses will be based on tools such as Praat (Boersma & Weenink 2015), Rstudio (RStudio Team 2015) or WinPitchPro (Martin 2005).

In addition, low frequency words tend to be more subject to imitation than high frequency words (Goldinger 1998). We will look at the CELEX database and extract the least frequent words of the corpus to determine whether this assumption is proved to be validated in the case of imitation of L2 speech.

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Pronunciation and listening, goals and models: the case for separation

Richard Cauldwell

Close links between listening and pronunciation can be found in theories of perception (Liberman & Mattingly, 1985), in teacher-training axioms (e.g. ‘if you can say it you can hear it’), and in textbook materials (‘listen and repeat’). They are also linked in that they are both susceptible to avoidance: teachers avoid teaching pronunciation (Breitkreutz, Derwing & Rossiter, 2001; Macdonald, 2002) and when teaching listening they avoid direct encounters with the sound substance of English (Field, 2008).

Although they are closely linked, I shall argue that pronunciation and listening are must be separated in terms of goals, language models and classroom activities.

Justification for separate goals begins with Celce-Murcia et al’s (2010) statement that for listening and pronunciation ‘... the goals for mastery are different’ and that ‘our goal as teachers of listening is to ‘help our learners understand fast, messy, *authentic speech* ... [which] ... *much more varied and unpredictable* than what they need to produce in order to be intelligible’ (p. 370, emphasis added).

The language model we work with in ELT is inappropriate for teaching listening. The language model we use has evolved to suit the goals of pronunciation. It is tidy, stable and predictable. We can call this model Careful Speech Model (CSM). The CSM is often characterized by an overreliance on the conventions of the written language, and an almost exclusive focus on a pronunciation-centric view of speech which values clarity over reality. An unfortunate effect of this overreliance on phonological clarity is that the listening needs of L2 learners have been poorly met (Cauldwell, 2013; Field, 2008). It has resulted in a situation in which learners are not provided with opportunities to learn how to deal with the speeds, messiness, and reductions of normal everyday speech.

ELT needs a Spontaneous Speech Model (SSM) to serve as a basis for L2 listening instruction which can incorporate the wildness, messiness, and unpredictability of spontaneous speech, and embrace the realities of speed, transience and messiness of the sound substance of everyday normal speech. Clues to the nature of the SSM model can be found in standard instructional materials, but many of these clues (‘For goodness sake do not speak like this’) are couched in terms of warnings and rarity.

In my talk I will outline the components of the Spontaneous Speech Model, and argue that we need to make space for this model in teacher training and in classroom materials and activities.

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Exploring the roles of metalinguistic knowledge and type of task in L2 vowel perception training

Juli Cebrian, Angelica Carlet & Núria Gavaldà

The limited amount of exposure to native input that characterizes learning a second or foreign language (L2) in an instructional setting is problematic for the development of learners' ability to perceive and produce target language sounds. In this context, specialized phonetic training emerges as a potential alternative. In particular, high variability phonetic training (HVPT), that is, perceptual training involving multiple talkers and stimuli, has been found to enhance L2 learners' ability to perceive and produce target language sounds (e.g., Logan, Lively and Pisoni, 1991, among others). The extent to which different perceptual tasks may be efficient for learners with different levels of familiarity with the target language is yet to be explored. This paper thus examines the efficacy and suitability of two types of perceptual tasks, identification and discrimination tasks, for training native Catalan/Spanish speakers with varying levels of experience to perceive a set of English vowels.

Participants were first and second-year undergraduate students in an English Studies degree. The students differed in their familiarity with the target language: second-year students, but not first-year students, were enrolled in an English phonetics course at the time of the study and thus were more likely to have metalinguistic knowledge about the English vowel system. In a first study three groups of about 20 second-year students each underwent a five-week training. One group was trained by means of vowel identification tasks, another group by means of vowel discrimination tasks, and the third group was trained on something else and acted as a control group. All participants were tested on vowel identification before and after the training regime (pretest and posttest). Training stimuli consisted of non-sense words produced by a variety of speakers; testing involved non-sense as well as real words. In a subsequent study with a similar design, 45 first-year students (with no knowledge of English phonetics) underwent a similar training regime and were tested on their ability to discriminate and identify English vowels. In general, all participants performed similarly at pretest, with the exception of the English phonetics students, who obtained higher vowel identification scores with real word stimuli. Perceptual improvement from pre- to posttest was observed with all trained participants, regardless of amount of experience with English or metalinguistic knowledge, in line with previous studies showing beneficial effects of training for learners with varying levels of L2 experience (Iverson, Pinet and Evans, 2011). Still, the learners with knowledge of English phonetics showed more improvement than the first-year students in the identification of vowels in non-sense words. Further, both training methods were effective, although participants trained with identification tasks showed greater improvement, regardless of task familiarity. Finally, students reported that they found training useful overall, although concerns about the length of the training and the repetitiveness of the tasks were raised. All in all, the results provide further evidence that perceptual training can be an effective tool in pronunciation instruction, possibly enhanced by the learners' metalinguistic knowledge.

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“The mEesses waiting for his message”: an acoustic study of the DRESS/TRAP merger among Chinese learners of English

Shihong Dai & Maelle Amand

While the DRESS/TRAP merger is well known in Singapore English (Deterding 2003), little acoustic research has been carried out on the production of the DRESS and TRAP vowels amongst Chinese accented learners of English. Similarly to German (Maurer 2014) the TRAP vowel is absent from the phonetic system of Mandarin Chinese. Along with the KIT/FLEECE merger, Collins & Mees consider confusion between DRESS and TRAP as “errors leading to potential breakdown of intelligibility” (2013, p. 215). Serbac (2015) reports that the DRESS/TRAP merger by Rumanian speakers of English may hamper intelligibility in such contexts: “his dad” can be embarrassingly confused with “he’s dead”, “band” with “bend” (etc.). More generally, several studies in language attitudes like Bauman’s *Social Evaluation of Asian Accented Speech* (2013) indicate that Asian Accented speakers are significantly more negatively rated by native speakers of American English regarding attractiveness, status and dynamism. The present study investigates the production of DRESS and TRAP in recordings of 10 learners of English from Nanjing (5 males and 5 females) that follow the protocol of *Phonologie de l’anglais contemporain* (Durand & Pukli 2004, Przewozny & Viollain 2016) using two statistical approaches. An acoustic analysis of the two lexical sets was carried out using the wordlists (44 tokens) and the read text (144 tokens per speaker). Euclidean distances were computed to measure the distances between the DRESS and TRAP midpoints and kernel density estimations were used to check for bimodal distributions, namely, different pronunciation strategies within a set. Results show that in the read text, less proficient speakers make TRAP converge towards DRESS. Three speakers make a significant distinction between the two sets in all tasks: one male and one female who either study English as their major or have spent more than three years in an English speaking country ($p < 0.0001$ for F1 and F2). Bimodal distributions were frequent due to grapho-phonemic difficulties (“sag” read as /seɪg/) and L1 transfers (“and” was often re-syllabified and read as /an.də/). Such results highlight the complexity of studying mergers in second language speech help set priorities when teaching English pronunciation to lower-intermediate Chinese learners in order to enhance the latter’s intelligibility.

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Variation, fluctuation and change in the pronunciation dictionaries of the past three centuries

Jean-Louis Duchet & Jérémy Castanier

Daniel Jones's *English Pronouncing Dictionary* is 100 years old this year. It was heir to a tradition which dates back to the beginning of the 18th century. This provides an opportunity for us to take a bird's eyeview of the pronouncing dictionary output which may be observed as a representation of pronunciation subjected to variation, fluctuation and uncertainty in the phonetic prescription or description. It is therefore not only the lexicographer's reliability which may be used as a resource but also the lexicographer's unreliability, inconsistency or change of mind which provide evidence of an emerging change or of a conflict between several trends at a given point in time.

For example, readers of Thomas Dyche's *New General English Dictionary* (1759) may be puzzled by the final stress in verbs in *-ise/-ize*, which is almost systematic as far as the letter P (*patronize*), but then disappears altogether from philosophize to the end of the dictionary. Similarly, *pulsatory* is stressed confusingly throughout the editions of the EPD: '*pulsatory* in EPD1-3, then *pul'satory/pulsatory* in EPD4-12, then back to '*pulsatory* in EPD13-14, and finally '*pulsatory/pul'satory* since Susan Ramsaran's 1988 revision of the 14th edition. The representation of palatalization is also puzzling: John Walker's *Critical Pronouncing Dictionary* suggests [*edʒəkert*] as the most 'polite' pronunciation of *educate*, a prescription not found again until Roach's 15th edition of the EPD; Walker's 'correct' pronunciation for *Indian* was [*ˈɪndʒɪən*], *invidious* ended in [*-dɪəs*] or [*-dʒəs*] while *perfidious* ended in [*-dʒəs*]. One can also observe many sudden corrections in Thomas Sheridan's posthumous 4th edition of his *Complete Dictionary* (1797), conforming to Walker's recommendations. Thomas Wright's virtually unknown *Universal Pronouncing Dictionary*, in 5 volumes (1852-56), is also of interest. For instance, only adjectives in *-atory* (eg. abbreviatory) which begin with have antepenultimate stress, and nouns in *-ator* seem randomly transcribed with or without penultimate stress (*agi'tator*, *re'criminator*), and spelt */-ator/* or */-ater/*.

This paper offers the presentation and study of several such cases of fluctuation in pronouncing dictionaries and aims at showing that such apparent inconsistencies are rarely mere mistakes. Most often the lexicographers' hesitation betrays their difficulty in dealing with recent or conflicting trends in the language. For example, the removal of the new stress-pattern *pul'satory* in EPD13 can be analysed as an act of Gimson's self-censorship regarding a general trend which was then just being introduced. The study of the transcription of words like *invidious* and *perfidious* in Walker's dictionary – and others – sheds light on how synaeresis, palatalization, vowel reduction and the formation of the centring diphthong [ɪə] occurred, interacted and blurred the contemporary speaker's and describer's perception of their own pronunciation. Similarly, the study of the transcription of nouns in *-ator* in Wright's *Dictionary* shows that even though fluctuation seems random at the start, the comparison of the 5 volumes from the first to the last reveals an evolution in the lexicographer's standpoint, following his gradual awareness of language change.

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A phonetic analysis of some intrusive tokens of aspiration in French learners' L2 English

Christelle Exare

This paper addresses the issue of the intrusive tokens of aspiration that occasionally emerge in French learners' L2 English productions (e.g.: *I^hate pasta* instead of *I ate pasta*). They are commonly referred to as “epenthetic /h/” (Janda et Auger 1992; John et Cardoso 2008). Although rare, such occurrences are perceptually salient and often strongly stigmatised, particularly in proficient learners (Charlot 2015; Rotgé 2008). The goal of this paper is three-fold. **Firstly**, the onsets of English words are phonetically analysed in three types of data: i) a text read by 8 native English speakers and 10 French learners of English, ii) spontaneous speech elicited from 25 French learners and iii) a perception test taken by 30 French-speaking students. The learners who took part in this study were all assessed at levels A2 or B1 of the Common European *Framework* of Reference for Languages. The frequency of the 72 intrusive tokens of aspiration that have been collected at L2 English word onsets exhibits high inter- and intra-speaker variability. An important finding is that, in spontaneous speech, intrusive tokens of aspiration only surface i) in strict initial position or ii) after a vocalic sound, which may be an intrusive word-final schwa. Our results suggest that a pause, some glottalisation or some aspiration are three processes that contribute to increasing the time span between two vowels in a hiatus context. Glottalisation and aspiration both correspond to glottal tension (Vaissière 1986, 537), although glottalisation correlates with a closed glottis and aspiration correlates with an open glottis. **Secondly**, this paper puts forward three processes accounting for “intrusive h”. Illicit tokens of aspiration at word onsets in L2 English can be considered as occurrences of hypercorrection, which may result from : i) an incomplete assimilation of the English [ʔ] ~ [h] contrast, ii) an optional phonological repair of *#V which, frequently following a final epenthetic schwa, aims at restoring French rhythm through CV#CV syllabic structures, iii) a glottal constriction gesture that fails to reach its target (i.e. inchoative glottalisation) and an intrusive gesture of glottal opening. **Thirdly**, phonetic corrective feedback in L2 learning is proposed. It aims at raising a learner's awareness of i) glottal control for aspiration, glottalisation, and continuous modal voicing across word boundaries and ii) some syllabic specificities of French and English that make word boundaries potential stumbling blocks in French learners' L2 English.

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Evaluating the impact of explicit instruction on FL learners' pronunciation of fossilised segmental features. An empirical study using podcasts

Jonás Fouz-González

Podcasts remain a very promising tool for FL learning given the opportunities they offer for input provision and output production. Research has started to explore their potential to help learners improve their pronunciation of a foreign language (e.g. Ducate & Lomicka, 2009; Lord, 2008), but studies have often focused on the recording capabilities of this technology, without fully exploiting the possibilities they offer for raising the learners' awareness of the FL pronunciation through input provision. This paper presents the results of an empirical study exploring podcasts' potential to help learners modify their pronunciation of fossilised segmental features through focus on form and explicit instruction. The study follows a quantitative design, with pre- and post-tests aimed at measuring the learners' perception and production of the target features before and after training. Additionally, questionnaires were sent before and after the instruction in order to canvass the learners' reactions towards instruction and towards using podcasts for pronunciation training. The participants in this study were 47 Spanish EFL learners enrolled in a phonetics course in an English studies degree. They were divided into two groups that acted as control and experimental at the same time, as both groups received instruction through podcast simultaneously, but on different target aspects. Instruction focused on two aspects that tend to be fossilised in the interlanguage of advanced Spanish learners of English, namely the pronunciation of /b d g/ as stops in intervocalic position and the English /s - z/ contrast (Monroy, 2001). One group received training on the pronunciation of English /b d g/ and the other was trained on the English /s - z/ contrast. The approach adopted makes use of explicit instruction and metalinguistic awareness as a way of directing the learners' attention to the target features. Training took place over a period of three weeks. It consisted in a weekly three-stage process in which learners used podcasts for input, output and peer-evaluation. The results show that instruction had a positive impact on the learners' perception and production of the target features on which each group was trained. However, the improvements made did not reach statistical significance for every target sound or every task. The learners' responses to the questionnaires show that they perceived the approach as useful and that they felt the aspects covered were necessary and applicable to their daily use of English. The data provides interesting findings from the point of view of SLA and FL phonological acquisition. This type of instruction can foster improvement in the learners' perception and production of aspects that tend to be fossilised in the interlanguage of advanced learners of English, even after only three hours of instruction.

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A teacher training session: Putting prosody first – working on body, voice and speech for learners of English

Dan Frost

The biggest problem I've noticed for most of my learners in the twenty years I've been teaching in France is understanding spontaneous English speech. This is why I have spent so much energy teaching and researching pronunciation and training teachers in what to focus on and how to go about it. This is not because I want students to sound like native speakers, but to help them understand spontaneous spoken English better, because comprehension is an active process.

Although pronunciation in language teaching has been given more consideration recently (this conference, the creation of *Journal of Second Language Pronunciation* in 2015, etc.), it is often neglected, especially in teacher training (Henderson et al. 2016). Pronunciation is given little prominence by the CEFRL (although the new version looks promising...), and many teachers prioritise fluency rather than accuracy. Prosody (stress, rhythm and intonation) is the first thing we learn and the last thing we lose in our mother tongue. When it comes to intelligibility and comprehension, research shows that prosody is essential (Hahn, 2000; Munro & Derwing, 2011; Piske, 2012) and my research on the perception of stress by French and English speakers shows some important differences (Frost 2011). I therefore believe that prosody should also be at the heart of L2 learning and teaching.

To do this effectively, I believe that teachers and learners should work on the body, the voice and speech in context. To do this, we need a set of activities and tools for teaching and a tool to help measure prosodic features which can help students and teachers learn and assess the essential features to ensure comprehensible speech and effective comprehension.

In this training session, I will firstly outline the problems for French learners of English then share a set of descriptors based on prosody which have been designed and calibrated for French speakers. After some practice using the descriptors to assess students' speaking, I will share a selection of teaching activities to work on these problems quickly and effectively.

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Accented speech and English-medium instruction: what can teachers and students do?

Alice Henderson

More and more European students are experiencing foreign-accented speech in an academic context. Part of this is due to the Bologna process in 1999, which has led universities across Europe to promote the internationalization of their student body, often by increasing their provision of English-medium instruction (EMI). Formal, lecture-based instruction is subject to the didactic contract, whereby the instructor is not only supposed to be competent, but students/listeners are also supposed to perceive them as competent.

This begs the question of how European students perceive teachers' field expertise if their speech has non-native English features. The lecturer's competence may be questioned if students do not favourably perceive the speaker's foreign-accented speech. Just as importantly, the main goal of a lecture (to share information) cannot be met if students experience cognitive processing difficulties, become frustrated and stop listening.

Therefore, the spread of EMI raises the pedagogical and didactic issue of how to train not just lecturers but also students. With lecturers, should we focus on accent modification or accent addition? With students, what kind of language work should they do as a useful complement to lectures, in addition to intercultural awareness raising? Is it possible to improve students' cognitive processing ease as well as lecturers' intelligibility? These questions need answering, regardless of where an EMI class is situated on the continuum between content-focussed or language-focussed instruction. This is precisely where English teachers interested in pronunciation can play a crucial role.

I will argue that a shift is needed toward a more holistic, interactional paradigm, taking into account the capabilities and responsibilities of both lecturers and students. EMI programmes should be paired with training where lecturers improve their intelligibility and students improve their cognitive processing of foreign-accented speech. Hopefully, both groups will also come away from such training with a positive attitude to variety - surely no small feat in the current context.

What makes foreigner talk sound special?

Céline Horgues & Sylwia Scheuer

The paper offers further findings from the analysis of the patterns of identification of foreigner talk (FT) evident in the English portion of the SITAF corpus (Horgues & Scheuer 2015), consisting of 25 hours of video-recorded, face-to-face interactions held by French and English tandem participants. L1 control data was also collected. The specific interactional set-up of NS-NNS tandem is expected to encourage the NS participants to modify their speech when addressing their NNS partner.

Previous studies on phonetic modifications in FT unanimously reported hyperarticulation (Sankowska et al. 2011) and slower speech rate (Hazan et al. 2015, Kühnert & Kocjančič 2015).

Our main research questions are: Do our English NSs adjust their speech when addressing their tandem – as opposed to fellow NS – partners? How perceptually salient are such adaptations?

We have previously carried out two perceptual tests (2016a, b): 11 native English listeners were presented with audio clips extracted from the tandem and control interactions involving the same NSs. The listeners were asked whether a given sample (declarative or interrogative) was addressed to a fellow NS or a NNS interlocutor. The rate of correct identification of speech type (FT vs fellow-NS talk) was significantly above chance level (60% for the declaratives and 62% for the interrogatives).

In a preliminary study performed on the interrogative stimuli, we looked at potential candidates for acoustic adjustments on the prosodic level and found that articulation rate (AR) was the only parameter which correlated with the listeners judgments (2016b). The present paper aims to carry out a more systematic study of AR patterns in both sets of audio samples. Each stimulus will be aligned semi-automatically (MAUS) and edited in Praat. The AR will be calculated and correlated with the perceptual results for each token.

The results will confirm whether a relatively fast articulation rate promotes the perception of fellow NS talk and a relatively slow AR promotes the perception of FT.

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Teaching word and sentence stress to Spanish and Catalan university students

Nadia Kebboua (Ph.d supervisor Joaquín Romero Gallego)

The purpose of this study is to demonstrate how students at tertiary level can improve their pronunciation learning skills by recording themselves using an integrated recording tool in an online pronunciation course. The study explores students' progress in English pronunciation as far as stress is concerned, this being one of the most difficult areas of English for Spanish and Catalan speakers, by creating online materials to develop their pronunciation skills. Interaction and cooperation between the learners themselves and the teacher is expected to add to the effectiveness of the methodology in that learners can benefit not only from the teacher's evaluation but also from the other learners' assessment. The study was carried out with two groups of first year university students. The control group received instruction on English stress in a conventional manner, while the experimental group made use of an online tool for learning pronunciation. The activities were divided into four sections: overview, background, perception and production. The activities used for both groups were exactly the same, the only difference was that, while the control group listened to a native speaker and repeated the words afterwards, the experimental group actually recorded themselves using an integrated recording tool in the website, listened to the native speaker and then reflected on the differences between their production and the native speaker production. Thus, it was hoped that listening to themselves and comparing their production to a native speaker production would result in higher awareness about their mistakes and an improvement in their pronunciation. In order to analyse and evaluate their progress, both groups took a level test, to test their initial level of English, and a pre-test, in which they recorded themselves reading some words, phrases, sentences, a short text and then described a picture. After finishing the course, they answered a qualitative questionnaire, and did a post test, in which they read the same activities again. Their recordings were evaluated using acoustic analysis with the Praat speech analysis software (Boersma & Weenink, 2017). Each syllable in the words and phrases was identified in the acoustic signal and a reading of the intensity peak was obtained. These values were then processed in order to obtain the difference in amplitude between the stressed and the unstressed syllables. Preliminary results show that, while both the control group and the experimental group showed improvement in their pronunciation of stress, the improvement was more obvious in the experimental group, even though there was a lot of variability depending on the specific word or phrase. This seems to provide evidence of the usefulness of information technologies in the learning of English pronunciation in the classroom.

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Enhancing fluency in the ESL classroom - variations on the “fluency circle”

Alan S. Kennedy & Tristan Thorne

One goal for ESL/EFL instructors is helping students improve their fluency. A research-grounded method often mentioned in pronunciation textbooks for teachers is known as the “fluency circle” ((Maurice, 1983; Nation, 1989; DeJong & Perfetti, 2011, and others).

In this activity, students are asked to repeat the same information to different listeners, with the idea that in subsequent repetitions, their fluency improves. Ideally, the instructor can also provide pronunciation corrective feedback to speakers during this activity, so that students can improve fluency and intelligibility simultaneously. In this presentation, the presenters will provide an overview of research focused on helping students improve their fluency. Footage will be shown which showcases students engaged in variations of the fluency circle, as well as the efficacy of integrating pronunciation corrective feedback. Results, observations and conclusions of the instructors will then be discussed.

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A short vowel that is long?

Olle Kjellin

In this keynote I want to reveal a small-ish but crucial detail that can make a huge difference in the “foreign accentedness” of the speech of learners of English, a detail that they absolutely should be made aware of.

It is a detail that strides the realms of both segmental pronunciation (vowels and consonants) and suprasegmental phenomena (stress, rhythm and intonation), and therefore is of utmost importance - though hitherto rather overlooked or even unknown by many.

At the same time I want to show how anyone can learn to make and read simple spectrograms to support and enhance (or revise) their auditory impressions without having to become phoneticians and without the need for phonetic lingo. Thus they will be able to reveal what has to be done to make a difference, provided, of course, that the learner does strive for a listener-friendly pronunciation. And that the teacher wants to give the learner a chance -- and who doesn't?

(In the workshop later in this conference, I will show how best to give our learners that chance to attain identical or nearly identical pronunciation to that of their teacher, even within minutes of practice.)

Workshop: Teaching and learning pronunciation with quality repetition

Olle Kjellin

The saying “Repetition is the Mother of All Learning” has neurophysiological correlates and - unfortunately - is the only path to learning anything. Sometimes just a few repetitions will suffice, sometimes many are needed. It depends on the learner's previous skills and knowledge. But it does not depend on what is being learned, nor at what age it is done. Whether it is about knitting, playing musical instruments, soldering microchips, or learning your first language or your tenth language, the neural processes are the same. Whether you are a small child, an older child, a young adult, or an elderly person, the neural processes are still the same. They are called arborization and synaptogenesis, they occur remarkably quickly, and they lead to the formation of new, vast neural networks interfoliated with all old neural networks with crucial cross-connections as needed. Both the right and the left hemisphere is involved all the time, and the result is the plasticity of the brain, by which we constantly learn more and more, and become better and better on whatever we practice. This goes on throughout all our lives, and is particularly important in the rehabilitation after a brain injury, when completely new areas of the brain (often on the contralateral, uninjured side) have to be recruited to perform what the injured side has lost. The more modalities that are involved simultaneously, the better the ultimate achievement.

In this workshop I want to show how this knowledge can be implemented in the language class to quickly give the learners a very accurate pronunciation as their first steps into a new language, leading to a firm foundation for the further development of grammar and vocabulary. “Quality Repetition” is like first-language acquisition adapted to the non-toddler's capabilities, limitations and situation. With this method, prosody is the easiest part to learn.

Come and learn a Swedish sentence and immediately feel the results for yourselves in this workshop!

Exploring the use of ultrasound visual feedback in the classroom: a pilot study on the acquisition of selected English vowel contrasts by French learners

B. Kühnert, T. Kocjančič Antolík & C. Pillot-Loiseau

Ultrasound imaging can provide visualization of the major part of the tongue, a difficult-to-see articulator involved in the production of most speech sounds. Within the past decade, there has been a growing body of evidence to support the application of ultrasound in the field of L2 research and pedagogy (Gick et al., 2008). Typically, the existing literature examines the effect of ultrasound training on improving the pronunciation of a difficult sound production by using a series of complex training sessions either individually or in small groups (Tsui, 2012).

In the present study, we aim to explore whether it is feasible to use ultrasound visual feedback also in a classroom setting and to test its effectiveness in facilitating speech sound remediation when learners are only exposed to a series of short-time training interventions. The experiment was carried out over one semester at the English department of the University of Paris 3, using a Seemore PI USB-powered ultrasound system. The participants were seven French first year undergraduate students in English with a CEFR level of either B1 or B2.

The relevant English sound productions were the contrasts between the two high front vowels /i:/ and /i/, and the front open vowel /æ/ and the central open vowel /ʌ/. Both oppositions are known to be problematic for French learners (Flege, 1995) as the French vowel inventory has only one unrounded high front vowel /i/ and one open front/central vowel /a/. All participants were recorded at beginning (pre-test) and two weeks after the end of the semester (post-test) in a reading task which included 10 repetitions of the target words *beat*, *bit*, *bat* and *butt* in carrier sentences as well as one recording of the speech accent archive text *Please call Stella*. Each speaker also recorded 10 repetitions of French control sentences with comparative test items.

Each participant received a ten-minute ultrasound training session during regular language laboratory classes on a fortnightly basis, five sessions in total. The students worked in pairs and the training consisted of a discussion to incorporate explicit awareness of the tongue movements associated with the target sounds and repeated practice of the vowels, both in isolation and in CVC syllables. For two of the speakers, we carried out an additional pre- and post-recording in one of the session in order to evaluate the possible immediate impact of the ultrasound coaching on the pronunciation performance. All acoustic recordings were subsequently semi-automatically aligned using the WebMAUS system and the first three formants of the target sounds were extracted using PRAAT.

We are going to present the results of the pre- and post-recordings for all speakers, focusing on speaker- and vowel-specific differences, and will discuss the various advantages, problems and pedagogical implications likely to be encountered when using visual articulatory ultrasound feedback in the classroom.

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Features for evaluating Korean learners' English rhythm proficiency

Ho-Young Lee & Jieun Song

It is well known that the English rhythm of L2 and foreign learners is influenced by their L1 rhythm (Bond and Fokes 1985; Mochizuki-Sudo and Kiritani 1991; Low et al., 2000; Deterding, 2001; Nguyen 2003; Carter 2004, 2005a, 2005b; Gut, 2005; Setter, 2006; White & Mattys 2007; Mok and Dellwo 2008). It is, however, little known that the rhythm of L2 or a foreign language may vary depending on the learners' proficiency level. High proficiency Korean EFL learners tend to speak English with a native-like stress-timed rhythm whereas low proficiency learners with a kind of syllable-timed or even word-timed rhythm because of the influence of Korean rhythm and/or low proficiency (cf. Lee et al. 2017). To verify this observation, we measured the English rhythm of 75 Korean learners with the rhythm metrics proposed in previous studies including Pairwise Variability Indices (Rasmus et al. 1999; Low, Grabe, and Nolan 2000; Grabe & Low 2002; Dellwo et al. 2003; White & Mattys 2007). We also devised new features – accentuation rate (number of accented words divided by number of total words) and accentuation error rate (number of accentuation errors divided by number of total words) – and tested whether they correlated with the proficiency levels of the 75 learners.

For the two experiments, we used the KLEAC (Korean Learners' English Accentuation Corpus) database consisting of six hours of speech with 5500 English sentences produced by 75 native Korean learners aged 13–14 years (Lee et al. 2017). In this corpus, sentence stress labels were manually annotated by seven Korean phonetic experts (cf. Lee et al. 2017 for the information about the inter-rater agreement) and the proficiency level of each learner was also rated by 5 native English speakers. We arbitrarily chose 7 utterances from each learner's utterances and calculated the accentuation and accentuation error rates of each learner. The correlation of the accentuation and accentuation error rates of individual learners and their proficiency levels was calculated.

The result of the first experiment shows that there is no significant rhythm metric which correlates with the proficiency level, confirming Arvaniti (2012)'s claim that the rhythm metrics are not robust enough to reliably quantify rhythmic differences. The result of the second experiment shows that there is a strong correlation not only between the accentuation rate and the proficiency level ($r=-.598$, $p=.000$), but also between the accentuation error rate and the proficiency level ($r=-.692$, $p=.000$), which follows that the accentuation and accentuation error rates can be used as features for assessing Korean learners' English rhythm proficiency.

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'He wants a blue CAR but she wants a red CAR': effects of tonic stress on comprehensibility for Cantonese speakers of English

Ka Ngai Simon Leung

Introduction

To strike a balance between being intelligible and allowing speakers of English to convey identities via accents, Jenkins (2002) proposed the Lingua Franca Core (LFC) for pronunciation instruction. While the only suprasegmental item of the main core features in LFC is the production and placement of tonic stress, little research has empirically examined the extent to which tonic stress patterns affect intelligibility. In Smith and Nelson's (1985) tripartite definition of intelligibility, "comprehensibility", one of the constructs of intelligibility, refers to the listener's ability to understand the utterance meaning in the context. Subsequent research further categorized it as (1) the listener's ability to actually understand the utterance meaning (van der Walt, 2000), "actual comprehensibility"; and (2) the listener's perceptual ability to understand the utterance meaning (Derwing & Munro, 1997), "perceived comprehensibility".

The present study aims to investigate to what extent different tonic stress patterns affect perceived comprehensibility and actual comprehensibility of listeners who are Cantonese speakers of English.

Method

Three groups of 20 participants who are Cantonese speakers of English listened to different versions of the same lecture (Hahn, 1999): group A listened to the lecture with accentuation on new information; group B listened to that with accentuation on given; group C listened to that without accentuation, as illustrated below:

A: HE wants a BLUE car but SHE wants a RED car.

B: He wants a blue CAR but she wants a red CAR.

C: He wants a blue car but she wants a red car.

Perceived comprehensibility was assessed by perceived comprehensibility ratings and comments on the speech; actual comprehensibility was measured by the scores awarded in a listening comprehension test.

Results

A MANOVA found a significant overall effect for condition [$F(2,57) > 3.800, p < .005$] at a significance level 0.05, two-tailed, for the perceived comprehensibility ratings. Tests of between-subjects effects found the perceived rate of understanding significantly different [$F(2,57) = 9.564, p < .001$] among three groups. Pairwise comparisons showed that group A was rated significantly higher than group B ($p < .001$) and group C ($p = .003$).

A one-factor ANOVA found a significant difference in the comprehension test scores [$F(2,57) = 4.286, p = .018$]. Post-hoc pair-wise comparisons using Tukey's HSD among the groups revealed that group A had significantly higher scores than group B ($p = .014$) but no difference was observed between group A and group C ($p = .521$) and between group B and group C ($p = .177$).

Discussion

This study demonstrates that the participants listening to the speech with accentuation on new information had higher perceived rate of understanding than that with accentuation on given and that without accentuation but the first group comprehended the speech better than only the group listening to that with accentuation on given. Possibly influenced by the listeners' familiarity with and attitudes towards accents, these results reveal the importance of nuclear stress production and placement to the communication among Cantonese speakers of English.

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Pronunciation for a purpose: pronunciation for the general language classroom

John Levis & Greta Muller Levis

The importance of pronunciation in language teaching and learning is increasingly recognized. Pronunciation has a major impact on the intelligibility of spoken language (Derwing & Munro, 2015; Jenkins, 2000). But teaching pronunciation as a stand-alone skill is rare for a variety of reasons, including lack of time from teaching other seemingly more important skills (Breitkreutz, Derwing & Rossiter, 2001), confidence on the part of teachers (Henderson et al, 2012; Macdonald, 2002), and uncertainty about how to teach pronunciation effectively. In addition, one of the most important constraints on teaching pronunciation involves unclear connections to other parts of the language curriculum.

When pronunciation is integrated into the language curriculum in integrated skills coursebooks, it is usually included in the way that garnish is included in a dinner –for looks, but not necessarily for consumption (Levis & Sonsaat, 2016). As a result, this kind of pronunciation practice is often skipped over because it is not really integrated into the communicative goals of the lesson.

This presentation describes and exemplifies varied ways to connect pronunciation to other language skills such that the pronunciation feature has a purpose, that is, that pronunciation skills are essential to the communicative goals of speaking and listening. Specifically, we will demonstrate ways that English pronunciation features can be connected to high-value functional routines (self-introductions), phrase groupings (varied pronunciation of numbers and acronyms), repetitive grammatical structures (repeated questions), and formulaic expressions (intonational idioms).

These examples all suggest ways in which pronunciation can be truly integrated into language teaching, treating it not as a garnish, but as a part of the language teaching meal that is essential to more successful communication. We will provide sample activities.

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Metalinguistic knowledge of segmental phonology and the production of English vowels by Brazilian ELT undergraduate students

Ronaldo Lima Jr

This study is part of a longitudinal project which aims to investigate the route of acquisition of English vowels by Brazilian English Language Teaching (ELT) undergraduate students throughout their entire major. Students started being recorded in the fall of 2015 and will be recorded once a semester until they graduate, in 2019. This paper presents data from the three first recordings, highlighting the differences between the second and third ones, interval in which students took the English Segmental Phonology course.

The main goal of this paper is to present the creation of new phonetic categories for the front vowels (as in FLEECE, KIT, DRESS and TRAP) and the high back vowels (as in GOOSE and FOOT). Since Brazilian Portuguese has only three vowels in these positions, learners tend to assimilate the contrasts present in FLEECE-KIT, DRESS-TRAP and GOOSE-FOOT into the prototypical categories of Brazilian Portuguese, i.e. FLEECE, DRESS and GOOSE, respectively (Best, 1994; Flege, 1995). Therefore, this paper investigates the influence of receiving explicit metalinguistic instruction of English segmental phonology on the production of the target pairs of vowels by Brazilian undergraduate learners.

The data analysis is of acoustic nature, based on the measurement of the two first formants. The theoretical assumption is that phonological acquisition is a Dynamic System (Beckner et al., 2009; De Bot, Lowie, & Verspoor, 2007; Larsen-Freeman, 1997), changeable in time, which calls for a longitudinal study; and sensitive to perturbation, such as the lessons on Segmental Phonology. The main hypothesis is that, although the prototypical phonetic categories of the learners' native language act as attractor states, making it difficult for them to produce the pairs of vowels of the L2 with adequate contrast, the learners' experiences with the L2, including the Phonology lessons, may act as stronger attractor states, taking students' phonological interlanguage to a developmental stage with distinct phonetic categories for the vowels that do not contrast in their L1.

The data analyses have confirmed the hypothesis, once most learners had vocalic spaces with overlapping vowels before the Phonology course, but with separate vowels, at least for one of the pairs, after the lessons. The pair of vowels that presented more new contrasts in the third recording was FLEECE-KIT, followed by GOOSE-FOOT, with the DRESS-TRAP pair posing more difficulty for the learners. A few learners did not present new phonetic categories at all after the Phonology classes. According to Dynamic Systems Theory, the relation between cause and effect is non-linear, meaning that, for some learners, very little perturbation of the system may cause it to move greatly and instantly, whereas for other learners a lot of perturbation may not cause movement of the system, at least not instantly. This study has implications to both phonological acquisition theory and language teaching practices.

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L2 pronunciation feedback: beliefs vs. practices

Pekka Lintunen, Aleksi Mäkilähde & Pauliina Peltonen

Pronunciation feedback is essential when teaching L2 learners to pronounce a new language. In school contexts, group sizes and limited class time often make providing individual (corrective) pronunciation feedback challenging. Feedback facilitates learner awareness, self-evaluation and noticing skills. Earlier studies on the types and effectiveness of feedback have seldom focused on pronunciation (e.g., Gordon, Darcy & Ewert 2013; Lyster, Saito & Sato 2013; Pawlak 2013). Some earlier studies have combined beliefs and practices (e.g., Baker & Burri 2016; Thomson 2013).

We focused on a group of university learners of English (n=49) who had taken a practical pronunciation course and studied their beliefs and practices in providing pronunciation feedback. They responded to Likert-scale statements on feedback and provided peer feedback. The participants heard two learners (one relatively good and one relatively weak), and their task was to analyse one performance more closely and write down some comments as feedback. In our analysis, we were investigated what kind of feedback was evaluated the best. We also studied what kinds of pronunciation features were noticed in learner performance and which features our participants chose for feedback and how they were phrased (e.g., positively and negatively). We also analysed how the participants' proficiency level affected the quality of the feedback.

According to the analysis, the participants thought that honest feedback is most important even if negative and that the negative aspects in feedback are easier to remember than positive ones. Our participants preferred to give comments to the weaker learner, and most feedback comments were negative in nature. Most comments focused on individual segments, which may have been caused by the structure of the pronunciation course. The beliefs and practices of our participants were linked. However, our analysis also suggests that feedback giving is a skill that should be practised during teacher training. Courses that focus on the skill development of pre-service teachers need to include or be complemented by components focusing on pronunciation teaching skills, such as how to provide corrective feedback.

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Automatic native-learner comparison of sentence intonation

Philippe Martin & Nicolas Ballier

So far, teaching intonation of English as a second language has not been a very easy task, due to the lack of consensus among linguists about an appropriate grammar of intonation, leaving applied teachers in doubt pertaining to the method and data to be presented to learners. Although the autosegmental-metrical model of sentence intonation is dominant today, the use of the ToBI notation, transcribing melodic movements with High and Low targets, has been shown to be quite unintuitive and inefficient for the representation of sentence intonation to learners of English (XX, 2017).

On the technical side, numerous hardware and software multimedia devices were introduced in the past, displaying melodic curve models to the learners in order to compare to their own production. Unfortunately, the expected results were long to emerge, probably because these designs proposed to the user a set of examples without giving little or no information about the grammar that would give a proper account of English sentence intonation.

To address these two points, another approach is proposed, putting together a software design already used to compare automatically syllabic duration of native and learner speakers of English (Ballier et al, 2016), and an intonation model of English derived from the well-known rise-fall and fall-fall patterns observed in compound words (Martin, 1977, Plag, 2006). These patterns can be extended to larger units such as intermediate and Intonation Phrases, showing that pitch accents are used by their rising or falling characteristics to encode the prosodic structure of the sentence through a set of dependency relations between Accent Phrases.

Using the English learner corpus (Tortel and Hirst, 2009), and the phonetic aligner implemented in the WinPitch software (WinPitch, 2016), model and learner's melodic imitations are compared automatically syllable by syllable, and provide a text feedback to the learner pertaining to their realization, not globally or according to some statistical based comparison, but in linguistic terms directly linked to a grammar of intonation. Instead of using High and Low tonal targets used in ToBI, the display uses melodic rises and falls, according to the native speaker model provided for each sentence. The concept of dependency relations existing between accent phrases does provide a clear explanation on variations observed in examples such as *Oxford street* (rising-falling) and *Oxford road* (falling-falling), or in the *white cliffs of Dover* (rising-falling-falling) and *Dover's white cliffs* (rising-rising-falling).

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Informal pronunciation learning: incidental acquisition, strategic learning or both?

Marta Nowacka

This research project aims to investigate one aspect of students' pronunciation autonomy, which is the quality and quantity of out-of-class exposure to the target language. It seeks to adopt the learner's perspective by providing insights into when and how learners deal with mastering foreign language pronunciation on their own.

The purpose of this study is to make a contribution to the research on Polish learner autonomy in learning pronunciation (Pawlak, 2006; Szyszka, 2006), pronunciation learning strategies and beliefs (Nowacka, 2012; Pawlak et al. 2015; Szyszka, 2015), the choice of target pronunciation model and the rejection of L1-accented speech (Janicka et al., 2005) and also on informal pronunciation learning (Henderson, 2012).

This questionnaire, diary and recording based study, which is work in progress, focuses on informal pronunciation practice of English philology first year students in Poland. The group of approximately 100 participants was asked to reflect on their own ways of learning English, e.g. through entertainment, conversations, online informal learning such as social networking and gaming, etc. They reported on the frequency of these activities, their favourite and most beneficial technique for sounding English but also on their pronunciation learning strategies and self-evaluation.

After responding to a questionnaire, the participants were required to investigate their pronunciation self-learning by keeping a track of their weekly English out-of-class exposure for the period of one month.

In search of successful pronunciation we also intend to take a holistic evaluation into account on the basis of a sample of speech (a response to an open-ended question and/or three-minute prepared talk) and reading of Weinberger's (2015) diagnostic passage's Please call Stella.

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Ethnic motivations for the development of an accent by early simultaneous bilinguals

Rebecca Ritchie

When growing up, bilinguals can develop not only their bilingualism but also biculturalism (Hamers & Blanc, 1983, Grosjean, 2015). However, over the course of their lives, this biculturalism, like their bilingualism, can be either additive or subtractive, i.e. the individual acquires a balanced relationship with both his cultures, or he favours one over the other for various reasons (Baker, 2011, Kail, 2015). Bilinguals can develop a certain identity based on their nationality, ethnicity, cultures, languages, etc. (Fishman, 1977) and in some cases, this identity can manifest itself through their accent (Labov, 1976, Babel, 2016). These observations led to the question of how identity, and particularly ethnicity, can drive bilinguals to develop a particular accent in one of their languages.

This research project is based on a case study of three French-Scottish sisters, all early simultaneous bilinguals in French and English. The study is constructed around a perception test in which native English speakers evaluate audio material read by the three speakers. The listeners are asked to, assess the nativeness and nationality of the three speakers. Questionnaires are also used: one given to the listeners to determine their criteria for nationality/nativeness, and the other (a Language History Questionnaire) is given to the three speakers in order for them to relate their perception of their accent in English, its evolution and how it may vary.

This will give us the opportunity to bring to light the differences between the identity that an individual wants to portray, the identity they think they portray and what is actually perceived by others. The speakers' accents seem to vary from one subject to another. It would also appear that their accent can vary on the individual level. We expect these differences to be linked not only to their relationship with their languages and cultures, but also to other situational factors such as participants, context and function of the interaction.

This research will contribute to understanding how a bicultural identity can influence the development of an accent.

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Aspects of speech prosody in English language teaching

Jane Setter

Intonation is one of the earliest acquired aspects of human speech, and is now thought to be acquired pre-birth in a child's first language (L1). L1-specific patterns of speech rhythm emerge shortly before a child is school-age. The teaching of suprasegmentals, including vowel weakening, is perceived by many as difficult, if not impossible.

This presentation looks at aspects of English speech prosody such as stress, rhythm, weakening and intonation, how they could be taught to learners of English as a second or foreign language, and whether they should be. We will also consider patterns in different speaker varieties.

Where intonation is concerned, I draw on two studies of learners of English I have been involved in: teaching tonicity and tone to Vietnamese learners, and evaluating the ability to use form and function in Arabic and Chinese learners.

The social life of the sounds of English: comparing the intelligibility and acceptability profiles of Hong Kong English accent features

Andrew Sewell

The constructs of intelligibility and acceptability are well-known in studies of how spoken language is processed and perceived. Both are complex and context-dependent, but intelligibility - defined here as 'actual understanding' or the extent to which listeners' perceptions match speakers' intentions - can be seen as somewhat more objective. Acceptability relates to various forms of subjective evaluation by listeners. It can be performed by different listeners, be global or focused in scope, and range across linguistic, sociolinguistic and pedagogical domains. The two constructs are of central importance in assessing accents, varieties and speakers. For example, in selecting accent samples or models for pedagogical purposes, intelligibility without acceptability to local stakeholders may compromise the uptake of educational reforms. However, acceptability without both local and international intelligibility may compromise the well-rehearsed arguments for local models in language teaching.

This talk focuses on the relationship between the two constructs, as this has seldom been elucidated in research studies. I explore the relationship by comparing the findings from two of my earlier studies. The intelligibility data were collected by asking 91 Hong Kong student listeners to transcribe a range of Hong Kong English accent samples. The targeted aspect of intelligibility was therefore intra-community or 'local' (as opposed to international) intelligibility. The acceptability data come from questionnaires completed by 52 student listeners who evaluated some of the same accent samples. The targeted aspect of acceptability was pedagogical acceptability, and more specifically the acceptability of local English accents for use in local English classrooms.

Comparisons between intelligibility and acceptability data yield several interesting results. Segmental features, and especially consonantal features, appear to be important influences on both constructs. Although there is some overall correspondence between the two, so that features which reduced intelligibility also reduced acceptability, exceptions to the pattern are also visible. As part of an overall explanatory approach, I adopt the sociolinguistic concept of 'sound symbolism' (Eckert 2012). From this perspective, while hypoarticulated forms may not actually reduce intelligibility, if noticed they can trigger symbolic associations that link them with qualities such as a lack of carefulness and precision. The approach demonstrates the value of combining linguistic and sociolinguistic perspectives on accent features, and I conclude by outlining some of the general indications of the study for pronunciation teaching in the Hong Kong context.

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The pronunciation of unstressed initial <e> by French learners of English: pedagogical implications and perspectives for automatic assessment

Anne Tortel & Sophie Herment

It is acknowledged that learners often produce a transfer from L1 to L2 (see Gut 2009 amongst others). L1 vowels (among other oral criteria) will therefore tend to be pronounced instead of the appropriate L2 vowels. This is even more problematic in the case of unstressed reduced vowels for French learners of English. Even advanced learners show difficulty: if they often display a very good realisation of stressed syllables (especially vowels), they tend to fail pronouncing unstressed syllables properly, and more particularly reduced vowels. This is due to the fact that the two languages are rhythmically completely different.

The present study follows up on Tortel & Herment (2015), which focuses on the pronunciation of unstressed initial <e>, as in the word “delivery”, by native English speakers and shows that a process of weak vowel centralizing and raising in initial position takes place, with a neutralization of the opposition between /ə/, /i/ and /e/ in this context. Here we examine the pronunciation of the same vowels by French learners of English. The analyses are based on the AixOx corpus (Herment et al. 2012, 2014), which is a collection of read speech recorded by 10 native English speakers and 20 French learners of English divided into 2 groups (beginners and advanced).

We examined the realisations produced by the two groups of learners and compared them to the productions of the natives. The main objectives were (i) to see if vowel reduction is a parameter that can help distinguish the two groups of learners, (ii) the related pedagogical implications.

The results show that the vowels pronounced by the advanced learners’ group are strikingly close to those of natives: we find high central vowels for both. The main difference is that the vowels are less concentrated and the outliers are more numerous. As expected, for beginners the results indicate the non reduction of most vowels.

A closer look at the data reveals interesting pedagogical implications.

Our study underlines the importance of the vocalic reduction issue and should constitute a guideline for teaching English and especially English rhythm. Furthermore, vowel reduction appears to be a relevant factor for the evaluation of rhythm and should definitely be taken into account in an automatic assessment of learner speech (Tortel 2009).

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Duration of weak structural words under different voicing conditions

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Countless accents of English differ in many ways and one of the aims of current research is to assess the impact of individual variables on the objective intelligibility, subjective comprehensibility and perceived accentedness (Munro & Derwing, 2005). One of the areas of accent contrasts is that of prominences. Typically, in a train of speech units, there is a clear alternation of weaker and stronger elements. The arrangement of units with varying levels of prominence is not random. It is language specific and it constitutes the base of speech rhythm, which in turn seems to influence the ease of cerebral processing of speech (e.g., Buxton, 1983; Grossberg, 2003) with various non-trivial consequences for the communicative situation.

In the current study we focus on the so-called weak structural words (e.g., articles, conjunctions, prepositions, pronouns, auxiliary verbs). The structural or synsemantic lexical units form a closed class of words in a language and they are relatively frequent in both spoken and written texts (Cruttenden, 2014). Major L1 accents of English possess a smaller set of high-frequency monosyllabic structural words that regularly manifest in weak forms, i.e. with low prominence. Our objective is to contribute to the existing pool of knowledge about the behaviour of these words with detailed observation of their behaviour in Czech accented English.

The sound patterning in the Czech language is systematically constrained by assimilation of voicing which manifests even across word boundaries. The assimilation habits of Czech speakers of English render certain non-standard outcomes with respect to assimilatory processes. Our current concern encompasses durational properties of weak structural words in voiced and voiceless neighbourhood.

Recordings of BBC news bulletins (of about 500 words each) that were read by 8 native speakers of English (NS) and 8 learners of the language, whose mother tongue was Czech (non-native speakers – NNS), were analysed. The results reveal not only clear systematic differences between NS and NNS speakers, but also different behaviour of individual structural words. It seems that each word has its own phonology. Also, each of the measures used produced specific type of the resulting patterns. In future, the significance of these findings should be tested in perceptual experiments.

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Variable rhoticity in L2 English: the case of Polish advanced learners

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Complex as it is in L1, rhoticity in L2 English presents a real challenge to the researchers and teachers alike. On the one hand, pronunciation of post-vocalic /r/ functions as a major structural difference between accents of English, with the social value attached to its presence or absence (e.g. Labov 1972, Trudgill 1975). In L2, on the other hand, rhoticity can be viewed as a key feature of the model to be imitated if learners accept the nativeness principle in their L2 learning, or an element of easier communication / increased intelligibility in the case of learners focusing on intelligibility (see e.g. Jenkins 2000). Building on earlier studies into rhoticity in native and non-native speakers, the present study aims to explore the patterns of variable rhoticity in advanced learners of English, who are also experienced language users with a high level of language awareness (i.e. students majoring in English).

The current study builds on the observation that variable rhoticity is a frequent phenomenon in L2 English in Poland; in spite of the prevalence of the non-rhotic variety (SSBE) in education, students have been found to use variable rhoticity across styles of speech (Zajac 2016a, 2016b). Moreover, variable rhoticity has been attested among Polish immigrants to England (Waniek-Klimczak & Matysiak 2016), with the pattern not unlike the one found for native speakers of English (Wells 1982, Feagin 1990, Irwin & Nagy 2007, Asprey 2007). Consequently, phonetic conditioning of rhoticity in L2 seems an intriguing path for further inquiry.

Given the complex nature of rhoticity functioning as an accent / social marker on the one hand, and an intelligibility element on the other, this study explores the pattern of rhoticity in Polish advanced learners of English from two perspectives: firstly, students' accent awareness and attitudes towards rhoticity are checked through a questionnaire, and then their language production is investigated for a possible effect of phonetic context. The study hopes to show that a complex conditioning of /r/ retention in L2 speech calls for a more holistic approach than an accentedness vs. intelligibility principle would offer.

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