PSLLT/TSLL 2018

Welcome to Iowa State University!

We are happy to welcome you to the 10th Annual PSLLT Conference and 16th Annual TSLL Conference.

Welcome!

The Applied Linguistics & Technology (ALT) program at Iowa State University (ISU) is delighted to host the 10th annual Pronunciation in Second Language Learning and Teaching (PSLLT) Conference and the 16th annual Technology for Second Language Learning (TSLL) Conference.

This year at PSLLT/TSLL, we are happy to announce a great variety in the types of presentations – research methods workshops, colloquia, invited speakers' presentations, and teaching tips, along with the traditional 20-minute presentations and poster presentations. We thank all of you who have contributed to making this the biggest conference yet, as without your efforts and interest this would be impossible.

We hope you enjoy our beautiful campus, and all it has to offer! We pride ourselves on its vibrant nature, an abundance of recreational opportunities, and the rich arts and cultural scene. Additionally, the city of Ames is a great place to find new things to do with the most welcoming community.

We wish you a productive conference, and an enjoyable stay in Ames!

John Levis & Erin Todey

Organizing committee:

Ivana Lucic, Alif Silpachai, Sinem Sonsaat, Taylor Anne Barriuso, Idée Edalatishams, Ziwei Zhou, Taichi Yamashita, Yasin Karatay, Sondoss Elnegahy, Agata Guskaroska

Thursday, September 6th

(Pre-conference workshops & reception)

12:00-6:00 PM	**outside Campanile** Registration		
		Oak	**Pioneer**
1:00-2:15 PM		Workshop 1 *Investigating L2 Fluency*, Pekka Lintunen & Pauliina Peltonen	Workshop 2 *Multidimensional Scaling (MDS) for Analyzing Perception Data*, Ryan Lidster
2:15-2:30 PM	**Campanile** *Break*		
		Oak	**Pioneer**
2:30-3:45 PM		Workshop 3 *Investigating lexical stress assignment*, Mary O'Brien	Workshop 4 *Running experiments in a web browser using jsPsych*, Franziska Kruger & Danielle Daidone
3:45-4:00 PM	**Campanile** *Break*		
		Oak	**Pioneer**
4:00-5:15 PM		Workshop 5 *Research methods in investigating voice onset time (VOT) in second language pronunciation*, Tetsuo Harada	Workshop 6 *Using surveys in pronunciation research*, Jennifer Foote
5:30-7:30 PM	**Campanile** *Reception*		

Friday, September 7th

8:00 AM- 4:00 PM	**outside Campanile** Registration (8:00-8:45 AM BREAKFAST)				
8:45-9:00 AM	**Campanile** *Welcome*, John Levis				
9:00- 10:00 AM	**Campanile** Plenary *High variability training in the lab and in the language classroom*, Ann Bradlow				
10:00- 10:30 AM	**Campanile** *Break*				
	Campanile	**Cardinal**	**Gold**	**Oak**	**2256 MCC**
			Session 1 Presentations		
10:30-11:00 AM	*Vowel epenthesis in Korean English learners' pronunciation: at the crossroads of perception, mental lexicon, and cognitive abilities*, Hanyong Park, Isabelle Darcy	*Effects of perceptual training on vowel perception and production and implications for L2 pronunciation teaching*, Juli Cebrian, Angelica Carlet, Núria Gavaldà, Celia Gorba	*Pronunciation teaching: Whose domain is it anyways?*, Ron Thomson, Jennifer Foote	*Asymmetrical Cognitive Load Imposed by Processing Native and Nonnative Speech*, Di Liu, Marnie Reed	*Relevance of Speech Features in Building and Evaluating Automated Scoring Models*, Ziwei Zhou
11:00-11:30 AM	*Learner views on the efficiency of perceptual activities: Insights from a classroom-based study*, Anastazija Kirkova-Naskova	*The effects of task repetition on the use of epistemic stance markers: Corpus-based study*, Taichi Yamashita	*A Strategy-Based Pronunciation Model for Improving English Linking*, Veronica Sardegna	*English- and Japanese-dominant children's voice onset time (VOT) in a two-way immersion program*, Tetsuo Harada & Asako Hayashi Takakura	*"Seeing What People Hear You As": French Learners Experiencing Intelligibility Through Automatic Speech Recognition*, Aurore Mroz

11:30 AM-12:00 PM	*Learners' perceptions of a non-standard American English dialect*, Mari Sakai	*Teaching Segmentals vs. Suprasegmentals: Different Effects of Explicit Instruction on Comprehensibility*, Joshua Gordon, Isabelle Darcy	*Emergence of L2 perception: Designing and describing a high variability phonetic training study from a complex systems perspective*, Shannon Becker	*How does a speaker's face and accent affect speech processing?*, Noortje de Weers	*ASR Dictation Program Accuracy: Have Current Programs Improved?,* Shannon McCrocklin, Abdulsamad Humaidan, Idée Edalatishams
12:00-12:30 PM	*L2 French vowel production: the relationship with speech perception and phonological memory*, Solène Inceoglu	*Effects of Self-evaluation on ESL Learners' Oral Performance*, Okim Kang, Mark McAndrews	*The effect of L2 English orthographic representations on L1 Tera speakers' production and perception*, Rebecca Musa	Acquisition of prominence and tone units in English by native Japanese speakers of English: A quasi-longitudinal study, Shigehito Menjo	*Golden Speaker: Learner Experience with Computer-assisted Pronunciation Practice*, John Levis, Ricardo Gutierrez-Osuna, Evgeny Chukharev-Hudilainen, Sinem Sonsaat, Alif Silpachai, Ivana Lučić
12:30-2:30 PM	**Pioneer** Lunch (provided) & Poster Session [see list of Posters below]				
	Campanile	**Cardinal**	**Gold**	**Oak**	**2256 MCC**
			Session 2 Presentations		
2:30-3:00 PM	*The Effect of Individual Differences on L2 Instrumental and Listener-Perceived Pronunciation*, Alyssa Kermad, Okim Kang	*Who Follows the Rules? Differential Robustness of Phonological Principles*, John Scott	*Testing the malleability of teachers' judgments*, Mary O'Brien, Allison Bajt, Pavel Trofimovich, Kym Taylor Reid	*Exploring the relationship between perception and production of L2 English vowels*, Shinsook Lee, Mi-Hui Cho	*Politeness in student-professor interactions: A comparative study on the prosodic features of NS and NNS students*, Meichan Huang, Dongmei Cheng
3:00-3:30 PM	*Is perception enough? Individual differences in L2 perceptual learning and their relationship to L2 production*, Charles Nagle	*Effects of perceptual phonetic training on the perception of Korean codas by native Mandarin listeners*, Na-Young Ryu, Yoonjung Kang	*Bringing the Applied Alive in an online MA TESOL Pronunciation Course*, Betsy Parrish, Suzanne McCurdy	*Self-evaluations, perception, and production in second semester L2 French learners*, Camille Meritan	*Prosody and discourse function*, Rania Mohammed

3:30-4:00 PM	*Native listeners' evaluations on pleasantness, foreign accent, comprehensibility, and fluency toward accented talkers*, Jieun Lee, Dong Jin Kim, Hanyong Park	*Perceptual training in a classroom-setting: Phonemic category formation by Japanese EFL learners*, Ruri Ueda, Ken-ichi Hashimoto	*The Investigation of a Common Modern Spoken Arabic*, Romy Ghanem, Khaled Alharbi, Talal Alharbi	*The Perception and Production of English Initial sC(C) Clusters by Saudi ESL Learners*, Amjad Alhemaid	*Prosodic patterns in English Read by Japanese Phonetic Corpus: An Interim Report*, Takehiko Makino
4:00-4:30 PM	*A System for Analyzing and Evaluating Computer-Assisted Pronunciation Teaching Software, Websites, and Mobile Apps*, Lynn Henrichsen	*The Formation of Interactional Intelligibility due to Segmental Repair among ELF Dyads*, George O'Neal	*Setting priorities for Arabic language learners: A survey of pronunciation materials in Arabic textbooks*, Ghinwa Alameen	*The perception-production interface in the acquisition of palatalized consonants in L2 Russian*, Ala Simonchyk	*The effect of instruction on receptive prosodic abilities: A meta-analysis*, Mark McAndrews
4:30-4:45 PM	**Campanile** *Break*				
	Campanile	**Cardinal**	**Gold**		
			Session 3 Presentations: Invited Speakers		
4:45-5:20 PM	*Are phonological updates in the L2 mental lexicon perceptually driven?*, Isabelle Darcy & Jeffrey Holliday	*The Ripples of Rhythm: Implications for Instruction*, Wayne Dickerson	*Uses and Misues of Speech Rating Data*, Murray Munro		
5:25-6:00 PM	*Investigating the phonological content of learners' lexical representations for new L2 words*, Rachel Hayes-Harb, Shannon Barrios	*Utopian Goals Revisited*, Tracey Derwing	*Discourse Intonation: Where are we now?*, Lucy Pickering		
6:30-9:00 PM	Dinner St. John's by the Campus 2338 Lincoln Way (Please enter on south side)				

Saturday, September 8th

8:00 AM- 12:30 PM	**outside Campanile** Registration (8:00-9:00 BREAKFAST)	
	Campanile	**Cardinal**
9:00- 11:00 AM	Colloquium	
	Pronunciation Research in Languages Other than English, Charles Nagle, Organizer	*Towards a Protocol for a Multilingual Corpus for Pronunciation Researchers*, Amanda Huensch & Shelley Staples, Organizers
	The role of cross-language phonetic similarity in L2 consonant learning, Anabela dos Santos Rato	
	Pronunciation in the L2 French classroom: Student and teacher attitudes, Jessica Sturm	
	Perception of French learners' mistakes, Anne Violin-Wigent and Viviane Ruellot	
	Perception of Mandarin consonants: Cross-linguistic mapping and the effect of L2 experience, Xinchun Wang	
	Campanile	
11:00- 11:30 AM	*Break*	

	Campanile	Cardinal	Gold	Oak	3512
			Session 4 Presentations		
11:30-12:00 PM	*Template Model Account of the Intelligibility of Lexical Stress: Exemplification with Arabic-Accented English*, Ettien Koffi	*Effect of training on the perception and production of intonation: A case of Korean EFL undergraduate students*, Jin Soo Choi	*L2 Japanese Pronunciation Instruction: Its effects on improving learners' pronunciation, foreign accentedness, comprehensibility, and fluency*, Tomoko Okuno	*Design and evaluation of a computational system for learner-customized high-variability training on segmental perception in words and sentences*, Manman Qian, John Levis, Evgeny Chukharev-Hudilainen	*Transforming pronunciation through community outreach: Let me tell you their story*, Frédérique Grim
12:00-12:30 PM	---	*The Effect of Discrimination Training on Japanese Listeners' Perception of the English Coda Consonants as in 'rose' and 'roads'*, Izabelle Grenon, Chris Sheppard, John Archibald	*Development of utterance fluency and cognitive fluency and their interrelationship*, Jimin Kahng	*Informal language contact through technology and its effect on learners' use of discourse markers in oral communication*, Henriette Arndt, Christina Lyrigkou	*The role of lexical cues in the adult acquisition of L2 allophonic alternants*, Shannon Barrios, Joselyn Rodriguez
12:30-2:30 PM	*Lunch break* Grad Student Meet & Greet [Location TBA]				
	Campanile	**Cardinal**	**Gold**	**Oak**	
			Session 5 Presentations		
2:30-3:00 PM	*Towards a deeper, uh, understanding of, um, L2 fluency and its [750 ms silence] correlates*, Katie Comeaux, Ron Thomson	*The use of the ICF-model in the perceptive and productive assessment and instruction for second language learners*, Ilvi Blessenaar, Lizet van Ewijk	*Corrective feedback in pronunciation teaching: A Vietnamese perspective*, Loc Nguyen, Jonathan Newton	*Drama, Plays, and Choirs to Enhance English Production and Pronunciation*, Jenelle Cox, Judy James	

3:00-3:30 PM	*The Timing Patterns of Utterances by Native American Speakers, Cantonese Speakers, and Mandarin Speakers of English*, Bingru Chen, Jette G. Hansen Edwards	*Exploring technology in the teaching/learning of pronunciation to improve students' perception and production: teaching word and sentence stress to tertiary level students*, Nadia Kebboua & Joaquín Romero	*Oral corrective feedback timing: The case of an Iranian EFL context*, Hooman Saeli	*Effects of Japanese EFL Learners' Acoustic Short-Term Memory on English Word Reproduction Skills*, Akiko Kondo

	Pioneer
3:30-3:45 PM	*Break*
	Pioneer
3:45-4:35 PM	*Teaching Tips Round 1* [see list of Teaching Tips below]
4:40-5:30 PM	*Teaching Tips Round 2* [see list of Teaching Tips below]
	Pioneer
5:30-5:45 PM	*Closing,* John Levis

Teaching Tips Round 1

1. *Segmental accuracy: A recommended training sequence for moving learners from accurate perception to accurate (and automatic!) production in the stream of speech*, Monica Richards, Elena Cotos
2. *A new way of using the kazoo to teach intonation*, Colleen M. Meyers
3. *Personalizing peak vowel training in stressed syllables: A sneak peek at Blue Canoe for perception and production*, Lara Wallace & Sofía Fernandez
4. *Improving speaker comprehensibility: Using sitcoms and engaging activities to develop learners' perception and production of word stress in English*, Edna Lima, Zoe Zawadzki
5. *Developing a task-based pronunciation syllabus*, Mari Sakai
6. *Smother news or the say mold story? Coaxing the Emma cross the border*, Marsha J. Chan
7. *Improving Articulatory Gestures with Selfies*, Alison McGregor

Teaching Tips Round 2

1. *The Power of Prompts: Four Prompt Points*, Jenelle Cox
2. *Improving intelligibility: Using the three-minute thesis as a prosodic model*, Heather Boldt, Margareta Larsson
3. *Enhancing Thought Group Pedagogy Through Perception and Production*, Mark Tanner
4. *Using Tasks to Develop Comprehensibility of Spoken Second Language Spanish*, Avizia Long, Lorena Alarcón, Sergio Ruiz-Perez
5. *Practicing Pronunciation through Digital Storytelling*, Mary Ritter
6. *Listening Skills Instruction: Practical Tips for Processing Aural Input*, Marnie Reed

Poster Session Participants & Poster Titles

1	Agata Guskaroska	The potential of the ASR program for facilitating vowel pronunciation practice for Macedonian learners
2	Agata Guskaroska, Joshua Taylor	A Corpus-based analysis of gendered items in pop and country music from the 90s to now
3	Alif Silpachai, Evgeny Chukharev-Hudilainen, John M. Levis, Tatiana A. Klepikova, Gabi Mitchell	The Role of Speaker Identity in High Variability Phonetic Training
4	Ane Icardo Isasa	The Effect Of A Semester-Long Phonetics Course in The Production Of L2-Spanish Vowels
5	Anna Jarosz	Polish upper secondary school learners wish to improve accuracy: A longitudinal study report
6	Anne Violin-Wigent	Longitudinal study of French liaisons and the long-term effects of explicit instruction
7	Annie Bergeron	Guatemalan seasonal workers' attitudes towards L2 French: A longitudinal study
8	Atasushi Iino, Ron Thomson	Training Japanese EFL learners to perceive English /l/, /r/, and /w/ using a cloud-based, High Variability Pronunciation Training (HVPT) application
9	Benjamin Schmeiser	On Spanish Trill Production Improvement for L1 English Learners
10	Edna Lima, Zoe Zawadzki	Suprasegmentals + sitcoms = becoming more comprehensible while having fun!
11	Fatemeh Bordbarjavidi, Erik Goodale	Learning Pronunciation through Culture
12	Ivana Lučić	Influence of Educational and Linguistic Background on Rater Perception of Second Language Oral Performance
13	Jane Lorenzen	Tonal Recall: Musical ability and toneme recognition
14	John Archibald	Intelligibility and Comprehensibility in Real Time: The Neuro- and Psycholinguistics of the L2 Parser
15	Katherine Yaw, Okim Kang, Janay Crabtree	Improving ITAs' Instructional Confidence Through Structured Contact Activities with U.S. Undergraduate Students
16	Kuo-Chan Sun	A cross-linguistic study on lexical tone processing in Mandarin L1 and L2
17	Mara Haslam, Elisabeth Zetterholm	The role of consonant clusters in English as a Lingua Franca intelligibility
18	Marcin Wojciech Telidecki	Success factors and constraints determining the acquirement of intelligible pronunciation among immigrants in the United States
19	Maria Kouti	It's not all Greek to you: Using explicit phonetic instruction in the L2 Modern Greek classroom.
20	Mark Tanner, Alisha Chugg	Using Readers Theater to Bridge the Oral Skills Gap From Perception to Production
21	Marta Nowacka	L2 pronunciation of first year English Department students: progress testing
22	Matthew Yaksic	Variations in the Production of the Neutral r-colored Vowel in L1 Spanish Speakers
23	Mikhail Zaikovskii	An Acoustic Phonetic Account of VOT in Russian-Accented English
24	Monica Richards, Elena Cotos	When perception of suprasegmental meaning varies across languages, what is a teacher to do?
25	Na-Young Ryu	Effects of L1 phonotactic constraints on L2 coda perception: A case study with native English and Mandarin learners of Korean
26	Naoko Kinoshita, Chris Sheppard	The measurement of Japanese lexical rhythm as a second language

27	Paige Gibbons, Liping Ma, Ettien Koffi	An Acoustic Phonetic Account of the Confusion between [l], [n], and [ɰ] by Some Mandarin Speakers of English
28	Pekka Lintunen, Pauliina Peltonen	Short-term gains in L2 speech during an oral skills course: Examining speech rate and fluency
29	Peter Peltekov	The Effectiveness of Implicit and Explicit Instruction on L2 German Learners' Pronunciation
30	Romy Ghanem, Olga Sormaz, Paula Schaefer, Qiuqu Qin	English learners' perception of intonation in different question types
31	Sondoss Elnegahy	Non-Native Learner's Speech Perception of International Teaching Assistants in North American Universities
32	Veronica Sardegna	Increasing Pre-Service Teachers' Expert Knowledge, Effectiveness, and Agency
33	Viviane Ruellot	French stereotypical accent and pronunciation development of /p/, /t/, and /k/
34	Yoshito Hirozane	Different degrees of effects of pauses on English rate perceived by English and Japanese speakers

ABSTRACTS

WORKSHOPS

Using surveys in pronunciation research

Jennifer Ann Foote

Surveys have become increasingly common in pronunciation research, and, thanks to modern technology, increasingly easy to administer and collect. This workshop will discuss the benefits and challenges of conducting survey-based research in pronunciation. The workshop will begin with a discussion of which types of research questions are appropriate for survey research. There will then be a discussion around survey development, looking at issues such as dealing with potentially problematic terminology and choosing between different types of survey items (e.g., open ended questions, Likert scales, multiple choice, etc.). Finally, the presentation will look at analyzing survey responses, particularly open-ended questions, and issues around survey distribution/sampling bias.

This workshop will include a discussion of current published pronunciation research, insights from the presenter's own experiences conducting survey-based pronunciation research, and ideas and questions from attendees who have conducted, or are considering conducting, pronunciation-related survey research. Participants will have a chance to work on drafting different types of survey items, and be will given example of difficulties that occurred with specific types of survey questions that have been used in the past.

Research methods in investigating voice onset time (VOT) in second language pronunciation

Tetsuo Harada

Description

Voice onset time (VOT) can be a distinctive or non-distinctive feature, depending on languages, and the investigation of VOT shows how second language (L2) learners develop this language-specific feature and develop their first language (L1) and L2 phonological systems. This workshop will overview the history of VOT studies in L2 pronunciation, bilingual acquisition of VOT, and implications for L2 phonetics and phonology. It will also cover research methods in investigating VOT, including ways to prepare for a word list, data collection, measurement issues, the use of Praat, and data analysis. The presenter will clarify these important issues through hands-on activities.

Learning Outcomes

Participants in this workshop will be expected to learn through lectures, discussions, and hands-on activities several important tips on designing a study on VOT and analyzing VOT, including 1) how to select target words, 2) the number of words and tokens required, 3) tips on measuring VOT, using Praat, and 4) statistical analysis of VOT (e.g., how to control for speech rate).

About the presenter

Tetsuo Harada is a professor of Applied Linguistics in the Graduate School of Education at Waseda University, Japan. His research concerns second language phonetics and phonology, with a focus on phonological development of English and Japanese in one-way and two-way immersion programs.

Running experiments in a web browser using jsPsych

Franziska Kruger & Danielle Daidone

Research in speech perception is largely done with custom-made programs such as DMDX, Praat, OpenSesame, PsychoPy, E-Prime, and others. Since these programs require pre-installation on specific systems, frequent updates, and correct calibration, we have experienced numerous equipment-related compatibility issues that have been taxing for our data collections. In this workshop will we introduce an open source alternative, jsPsych, that facilitates running experiments through a web browser. Running a web-based task offers researchers more freedom to test both in and out of the lab without needing to install or calibrate specific software. It also provides access to a larger and more diverse pool of participants, and allows for more efficient testing sessions. Furthermore, using jsPsych provides extreme versatility in the setup of the tasks as well as the data that can be collected, since anything that can be coded in JavaScript can be part of the experiment.

This hands-on workshop will begin with an introduction to jsPsych as a library of JavaScript plugins and the documentation that is available online. We will then work through sample scripts for a few common tasks in speech perception research (e.g. AXB, oddity, perceptual assimilation, accentedness ratings, intelligibility transcriptions, etc.). Scripts will be chosen based on participants' interests as indicated in a pre-workshop survey. Participants will learn the basic structure of a script and the functions of different parts of the script. We will practice altering a script so that the desired instructions and stimuli are presented, and the relevant data for each trial is recorded (e.g. reaction times, accuracy, experiment conditions, etc.). And finally, we will discuss different ways in which the data can be saved, either on the local machine or on a web server. Prior knowledge of HTML, JavaScript, and SQL is helpful, but not required, as participants will be guided through script design and setup step by step.

Learning outcomes

By the end of the workshop, participants will (1) understand how to use the jsPsych library as a resource tool, (2) have some understanding of how to interpret the code behind a task, (3) be able to perform basic alterations to a sample script to create tasks relevant to their own research, and (4) be aware of different ways to save the data.

Multidimensional Scaling (MDS) for Analyzing Perception Data

Ryan Lidster

L2 pronunciation teachers and researchers very commonly use the metaphor of perceptual "space" to discuss discriminability of L2 phones. Easily discriminated phones are perceptually "distant," while L2 phones that are difficult to discriminate sound "close together." Of key concern, though, is that such "distances" in perceptual space are warped by language experience, and in particular, the L1. Understanding how that perceptual space is warped—in other words, which L2 phones are perceived similarly to each other, which aren't, which acoustic cues are listeners using to discriminate sounds, which are less faithfully employed, and how that changes over the course of learning—is of key concern to the field of L2 pronunciation. Multidimensional Scaling (MDS) is a rigorous analytical method for quantifying, visualizing, and generating rich data on the distances between stimuli and the shape of listeners' perceptual spaces using input from a variety of possible perception tasks (Clopper, 2008). While already common in many areas of psychology, free classification has only recently been applied to L2 pronunciation (e.g. Daidone, Kruger, and Lidster, 2015), but with very promising results. A complete MDS analysis can be done in SPSS, R, Matlab, or a variety of other software packages, and the key concepts are simple to learn. Most importantly, the unique information MDS provides on learners' perceptual spaces gives the method great potential for growth in L2 pronunciation research; previous work revealed not only how listeners grouped stimuli together, but also which acoustic cues they employed to make those judgments.

In this workshop, I will explain MDS as a method, mostly focusing on concepts rather than the mathematics, but going into considerable depth. We will discuss what kind of data and elicitation methods are appropriate for an MDS analysis, and then use anonymized data from real perception experiments to walk through an MDS analysis in SPSS (and one R-based equivalent), including all stages and decisions from interpreting stress plots and other indices of model fit, to deciding on settings for convergence, and finally comparing the results with acoustic measurements and reporting the results. Common problems and solutions to them will be discussed, with the goal of leaving the session with a powerful tool in the toolbox of research methods to ask and answer detailed questions about how L2 learners perceive the input. We will conclude with your questions and discussion of application to current and future research programs.

Learning outcomes

Participants in this session will become able to:

- Decide how and when using MDS could provide key insight into their research questions
- Organize results from an experiment in a way that enables MDS analysis in SPSS (or R)
- Conduct an MDS analysis using two different data sources, including deciding on the dimensionality of the data
- Interpret the results with respect to acoustic or phonological properties of the stimuli
- Relate those results to behavioral data

- Write up the results for a presentation or journal article

References

Clopper, C. G. (2008). Auditory free classification: Methods and analysis. *Behavior Research Methods*, *40*, 575-581. doi: 10.3758/BRM.40.2.575

Daidone, D., Kruger, F., & Lidster, R. (2015). Perceptual assimilation and free classification of German vowels by American English listeners. In The Scottish Consortium for ICPhS 2015 (Ed.)*, Proceedings of the XVIII International Congress of Phonetic Sciences.* Glasgow, UK: the University of Glasgow.

Investigating L2 fluency

Pekka Lintunen & Pauliina Peltonen

Second language (L2) fluency is a multifaceted concept that is commonly used as a learning objective and as a criterion for assessing L2 proficiency. In research, fluency has been approached from many perspectives and as a research topic interests both phoneticians and second language acquisition scholars. Fluency is often examined as one aspect of learner language, along with complexity and accuracy (Housen, Kuiken & Vedder, 2012). The most commonly used framework for fluency studies is Segalowitz' (2012) classification of fluency dimensions into utterance fluency (measurable aspects of spoken production as indicators of fluency), cognitive fluency (efficiency of underlying cognitive processing), and perceived fluency (listeners' interpretations of fluency based on spoken language features). When L2 spoken language is concerned, Lennon's (2000) distinction between higher-order and lower-order fluency is particularly relevant, the former referring to fluency as general oral proficiency and the latter involving a more narrow focus on temporal indicators of smooth and effortless speech.

The purpose of this workshop is to examine L2 speech fluency more closely and consider the methodological choices available for studying utterance, cognitive, or perceived fluency in spoken L2. The focus is on utterance fluency and the possibilities for measuring it quantitatively from monologue L2 samples, but we will also discuss how fluency can be measured in the contexts of L2 oral communication (dialogue) research and pronunciation research. Based on our experiences of analyzing L2 speech from the perspective of fluency, we present some suggestions for best practices in L2 fluency analysis. We will demonstrate the steps needed from collecting material to obtaining quantitative and qualitative information about fluency based on the sample, and look at example analyses of L2 speech.

Housen, A., Kuiken, F. and Vedder, I. (eds) (2012) *Dimensions of L2 Performance and Proficiency: Complexity, Accuracy and Fluency in SLA*. Amsterdam: John Benjamins.

Lennon, P. (2000). The lexical element in spoken second language fluency. In H. Riggenbach (ed.) *Perspectives on Fluency* (pp. 25–42). Ann Arbor, MI: The University of Michigan Press.

Segalowitz, N. (2010) *Cognitive Bases of Second Language Fluency*. New York: Routledge.

Investigating lexical stress assignment

Mary Grantham O'Brien

Correctly emphasizing syllables in words and words in sentences (i.e., producing stress) makes both words and sentences easier to understand (e.g., Field, 2005; Hahn, 2004; van Heuven, 2008). Determining whether L2 learners are able to accurately produce stress can be difficult, though, and this may have to do, among other things, with a teacher's / researcher's operationalization of stress, data collection, and the analysis of data. This workshop will take attendees through a series of steps that can be followed for both the collection and analysis of L2 learner lexical and sentential stress data. Participants in this hands-on workshop are asked to bring a laptop onto which they have downloaded Praat (www.praat.org).

References

Field, J. (2005). Intelligibility and the listener: The role of lexical stress. *TESOL Quarterly, 39*(3), 399–423.

Hahn, L. (2004). Primary stress and intelligibility: Research to motivate the teaching of suprasegmentals. *TESOL Quarterly, 38*(2), 201–223.

van Heuven, V. J. (2008). Making sense of strange sounds: (Mutual) intelligibility of related language varieties. A review. *International Journal of Humanities and Arts Computing, 2,* 39–62.

PRESENTATIONS

Setting priorities for Arabic language learners:
A survey of pronunciation materials in Arabic textbooks

Ghinwa Alameen

From a form-focused audio-lingual method to a fluency-focused communicative approach, second language pronunciation instruction has witnessed radical changes over the last 70 years. Nevertheless, the coverage of pronunciation in Arabic textbooks has not changed substantially, and continued to have a marginalized unintegrated position within the Arabic as a Foreign Language (AFL) curricula. It is mostly treated in isolation from other skills often at the beginning of the introductory course. Arabic textbooks seem to present the segmental aspects (vowels and consonants) much more adequately than the suprasegmentals (stress, intonation, connected speech, etc.) As a result, many instructors are reluctant to teach pronunciation because of the shortage of consistent language materials and the lack of formal training of teachers. However, more and more Arabic learners and teachers feel the need for a more systematic pronunciation training, which involves not only segmental but also suprasegmental aspects of pronunciation that have been integrated and recycled throughout the syllabi. Such training should promote intelligibility and have a greater impact on communicative effectiveness (Munro and Derwing, 2015).

In this presentation, I start by surveying the key pronunciation aspects that should be taken into account when designing Arabic textbooks. Then I examine seven AFL textbooks and textbook series and explore the aspects of pronunciation covered in addition to task types, location in the textbook, assessment framework and recycling of selected pronunciation aspects throughout the textbook. Finally, I identify some of the pressing needs for future integration of pronunciation materials in the Arabic curricula. The presentation concludes with recommendations for material developers, curriculum designers, and Arabic teachers.

References

Munro, M. J. & Derwing, T. M. (2015). A prospectus for pronunciation research in the 21st century. *Journal of Second Language Pronunciation*, 1 (1), 11-42.

The Perception and Production of English Initial sC(C) Clusters by Saudi ESL Learners

Amjad Alhemaid

This study investigates the perception and production of English onset sC(C) clusters by Saudi learners studying in Canada. The L1s were either Najdi Arabic (NA) or Hijazi Arabic (HA). The NA dialect allows consonant clusters word initially. The HA dialect only permits singleton onsets. Both dialects allow consonant clusters in coda position. The aim was to explore the effects of L1 on the acquisition of L2 clusters. Two experiments were conducted to explore production accuracy and to examine whether participants could accurately perceive these clusters. For production, participants were asked to perform a repetition task. For perception, pseudo-words writing task was employed to elicit perception. The production results show that out of 20, the NAs were more accurate (*M*=15.63) than the HAs (*M*=12.13), showing an initial advantage of transfer due to their L1. Findings reveal that accuracy was significantly higher (*p*=.001) in the less marked clusters (e.g., [sl]) and lower in the more marked ones (e.g., [st]), consistent with Eckman (1977), Major (2001), and Cardoso (2007). In perception, the accuracy rates were very high among all participants (*M*=95%). Interestingly, the HAs (whose L1 does *not* allow onset clusters) were not significantly different from the NAs (whose L1 does). So, if the presence of L1 onset clusters does not predict accurate L2 performance, what does? The Redeployment theory (Archibald, 2005; Archibald & Yousefi, 2018) argues that elements of the L1 grammar can be redeployed to assist in the acquisition of new L2 structures. I argue that the HAs (even though lacking L1 branching onsets) were able to redeploy their mental representation of branching codas (or right-edge appendices) in HA (e.g., /bi**nt**/, /kata**bt**/) to acquire the left-edge appendices in English. This explains why these subjects are more accurate in sC cluster perception than those from other L1s previously reported in the literature.

Informal language contact through technology and its effect on learners' use of discourse markers in oral communication

Henriette Arndt & Christina Lyrigkou

The rapid development and spread of new technologies has opened up a wealth of new opportunities for second language learners to engage with their target language: practices such as watching online videos, streaming films and music, and engaging with others through social media contribute to what has been referred to as *Online Informal Language Learning* (OILL). Previous research has found positive correlations between such practices and second language proficiency.[1] [2] [3] [4] It must be noted, however, that these studies mostly focused on learners' grammar and lexical knowledge, but not on communicative language skills. Thus, the question remains how such practices affect learners' oral language production.

After a brief introduction to OILL research, this presentation will report on a pilot study that was conducted as part of a longitudinal PhD project. The study focused on the use of discourse markers in the spoken production of seven adolescent informal learners of English in Greece. Even though all participants demonstrated high levels of general oral proficiency, they markedly differed in terms of the frequency, range and functions of the discourse markers they used. Further analysis of the pilot data suggested that these differences might be explained by the types of online activities that comprised each learner's informal language contact: While all participants regularly engaged their receptive language skills online, those who showed frequent and diverse use of discourse markers stood out because they also participated in regular technology mediated oral communication (e.g. through WhatsApp, Skype, Snapchat). Knowing how technology contributes to the development of oral communication has the potential to influence not only the practices of language learners and teaching professionals, but also the design of new, multimedia instructional materials for second language learning.

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The role of lexical cues in the adult acquisition of L2 allophonic alternants

Shannon Barrios & Joselyn Rodriguez

While adult second language (L2) learners' gain knowledge of L2 allophones with experience (Shea & Curtin, 2010), it is not well understood *how* adult learners acquire allophonic relationships. Barriuso & Barrios (2017) investigated the role of phonological distributional cues in the acquisition of an allophonic alternation between [b] and [β]. However, the authors found no support of the role of a phonological distributional mechanism in adult acquisition of L2 allophonic variants (see also, Peperkamp et al., 2003; c.f. Noguchi & Hudson Kam, 2018). In the present study, we consider another potential learning mechanism. We investigate whether naïve subjects are able to leverage lexical cues in the form of visual referents to acquire L2 allophones. We exposed native English speakers to one of two artificial languages where novel words containing two acoustically similar sounds (i.e. [b] and [β]) occurred in an overlapping distribution. The words were paired with an image that either did or did not reinforce the contrast. For the Different Image group, the words [bati] and [βati] were paired with 'apple' and 'penguin', respectively. For the Same Image group, the words [bati] and [βati] were both paired with 'penguin'. Participants completed three tasks to determine whether the exposure phase impacted their ability to perceive and lexically encode the [b]-[β] contrast in trained and untrained words. If subjects use lexical cues in the form of same/different visual referents to infer the phonological status of [b] and [β], then participants in the Same Image, but not the Different Image group, should have difficulty discriminating and should fail to lexically encode the distinction. Pilot data from 29 participants (16 DiffImage/13 SameImage) suggests that lexical cues may impact participants' lexical encoding, but not perceptual sensitivity, to the [b]-[β] contrast. We discuss our findings in relation to proposed learning mechanisms.

Emergence of L2 perception: Designing and describing a high variability phonetic training study from a complex systems perspective

Shannon Becker

Previous research suggests that accurate perception is a critical component in the successful production of L2 sounds (Best, 1995; Flege, 2003), although there is not presently a consensus on the order in which these processes take place (Sakai & Moorman, 2018). Nevertheless, the interconnectedness of perception and production within the larger L2 structure is in harmony with a complex, adaptive systems (CAS) theory of language development, which foregrounds the interdependency of variables and the centrality of context. Taking this view of a developing L2 system, however, raises questions about both the theoretical underpinnings of SLA research and the methodologies employed therein. Working from a CAS perspective, I discuss two ways of visualizing discrete L2 behaviors, and describe the process of designing a high variability phonetic training (HVPT) study that takes this theoretical orientation into account.

Two theoretical concepts aid in investigating individual parts of the language system without losing sight of the whole : "stacked layers of emergence" (Miller & Page, 2007) and self-similarity across scale. The application of these concepts to the developing L2 allows for the analysis of language behavior at multiple levels while honoring the "synergistic character of nonlinear systems" (Strogatz, 2003, p. 182). Discrete behaviors such as perception are thus treated as lower-level emergent behaviors nested within overall language performance.

To examine how this theoretical orientation impacts methodology, I discuss the design of an online HVPT study to improve perception of the /ɑ̃ - ɔ̃ - ɛ̃/ distinction for L1 English learners in second- and fourth-semester French. Data from both the tests and training modules allow for microgenetic analyses (Calais, 2008) of perceptual development as it happens, and this information is interpreted according to de Bot and Larsen-Freeman's (2011) assertion that "...instead of investigating single variables, we study patterns that emerge from interactions" (p. 21).

The use of the ICF-model in the perceptive and productive assessment and instruction for second language learners

Ilvi Blessenaar & Lizet van Ewijk

In the Netherlands, Speech and language therapist (SLT's) use the ICF-model (WHO, 2001) to classify and clarify communication problems patients experience in daily functioning. The ICF or 'International Classification of Functioning, Disability and Health' offers a conceptual framework which allows healthcare professionals to describe a functional impairment and relate it to the amount of suffering this causes in an individual 's participation in his/hers daily live. It takes into account personal and contextual factors that can positively or negatively influence this participation. In other words, it can help the SLT to not only focus on what a client cannot do, but also take into consideration what he/she wíll be able to do (Heerkens, 2007; Threats, 2008).

This model is used globally in a broad array of healthcare professions. Yet, it is not a customary tool, nor probably an obvious one, used by L2-professionals over the world. Of course, our goal is not to classify pronunciation problems of L2 learners as disabilities or impairments. We believe however, that this framework would be beneficial to be able to identify possible influencing factors within the stagnation or improvement of the pronunciation (Howe, 2008). The role of perception difficulties can be made explicit and can be related to the absence of or the amount of progress being made in L2-instruction.
In our SLT-curriculum we have applied the use of this model to assess the perception and pronunciation problems of L2-learners of Dutch and consequently to establish the priorities in instruction (Howe, 2008). In this presentation we would like to address the relevant aspects of this model in relation to L2-practice in perception and production and give examples of how this is applied in our curriculum.

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WHO (2001)

Effects of perceptual training on vowel perception and production and implications for L2 pronunciation teaching

Juli Cebrian, Angelica Carlet, Núria Gavaldà, & Celia Gorba

Learners of a second or foreign language (L2) in an instructional setting tend to have limited target language input outside the classroom. This fact is problematic for the development of the learners' ability to perceive and produce target language sounds accurately. High variability phonetic training (using a variety of stimuli from multiple talkers) has been found to be effective in improving learners' L2 perception and production, presenting a promising alternative in scenarios of limited L2 input. This paper reports the findings and implementation of a perceptual training regime aimed at improving native Catalan/Spanish speakers' perception and production of a set of English vowel contrasts. Participants were first-year undergraduate students enrolled in an English Studies degree who received six 30-minute sessions of perceptual training over the course of a few weeks. Before and after training students were tested on their ability to discriminate and identify English vowels presented in non-sense and real words. Participants also produced a number of real English words elicited by means of a picture- naming task. Trainees differed in the type of perceptual training method they received, either through identification tasks or through discrimination tasks. In general perceptual improvement was observed with all trained participants, who outperformed the participants in an untrained control group, particularly in the perception of non-sense words as well as of untrained real words. The impact of perceptual training on production was more limited. Although both types of training tasks had a positive effect, identification tasks resulted in greater gains. Students overall found training very useful, although concerns about the length of the training and the repetitiveness of the tasks were raised. Identification tasks were preferred over discrimination tasks. All in all, this study provides additional support for the use of perceptual training as an effective tool in phonetics and pronunciation instruction.

The Timing Patterns of Utterances by Native American Speakers, Cantonese Speakers, and Mandarin Speakers of English

Bingru Chen & Jette G. Hansen Edwards

This study is intended to describe and analyze the effects of polysyllabic shortening, level of stress on syllables, and word or phrase boundary on the timing patterns of spoken utterances by Chinese learners of English (Cantonese speakers and Mandarin speakers respectively) in comparison with native American speakers of English. To investigate the relative contribution of these effects, a production experiment was conducted, adapting the methodological framework of Lehiste (1971). 10 Cantonese speakers, 10 Mandarin speakers, and 10 native American English speakers were asked to produce 12 sets of tokens consisting of a mono-syllabic base form, disyllabic, and trisyllabic words derived from the base by the addition of suffixes, and a set of short sentences with a particular combination of phrase size, stress pattern, and boundary location. The duration of words and segments was measured, and results from the data analysis suggest that: (1) the amount of polysyllabic shortening is likely to be one of the difficulties for Chinese speakers as L2 learners of English; (2) Native English speakers produce longer duration for syllables in word-final position and phrase-final position than Chinese ESL speakers. Findings also have some implications for L2 teaching and learning.

Key words: L1 transfer, timing patterns, polysyllabic shortening

Effect of training on the perception and production of intonation: A case of Korean EFL undergraduate students

Jin Soo Choi

While there has been considerable research on second language (L2) segmental perception and production training (e.g., Derwing et al., 2014; Thomson, 2012), much less is known about the enhancement of suprasegmental features (e.g., Hardison, 2005; Okuno & Hardison, 2016). As such, this current study examined the influence of auditory and auditory-visual training on the development of suprasegmental perception and production, specifically, three frequently used intonation patterns: falling, rising, and fall-rise. Forty-six Korean-speaking learners of English at intermediate proficiency were randomly assigned to one of three training groups: auditory input (n = 15), auditory input with computer-displayed intonation pattern (n = 15), and control (n = 16). Using a pretest-posttest design, perception of intonation patterns was tested via a multiple choice listening test and production was tested using an oral discourse completion task (oral DCT). Participants' responses of oral DCT were rated by one nonnative and one native speaker of English.

A MANOVAs, with perception and production serving as dependent variables, was performed followed by post-hoc repeated measures ANOVAs. Independent variables included intonation (falling, rising, fall-rise) and group (auditory, auditory-visual, control). Findings for perception indicated that auditory outperformed both auditory-visual and control, whereas for production, only auditory-visual demonstrated higher gains. For individual intonation patterns, both falling and rising showed significant improvement for perception and production with a medium effect size (η^2>.13), whereas fall-rise did not differ significantly. These results suggest that training may be beneficial in developing both perception and production of intonation for L2 speakers. Specifically, auditory training was found to be advantageous on enhancing perception of falling and rising, while auditory-visual was helpful on production of falling and rising, implicating that visual input could facilitate when producing intonation.

Towards a deeper, uh, understanding of, um, L2 fluency and its [750 ms silence] correlates

Katie Comeaux & Ron Thomson

Previous research indicates that hesitation phenomena differentially affect the way that listeners perceive spoken utterances, depending on the form and location of those hesitations. For example, filled pauses (FoxTree, 2001), and pauses that occur at clause boundaries (Brennan & Schober, 2001), tend to be less deleterious to listener judgments of intelligibility and comprehensibility, than are pauses produced clause-internally (Kang, 2010). Beyond their impact on ease of processing for listeners, hesitation phenomena may also lead to negative social evaluations of the speakers, and particularly if pausing patterns are outside of listeners linguistic or culturally bound expectations.. The current study aimed to confirm and extend these previous findings, through careful manipulation of natural L2 English speech stimuli, controlling for type and location of pauses. Resulting stimuli were then presented to native speakers of English for evaluation. The L2 speech samples used were originally produced by 15 L1 Mandarin and 15 L1 Russian talkers in the context of an extemporaneous picture description task. Each sample was then carefully manipulated to arrive at several matched versions that were either free of hesitation markers, included hesitation markers at clause boundaries (e.g., um, uh or silence), or included hesitation markers placed within clauses. Using 9-point Likert-type scales, twenty listeners rated the speech samples for the speakers' fluency and intelligence, during one rating session, and comprehensibility and socio-economic status of the speakers in a second rating session. We present results to help disentangle the contribution of pausing location and type to listener judgments, and discuss implications for L2 pronunciation/fluency instruction.

Drama and Play Productions to Enhance L2 Production and Pronunciation

Jenelle Cox & Judy James

The potential benefits of acting in play productions for L2 learners of English have included learning new vocabulary, building confidence and motivation, developing fluency (including interjections and interruptions), and assimilating prosodic features in a contextualized manner (Maley & Duff, 1982; Wessels, 1987; Richards & Schmidt, 2010). These language skills have been recognized as being important in the acquisition of a second language (Dörnyei, 2009; Richards & Schmidt, 2010; Laufer, 1997;). In addition, drama and acting bring the outside world into the classroom, lending to positive effects in terms of social interaction and cultural awareness (Wan, 1990).

In essence, having ESL students perform in a play seems to allow the students to practice and produce many of the speech features covered in their ESL classrooms. Students' pronunciation may be positively influenced as the suprasegmentals of stress, intonation, pausing, and rhythm may receive extensive emphasis through the multiple rehearsals and repetitions of spoken lines. Suprasegmental aspects of pronunciation lead to the greatest improvement in a speaker's intelligibility (Derwing & Munro, 2009). The students' intelligibility may receive extra attention by the director of the play in order to maximize the audience's experience when the play is performed. The purpose of this presentation is to share the experience of a play production done in an intensive English language program. The students' reactions to their own experience with the English language through the organization, rehearsals, and production of a play will be spotlighted as well as the speech production benefits to L2 learners as perceived by the teachers involved.

How do different combinations of speaker face and accent affect speech processing?

Noortje de Weers

There is currently disagreement in the literature on how seeing a person's face affects speech perception. While some have argued that seeing an image depicting a different ethnicity from one's own negatively impacts accentedness due to social bias (e.g., Rubin, 1992; Rubin & Smith, 1990; Yi, Phelps, Smiljanic, & Chandrasekaran, 2013), others maintain that this effect simply reflects the cognitive consequences of incongruous face-accent pairings (McGowan, 2015). With this debate as its springboard, this study focuses on the effects of accent, speaker face, face-accent congruency, and listeners' age on processing times, instead of focusing on judgments of accentedness.

Thirty-two native English participants completed a speeded audio-visual sentence verification task, for which they had to classify statements as true or false. The fifty-six sentences were presented in a randomized, balanced combination of Canadian English and Japanese-accented voices. In the audio-visual condition, the utterances were accompanied by a static photograph of either an Asian face or a White face. For the audio-only condition, a fixation cross on a white background was used.

Analysis indicated that the foreign-accented voices took significantly longer to process than the native voices, and that the incongruent face-accent condition took significantly longer than the audio-only condition. Although these results do suggest an effect of face, its size appears to depend on both the overall processing difficulty of the voice and the listener's age. These findings contribute to our understanding of the influence of social and cognitive factors on speech processing.

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The Investigation of a Common Modern Spoken Arabic

Romy Ghanem, Khaled Alharbi, & Talal Alharbi

Teachers of Arabic as a foreign language have voiced several concerns regarding the acquisition of spoken Arabic. One that is frequently cited is the amount and type of spoken Arabic they should introduce to students (Raish, 2015). There are currently over twenty-five spoken Arabic varieties which either differ in a few linguistic features or are almost mutually unintelligible (Al-Sharkawi, 2017). While Modern Standard Arabic (MSA) has been acknowledged as the standard variety that unites different dialects, MSA is rarely used in informal spoken registers. Very few studies have investigated specific linguistic elements that are deemed comprehensible in Arabic- speaking countries. This presentation will report on the pilot of a much larger study that seeks to describe and document the use of modern spoken Arabic. The pilot study included 12 speakers from 3 different Arab countries: Saudi Arabia, Jordan, and Egypt. The participants engaged in three "spot-the-difference" activities: one with a speaker who speaks the same dialect and two with speakers who use a different variety. Thirteen lexical items that are characteristically different among the three dialects were included as lexical primes in the three pictures. Thirty six speech files were analyzed by comparing participants' baseline use of the lexical features to their productions when engaging with a speaker of a different dialect. Preliminary results show that speakers tend to accommodate their interlocutor when their variety includes a marked (dialect- specific) lexical item. Most often, the lexical item that is converged towards is one that is either derived directly from MSA or is more easily accessible (e.g. through media). The implications of this study extend to several areas including the systematic representation of Arabic as an International Language and curriculum design of Arabic language classrooms. The end goal of this line of research is the creation of an extensive searchable spoken Arabic corpus that would serve both Arabic teachers and researchers.

Teaching Segmentals vs. Suprasegmentals: Different Effects of Explicit Instruction on *Comprehensibility*

Joshua Gordon & Isabelle Darcy

Although the number of pronunciation studies has increased recently (Thomson & Derwing, 2015), and there is a clear role in the development of segmentals/suprasegmentals in the perception and production of L2 speech (Trofimovich et al., 2015), many research findings are not necessarily applied to L2 classrooms due to limitations in teacher training (Baker & Murphy, 2011), or no interest in pedagogical interventions on the part of researchers (Derwing & Munro, 2015).

We report the results of an intervention to enhance the comprehensibility of 3 groups of EFL learners at a university in Costa Rica, for which we asked: (1) Do EFL students improve L2-comprehensibility by the end of a 10-week- intervention? and (2) What explicit phonetic treatment (based on segmentals, suprasegmentals, or a combination of both) enhances the comprehensibility of EFL learners more by the end of a 10-week intervention? This is a replication of our previous study (Authors, 2016) with a more complete scope of training on different segmentals and suprasegmentals, and a larger length of training.

Three groups of EFL students received pronunciation on segmentals, suprasegmentals, or a combination of both using explicit phonetic instruction and communicative tasks (10 weeks, 30-mins per week). Spontaneous-speech samples from pretest-posttest were rated for comprehensibility by 40 L1-English raters. The suprasegmental group significantly improved comprehensibility from pretest to posttest. Additionally, whereas the segmental group did not improve comprehensibility, the third group (combined) also improved comprehensibility at the end of the intervention—although not in a significant way.

These results, although modest, replicate the effect found previously (Authors, 2016), lending more validity to our findings. Our results also suggest that incorporating pronunciation little by little into the class can help learners achieve comprehensible speech (Darcy, 2018; Derwing et al., 1998; Sicola & Darcy, 2014). The results are discussed in terms of pedagogical suggestions for pronunciation instruction.

The Effect of Discrimination Training on Japanese Listeners' Perception of the English Coda Consonants as in 'rose' and 'roads'

Izabelle Grenon, Chris Sheppard, John Archibald

Phonetic training programs usually feature identification tasks consisting of presenting second language (L2) learners with one word, for instance *right*, and asking them to identify which word they heard, 'right' or 'light'. This training is designed to improve identification accuracy. However, it also presupposes that the learners are somewhat familiar with the L2 grapheme-phoneme correspondence. But what if they are not? Since Japanese listeners do not hear a difference between the English sounds /z/ and /dz/, in 'rose' and 'roads' for example, along the most critical acoustic dimension, they associate the acoustic forms with the orthographic representations randomly. In order to help them hear a difference, we implemented a discrimination task. This task consists of presenting two words aurally to the trainees (e.g., *rose – roads*), and have them decide if the words were the 'same' or 'different' (with feedback). Twenty-one Japanese trainees received two 30- minute sessions of discrimination training with the distinction 'rose'-'roads'.

Before and after discrimination training, we tested the trainees' cue-weighting patterns with an identification task featuring 28 'rose' and 'roads' tokens which were systematically varied in the duration of the vowel and the closure duration of the coda stop. Forty native North American English speakers completed the pre-test for comparison. The pre-test results indicated that our English speakers relied on both the duration of the stop closure and on the duration of the preceding vowel to classify the words 'rose' and 'roads', whereas our Japanese trainees relied only on the duration of the vowel. The post-test results revealed that the L2 trainees improved their cue-weighing pattern towards that of native speakers' on both dimensions after training. Our results suggest that discrimination training can be effective in improving identification of novel segments, and could potentially be useful for training populations who are not literate in the target L2.

Transforming pronunciation through community outreach: Let me tell you their story

Frédérique Grim

Finding creative ways to raise students' awareness of their pronunciation are always some of the major goals and challenges second language (L2) teachers have. Experiential learning might provide those opportunities with a more authentic setting; for instance, through tutoring, teaching, assisting teachers, translating or interpreting, students can benefit by learning more L2 and increase their motivation (Caldwell, 2007; Gascoigne, 2001; Grim, 2010, 2011, 2017). One particular opportunity was created at western university language program is "world language story time", in collaboration with the local public library. This particular activity has shown that students are able to focus on their pronunciation and develop their presentational skills during the preparation and performance of the story time event.

This talk will share what a French phonetics third-year class did to participate in a story time program and the impact it has had on students' pronunciation in terms of improvement and confidence. Pre- and post-recordings were analyzed to check for pronunciation change and a survey was filled by the participants to gauge confidence levels in terms of presentational skills.

Short description:

Experiential learning has been increasingly finding room in L2 curriculum because of its positive impacts on L2 learners' motivation. This talk will give a brief description of a story time program integrated in a phonetics class, with an analysis of students' pronunciation from pre- and post-recordings, and confidence level.

English- and Japanese-dominant children's voice onset time (VOT) in a two-way immersion program

Tetsuo Harada & Asako Hayashi Takakura

No systematic studies have been done on pronunciation skills in two-way immersion programs, in which a balanced number of students from each target language group are enrolled in a class, and they are expected to get more exposed to L2 than in one-way immersion programs. This study examined how voice onset time (VOT) of English-dominant children can be acoustically compared with that of Japanese-dominant children in a Japanese/English two-way immersion program in elementary school in the US. Fifty students (25 English-dominant and 25 Japanese-dominant children) from the 2nd, 3rd, 4th, 5th, and 6th grades in the program participated in a sentence reading task for eliciting eight words beginning with three voiceless stops /p, t, k/ in English and Japanese. Baseline data were also collected from 10 English-speaking Japanese bilinguals in a one-way immersion program. The VOT of initial stops was measured to the nearest millisecond from the beginning of the release burst to the onset of voicing energy in F2 formants. Results showed that although the English-dominant children's Japanese VOT in the two-way immersion program was longer or more English-like than the Japanese-dominant group's in the same program, their VOT was shorter or more Japanese-like than that of the children in the Japanese one-way immersion program. However, it is to be noted that both the English- and Japanese-dominant children made a phonetic distinction in VOT between the two languages. The findings suggest that two-way immersion instruction may help children acquire more target-like L2 speech due to sufficient input from both the teacher and peers than one-way immersion education. Discussion will center on how the results match Flege's (1995) hypothesis that bilinguals' phonetic category may be intermediate between two languages. This study will add a new perspective to existing VOT studies of bilinguals in the two different instructional settings.

A System for Analyzing and Evaluating Computer-Assisted Pronunciation Teaching Software, Websites, and Mobile Apps

Lynn Henrichsen

The potential benefits of computer-assisted pronunciation teaching (CAPT) have been recognized by many experts (Neri, Cucchiarini, Strik, & Boves, 2002; Chun, 2013; Fouz-González, 2015). These benefits include a private, stress-free learning environment; virtually unlimited input; practice at the student's own pace; individualized, instantaneous feedback through Automatic Speech Recognition (ASR); visual acoustic displays; and visual articulatory displays.

To take advantage of these software features, many CAPT programs, websites, and mobile apps have been created. Regrettably, however, CAPT software does not always measure up to its potential. For this reason, "it is necessary to analyze…pronunciation teaching software programs…from a critical perspective using pedagogically coherent and technically elaborated criteria" (Navarro, 1999, as cited in Martins, Levis, & Borges, 2016, p. 142). Unfortunately, many L2 teachers are not familiar with the full range of CAPT possibilities and may not be aware of what features to look for in an instructional product.

This poster presentation shares a remedy to this problem—a comprehensive set of criteria for analyzing and evaluating CAPT software, websites, and mobile apps. Utilizing an easy-to-use checklist format, as well as Likert-scale and open-response items, this system is designed to guide teachers and learners in evaluating CAPT programs. Using variables and criteria recommended by pronunciation and CALL experts (Chun, 2013; Derwing & Rossiter, 2002; Fouz-González, 2015; Martins, Levis, & Borges, 2016; Munro & Derwing, 2006; Neri, Cucchiarini, Strik, & Boves, 2002; Persichitte, 2005; Rosell-Aguilar, 2017), this two-page tool provides a listing of features that potential CAPT users should look for in software. The criteria are arranged in five sections—(1) general descriptive information, (2) instructional purpose(s) and activities, (3) functionality and usability, (4) instructional factors, and (5) presentation—plus a summary section. Besides the poster display of the system, this presentation will also provide a handout depicting the system.

Politeness in students-professor interactions: A comparative study on the prosodic features of NS and NNS students

Meichan Huang & Dongmei Cheng

This study intends to examine the similarities and differences in the way prosodic cues are realized in the student-instructor interactions in speech acts to signal politeness. Intonation has been used in speech acts to signal (im)politeness (Aijmer, 2014; Culpepper, 2011; Wichmann, 2004) and evaluate the communicative effectiveness (Cheng, 2017; Littlemore, 2003). The importance of intonation cannot be underestimated in cross- cultural communication, as an inappropriate intonation pattern may cause misunderstanding (Mennen, 2007). So far, limited number of studies have compared the realization of speech acts using prosody by NS and NNS speakers to realize politeness in communication. This study employed a mixed-method design. Six pairs of Chinese English as a Foreign language (EFL) students and Native English speaking (NS) students were audio- recorded completing three roleplays performing three types of speech acts: apologies, requests, and refusals in student-instructor interactions. A prosodic profile of the turns containing the speech acts, such as an indirect request or formulaic apologies, will be created using auditorial and instrumental analysis based on Brazil's discourse intonation model (1985, 1997) using CSL. Features such as, the length of pauses, placement of stress, and intonation patterns (Aijmer, 1996) will be examined. This prosodic profile will also be analyzed along with participants' retrospective verbal protocols (Cohen & Olshtain, 1993; Felix-Brasdefer, 2008) on the pronunciation features speakers paid attention to during the role-plays and goals they intended to achieve using particular pronunciation features. The results will shed an insight into second language pedagogical practices and material development in teaching politeness strategies in speech acts.

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L2 French vowel production: the relationship with speech perception and phonological memory

Solène Inceoglu

Some second language (L2) learners are more successful than others in perceiving and producing L2 contrasts. Variability across individuals can be attributed to a number of factors such as language proficiency, age of L2 learning, and type of instruction, among others. However, variation in the degree of success in L2 learning can also be further explained by differences in general cognitive abilities, including working memory (WM), phonological short-term memory (PSTM), and processing speed. To date, most SLA studies investigating cognitive individual differences have focused on the development of L2 grammar, vocabulary, and fluency, and little is known about their effects on L2 production.

This study explores how L2 speech production of French nasal vowels is related to L2 speech perception and individual cognitive differences in phonological and working memory. The participants were 32 Australian-English native speakers enrolled in French language courses. They completed a delayed-repetition task to assess their production and a set of force-choice identification tasks in audiovisual (AV), audio-only (A) and visual-only (V) modalities to measure their perception skills. They then completed a non-word repetition task assessing their PSTM, and a listening span test measuring their WM.

Results revealed that accurate production scores were higher with [ɛ̃] (91%), followed by [ɑ̃] (60%), and [ɔ̃] (55%), and that the perception and production scores were strongly correlated (AV: r = .66, A: r = .65, V: r = .68, all with large effect sizes). In terms of individual differences, there was a significant effect of PSTM on production scores, but no effect of working memory capacity. These findings will be discussed in terms of the role of cognitive individual differences in L2 speech production (and perception), and in lights of the relationship between speech perception and production.

Development of utterance fluency and cognitive fluency and their interrelationship

Jimin Kahng

Second language (L2) utterance fluency (i.e., temporal, pausing, and repair features of utterances; Segalowitz, 2010) has been widely researched due to its theoretical and pedagogical importance; however, its underlying cognitive processes responsible for fluent utterance (viz., cognitive fluency) has been under researched (cf., De Jong, Steinel, Florijn, Schoonen, & Hulstijn, 2013).

This longitudinal study attempts to contribute to the fluency literature by investigating development of utterance fluency and cognitive fluency and their interrelationship. Thirty-one Chinese learners of English completed a battery of tasks on cognitive fluency and utterance fluency, before and five months after their study abroad experience in the US. Utterance fluency was examined by measuring speed and pause phenomena of their spontaneous speech. Cognitive fluency was analyzed by measuring linguistic processing skills involved in speech production (e.g., lexical retrieval, morphosyntactic encoding, and articulation).

The preliminary results show that, after five months of study abroad experience, their utterance fluency (e.g., articulation rate) and cognitive fluency (e.g., accuracy and speed of sentence construction) significantly improved. In terms of the relationship between utterance fluency and cognitive fluency, initially articulation rate was correlated with speed of lexical retrieval, and number of silent pauses was correlated with speed of sentence construction and the strength of interrelationships seems to change over time.

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Effects of Self-evaluation on ESL Learners' Oral Performance

Okim Kang & Mark McAndrews

Self-evaluation has been emphasized in instruction of oral skills as part of learners' taking responsibility for their own learning. It provides students with the opportunities and the strategies to continue their learning beyond the classroom (Avery & Ehrlich, 1992). However, there is still much disagreement on the degree to which learners can identify and remediate their speech difficulties (Celce-Murcia, Brinton, & Goodwin, 2010). In addition, little research has empirically tested the direct impact of such self-evaluation on learners' oral skills. Therefore, the current studies investigated the effect of ESL learners' self-assessment techniques on their spoken performances. Three studies were conducted over six academic semesters. The first study included instruction on general guidelines for self-evaluation, the second included specific guidelines for multiple oral skills, while the third study included specific guidelines for a single skill. Ninety-four upper-intermediate/advanced ESL students from listening and speaking intact classes at an intensive English program provided three sets of oral presentations (three pre-instruction and post-instruction presentations) in each semester. All presentations were video-taped. Two trained raters evaluated the speech samples in a randomized manner for oral proficiency, presentation skills, comprehensibility, and pronunciation accuracy. Results showed that students who self-evaluated their performance with specific guidelines on each single skill (e.g., hesitation markers, pauses, /l/ sound) improved their oral proficiency scores, but no other speech constructs. Students who received more general instruction about self-evaluation were not able to identify problems in their performances, and their scores did not improve. This finding suggests that without specific assistance from teachers, students may not benefit from self-evaluation. The presentation will discuss effective practice in oral skills pedagogy in terms of how to structure an oral skills class and determine its content, along with a variety of speaking activities that promote self-evaluation strategy development.

Exploring technology in the teaching/learning of pronunciation to improve students' perception and production: teaching word and sentence stress to tertiary level students

Nadia Kebboua & Jaoquín Romero

The current 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. 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. 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. Their recordings were evaluated in two different methods, acoustic analysis using the Praat speech analysis software and 10 judges' ratings to evaluate their accentedness, intelligibility and fluency. The 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. This seems to provide evidence of the usefulness of information technologies in the learning of English pronunciation in the classroom.

The Effect of Individual Differences on L2 Instrumental and Listener-Perceived Pronunciation

Alyssa Kermad & Okim Kang

With the complexity involved in acquiring second language (L2) pronunciation, individual difference (ID) research can account for variability and exceptionality in pronunciation outcomes (e.g., Dörnyei, 2005, 2006, 2009; Moyer, 2014). While ID research has had a consistently strong appearance in second language acquisition, its presence in L2 pronunciation research has been empirically sporadic. However, IDs are even more critical to pronunciation due to the unlikely odds of acquiring native-like pronunciation in an L2. The current study accounts for the effect of motivation, aptitude, anxiety, and language contact on the instrumental production and listener perception of L2 pronunciation. Twenty English L2 adult learners were recruited from an ESL context. A spontaneous speech sample was elicited from each participant, in addition to survey responses for motivation (e.g., the L2 Motivational Self System), speaking/pronunciation anxiety, and interactive/non-interactive language contact. An oral mimicry test of non-word repetition was administered to measure aptitude and the working memory system (Gathercole, 2006). Thirty undergraduate students provided their impressionistic judgments of accentedness, comprehensibility, and intelligibility. Instrumental speech analyses were carried out to quantitatively measure segmentals, rate, pausing, stress, pitch, and intonation. Hierarchical multiple regression analyses explored the effects of IDs based on their theoretical contributions to language learning. IDs accounted for 50-86% of the variance in segmental and suprasegmental production. Motivation and aptitude were associated with higher-proficiency pronunciation performance, while anxiety had a debilitative effect. Non-interactive language contact had a positive effect on L2 fluency, while interactive language contact was associated with more monotonous speech patterns. IDs had dynamic relationships with listeners' judgments of accentedness, comprehensibility, and intelligibility, with consistent positive effects from some motivation variables and aptitude. Implications are discussed with respect to how teachers can address IDs in the classroom to enhance pronunciation acquisition and how researchers can consider IDs in methodology and design.

Learner views on the efficiency of perceptual activities: Insights from a classroom-based study

Anastazija Kirkova-Naskova

Most research studies testing the effect of phonetic instruction are quantitative and indicate the positive influence such training has on modifying learners' L2 perception and production (Macdonald, Yule & Powers, 1994; Bradlow et al., 1997; Derwing, Munro & Wiebe, 1998; Moyer, 1999; Nishi, & Kewley-Port, 2007). Taking learner perspective into account gives additional qualitative input relevant for understanding pronunciation learning.

This study investigates learner views on the effectiveness of 5 types of minimal pair activities as part of a larger classroom-based study which tested the impact of a specific perceptual training on the perception and production of English front vowels /iː, ɪ, e, æ/ by Macedonian learners of English. All activities were designed to meet the following criteria: a) they varied in format and degree of difficulty; b) they combined traditional minimal pair activities with stimulus tasks employed in laboratory-based studies; c) learners were exposed to high speaker variability stimuli; and d) the teaching context included a large monolingual EFL class. The training consisted of 12 sessions over three weeks. The focus was given to practicing speech perception activities only; speech production was neither encouraged nor practiced. Qualitative data was obtained post training via interviews.

The analysis shows that learners continue to favor minimal pair activities despite the fact that they find them challenging. They indicated preference for activities such as AXB format and sound contrast in one and the same minimal pair, both activities focusing on speaker variability. They recognize their usefulness in that exposure to various speakers increases their awareness of different native varieties, improves their selective attention and increases their sensitivity to vowel quality. Overall, these findings suggest that perceptual activities with minimal pairs are most efficient when their aim is to focus learners' attention to sound quality contrast and not on the meaning of individual words.

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A Template Model Account of the Intelligibility of Lexical Stress: Exemplification with Arabic-Accented English

Ettien Koffi

Pitch perception research has a very long history. Some trace it back to Pythagoras. Yet contemporary understanding of pitch owes much to Fletcher and Békésy (Brownell 2017:20, Yost 2015:46-53) for their seminal investigations and discoveries of the physiological responses to frequency in the basilar membrane. In linguistics, groundbreaking insights into lexical stress are attributed to Fry for his decade-long (1955 to 1965) speech perception and synthesis experiments. He found that the participants in his studies relied on three correlates: frequency, duration, and intensity to encode and perceive lexical stress. Furthermore, they perceived these correlates hierarchically, ranking their robustness as F0 > Duration > Intensity. This ranking has proven controversial, but Fry's discoveries have made it possible to measure and quantify lexical stress instrumentally rather than relying on impressionistic definitions of stressed syllables as having higher pitch, louder intensity, and longer duration (Fromkin et al. 2014:254*).* With Fry's methodology, it is now possible to assess and calculate the intelligibility of lexical stress mathematically by appealing to Just Noticeable Difference thresholds in frequency (1 Hz, Lehiste 1970:64), intensity (3 dB, Moore 2007:460), and duration (10 ms, Hirsh 1959:767). These templates also afford pronunciation researchers the opportunity to test the claim that suprasegmentals play as great a role, and sometimes a greater role than segmentals, in the intelligibility of L2-accented English (Jenkins 2000:135, Cutler 2015:118). The aforementioned templates are applied to speech samples produced by 10 Arabic L2 speakers of English to see whether or not their placement of lexical stress interferes with intelligibility.

Effects of Japanese EFL Learners' Acoustic Short-Term Memory on English Word Reproduction Skills

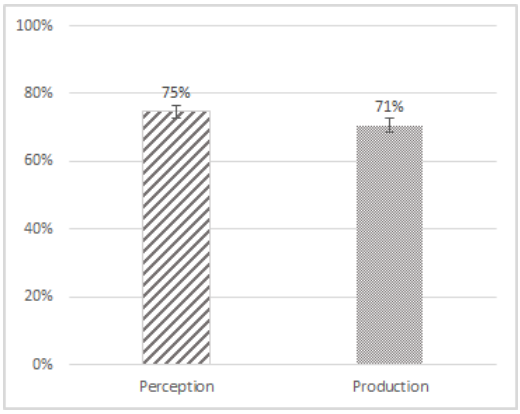
Akiko Kondo

People have often intuitively sensed the link between musical ability and L2 oral proficiency. Previous studies have also shown a positive relationship between music and language. However, only a few researchers have investigated the relationship between musical ability and L2 pronunciation skills through empirical investigations in the field of memory. Therefore, this study focuses on determining the impact of acoustic short-term memory on L2 pronunciation skills. Seventy Japanese university students participated in this study. The acoustic short-term memory capacity of the participants was analyzed and measured in this study by using two tests, the Tonal Memory Span Test and Rhythm Memory Span Test, while the L2 pronunciation skills were measured using the English Word Reproduction Test. After conducting Rasch analysis to provide validity evidence for the instruments originally designed for this study, Pearson's correlation analysis and regression analysis were performed. The results indicated that the acoustic short-term memory measured by the tests had significant positive effects on English word reproduction skills and that tonal memory capacity had stronger effects than rhythm memory capacity. Although this study has several limitations, the results of the study provided a detailed and comprehensive understanding of the impact of musical ability on the L2 pronunciation skills of participants. It also provided some pedagogical implications for improving L2 pronunciation teaching.

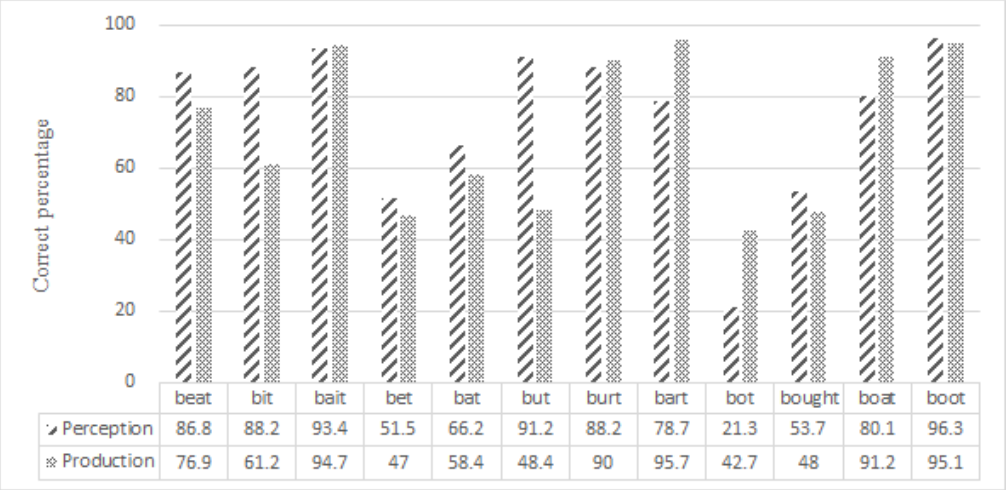
Exploring the relationship between perception and production of L2 English vowels

Shinsook Lee & Mi-Hui Cho

The paper investigated the interface between perception and production of L2 American English vowels focusing on the precedence relationship and the correlation between perception and production. To that end, 34 Korean adult EFL learners completed vowel identification and pronunciation tasks with 12 English vowel stimuli (/i/ *beat*, /ɪ/ *bit*, /eɪ/ *bait*, /ɛ/ *bet*, /æ/ *bat*, /ʌ/ *but*, /ɝ/ *burt*, /ɑr/ *bart*, /ɑ/ *bot*, /ɔ/ *bought*, /oʊ/ *boat*, /u/ *boot*). The participants were asked to choose the vowel they heard among the 14 alternatives. They also produced 12 English words 3 times and their productions were identified by 5 native English speakers. The results revealed that the participants overall perceived the target vowels more accurately than producing them (75% vs. 71%: $t(33)=2.204$, $p<.05$), thus showing the precedence relationship of perception over production. However, the precedence relationship was not observed across all the vowels, showing variation among vowels. For instance, the vowels /i/, /ɪ/, and /ʌ/ demonstrated the predominance of perception over production while /ɑr/, /ɑ/, and /oʊ/ showed the opposite pattern. The results also indicated that no significant correlation was found between perception and production either by the participants or by the individual vowels. This implies that the participants' perceptual abilities do not develop in tandem with their production abilities, or vice versa. However, the participants' error patterns in perception and production were very similar across all the vowels. For instance, the participants showed bidirectional error patterns between /i/ and /ɪ/ and /ɛ/ and /æ/ both in perception and production. They also exhibited confusion among /ʌ/, /ɑ/ and /ɔ/ in perception and their productions of these vowels were misidentified as such by the native English raters. The findings of the study are discussed in terms of acoustic/perceptual cues and articulatory gestures, along with the implications for the Speech Learning Model.



(1) Mean percentage correct of perception and production



	beat	bit	bait	bet	bat	but	burt	bart	bot	bought	boat	boot
Perception	86.8	88.2	93.4	51.5	66.2	91.2	88.2	78.7	21.3	53.7	80.1	96.3
Production	76.9	61.2	94.7	47	58.4	48.4	90	95.7	42.7	48	91.2	95.1

(2) Mean percentage correct of perception and production by individual vowels

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Native listeners' evaluations on pleasantness, foreign accent, comprehensibility, and fluency toward accented talkers

Jieun Lee, Dong Jin Kim, & Hanyong Park

Listeners evaluate many aspects of the speech of their interlocutors. The degree of foreign accent, comprehensibility, and fluency are some aspects that listeners would continuously assess while conversing with non-native speakers. Though the relationships between these three dimensions have been well documented, it is not clear how *pleasantness*, listeners' subjective evaluation on their holistic experience toward the speech sample, relates to other dimensions. Thus, we investigate the relationships between pleasantness and other perceptual dimensions, accentedness, comprehensibility, and fluency. We hypothesize that listeners' pleasantness is a fluid dimension like other perceptual dimensions and that listeners would evaluate within this dimension more positively for utterances from more experienced second language (L2) learners, as in accentedness, comprehensibility, and fluency. A group of native speakers of English rated spontaneous speech samples, each about 10-seconds long, from two groups of adult Korean learners of English differing in their length of residence (LOR) in the US. These samples were rated on a 9-point scale for the aforementioned four dimensions, with two dimensions together for each sample. The instruction specified how to rate each dimension. For example, for pleasantness, listeners were asked to rate how pleasant or unpleasant their experience of listening to each sentence is. Preliminary results indicate that the listeners' ratings for the four dimensions were correlated with each other, with varying degrees of strength. For instance, correlation was stronger between pleasantness and fluency, compared to pleasantness and other dimensions. In addition, the group with longer LORs received more positive ratings than that with shorter LORs, in all assessed dimensions. Our study reconfirms previous findings that perceptual dimensions are connected with one another, with varying degrees of association. Further, our results suggest that improving learners' fluency may enhance listeners' holistic experience with conversing with L2 learners.

Golden Speaker: Learner Experience with Computer-assisted Pronunciation Practice

John Levis, Ricardo Gutierrez-Osuna, Evgeny Chukharev-Hudilainen, Sinem Sonsaat, Alif Silpachai, & Ivana Lučić

In a previous study (Gutierrez-Osuna et al., 2018), we reported quantitative results of a quasi-experimental study in which we analyzed the effect of practice with a *Golden Speaker Builder*, an interactive online tool that allows learners to practice pronunciation with their own voice producing native-accented speech. The overall results showed significant improvement in fluency but no significant improvement in learners' accentedness and comprehensibility. However, some individual students showed improvement in their accentedness and comprehensibility as well as their fluency.

In this study, we report the qualitative data on the individual learners' interaction with the system. Fifteen Korean learners of English practiced with 8 utterances per week over three weeks in a lab setting. Learners practiced with three different types of exercises: say-listen-record, listen and record, and backward build up. Learners' interaction with the GSB was recorded by screen capturing, eye-tracking, and voice recording. Additionally, learners were interviewed following their post- and delayed-post tests to collect data about their attitudes towards their practice with the GSB and their interaction with it.

The findings of the study showed that while many learners struggled with the voice quality and speed of the Golden Speaker voice, they found imitating the model voice useful for prosody and fluency. They also found some exercises more useful than others, especially the backward build-up, because it gave them greater opportunity to control the speed of the voice and to limit the amount of language they were working with. They also asked for more feedback about what to work on, as the voice itself was not sufficient to help them notice details in the segments.

Asymmetrical Cognitive Load Imposed by Processing Native and Nonnative Speech

Di Liu & Marnie Reed

Prosody affects information processing and comprehension (Escoffier, Sheng & Schirmer, 2010; Patel, 2010; Zheng & Pierrehumbert, 2010). Hahn (2004) found that sentence stress used incorrectly or misplaced hinders native English speakers' processing and comprehension of information. Mandarin speaking L2 English speakers failed to exploit the English tonal system (Pickering, 2004; Wennerstrom, 1998), producing speech that poses processing challenges to native English speakers. However, how Mandarin speaking L2 English speakers' English prosody affects the processing and memory of learners with different L1s remains unknown.

This study investigates the influence of Mandarin speaking L2 English speakers' prosody on native and nonnative English learners' processing and memory in a learning task. Two lectures recorded by a native English lecturer and an international teaching assistant (ITA) were played to 21 university students using the presentation software *Superlab*. While the participants were listening to the lectures, they saw pictures on the screen and they were asked to indicate for each picture whether it is upright or inverted. After listening to the lectures, the participants were asked to complete a comprehension quiz.

Participants' reaction time and quiz scores were analyzed using ANOVA. The results show that there is no significant difference among participants' comprehension quiz scores ($F(3, 17) = 0.36$, $p = 0.7829$)). There is no statistically significant difference among the reaction time of different groups of participants ($F(3, 17) = 0.6$, $p = 0.623$)). However, participants average processing time is shorter when listening to the speaker who speaks the same L1. These results suggest a processing advantage for interlocutors sharing the same L1 even though they are communicating in their L2. Furthermore, L2 English speakers' prosody may affect the processing of information. However, it may not necessarily influence listeners' comprehension. These findings are informative to research on prosody and ITAs.

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Prosodic patterns in English Read by Japanese Phonetic Corpus: Interim Report

Takehiko Makino

English Read by Japanese (ERJ) Phonetic Corpus is a phonetically transcribed corpus which draws on a small portion of ERJ speech database containing more than 70,000 recordings of English by 200 Japanese speakers (Minematsu, et al. 2002). The present author completed its segmental annotation and presented the description of its segmental characteristics in 2014. The annotation of the prosodic aspects was left behind because of the difficulties in handling their interlanguage nature. Japanese has a mora-timed rhythm, lexical pitch accents which are invariably falling, and intonational phrase-final pitch movements which convey "intonational" meaning. This is a radically different system from that of English, where the rhythm is stress-timed, pitch accents can be realized by different tones, and "intonation" spans the pitch movements in a whole intonational phrase. The present author offered a tentative proposal which could handle the different degrees of mixture of Japanese and English systems in 2015, based on the Intonation Variation Transcription System (IVTS) proposed in Post and Delais-Roussarie (2006). The core of that annotation system (which could be called "IVTS-ERJ") is four tiers of transcription which represent rhythmic beats, local pitch movements, global pitch change and (tentative) phonological tones on pitch accents. The purpose of this presentation is an interim report on the characteristics of interlanguage prosody in Japanese speakers' English based on the IVTS-ERJ annotation in part of ERJ Phonetic Corpus. Some of the findings are: (1) more rhythmic beats than in L1 English but fewer of them than in L1 Japanese; (2) tones other than falling are used, but the inventory is not as large as in L1 English; (3) the pitch range of the tones tends to be narrower.

The effect of instruction on receptive prosodic abilities: A meta-analysis

Mark McAndrews

In the field of pronunciation instruction, outcomes are predominantly determined by measuring learners' spoken productions (Thomson & Derwing, 2016). However, being able to *perceive* phonological features, and to *integrate* the information they carry into higher-order listening processes, is equally important for second language speakers. The primary goal of this study was to estimate the effect of instruction on learners' receptive abilities for prosodic features. Eighteen primary studies, whose target features ranged from Mandarin lexical tone to English intonation, were aggregated and analyzed. Overall, instruction was shown to have a medium-to-large effect on receptive prosodic abilities (d = 0.78). Further analyses were conducted to identify associations between study characteristics and variability in outcomes. Instructional treatments that involved true beginner learners had slightly larger effects than those involving learners with some proficiency in the target language. Studies that tested participants' abilities to *discriminate* between stimuli tended to have smaller effects than those that tested participants' abilities to *identify* target prosodic features. These findings are discussed in relation to the so-called learning curve. Finally, it is suggested that future research in this domain make greater use of instruments that test the ability of learners to use prosodic features to build meaning during listening.

ASR Dictation Programs Accuracy: Have Current Programs Improved?

Shannon McCrocklin, Abdulsamad Humaidan, & Idée Edalatishams

Automatic Speech Recognition (ASR) has potential to help language learners get feedback on their pronunciation. Early research into dictation programs, however, showed low rates of recognition for non-native speech, and researchers did not consider the transcript to provide usable feedback (Coniam, 1999; Derwing, Munro, Carbonaro, 2000; Strik, Neri, & Cucchiarini, 2008). Recently, attention has returned to ASR dictation programs, finding that ASR dictation practice can help students improve segmental production (Liakin, Cardoso, & Liakina, 2014) and may foster feelings of autonomy (McCrocklin, 2016), but updated research is needed to revisit the accuracy of transcripts provided for non-native speech in current ASR dictation technologies.

Therefore, this study investigates current accuracy rates for two ASR dictation programs, Windows Speech Recognition (WSR) and Google Voice Typing. Participants (10 native English speakers and 20 advanced non-native speakers) read 60 sentences (controlled/read speech) and responded to two open-ended questions (free/spontaneous speech). Their production was audio recorded with Audacity and transcribed by WSR and Google Voice Typing.

Paired T-tests were used to compare transcript accuracy for each speaker, finding Google outperformed WSR, particularly for non-native speech. Google became more accurate moving from controlled to free speech, WSR moved in the opposite direction. T-tests were used to compare non-native to native transcripts, finding that WSR did equally well with free speech, while Google did equally well with controlled speech. However, differences did emerge between non-native and native speakers when examining free speech in Google or controlled speech in WSR, with higher accuracy for native speakers. Comparing results to Derwing, Munro, and Carbonaro (2000) which found 72% accuracy for non-native speech on controlled reading, Google provides increases in accuracy for non-native speakers, ranging from 88.6% for controlled reading to 93.5% for free speech.

Acquisition of prominence and tone units by native Japanese speakers of English: A quasi-longitudinal study

Shigehito Menjo

Studies exploring the Speech Learning Model (SLM), proposed by Flege (1995), have pointed out the significant roles of age of arrival (AOA) and length of residence (LOR) in the acquisition of segmentals of an L2. Studies exploring SLM regarding the acquisition of prosodic features of an L2 are still scarce, however. In light of this gap, this study investigated the acquisition of prominences and tone unit structure by native Japanese speakers of English in a quasi-longitudinal research design that held AOA consistent. 31 native speakers of English (NS) and three groups of 31 Japanese speakers of English participated. Participants read aloud a script adapted from Wennerstrom (1994) that embeds critical functions of prominence. Prominent syllable words were identified auditorily and instrumentally using a Kay Pentax Computerized Speech Lab. The number of the prominent syllable words (PS) and tone units (TU) was counted and compared among the groups. Results of statistical analyses reveal that, consistent with previous literature regarding fluency, the JP groups tended to produce extra PS in comparison to native speakers. Among the JP groups significant differences were also observed. In addition, the ratio of complete TU to the total number of TU served as a strong factor to discriminate the speaker groups. These results indicated that identifying and producing PS and TU at a discourse level were difficult for JPs, yet an ability to identify and produce PS and the production of complete TU significantly improved the longer that JPs were living in the U.S. Linguistic features of L1 that may hinder the JPs' acquisition of L2 prosody, methodological challenges, and pedagogical implications will also be discussed.

Self-evaluations, perception, and production in second semester L2 French learners

Camille Meritan

Huensch & Thompson (2017) recently showed that beginner learners enrolled in foreign language requirements consider intelligible pronunciation as an important learning goal, and as being part of their L2 ideal self. However, the communicative language method that predominates in the teaching of foreign language requirement courses has also led to learners' low level of linguistic accuracy, which Ranta & Lyster (2018) argue can be alleviated by re-integrating form-focused instruction into the curriculum. More specifically, in the case of pronunciation, Derwing (2018) shows that "explicit instruction can be beneficial […] to help [learners] produce […] more intelligibly". Furthermore, self-evaluations can be a promising complement to explicit instruction as they have the potential to be practical for teachers, providing learner-centered, individualized, formative assessment, but their impact on intelligible perception and production requires further investigation (Figueras, 2018).

This presentation will address the second phase of an ongoing mixed methods research project intended to answer Derwing & Munro's (2013) call for longitudinal studies. Conducted on 26 L2 French learners enrolled in their second of four semesters of foreign language requirement, this study aims at determining if self-evaluations combined with explicit spelling-to-sound instruction can have an impact on the perception and production of three phonological features, critical for intelligibility in French. It also aims at documenting the process by which learners develop metaphonological awareness and its role in successful pronunciation learning.

This quasi-experimental study (comparison/treatment groups) relied on the merging of results from a perception test, pre- and post- production tests surrounding integrated explicit instruction, answers to open-ended self-evaluations questionnaire, and comparing high progression with low progression learners to document the emergence of metaphonological awareness, hypothesized as a continuum where attention leads to noticing, which leads to awareness.

Prosody and discourse function

Rania Mohammed

Prosody plays an important communicative role in speech. Stressing words/syllables can indicate importance, a start of a topic, or a contrast information (Levis, Muller-Levis, & Slater, 2012). However, corpus studies have often neglected the role of prosody to signal discourse function. Specifically, lexical bundles, frequently-occurring multi-word sequences (Biber et al., 1999), have been found to have different discourse functions, such as discourse-organizing, elaboration, stance and referential functions (Biber, Conrad, & Cortes; 2004). Studies examining spoken lexical bundles have not considered the potential role of prosody to signal different discourse functions. This study examines the role of prosody in signaling discourse function in spoken lexical bundles. Specifically, it describes the prosodic variations of the lexical bundles *as you can see, one of the things,* and *one of the most,* and how these prosodic variations are linked to discourse function. The framework of Biber, Conrad, and Cortes (2004) was used to identify lexical bundles with two primary functions: discourse organizers and referential expressions. An academic corpus of university lectures compiled from Yale open courses was developed. The results showed that lexical bundles had different prosodic patterns that were related to their various functions in the lectures. The study concludes that prosody is a crucial contribution to the functions that lexical bundles can have in spoken language. This indicates that prosody needs to be considered when examining the function of spoken lexical bundles.

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“Seeing What People Hear You As”: French Learners Experiencing Intelligibility Through Automatic Speech Recognition

Aurore Mroz

Many K-16 practitioners feel unequipped to attend to their learners’ pronunciation: there is not enough time in class, individualized feedback seems impossible, and judging what counts as intelligible speech is hard. However, it is crucial that teachers prepare their students to be able to be understood by native speakers unaccustomed to dealing with L2 learners (ACTFL, 2012). One potentially useful, practical, and democratic way to answer these needs is to take advantage of Automatic Speech Recognition (ASR) on their smartphones, combined with explicit instruction on spelling-to-sound patterns. Contributing to research on mobile-assisted learning, the study that will be presented here followed up on recent ASR studies by Liakin, Cardoso, & Liakina (2017) and McCrocklin (2016), but operated a shift in paradigm and methods (Chapelle, 2005). Relying on an Ecological approach (van Lier, 2004) and Kolb’s (1984) Experiential Learning model, the study consisted in a multi-phase, quasi-experimental, mixed methods study that lasted 16 weeks, with comparison and treatment groups, and a total of 29 participants enrolled in higher education. Only the qualitative part of the study will be presented here with the aim to analytically depict the process by which L2 French learners aiming to reach Advanced oral proficiency perceived their own intelligibility using ASR. More specifically, it will unveil the process by which students experienced and developed an inward awareness of how intelligible their own language sounds, as well as an outward awareness of their role and of what is at stake in intelligible interactions. Practical implications about affordances in research on mobile-assisted pronunciation learning, as well as for teaching and assessment practices, will finally be drawn in conclusion of this presentation.

The effect of L2 English orthographic representations on L1 Tera speakers' production and perception

Rebecca Musa

Studies in L2 acquisition of phonology and orthographic input have provided evidence about L2 learners' phonological development due to orthographic input (e.g. Young-Scholten 2002 and Young-Scholten and Langer 2015). Also, the effects of grapheme-phoneme correspondences leading to non-target like productions (e.g. Rafat 2011 & 2016); and the effects of orthographic representation on pronunciation (e.g. Bassetti 2008 and Bassetti and Atkinson 2015). Studies have also looked at the effect of orthographic exposure leading to epenthesis to resolve complex clusters (e.g. Young-Scholten, Akita and Cross 1999). In this regard, a study was conducted involving L1 Tera (bilingual speakers of Tera/Hausa in Nigeria) learners of L2 English in an experimental study which looked at whether providing L2 English orthographic input would affect the learners underlying representations and in turn their productions.

Data was collected among 73 Tera speaking secondary school students in pre-test and post-test in picture-naming, dictation, ABX epenthesis and reading tasks. Qualitative analysis was conducted using linear phonological operations and rules based on six error categories as follows: vowel epenthesis, consonant cluster reduction, phone substitution, metathesis, loan-word transfer, and orthographic-based errors.

The results revealed transfer from the learners L1 structures which were less complex than the L2 structures resulting in epenthesis of vowels [u] [o] [ɪ] to resolve complex consonat clusters not permitted in their L1, e.g.'bench' /bentʃ/ → [bentʃ**ɪ**]; or deletion of segments e.g. 'lamps' /læmps/ → [læms]. Also, there was increased effects of orthographic forms due to the complexity of the L2 English grapheme-phoneme correspondences resulting in what Bassetti and Atkinson (2015) refer to as '*orthography-induced-epenthesis'* e.g. 'knife' /naɪf/ → [**k**inaɪf]. Also metathesis occured, which is the reordering of words in order to resolve clusters that constitute L1 specific constraints, e.g. 'desk' /desk/ → [deks].

Is perception enough? Individual differences in L2 perceptual learning and their relationship to L2 production

Charles Nagle

The Speech Learning Model (Flege, 1995) contends that perception guides production in second language (L2) sound learning. If perception involves covert imitation then the two domains may be even more closely intertwined (Gambi & Pickering, 2013). Alternatively, perception and production may dissociate in the initial stages of learning (Hanulíková, Dediu, Fang, Bašnaková, & Huettig, 2012). The current study examined individual differences in perceptual learning and their relationship to production over a yearlong period.

Twenty-nine L1 English speakers enrolled in first- and second-semester university Spanish language courses participated. At each of the seven monthly sessions, participants completed oddity and delayed repetition tasks to assess their perception and production of L2 Spanish stops. The oddity task included three target contrasts, [b-p] (Spanish), [p-p^h] (English), and [b-p^h] (control), each represented by six same (e.g., [pa-pa-pa]) and six different triplets (e.g., [pa-ba- pa]). The location of the odd item was counterbalanced across trials, and participants indicated its serial position, or "none" for same trials. On the delayed repetition task, participants heard a Spanish verb (e.g., *besas*, 'you kiss,' *pago*, 'I pay') and repeated it after a three second delay. Both tasks included distractor items.

A' was computed to estimate participants' discrimination ability for each oddity contrast. Mixed- effects modeling demonstrated that *A'* was highest for [b-p^h] and lowest for [b-p], as expected. Even though session did not emerge as a significant group-level predictor in any model, individual learners varied considerably in perceptual trajectories. The delayed repetition task was analyzed by considering learners' mean VOT and range of productions for Spanish /b/ and /p/. Preliminary results indicate that some individuals with excellent discrimination ability failed to produce stops accurately, but there were no cases of poor discrimination and good repetition, suggesting that perceptual ability may be a necessary but insufficient condition for accurate L2 speech production.

Corrective feedback in pronunciation teaching: A Vietnamese perspective

Loc Nguyen & Jonathan Newton

Recent studies have found that many ESL/EFL teachers' pronunciation teaching episodes mainly involved error corrections through listen-and-repeat activities but limited research has been done to investigate if corrective feedback is beneficial to students' pronunciation learning. The study reported in this paper seeks to extend this research by examining the teachers' and students' perceptions and attitudes towards corrective feedback in pronunciation teaching and learning in an EFL context where it has not hitherto been researched, namely Vietnamese tertiary education. The research investigated the pronunciation teaching practices of six EFL teachers at a Vietnamese university, and the teachers' and students' perspectives regarding these teaching practices. Data included non-participant observations, video-recordings of six ninety- minute EFL classes and interviews with both teachers and students. Stimulated recall interviews were for the teachers to elaborate on their decision-making and further sought to elicit each teacher's stated beliefs about the effectiveness of their teaching practice to their students' pronunciation learning. Focus group interviews aimed to examine how the students perceived the benefits of their teachers' classroom practices to their pronunciation learning. All the interviews were transcribed and translated into English for analysis using a theme-based approach. The findings highlighted the teachers' preference for correcting students' pronunciation errors through listen-and-repeat activities and their stated beliefs about these practices. The findings also showed the students' perceptions and attitudes towards their experience of being taught pronunciation and revealed important misalignments between the teachers' and students' preferences and beliefs.

Key words: pronunciation, corrective feedback, Vietnamese EFL, teaching practices, stated beliefs.

Testing the malleability of teachers' judgments

Mary O'Brien, Allison Bajt, Pavel Trofimovich, & Kym Taylor Reid

Research investigating accentedness and comprehensibility holds up listener ratings as the gold standard (e.g., Eskenazi, 2009). A number of such studies rely on teachers' expert judgments (e.g., Trofimovich & Isaacs, 2012), and results have demonstrated high levels of internal consistency in the ratings provided by teachers, regardless of whether they are native or nonnative speakers of the target language (Kim, 2009). On the other hand, it has been demonstrated that teachers' evaluation of students' written work may be affected by social biases (Ford, 1984). The goal of the current study is to determine the extent to which teachers' judgments of L2 learners' speech are affected by a fellow teacher's biased comments about learner speech.

Participants in the current study were 20 German school teachers who rated semi-spontaneous speech samples that were produced by 24 L2 learners of German. The teachers rated each sample along five 1,000-point continua: accentedness, comprehensibility, vowel and consonant errors, flow, and intonation. Participants were divided into two groups (n = 10) on the basis of whether or not they were exposed to a biasing orientation before the rating session. Those in the negative bias condition were exposed to a short commentary about the nonnative speech of German students before they began the rating session, and those in the control condition completed the rating task without having heard the same commentary. Although none of the teachers mentioned the biasing orientation in the debriefing session, the results of preliminary analyses point to harsher ratings among teachers exposed to the biasing orientation. In addition, teachers in this group were more likely to express their own negative opinions about nonnative speech. The results of the study point to the importance of explicitly acknowledging bias in speech assessment training.

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L2 Japanese Pronunciation Instruction: Its effects on improving learners' pronunciation, foreign accentedness, comprehensibility, and fluency

Tomoko Okuno

Many L2 learners want to improve their pronunciation because it is important for successful communication. Teachers also admit the importance of teaching pronunciation; however, pronunciation instruction is not commonly incorporated into Japanese language classes. This is partly because many Japanese teachers are not sure how to practice pronunciation. The present study investigated the effectiveness of L2 Japanese pronunciation instruction and its effects on improving foreign accentedness, comprehensibility, and fluency.

A total of 20 L2 learners (L1 English) enrolled in two semesters of intensive Japanese courses participated in this study. They completed 14 sets of pronunciation practices including both segmental and supersegmental levels such as word/sentence intonation and pausing. For each practice, the participants listened to audio files, practiced pronunciation, and audio-recorded short phrases, narratives, or dialogues outside the class after a brief practice in class. Each participant received feedback on their pronunciation for 10 minutes two or three days after each audio-file submission. At the beginning and the end of the study, the participants were asked to read and audio-record a short narrative that served as a pretest and a posttest. A short, free conversation between each participant and his/her instructor was also recorded at the end of the study.

Participants' productions were evaluated to see whether they had improved their pronunciation through the instruction. Native Japanese speakers rated their pronunciation. Results indicated significant improvement for both segmental and supersegmental levels. The native speakers also rated the learners' productions in terms of foreign accentedness, comprehensibility, and fluency. The results revealed that both comprehensibility and fluency significantly improved; however, foreign accentedness showed mixed results. Teaching implications and factors affecting the rating of foreign accentedness and comprehensibility will be discussed.

The Formation of Interactional Intelligibility due to Segmental Repair among ELF Dyads

George O'Neal

Segmental repair is the interactional co-construction of a more mutually intelligible pronunciation after its breakdown (O'Neal, forthcoming). Matsumoto (2011) and O'Neal (2015, 2016) demonstrated through observational research that speakers utilize segmental repair sequences to better approximate mutually intelligible pronunciation. This presentation describes experimental research that investigated the effect of segmental repair on the intelligibility of second language English users.

First, 45 Japanese subjects and 45 non-Japanese subjects were recruited, who were paired into 45 ELF dyads (Jenkins, 2000; Seidlhofer, 2011). Next, dyads completed a task in which they described the locations of (very difficult) minimal pair word cards to each other. As such, this experiment operationalized "mutual intelligibility" as the ability of the speaker to describe a card and its location to the listener, who would place it in the specified area. Furthermore, the dyads were randomly assigned to one of three experimental conditions, each of which limited communication strategies: 1) an "any strategy allowed" condition, 2) a "only segmental repair allowed" condition, and 3) a "no interaction allowed" condition. Each dyad completed the task three times, with a delay of about ten days between each task.

A 3 (independent measures) x 3 (repeated measures) mixed design ANOVA revealed that the intelligibility scores were different according to condition and time. Further post-hoc testing revealed that the dyads in the "any strategy allowed" condition were more intelligible than the dyads in the "only segmental repair allowed" condition, which did not support one of the hypotheses. However, a correlation analysis between the number of segmental repair sequences and the intelligibility scores of the dyads in the "only segmental repair allowed" condition revealed a statistically significant relationship. This study concludes that segmental repair is a significant contributor to the growth of mutually intelligible pronunciation.

Vowel epenthesis in Korean English learners' pronunciation: at the crossroads of perception, mental lexicon, and cognitive abilities

Hanyong Park & Isabelle Darcy

A common feature of Korean-accented English is the insertion of "spurious" vowels (epenthesis) to break up initial consonant sequences in English words. For example, "proud" may be realized as [pʊɹaʊd]. Differences in phonotactic restrictions between languages can explain where vowel insertion happens. In this case, while English allows initial obstruent-liquid consonant sequences (CC), Korean does not, and epenthesis is a learners' repair strategy. Nevertheless, learners vary greatly in how often they apply epenthesis, and the reasons for these individual differences are unclear.

We explore possible reasons for variable epenthesis rates by examining whether they relate to learners' perception, cognitive abilities, phonolexical representations (the form of words stored in the mental lexicon), and vocabulary size in L1 and L2.

Thirty Korean learners of English participated in a series of tasks measuring their production (of CC-initial English words), their perception (segmental categorization; word stress), and their phonolexical representations for CC-initial English words (lexical decision task: "is pʊroud a word?"). We also assessed the learners' cognitive abilities (working memory, attention control, processing speed) and lexical knowledge in L1 and L2.

We measured epenthesis rates through a trained listener's transcription, along with acoustic analysis, of the produced English words (CC-portion). Waveforms and spectrograms were examined to determine epenthesis, for the presence of a vocalic portion with intensity higher than surrounding consonants.

Correlation analyses revealed significant relationships between epenthesis rates (production) and error rates on segmental perception and lexical decision tasks. Also, processing speed and vocabulary size in L1 and L2 were related to epenthesis rates. These results suggest that vowel epenthesis in L2 learners' pronunciation mirrors a complex interplay among perception of segmental properties, accuracy of lexical representations, as well as vocabulary knowledge and processing speed. Results will be discussed in light of learners' overall phonological proficiency profiles and possible instructional avenues.

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Bringing the *Applied* Alive in an Online MATESOL Pronunciation Course

Betsy Parrish & Suzanne McCurdy

The goal of any course in applied phonetics and phonology should be to provide rigorous instruction in linguistic principles, while at the same time providing teacher candidates with skills and practices they can readily apply in their classrooms. The applied aspects can be particularly challenging in an online environment (Boling et al., 2011).

The presenters share their approach to teaching MA candidates in an online environment through an approach that incorporates instructional practices commonly used in ESL/EFL classrooms. Drawing on examples from their online MATESOL course in applied phonetics and phonology, they use experiential and discovery-based activities to lead teacher candidates to an understanding of such topics as:

- Perceptions of accentedness, intelligibility and comprehensibility
- Speech communities and English as a lingua franca
- Prosodic features of English
- Phonemes and allophones of NAE
- Linking and reductions in speech

The teaching strategies demonstrated in this session include, 1) analysis and discussion of speech samples to identify their perceptions of accentedness, intelligibility and comprehensibility across speech communities; 2) small group analysis of speech samples gathered by teacher candidates; 3) video demonstrations of practices for teaching prosodic features, including word and sentence stress, prominence in thought groups; 4) personalization in the presentation of phonemes; 5) Wikis and discussions on applying readings and course input in their own settings; 6) Jigsaw and small group presentations of assigned phonological principles. The presenters share guiding principles for developing the course tasks and assessments. A snapshot of participants' reactions from course evaluations are shared as well. The presenters also share how they use these same techniques in their face-to face courses.

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Design and evaluation of a computational system for learner-customized high-variability training on segmental perception in words and sentences

Manman Qian, Evgeny Chukharev-Hudilainen, & John Levis

Summary
A self-contained online system was developed to provide adaptive high-variability phonemic perception training with four types of perceptual discrimination/identification exercises. The effectiveness of the training was evaluated by examining the pre-, post-, and delayed-test performance of a treatment group with 150 students versus a control group with 100 students.

Abstract
There has been a call for the creation of a computer-assisted pronunciation teaching program that provides individualized needs-based training based on first language and learner proficiency (Levis, 2007; Munro, Derwing, & Thomson, 2015). In the current study, such a computational system was designed in Perl and JavaScript to provide word-level perceptual training on students' ability to discriminate and identify segmental contrasts with four types of exercises: same-different discrimination, oddity discrimination, simple identification, and yes/no identification. Integrating automated assessment and a learner diagnostic, the system prioritizes learner-specific problems and adapts training intensity according to real-time learner progress. The system also recognizes the efficacy of multi-voice models for perceptual acquisition (Thomson, 2011, 2012; Wang & Munro, 2014) by utilizing high-variability phonetic training exercises developed using automatically extracted text-to-speech voices. The training effectiveness was evaluated by analyzing the pre- and posttest performance of 150 nonnative English learners using the system in a self-paced, low-stress environment. The training stimuli were controlled to examine the learners' potential transfer of perceptual gains to three novel conditions: to trained words spoken with untrained voices, to untrained words spoken with trained voices, and to trained items in sentences. The learners' performance was re-tested four weeks after the training finished to investigate the retention of training gains. Data were analyzed by comparing the treatment and control groups' performance changes over time. In the presentation, we will first introduce the features of the training system by explaining the adaptive learning algorithm underlying the system design. Then, we will provide statistics to evaluate the effectiveness of the system. The system was robust in improving perception of trained phonemes, demonstrating the efficacy of adaptive, high-variability training. Transfer of learning was relatively less consistent, providing inspirations for future enhancements to the training system. Substantial variations among the learner errors and pace of learning suggested that L2 phonemic acquisition is not merely L1-specific but should be customized to individual learners.

Effects of perceptual phonetic training on the perception of Korean codas by native Mandarin listeners

Na-Young Ryu & Yoonjung Kang

Purpose: Numerous studies have found that second language (L2) learners' perception benefits from perceptual training (Bradlow et al 1997, Lopez-Soto & Kewley-Port 2009, Wong 2013). Mandarin learners with only two nasal codas /n, ŋ/ in their native phonology often experience difficulty perceiving Korean voiceless stops /p, t, k/, nasals /n, m, ŋ/, and /l/ in coda position. This study investigates the effect of training on Mandarin L2 learners' perception of Korean codas and compares the effect of explicit and implicit training.

Method: The participants were 30 native Mandarin speakers enrolled in a beginner's Korean course. Group 1 was trained to identify Korean codas in monosyllabic words with explicit instruction and feedback, while Group 2 was exposed to the same stimuli as Group 1 but was trained on Korean vowels rather than codas, in order to gauge the effect of implicit exposure. Both training groups completed eight online sessions of high-variability perceptual training and were tested at pre-test and post-test. Group 3 received no training and only conducted the pre- and post-tests.

Results: Results of a mixed effect logistic regression model revealed that learners who received explicit training outperformed on Korean coda perception than those who received implicit training or no training. Specifically, Group 1 with explicit instruction improved significantly from the pre-test to the post-test (14%), but Group 2, with implicit instruction, resulted in marginal improvement (4%), and the non-trained control group showed no significant increase in Korean coda perception. These results suggest that learners are able to improve L2 coda perception accuracy when they are aware of what they are learning.

Conclusions: This study provided empirical evidence for the influence of training on Korean coda perception by Mandarin learners of Korean. The results demonstrate that online training exerts positive effects on non-native phoneme identification. In particular, explicit phonetic instruction leads to greater improvement than implicit instruction for L2 coda perception.

Oral corrective feedback timing: The case of an Iranian EFL context

Hooman Saeli

Two under-researched components of the English pronunciation system, but essential to L2 speech intelligibility, are lexical stress (e.g. Jenkins, 2002; Field, 2005) and sentence intonation (e.g. Kang, 2010; Baker, 2011) accuracy. Aiming to provide further empirical evidence on the effects of oral corrective feedback (OCF) on lexical stress and sentence intonation accuracy, the current study set out to investigate whether, and if so, how, feedback timing (e.g., immediate vs. delayed) influences the efficacy of teacher explicit OCF on lexical stress and sentence intonation in an Iranian EFL context. The data were collected from upper-intermediate students (*N* = 61). Using a pretest-treatment-posttest design, a list of 50 new words were contextualized in 50 statements/questions to measure possible gains. MANOVA, coupled with post-hoc analysis, results confirmed that the teacher immediate (interruption→correction→student repetition of correct form) OCF (*n* = 20) and teacher delayed (no interruption→correction after utterance→student repetition of correct form) OCF (*n* = 20) groups outperformed the control group (*n* = 21), and that all three groups had significant pronunciation gains after 2.5 months. Post-hoc analysis, however, revealed that the first and second groups were not significantly different in lexical stress accuracy gains. Contrastively, the teacher immediate group had significantly higher gains than the teacher delayed one in sentence intonation accuracy. The results suggest that teacher explicit OCF can be complementary to the teaching of pronunciation. Also, in Iranian EFL contexts, the immediateness of OCF might have significant effects on the efficacy of teacher feedback for a number of sociocultural and pedagogical reasons.

Learners' perceptions of a non-standard American English dialect

Mari Sakai

Although second and foreign language classrooms tend to rely on the use of just one dialect, students will certainly have a need to comprehend various dialects of the target language (Major, Fitzmaurice, Bunta, Balasubramanian, 2005). Previous research proposes that familiarity with a dialect increases comprehension (Perry, Mech, MacDonald, Seidenberg, 2018), but how does this translate to second language (L2) instruction? As a first step, this study examined sources of learner difficulty when listening to a non-standard dialect.

Thirty-one adults with varying first languages, enrolled in an American graduate program, transcribed an audio recording from NPR's StoryCorps, which aims to "preserve and share humanity's stories" from across the United States (storycorps.org, 2018). The 2-minute recording featured a father and daughter, discussing the aftermath of the daughter coming out as a lesbian. The father, an older, African-American man from Alabama, speaks with a non-standard dialect, while his daughter speaks with a dialect that is closer to standard American English. Participants had approximately 25 minutes to complete the transcription.

A sequential, exploratory mixed-methods design was employed in this study (Cresswell & Cresswell, 2018). First, transcripts were evaluated quantitatively, utilizing interpreting and translation conventions (Barik, 1994) adapted for L2 analysis. Transcripts were assessed word-by-word for accuracy; "departures" were coded as (1) additions, (2) omissions, or (3) substitutions (Barik, 1994, p. 122). Next, all departures and their encompassing clauses were extracted and analyzed qualitatively using textual analysis (Fairclough, 2003).

Preliminary results revealed that there were significantly more substitutions and omissions in the father's transcribed speech. Qualitative analysis revealed four categories that patterned with omitted or substituted text: non-standard idiomatic expressions (e.g., "threw me for a whammy"), non-standard grammar usage (e.g., "I done growed"), standard idiomatic expressions (e.g., "tore my heart out"), and participant-driven language errors. Results will be discussed from a psycholinguistic and pedagogical perspective.

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A Strategy-Based Pronunciation Model for Improving English Linking

Veronica Sardegna

Research findings on linking in connected speech suggest that linking is a marker of fluent speech (Alameen, 2007; Anderson-Hsieh, Riney, & Koehler, 1994; Hieke, 1984) and that native English speakers' linking affects non-native English speakers' listening comprehension (Henrichsen, 1984). Unfortunately, very little is known about whether linking can be learnable through explicit instruction.

This study evaluated the long-term effectiveness of a strategy-based pronunciation model for improving English language learners' ability to link (or combine) sounds within and across words. Following suggestions from Thomson and Derwing (2014), to determine long-term retention of instruction and to compare instructed pronunciation learning outcomes to naturalistic L2 pronunciation development, pre- post, and delayed post-tests were conducted on two comparable groups of international graduate students (intervention group *N* = 15; control group *N* = 15) at an American university. From Time 1 (pre-test) to Time 2 (post-test) (i.e., 4 months), the intervention group learned strategies on how to improve sounds, phrase and word stress, intonation, and linking while the control group did not. From Time 2 (post-test) to Time 3 (delayed post-test #1) (i.e., 8 months) and from Time 3 (delayed post-test #1) to Time 4 (delayed post-test #2) (i.e., 9 months) neither group received pronunciation instruction. Results showed that the intervention group significantly outperformed the control group on linking targets at Time 2 and Time 3. Delayed read-aloud post-test scores from the intervention group at Time 4 indicated long-term maintenance of improvement with linking targets from Time 3 to Time 4. A mixed-methods analysis that triangulated students' read-aloud test scores on linking and self- reports of strategy practice during the study (i.e., 21 months) revealed a number of factors that contributed to individual differences in the intervention group's improvement with linking over time (Time 1-Time 3/4). Pedagogical implications of the findings are discussed.

Who Follows the Rules? Differential Robustness of Phonological Principles

John Scott

Although some phonological rules (e.g., German Dorsal Fricative Assimilation) receive emphasis in pronunciation instruction, acquisition of phonotactics—the principles governing where certain sounds occur—remains poorly understood. In particular, how learners associate phones with novel phonemes and acquire other language-specific distribution knowledge (e.g., English defective distribution of /ŋ/) is understudied in L2 (although see Shea & Curtin, 2010).

As a step toward understanding acquisition of allophony and syllable phonotactics in L2, this study employs phoneme monitoring (Foss, 1969) to investigate native and L2 learner (L1 English) sensitivity to violations of two principles of German phonology. In German, dorsal fricatives [x ç] assimilate to match the frontness or backness of the preceding phone in the same morpheme, so [b**ax**t]/[b**ɛç**t] are well-formed, whereas *[b**ɛx**t]/*[b**aç**t] are not. In both German and English, the phoneme /h/ has defective distribution, limited to simple syllable onsets (e.g., [**h**amt]), not clusters or codas (e.g., *[ba**h**t]).

A [t]-detection task was designed with CV_[t] nonword stimuli for two comparisons: Match ([baxt]/[bɛçt]) vs. Mismatch ([baçt]/[bɛxt]) and Onset-[h] vs. Coda-[h], and reaction times (RT) were recorded.

Stimulus condition was significantly different for both Germans (N = 14), F(3, 34.032), p < .000, and L2 learners (N = 23), F(3, 15.400), p < .000, indicating that all participants were sensitive to principle violations. The mean RT of Coda-[h] trials was robustly slower than Onset-[h] for both L1 Germans (38 ms) and learners (86 ms). In contrast, both groups tended toward faster RT for Mismatch ([baçt]/[bɛxt]) trials than for Match ([baxt]/[bɛçt]), but this effect was not significant for either group, although one might expect such an effect if Dorsal Fricative Assimilation were robust for Germans. Instead, this composite trend reflected various individual RT effect patterns. This finding raises important questions regarding the robustness of certain phonological “rules” for L2 perception and pronunciation instruction.

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The perception-production interface in the acquisition of palatalized consonants in L2 Russian

Ala Simonchyk

The traditional perspective on the perception-production link in L2 acquisition supported by the Speech Learning Model (Flege, 1995) states that accurate perceptual targets are necessary to guide learners to accurate production. However, previous research has shown that learners can acquire the correct articulation of target phonemes without being able to differentiate them reliably in perception (e.g., Darcy & Krüger, 2012; Sheldon & Strange, 1982). The goal of this study was to examine the perception-production interface in the acquisition of Russian palatalized consonants, which are known to pose much difficulty to L2 learners both in perception and production (e.g., Hacking et al., 2016; Lukyanchenko & Gor, 2011). Forty American learners of Russian performed two ABX tasks (with nonwords and real words) and an oral picture naming task. Results showed that learners' experience with the target language had no effect on their abilities to differentiate plain and palatalized consonants perceptually. Low-intermediate and highly- advanced learners of Russian both had an error rate of around 30% on the ABX tasks. However, on the oral picture-naming task, advanced learners were significantly more accurate in their production of palatalized consonants than the intermediate learners. Moreover, there were strong and statistically significant relationships between advanced learners' performance on the ABXs and the oral picture naming task: more accurate perception was associated with more accurate production. There were no such significant relationships in the performance of intermediate learners. Perception and production skills seem to be misaligned at the intermediate level of proficiency and then become aligned and interdependent at the advanced level. Therefore, even though learners' perceptual skills do not change significantly over time, advanced learners seem to make better use of their perceptual ability to discriminate plain and palatalized consonants in order to improve their production.

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Pronunciation teaching: Whose domain is it anyways?

Ron Thomson & Jennifer Foote

Several scholars have raised ethical concerns about current practices within the field of second language pronunciation teaching (e.g., Derwing, Fraser, Kang & Thomson, 2014; Derwing & Munro 2015; Foote, 2018; Lippi-Green, 2012), and have questioned the extent to which language instructors and speech language pathologists are qualified to offer instruction (e.g., Thomson, 2014). In this paper, we provide an evidence-based view of who we believe should and should not be delivering pronunciation instruction. First, we review relevant ethics and standards documents, developed by professional associations for North American English language teachers and speech language pathologists (e.g., TESOL, TESL Canada, ASHA). After establishing what these associations prescribe in terms of ethical and best practices, we then report results of a survey of 58 English language instructors, and 54 speech language pathologists, who offer what they describe as pronunciation instruction or accent modification/accent reduction services. The survey examines instructors' educational qualifications, as well as the adequacy of their knowledge-base. Mixed results indicate that while some instructors appear to adhere to their professions' ethical guidelines and standards, many do not. With reference to the survey results, we provide some possible explanations for this disconnect, including instructors' faulty assumptions about the transferability of general knowledge to this specialized domain, and a lack of professional development. Finally, we conclude with recommendations for positive change in this area.

Perceptual training in a classroom-setting: Phonemic category formation by Japanese EFL learners

Ruri Ueda & Ken-ichi Hashimoto

It is commonly said that there is a link between perception and production skills for pronunciation since both skills share the same phonemic representations (e.g., Flege, 1995). This theory has led to studies on perceptual training which consisted only of auditory identification tasks, many of which succeeded in improving L2 learners' perception and pronunciation skills without articulation exercises (e.g., Bradlow et al., 1997; Thomson, 2011). These studies, however, were mostly lab-based, and it is still unclear if the positive effects can also be observed in classroom-based training. The present study tested whether classroom-based perceptual training exerted similar positive effects both on perception and production skills, in a similar way to lab-based training.

Twenty-four L1 Japanese university students had ten-minute high variability perceptual training tasks at the beginning of their once-a-week English class for six weeks. Three minimal pairs—/b/-/v/, /l/-/r/, and /s/-/θ/—were chosen as the target phonemes. In the training session, the participants completed two-alternative forced choice tasks with the recorded minimal pairs presented to the whole class. Before and after the training, identification tasks and recording tasks were conducted to measure their improvement in perception and production respectively.

The results showed their improvement in both perception and production performances for the /b/-/v/ and /s/-/θ/ contrasts as compared with a control group, but the positive effects were limited to the words used for the training. To examine more closely the changes of relations between their perception and production over the training period, correlation analyses were conducted, which showed moderate correlations for the /b/-/v/ and /s/-/θ/ contrasts only after training. These results imply that although learning generalizations were not observed in new words, potentially due to the short length of training time, perceptual training did influence their L2 English phonemic category formation.

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The effects of task repetition on the use of epistemic stance markers: Corpus-based study

Taichi Yamashita

Instructed SLA has investigated various form-focused techniques, and task repetition has been one of the heated areas (Bygate & Samuda, 2005). Although studies reported learners' overtime improvement of L2 production through task repetition (Lynch & MacLean, 2000), practitioners have raised concerns that low proficiency learners may not benefit from simply repeating a task without any explicit form-focused instruction (Date, 2015; Hawkes, 2011). This would be especially the case when the target feature addresses pragmatic aspects because of their opaqueness (Fordyce, 2014; Nemeth & Kormos, 2001). To this end, the present corpus-based study investigates the potential moderating effects of proficiency on the effectiveness of task repetition for the use of epistemic stance markers.

The present study employed a spoken monologue corpus in the International Corpus Network of Asian Learners of English (ICNALE) (Ishikawa, 2014), focusing on Japanese learners of English of four proficiency levels (N = 114). The learners' monologues were elicited four times by two argumentative topics (i.e., 2 cycles) with 60 seconds given to each enactment. Their task performance was measured by how many tokens of epistemic stance markers were used per 50 words for each enactment with comprehensive search items (e.g., Biber, 2006). Statistical significance was assessed by conducting repeated-measures ANOVAs for each topic with Enactment and Proficiency being two independent variables.

The preliminary analyses showed no significant main effects for either Enactment or Proficiency. Furthermore, Enactment × Proficiency interaction effects were not significant either. However, qualitative analyses revealed that whereas low proficiency learners relied on a considerably limited variety of epistemic stance markers (e.g., *I think*), more proficient learners employed various epistemic stance markers (e.g., *it is true that*, *certainly*). Pedagogical implications and future research directions will be discussed with a call for a more task-supported type of instruction for pragmatic development.

Relevance of Speech Features in Building and Evaluating Automated Scoring Models: A Machine Learning Approach for ITA Speaking Assessment

Ziwei Zhou

Recent advancement in speech and natural language processing (NLP) technologies has broadened the scope of automatic evaluation of speaking proficiency by moving beyond surface-level features to "capture the entire range of linguistic expression and representation that human raters expect in spontaneous speech" (Wang, Zechner, & Sun, 2016; Loukina, Davis, and Xi, 2017). Innovations automated scoring have also re-ignited the re-conceptualization of the key inferences we draw about the appropriate interpretations and uses of machine scores. As current automated scoring systems are expanding their feature inventories, it is time to investigate of the role of speech features (both segmental and suprasegmental), which was most widely studied in automated scoring, in the development and evaluation of automated scoring models (Ginther & Kang, 2017). Making use of a variety of non-proprietary speech and NLP systems as well as state-of-the-art machine learning algorithms, this study focuses on building and evaluating automated scoring models for an in-house ITA speaking test. By explicating the scoring logic and procedures adopted by the automated scoring models, this study demonstrates that high accuracy (95.76%) can be achieved by using only speech features (N=90) through 10-fold cross-validation for the K-Nearest Neighbor algorithm, followed by Artificial Neural Network (81.36%), and Random Forest (74.01%). Interestingly, performance degraded when vocabulary features are incorporated for prediction. Model stability issues are addressed by constructing both theoretical and empirical 95% confidence intervals as well as extrinsic evaluations by testing models on new speaking prompts. Beyond demonstrating the correspondence between human and machine scores, this study seeks to understand the construct representation within the automated scoring procedures by adopting various feature selection schemes. Results indicate that, in general, fluency (e.g. speech rate, average syllable duration) and segmental features (e.g. word error rates and confidence values from ASR) figure more prominently than audio signal features (e.g. MFCC, spectral flux).

POSTERS

Intelligibility and Comprehensibility in Real Time: The Neuro- and Psycholinguistics of the L2 Parser

John Archibald

Persian (Yousefi, 2017) and Saudi (Alhemaid, 2018) L1 subjects demonstrate high accuracy scores in their perception of English sC clusters (e.g. [sl], [sn], [st]). Unlike Japanese (Matthews & Brown, 2004) and Brazilian Portuguese (Cardoso et al, 2007) L1 subjects who showed poor (chance) discrimination ability. None of the L1s allow sC clusters, but Persian and Saudi allow complex right-edge *appendices* (Vaux & Wolfe, 2009) as shown in Figure 1, while Japanese and BP do not. English allows complex left-edge *appendices* (Goad, 2016) of empty-headed syllables with the [s] in the coda, as shown in Figure 2.

Author (2018) argued that these Persian and Saudi L2 learners are able to redeploy their L1 (right-edge) appendix structure to acquire the L2 (left-edge) appendices.
I argue here that (1) perception accuracy stems from the ability to *parse* the L2 input, (2) parsing success stems from the L1 appendix structure, and (3) parsing L2 words makes them intelligible to the listener. Intelligibility should be considered within models of spoken word recognition.

A parser maps segments onto hierarchical structure. When Japanese listeners hear an input string like *stow*, they cannot parse the [st] sequence. When Persian learners hear the same string, they can assign the [s] to a coda and the [t] to an appendix. The English words are intelligible to the Persian and Saudi listeners.

Neurolinguistic research suggests that these left-edge parsing problems have intelligibility consequences. Gwilliams et al (2018) show in an MEG study that initial phonological uncertainty affects lexical activation. L2 acoustic input is a real-world scenario with the same results. When the native listener is uncertain how to assign accented input to categories then parsing can be slow.

Thus, phonological uncertainty -leading to delayed lexical activation- can be reflected in both attenuated intelligibility and comprehensibility scores.

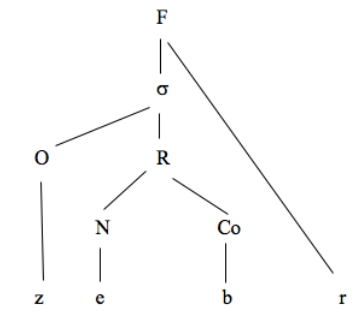

Figure 1.

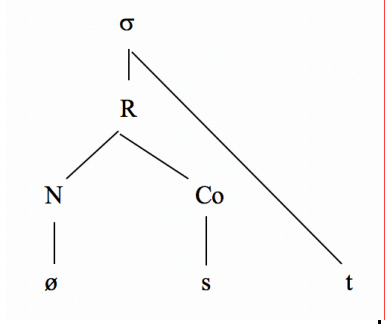

Figure 2.

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Guatemalan seasonal workers' attitudes towards L2 French: A longitudinal study

Annie Bergeron

To face Canada's labour gap in agriculture, more than 16,000 Latin-American workers are hired annually in the French-speaking province of Québec (FERME, 2017). Socially and linguistically isolated, they are totally dependent on their employer, in some cases being the only person they will ever interact with during they whole stay in Canada (e.g., Faraday, 2012). In a study conducted among 600 temporary workers in Ontario, Hennebry (2012) revealed that 71% were interested in learning L2 English. However, no study has ever explored the development of seasonal workers' linguistic attitudes.

The current qualitative study examined 12 Guatemalan migrants' attitudes towards learning and using French. Specifically, the Spanish-speaking men, who were coming for their first (*n* = 5), second, (*n* = 1), third (*n* = 2), fourth (*n* = 1), fifth (*n* = 2) and sixth (*n* = 1) year, were met at three different time periods during their work contract. Semi-structured interviews were conducted, using the *Language Contact Profile* (Freed, Dewey, Segalowitz, & Halter, 2004) and the mini-AMBT (Gardner & MacIntyre, 1993).

Individual participants' responses were compared and contrasted to determine the presence of commonalities and variations over time. Results revealed that all foreign workers initially arrived in Canada with positive attitudes. However, they developed negative attitudes towards French- speakers throughout their stay due to conflicts with their employers, and towards the language itself throughout the years, since workers mentioned that French was not suited to find better job opportunities in Guatemala, in comparison to English. While younger workers were aware of online applications to learn L2 French, they were also told that these were teaching French as spoken in other areas, thus developing negative attitudes towards the local variety. These findings will be interpreted into tangible recommendations on how to facilitate temporary workers' linguistic integration in rural areas.

Learning Pronunciation Through Culture

Fatemeh Bordbarjavidi & Erik Goodale

Learning Pronunciation Through Culture was created in the interest of helping non-native speakers learn English. the created iBook will utilize widgets such as videos, audio files, and interactive images to help students practice listening and speaking various vocabulary words and expressions. This iBook also uses aspects of Iranian and American culture, specifically holidays, to provide an overarching theme that we believe readers will find interesting and engaging.

Why Iranian and American culture? We think Iran has a rich but not necessarily well-known culture. Learners would likely find the customs and traditions to be something new and interesting. Regarding American culture, the United States has the largest population of native speakers of English. With so many speakers, it is natural for students to learn American English and by extension desire to learn more about American culture. Learning Pronunciation Through Culture provides access to both cultures in ways that might otherwise be inaccessible due to distance, finances, or politics.

Non-Native Learner's Speech Perception of International Teaching Assistants in North American Universities

Sondoss Elnegahy

Reverse linguistics stereotyping (RLS) is a process in which listeners' perceptions are shaped depending on social stereotypes (Rubin, 1992; Kang & Rubin, 2009). Previous studies have mostly focused on native English speakers' perspectives of how they perceived non-native speakers (NNSs) generally or International Teaching Assistants (ITAs) specifically.

This study is trying to fill in the gap by investigating how international students who are NNSs, Chinese and Arab students in particular, perceive the speech of ITAs, in terms of accentedness and comprehensibility. The matched guise procedure was adapted from McGowan (2015) in which NNSs were divided into three groups. Group 1 listened to a recording of an Arabic accented English (ArE) accompanied by a picture of a blond female. Group 2 listened to the same recording accompanied by a picture of the same blond female but wearing a headscarf. Group 3 listened to same ArE recording accompanied by a silhouette picture. After listening to the audio recording, participants filled a questionnaire that included:1) accentedness and comprehensibility scales. 2) A homophily scale that included questions on their evaluations of the ITAs. Following the questionnaire, participants were interviewed to reveal reasons behind the choices they made about the ITA's accent and comprehensibility.

The study results showed that both non-native listeners, Arabs and Chinese, had a higher tendency to rate the ITA with a headscarf with a heavier accent than the ITA without the headscarf. However, the Chinese listeners found the ITA with a headscarf to be less comprehensible than the Arab listeners. The answers from the homophily scales and the qualitative analysis revealed that Arab students felt an empathy with the ITA with a headscarf, unlike the Chinese listeners. Such findings may explain how invisible social factors can have an influence on how international students perceive speech of ITAs and, as a result, affect their judgments on the ITAs professional capabilities.

English learners' perception of intonation in different question types

Romy Ghanem, Olga Sormaz, Paula Schaefer, & Qiuqu Qin

Suprasegmental features, including intonation, have been demonstrated to be a key factor in nonnative speech (Kang, 2010; Pickering, 1999). Intonation patterns and contours, in particular, have been examined through various means and measures, such as length of residence/experience, native speaker perception, and pragmatics (Henriksen, 2012; Vion & Colas, 2006; Kang, Rubin, & Pickering, 2010; Chen, 2009; Pickering, 2009). Very few studies, however, have examined learners' perceptions of intonation in different types of questions, especially in regards to miscomprehension between native and nonnative speakers (Srinivasan & Massaro, 2003). This presentation will report on a study that investigates students' ability to identify the correct intonational pattern and meaning of three types of questions: yes/no, open- choice, and closed-choice questions. The first portion of the study piloted a test of 30 items (10 for each question type) that targeted different aspects of each question (the number of options it suggests, the meaning of the question, the (im)possible answers to that question). Two native speakers recorded the questions with explicit contour differences among the three question types. Thirty-one advanced nonnative speakers of various L1 backgrounds took the test through a Qualtrics survey. Results demonstrated that students seem able to recognize closed-choice question types, yet have considerable difficulty identifying an open-choice question and a yes/no question (over 35% of the time). The second section of the presentation explores the effect of explicit teaching on students' acquisition of intonation patterns. This will be achieved by providing students with short online video tutorials developed by the investigators and measuring the learners' improvement through post- and delayed post-tests. The findings from this study could aid in the design of a pronunciation class and the development of classroom materials. The teaching methods used could also help identify successful teaching approaches to intonation instruction of different question types.

An Acoustic Phonetic Account of the Confusion between [l], [n], and [ɰ] by Some Mandarin Speakers of English

Paige Gibbons, Liping Ma, & Ettien Koffi

Richards (2012) reports that some Mandarin L2 speakers of English confuse /l/ and /n/. Koffi (2017:277) indicates that the F3, duration, and intensity of /l/ and /n/ produced by Mandarin 6F, 8M, and 9M mask each other. Preliminary evidence suggests that this pronunciation is confined to speakers from Hubei, Sichuan, Shangai, and Najing. The goal of this study is to undertake a comprehensive study involving 27 Mandarin speakers and their pronunciations of /l/ in in the proper name <Stella>. The segment /l/ is more prone to mispronunciations when it occurs in syllable onsets or between two vowels. The current investigation covers two aspects in the pronunciation of /l/. The first is a confusion study based on the IPA transcriptions of 27 speakers from *The Speech Accent Achieve*. It calculates the rate of confusion between /l/ and its various allophones [l], [n], and [ɰ]. The second aspect deals with an acoustic phonetic investigation of the allophones of /l/s and measures their F3, intensity, and duration to see if they mask each other. The Just Noticeable Difference thresholds that correspond to these correlates are used to assess the degree of masking between them. Once it is determined that these allophones are acoustically similar, their impact on intelligibility is calculated using Catford's (1987) Relative Functional Load indices. Thereafter, pedagogical strategies are suggested to to help Mandarin learners of English produce /l/ intelligibly.

A Corpus-Analysis of Gendered Items in Pop and Country Music from the 90s to Now

Agata Guskaroska & Joshua Taylor

This study examines how gender has been portrayed in music across the last 30 years within Pop and Country music. We have investigated stereotypical representations of male and female in song lyrics using a corpus based-approach. The purpose of this study is to reveal more insightful perspectives and attitudes toward gender, as well as interesting trends of language use in different types of music.

In order to perform this analysis, we built a corpus containing the lyrics of the most popular 80 songs across Pop and Country music genres from the 1990's and now (20 from each time period for both genres, totaling 80) by using keyword analysis of five previously selected lemmas (girl; woman; boy; man and baby). We used regular expressions in the program AntConc to analyze the corpus. This was followed by qualitative analysis where we manually went through each instance in order to categorize the selected words based on how they were used, what they refer to, and what they portray within each lyric. We then identified common trends, similarities, and differences between and within our data sets.

Through a linguistic analysis of song lyrics across time and genre, we are able to observe how the changing of language functions within American culture. We argue that these findings can enhance the CALL classroom by providing a relevant and relatable approach for students to utilize technology and cultural artifacts in order to more effectively learn and interact with a foreign language. The results demonstrated that use of language has changed over time and genres and the scope of these nouns can be much wider than their traditional definitions. The findings point out important pedagogical implications emphasizing the value of song lyrics as teaching/learning materials which can be useful for showing the students different connotations in different contexts, music genres and time periods.

The potential of the ASR program for facilitating vowel pronunciation practice for Macedonian learners

Agata Guskaroska

This paper examines the benefits and limitation of the Automatic Speech Recognition Program – the Enhanced dictation feature available for MAC users and its possible use in providing feedback in vowel production for English L2 learners. The purpose of the study is to test the ASR program and examine the possibility for using this feature for pronunciation practice for ESL learners. The study focuses on Macedonian L2 learners and provides detailed comparison between the Macedonian and the English vowel systems. Based on the comparison, minimal pair vowels were selected and a list of 12 sentences was created and given to the participants. The participants who took part in this research are L2 learners in Macedonia, aged 18-19.

The Macedonian learners and two American native speakers (control group) provided their speech for evaluation. They read aloud the sentences and recorded their speech on a computer/smartphone. The sound files were used for examining pronunciation (segmental) accuracy. The speech samples (recordings) were turned into text by using the ASR (Enhanced Dictation feature) which turns speech into text. The text samples were analyzed, starting with two native speakers used as a controlled group. The transcribed words were compared to the correct form, i.e the program may have writen "LEFT" when the learner was attempting to pronounce "LAUGHED". A qualitative method was used and all the words were manually examined for accuracy. The results of the native speakers were compared to native speakers' results.The two primary research questions are (1) How well does the ASR program facilitate autonomy for learners by providing reliable feedback? and (2) Based on RQ1, what are the ways in which the ASR program can be used in the ESL classroom by Macedonian teachers to practice pronunciation?

The results demonstrated that the program is highly reliable for most of the vowel contrasts relying on American native speech recognition. Hence, the detected errors by the program in the Macedonian L2 speech are considered to be good feedback provided by the program. The pedagogical implications point out to ESL classroom use and individual autonomous use for pronunciation practice.

The role of consonant clusters in English as a Lingua Franca intelligibility

Mara Haslam, Elisabeth Zetterholm

While researchers have some idea of what aspects of pronunciation increase intelligibility in English when native speakers are the listeners, little is understood about what aspects increase intelligibility for non-native listeners. However, an estimated 75 % to 80 % of English users are non-native speakers, making interactions between non-native speakers (English as a Lingua Franca, or ELF interactions) common. Jenkins (2000) published the Lingua Franca Core, a suggested syllabus of pronunciation features to be taught to ELF users, based on observations from her data on ELF interactions. The Lingua Franca Core includes the claim that consonant cluster simplification by vowel epenthesis (e.g. “state” -> [səteɪt]) should result in a form that is more intelligible than the results of consonant cluster simplification by consonant deletion (e.g. “state” -> [seɪt]) because, in the epenthesized form, the original consonants are recoverable. In this study, native speakers of Swedish who are non-native speakers of English participated in an online experiment where they listened to recordings of words with consonant clusters from produced by speakers of several languages in an ELF context and were asked to type what they heard. Results will present analyses of their responses in comparison with acoustic analysis to shed light on the correctness of the LFC’s claim about consonant clusters. This study is a follow-up to the authors’ previous work evaluating the LFC and provides information that can help teachers of English pronunciation prioritize what to work with for their students.

Different degrees of effects of pauses on English rate perceived by English and Japanese speakers

Yoshito Hirozane

1. Introduction

Pausing is a very important factor when listeners judge the speaking rate (Lass, 1970). However, pause frequencies are quite different between English and Japanese. Roughly speaking, Japanese has three times as many pauses per sentence as English. Another difference is that English has a 'rallentando' or a slowing down throughout the intonation phrase (Dankovicová, 1999). Due to such great differences, the degrees of effects of pauses on perceived rate could be different. This hypothesis was tested with an experiment.

2. Methodology

Twenty-two native Japanese speakers (4 males and 18 females) and 25 native English speakers (25 females) participated in the experiment. Fifteen English passages were selected as the initial materials for the stimulus tokens. For each passage two different versions of tokens were synthesized. One of a pair had only two inter-sentence pauses while the other had some intra-sentence pauses as well. The fifteen pairs of English passages were randomly presented to the participant over headphones. The participant was asked to indicate which sequence of a given pair sounded faster or if both sounded the same in terms of rate.

3. Results

Low pause frequency passages tended to be perceived as faster by both Japanese and English speakers. However, the proportion of the Japanese speakers who judged that the low pause frequency passage was faster was greater than that of the English speakers.

4. Conclusions

Low pause frequency passages tended to be perceived as faster because more pauses make it easier for the listener to understand speech by highlighting phrase boundaries or providing them with extra time for language processing. This tendency appeared to be stronger for Japanese speakers and it could be explained by the lack of rallentandos in Japanese.

Training Japanese EFL learners to perceive English /l/, /r/, and /w/ using a cloud-based, High Variability Pronunciation Training (HVPT) application

Atsushi Iino, Ron Thomson

While numerous studies have examined the efficacy of HVPT for training Japanese listeners to perceive English /l/ and /r/ contrasts (Logan, Lively, & Pisoni, 1991; Bradlow, Akahane-Yamada, Pisoni, & Tohkura, 1999, among numerous others), we are only aware of studies that have been conducted in highly controlled phonetic laboratories. Further, with few exceptions, most studies have not examined whether this training transfers to production (see Thomson, 2018). Finally, previous Japanese /l/-/r/ studies focus on a binary distinction, which fails to recognize that for the same group of learners, English /r/-/w/ are also known to be confusable (Guion, Flege, Akahane-Yamada, & Pruitt, 2000). With the aim of extending previous research, the current study undertook to use a cloud-based HVPT program (www.englishaccentcoach.com) to train learners to perceive a three-way English /l/-/r/-/w/ distinction, in an authentic language class environment. Participants were 40 Japanese learners of English enrolled in freshman English at a Japanese university. Training comprised three-200 item perceptual training sessions per week, over a ten week term. One group of 20 learners was trained to perceive the English consonants in syllable-onset position in CV frames for five sessions, followed by CVC frames for five sessions. Another group of 20 learners was trained in the opposite order. Pre-, mid- and post-tests revealed significant improvement in perception in trained contexts, but non-significant improvement in untrained contexts. While gains in pronunciation, before and after perceptual training, were also detected by native speaker listeners, this varied across learners, across sounds categories, and was impacted by the phonetic context (i.e., CV vs CVC) in which the sounds occurred. Implications for teaching and learning will be discussed.

The Effect Of A Semester-Long Phonetics Course in The Production Of L2-Spanish Vowels

Ane Icardo Isasa

The pronunciation of the five Spanish vowels /a, e, i, o, u/ by L1-English speakers is considered a simple task due to their relative stability across dialects and speakers ([15]). However, lexical-stress patterns are different in these languages: unstressed English vowels are systematically centralized, whereas the differences between stressed and unstressed vowels are small in Spanish ([13]). Research has shown strong centralization/reduction tendencies in unstressed Spanish vowels by L1- English learners with variability per vowel ([2][3][5][6][12]) and proficiency level ([3][7][14]).

The author did a pilot study focusing on whether explicit phonetic instruction would have an effect in vowel centralization/reduction accuracy. Sentence read-aloud productions from two L2-Spanish advanced groups (enrolled in a Spanish phonetics course versus a Spanish literature/culture course) were collected in a pre-test and post- test within a 3-week window. F1/F2 midpoint values were extracted using Praat. The results of two mixed-effects regressions confirmed that L2 unstressed /a/ and /u/ had higher F1 and lower F2 values, respectively, when compared to unstressed native, and stressed native and L2 productions. However, the instruction type and testing-time did not significantly affect vowel centralization. The short-term treatment window and lack of task variety could have elicited this null result ([8][16]).

Research has shown a positive effect of long-term instruction ([1][4][5][7][9][10][16]) and the use of metalinguistic awareness measures ([9][10]) in segmentals. Variability has also been found per task ([4][16]). This study (in progress) replicates the previous analysis and analyzes the effect of a semester-long treatment, the effect of different tasks, and adds a self-evaluation and a follow-up survey. It is expected that participants will perform better by receiving a long-term treatment, that there will be an effect of task (word-reading>sentence-reading>free speech), and that metalinguistic awareness measures will elicit a difference across testing-times.

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Polish upper secondary school learners wish to improve accuracy: A longitudinal study report

Anna Jarosz

Much research and literature dedicated to practical phonetics instruction concentrates on either students at the English departments (Waniek-Klimczak, 1997, 2002; Waniek-Klimczak and Klimczak, 2005) or ESL learners (Kim, 1995; Derwing and Munro, 2005; Derwing, Munro and Thomson, 2007). Few studies, however, explore the potential of secondary school learners as well as their needs, expectations, beliefs and perceptions on pronunciation as a crucial element of language learning. The study reported here aims to fill the existing gap in the research practices and literature.

The paper presents results of a longitudinal (one-year) study conducted with a group of 10 Polish secondary school learners who expressed their eagerness to attend an additional, stand-alone, extracurricular pronunciation course devoted entirely to pronunciation instruction and addressing the learners' needs expressed before the course started. They explicitly voiced their expectations to learn to sound correctly and to pronounce words in an accurate manner. Consequently, the learners were offered pronunciation training, based predominantly on segmental features, with some aspects of prosody such as connected speech, rhythm and weak forms. The study employed various data-collection tools, which included questionnaires, participant observation, interviews as well as pre- and post-course recordings. The data analysis permits to arrive at conclusions with respect to learners' pronunciation needs and expectations, the awareness raising process, pronunciation learning strategies development (Peterson, 2000; Eckstein, 2007) and fostering learner autonomy (Dam, 2002; Pawlak, 2006) that helped them build their confidence in the field of phonetic instruction and communication in general. The perceptions of the learners regarding their their own improvement during the one-year-long structured and systematic pronunciation training (one hour per week) and their performance are juxtaposed with the auditory assessments of their reading that was recorded before the course started and after it was completed. The results suggest that systematic pronunciation instruction focused on segments and accuracy leads to considerable improvement in self-confidence, prosody and fluency of the learners.

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The role of technology in vocabulary development of EFL learners

Raja Khan, Noor Radwan, Muhmaad Shahbaz & Aional Haryati

Technology has transported innovative methods in language learning and communication. Currently, technology is greatly used as a means of communication in general as well as in education. Conveying ones message effectively, speaking skills is core of communication process and language learning. The present attempt examines the effects of readily available technology on developing speaking skills of the EFL learners. The study aims to investigate the integration of WhatsApp for the speaking enhancements. For this purpose 31 EFL learners of a public university participated in the study. The study used the quasi experimental research design. Learners were asked to practice their speaking through android devise. They were given topic to discuss in WhatsApp group. All the learners in experimental group were asked to take part in the group activities. Leaners speaking performance was monitored for a course of 5 weeks. Learners who used WhatsApp for discussion in the group significantly outperformed the learner who did not take part in WhatsApp activities on the posttest. The results of the experiment suggest that the integration of WhatsApp with the support of classroom activities was effective in the development of speaking performance. Moreover, most of learners showed positive attitude and perceptions in using WhatsApp activities with traditional classrooms activities. The findings assert that use of technology as a support with traditional activities in EFL learning classroom can foster the speaking skills. Learners can express themselves better, develop their speaking competency, and progress their language learning process.

The measurement of Japanese lexical rhythm as a second language

Naoko Kinoshita & Chris Sheppard

The development of second language rhythm, in particular, whether it is learned as a general rule which can be applied to new words, or whether it is learned as part of the lexical item, one by one, requires more investigation (i.e. Kinoshita and Sheppard, 2017), In order to do further study, however, a useful measure of the learners' rhythmic development is necessary. This paper reports the results of a pilot study designed to investigate measurement methods.
Six Chinese beginning learners of Japanese, who had never been to Japan, were recruited from beginning classes at a Chinese university. To measure their rhythmic production, they were asked to repeat 120 words immediately after a Japanese native speaker in a carrier sentence. The words were selected based on their frequency in the participants' input: high frequency of occurrence (40), low frequency of occurrence (40), and non-words (40). Their production was recorded on a Sony PCM recorder (48 KHz) in a sound booth. The rhythm was analyzed by calculating the Pairwise Variability Index (Grabe & Low, 2002), for each of the words produced by the participants and the native speaker.

The results demonstrated that, in contrary to expectations, the participants often produced the lexical rhythm of the high-frequency input words further away from the native speaker standard than the low-frequency input words. This is likely because, to reproduce the rhythm of familiar words, the participants accessed their mental lexicon (Levelt, 1993) to retrieve its pronunciation. However, when they do not know the word, the native speaker utterance was held in the phonetic loop of their working memory and produced from this representation, as there is no item to retrieve from the mental lexicon.

The implications of these results are discussed in terms of the measurement of lexical rhythm, its acquisition, and its education.

***It's not all Greek to you*: Using explicit phonetic instruction in the L2 Modern Greek classroom.**

Maria Kouti

This classroom-based study investigates the effects of explicit pronunciation instruction on the acquisition of Modern Greek L2 voiceless unaspirated stops /p t k/. Oral data was collected from L1 English students enrolled in an undergraduate second-semester Modern Greek language class at a public university in the Midwest, at the beginning and end of a 14- week semester. During the instructional period, students received short phonetics and pronunciation instruction and practice activities designed to improve their perception and production of voiceless stops /p t k/ of Modern Greek. All target sounds were isolated and analyzed individually using PRAAT (Boersma, 1995) and various statistical analyses were carried through SPSS. Preliminary results reveal that the treatment had a significant effect on learners' pronunciation, especially for /k/ and /t/ but not for /p/, indicating that the participants receiving explicit training on articulatory phonetics increased their production accuracy on L2 Modern Greek phones. Also, this preliminary study on L2 Modern Greek corroborates the hypothesis that explicit instruction is in fact beneficial to L2 learners, based on the results of previous work on other foreign languages (Archibald 1998; Major 1998; Moyer 1999; Lord 2005).

Suprasegmentals + sitcoms = becoming more comprehensible while having fun!

Edna Lima & Zoe Zawadzki

Suprasegmentals are crucial for the development of comprehensibility (Gordon & Darcy, 2016; Saito & Saito, 2017). Therefore, they should be included as a key component of pronunciation training. Sitcom clips are an engaging method of teaching the perception and production of suprasegmentals. They allow teachers to make use of dramatic techniques, such as shadowing and imitation, which are an effective method of teaching pronunciation (Celce-Murcia, Brinton, Goodwin, & Griner, 2010). For students, sitcom clips provide authentic input and the possibility of more engaging and motivating pronunciation practice. For instance, when asked about her favorite activity in an online pronunciation course, a student mentioned that her "favorite activity was imitating and recording the dialogues from the different video clips... The main reason for this being my favorite is that I never got bored, even if I record[ed] my dialogues for 100 times. This activity was fun and made me realize that if I follow the rhythm properly while speaking, it would sound more interesting to the listener." This poster presentation will feature a variety of engaging activities that employ short sitcom clips to help students in an online course improve their perception and production of word stress, rhythm, and intonation.

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Short-term gains in L2 speech during an oral skills course: Examining speech rate and fluency

Pekka Lintunen & Pauliina Peltonen

Increased L2 spoken proficiency is an important learning goal for L2 learners. The amount of explicit instruction on pronunciation and overall spoken skills varies depending on, for example, teaching methodologies and the washback effect from final exams. Although L2 learning is a long process, recently, researchers have also been interested in the short-term gains in L2 (e.g., Trofimovich, Kennedy & Blanchet 2015, Tavakoli, Campbell & McCormack 2016). In this study we were interested in the short-term effects of explicit spoken language teaching.

A group of upper secondary school learners (n=20) was tested at the beginning and end of a 7-week course on spoken English. We tested their pronunciation accuracy and utterance fluency. We will discuss our results focusing especially on fluency measures related to the speed and breakdown (pausing) dimensions of utterance fluency (see e.g. Skehan 2009). Our findings suggest that many measures reveal development, but individual differences and, in our data especially, the effect of the teacher's preferences on the results obtained are important factors to consider. Although we focus on short-term fluency development, we will also discuss how formal education on spoken language features can have positive long-term and affective effects.

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Tonal Recall: Musical ability and language-learning ability

Jane Lorenzen

Because music and language both involve aural patterns and segments, it has been speculated that they share cognitive processes. Research by Bowles, et al. (2016) found that musicality did not have as great an effect as did linguistic pitch processing ability on participants' ability to remember Mandarin nonce words. The current project investigated whether there is a correlation between musical ability and receptive phonology (the ability of a listener to make distinctions between language sounds). Specifically, this project addressed the following research questions: Is there a correlation between musical memory and the ability to recognize Mandarin tonemes? If there is a correlation, does this correlation differ between men and women? Does the correlation differ by age? The participants in this study, all adults, took a tone-deafness test that measured their pitch perception and short-term musical memory. Participants then watched a YouTube video that explained the tones used in Mandarin. After watching the video, they played two online games (one easy and one moderate) to measure their ability to identify the Mandarin tones that they had just learned. Finally, participants recorded their scores and demographic information (language history, age, gender, musical training) on an online survey. The correlation between participants' musical and toneme scores was calculated. Preliminary results showed a weak-to-moderate positive correlation between the two scores, with a higher correlation for men than for women, and with a significantly higher correlation for older participants. The results suggest that musical ability is one of the individual differences might confer a slight advantage on adult second language learners.

Influence of Educational and Linguistic Background on Rater Perception of Second Language Oral Performance

Ivana Lučić

One of the potential sources of variability in second language (L2) oral performance assessment is rater bias. This variability can come from four rater effects dimensions: 1) raters' overall leniency, 2) bias towards a particular group of examinees, 3) differences in rating scale interpretation, and 4) internal scoring consistency (McNamara, 1996). These dimensions may be related to the difference in perception of L2 speech by native (NS) and non-native (NNS) raters, and raters' familiarity with speakers' first language (L1). Also, raters' educational background can shape L2 speech perception to an extent. This study explored the possibility of rater bias arising from NS and NNS raters when controlling for educational background. The data from the speaking portion of an English placement test (EPT) at a large midwestern university was used. Four NS and eight NNS doctoral students in applied linguistics rated 99 L2 speakers of English on four categories (pronunciation, grammar and vocabulary, fluency, and interactional competence). The scores were analyzed using Multi-facet Rasch measurement, and a four-facet model was specified. The results indicate that the NS and NNS rater groups were equivalent in their consistency and severity levels when rating L2 speakers of various L1 backgrounds. Additionally, it was revealed that raters exercised equal levels of severity when it comes to the four rating categories, and that the consistency within each category was high. The findings suggest that shared educational background contributed to consistent perception of L2 speech, and therefore, the variance in rater performance was reduced. Also, it may be that extensive linguistic training of the raters in the current study helped to increase the consistency in assigning scores to each of the scoring categories. This study provides valuable information for high-stakes testing situations, and suggests better practices for rater training procedures.

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L2 pronunciation of first year English Department students in Poland: progress testing

Marta Nowacka

The primary aim of this study is to determine if the phonetic instruction received by first year English Department students in Poland has been beneficial and if the initial goals have been achieved. Our intention is also to verify if after the course other phonetic problems still remain and if the learners' communicative effectiveness has improved (Celce-Murcia et al.,1996; Derwing and Munro, 2015; Reed and Levis, 2015).

A self-designed diagnostic pronunciation test, was administered to 100 freshers in their first week of study at the university and then repeated twice after the first semester and at the end of the course. The test consists of two speech elicitation tasks, i.e. a sample of each learner's extemporaneous speech (a description of interests) and reading aloud tasks. The word-reading exercise encompasses 35 lexemes which present a variety of phonetically difficulties, including orthography and lack of transparent letter-to-sound correspondence, i.e. silent letters in *gnaw*, problematic letters and letter combinations, e.g. 'o' in *oven* versus *protein*, or 'ch' in *charlatan* versus *archives* and 'words commonly mispronounced' (*ancient*) together with examples exhibiting frequent word-stress misplacement (*area*). The sentence-reading task comprises among other things such phonetic aspects as weak forms, contractions (*mustn't*), 'trap' words (*dough*), words with difficult word stress (*determined*), rendition of verb forms as well as place names (*Niagara Falls*).

This evidence-based testing method should provide findings on which aspects of English phonetics have improved, which still call attention and should be worked on to enable the future English language specialist overcome this deficiency.

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The Effectiveness of Implicit and Explicit Instruction on L2 German Learners' Pronunciation

Peter Peltekov

Previous research has investigated the effectiveness of implicit and explicit instructional methods on second language (L2) learners' grammatical accuracy. However, there is a scarcity of studies focused on the effects of the two teaching methods on L2 learners' pronunciation. To fill this gap, the present study examines the effects of implicit and explicit instruction on the pronunciation of beginner learners of German. One group of learners was taught pronunciation explicitly (i.e., using phonetic rules), another group—implicitly (i.e., through perception activities), and a third group received no pronunciation instruction. A pretest-posttest design was used to measure learners' improvement in accent and comprehensibility. No significant difference in progress was found across the three groups. The findings suggest what learner variables might be better predictors of improvement than the type of instruction. Moreover, not all pronunciation features were equally relevant for L2 learners' comprehensibility. The results have implications for L2 pronunciation teaching.

When perception of suprasegmental meaning varies across languages, what is a teacher to do?

Monica Richards & Elena Cotos

The human vocal mechanism is the same across languages and there are only a finite number of ways it can be configured. As a result, languages sometimes differ not so much in terms of *which* suprasegmental features they include but rather in the meanings they attribute to various features (Celce-Murcia, Brinton & Goodwin, 2010). As a result, arguably the biggest hurdle L2 learners face in perceiving and producing certain suprasegmental features of L2 pronunciation such as intonation and intensity (volume) is learning to attribute L2 meanings to these features. For example, speakers of many languages do not use intonation as the primary indicator of meaning, stance or attitude (cf., the grammatical and modal – i.e., mood – particles of Mandarin Chinese). L1 English listeners can therefore perceive, for example, L2 learners' relatively monotone English (Wennerstrom, 1994) as expressing boredom, coldness or even hostility, while learners view the broader pitch range of L1 English speakers as unnecessarily exaggerated and emotional and therefore resist adopting it for themselves. Similarly, though listeners in every language expect speakers to use appropriate volume, American English listeners can interpret students' relatively quiet volume (Hanley, Snidecor & Ringel, 1966) as indicating lack of confidence – and possibly therefore lack of competence – potentially hurting job prospects for learners aiming to work in L1 English contexts. Therefore, although increased focus on intelligibility and comprehensibility over accent is certainly welcome (Munro & Derwing, 1999) as is recognition that learners' goals may focus on English-as-a-Lingua-Franca (ELF) rather than ESL communication (Jenkins, 2000), this presentation recommends teachers discuss with students their personal ELF vs. ESL communication goals, inform them of L1 listeners' potential sociolinguistic interpretations of various suprasegmentals and if students desire, introduce several strategies and tools recommended in this presentation for independently increasing their calibration to L1 norms.

French stereotypical accent and pronunciation development of /p/, /t/, and /k/

Viviane Ruellot

This study aims to contribute to emerging research investigating the impact of second language accent imitation in the native language on the learning of second language pronunciation (e.g., Everitt, 2015; Rojczyk, Porzuczek & Bergier, 2013). Unlike previous studies, the present one is based on stereotypical rather than authentic accent imitation, and examines the impact of salience (from exaggeration), simpler processing (with English as the carrier of the accent), and familiarity with stereotypical accent (from early exposure through the media) on pronunciation improvement. Previous research has focused on voiceless plosive voice onset time (VOT) mostly in English and Spanish. The present study focuses on the same feature in French. Over three weeks, twelve Anglophone learners of French at a Midwest institution received instruction about French pronunciation features and based their practice on models in one of three groups: the stereotypical accent group, in which the models spoke English with a stereotypical French accent (n=4), the authentic accent group, where models spoke with an authentic French accent (n=4), and the French group, modeled by native speakers of French speaking French (n=4). Learners recorded their pronunciation of texts they read and pictures they described before and after practice. Words featuring the voiceless plosives in initial position were presented to three native speaker raters for assessment. In addition, VOT measures were taken. While native speaker ratings indicate no pronunciation improvement of French /p/, /t/, and /k/, VOT measures do. However, results do not support previous findings: the group focusing on stereotypical French accent was not at a significant advantage for reducing VOTs of French voiceless plosives. Results are discussed in terms of perception of accentedness versus acoustic measurement. Also addressed are the issues of length of training, number of features involved, and learners' expectations.

Effects of L1 phonotactic constraints on L2 coda perception: A case study with native English and Mandarin learners of Korean

Na-Young Ryu

Introduction: Many cross-language studies found that first language (L1) phonotactic constraints affect second language (L2) perception (Flege and Wang 1989, Bradlow 1995, Broselow and Zheng 2004). This study examined how accurately Mandarin and English L2 learners identify Korean stop and nasal codas in relation to their L1 phonotactic restrictions to L2 perception. Mandarin has a phonotactic restriction against consonant clusters, and only two nasals /n, ŋ/ are allowed in coda position, whereas English has voiceless/voiced obstruents and three nasals /n, m, ŋ/ as well as two liquids in coda position.

Methods: 38 Mandarin and 28 English listeners learning Korean as a foreign language participated in a forced-choice identification task. 10 native Korean speakers acted as controls. The task consisted of 150 monosyllabic Korean words containing stops /p, t, k/ and nasals /n, m, ŋ / in coda position. Participants were asked to listen to a Korean stimulus and identify it by pressing a corresponding number on the keyboard.

Results: The results of a mixed effects logistic regression model showed that Mandarin L2 learners who lack voiceless obstruents and /m/ codas had more perceptual difficulties with Korean codas than English L2 learners, which does not have many restrictions on what segments appear syllable finally as Mandarin does. In addition, English listeners reached the accuracy level of native speakers of Korean for Korean codas. Mandarin listeners were better at identifying Korean nasal codas than stop codas. More specifically, each nasal and stop coda is perceived at different levels by Mandarin listeners. Korean /n/ was relatively easy for Mandarin listeners to perceive (around 89% accurate) compared to Korean velar nasal / ŋ / (77%). For perception of Korean stop codas, Mandarin learners had the lowest perception accuracy rate for Korean /k/ (58%) and had the highest accuracy rate for Korean /p/ (84%). Overall, this study provided empirical evidence of the influence of L1 phonological constrains on L2 coda perception.

Summary: The goal of this study was to investigate the effects of L1 phonotactic constraints on L2 coda perception. English learners with voiceless/voiced obstruents and three nasals /n, m, ŋ/ in coda position in their native language outperformed Mandarin learners with only two nasal codas /n, ŋ/ in learning to perceive Korean codas, indicating that L2 perception is interfered with by L1 phonotactic constraints.

Increasing Pre-Service Teachers' Expert Knowledge, Effectiveness, and Agency

Veronica Sardegna

Recently, the pronunciation-teaching model has tended to focus on learner comprehensibility and intelligibility (Derwing & Munro, 2005; Levis, 2005). However, so far few attempts have been made to teach this model within TESOL programs. Despite calls for specialized training in teacher preparation programs (Cullen, 1994; Kamhi-Stein, 1999), and arguments in favor of incorporating supported field experiences (Zeichner, 2010), specialized training and resources for teaching English pronunciation are seldom offered in TESOL programs (Derwing & Munro, 2005; Murphy, 2014). This study investigated the effectiveness of an approach that incorporated a supported pronunciation tutoring intervention in a MATESL teaching pronunciation course, and explored the effects of the approach on eighteen pre-service teachers' expert knowledge and agency.

While receiving instruction on how to teach English pronunciation, eighteen pre-service teachers (native English-speaking/NES = 8; nonnative English-speaking/NNES = 10) tutored one or two ESL learners twice a week for six weeks. A mixed-methods analysis of the tutees' (*N* = 26) biweekly reflections and pre- and post-read-aloud test scores revealed that the tutoring was useful, appreciated, and effective in improving their ability to reduce vowels, link sounds, stress phrases, and use appropriate intonation. A qualitative analysis of the pre-service teachers' reflections indicated that their expert knowledge as well as their capacity to teach pronunciation purposefully, reflectively, and autonomously (i.e., their teacher agency) positively changed during the tutoring, and that these changes resulted from their individual efforts and the contributions of five contextual and structural factors: The MATESL course instruction, the tutoring experience, feedback from tutoring observations, observations of peers' teaching, and critical reflections on teaching. A sixth factor was found to contribute to a change only in the NNES teachers' expert knowledge and agency: use of online resources and other models as teaching aids. Pedagogical implications and suggestions for future research are discussed.

On Spanish Trill Production Improvement for L1 English Learners

Benjamin Schmeiser

The present study treats the pronunciation of the Spanish trill by L1 English learners. The Spanish voiced alveolar trill, /r/, is produced by making two (or more) occlusions, between which is a vowel-like fragment called a svarabhakti vowel. That said, the Spanish trill, is not a simple repetition of tap gestures, but rather a different articulatory mechanism altogether. With this in mind, the present study first presents the Spanish trill in acoustic, articulatory, phonemic, and allophonic terms. Then, I consider general findings with specific regard to L1 English learner production on the trill. Over the last twenty years, researchers (Reeder, 1998; Lord, 2005; Waltmunson, 2005; Face, 2006; Johnson, 2008; Olsen, 2012; Scarpace, 2014; Schmeiser, in press) have increased our understanding of trill production by L1 English learners. In general terms, three tendencies emerge from these studies. First, many learners obtain a higher percentage of target production in stages, from the retroflex /ɹ/ to the tap, and finally, to the trill. Second, for many, the intervocalic trill (especially word-medial position) is easier to produce, followed by word-initial position. Third, surrounding vowel height affects trill production in that trill production increases from high to mid and mid to low vowels. The current study is novel in that, based on these tendencies, it offers practical solutions to improve trill production. Due to space limitations, I discuss here my analysis in general terms: First, learners should learn to perceive the differences between the American English retroflex /ɹ/, the Spanish tap, /ɾ/, and finally the trill; this should be followed by explicit articulatory practice, with emphasis on both place of articulation and airflow. Then, learners should practice trill production in terms of word position (i.e. word initial vs. word-medial). Finally, there should be explicit instruction on vowel height, followed by exercises that isolate each vowel.

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The Role of Speaker Identity in High Variability Phonetic Training

Alif Silpachai, Evgeny Chukharev-Hudilainen, John M. Levis, Tatiana A. Klepikova, & Gabi Mitchell

Previous studies have reported success in using the High Variability Phonetic Training (HVPT) to train listeners to perceive nonnative segment contrasts, even when the stimuli were generated by a text-to-speech (TTS) system (Qian, Chukharev-Hudilainen, & Levis, 2018). Although these studies have often reported that talker variability (e.g., stimuli produced by multiple talkers) is a major contributing factor to the success of the paradigm, it is unclear which factors underlying TTS talker variability influenced improvement during training. This indicates that features related to speaker identity may be fruitful variables to examine.

The present study thus aimed to determine whether training success is dependent on varying two cues related to speaker identity: vocal tract size and fundamental frequency (f0). Russian listeners were trained using the HVPT paradigm to identify two TTS-generated, English vowel contrasts (/i/-/ɪ/ and /ɛ/-/æ/) that were either produced by two TTS voices (male and female voices), or one male TTS voice and the same male voice with a manipulated vocal tract size and f0, so that the voice sounded female. Thus, in the former condition, many acoustic cues in two voices were different, whereas in the latter, only speaker-identity cues were different. Results of the experiment are discussed in relation to EFL classroom settings where there is a scarcity of native speakers who can produce training stimuli.

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A cross-linguistic study on lexical tone processing in Mandarin L1 and L2

Kuo-Chan Sun

The present study investigated how tonal information is utilized by English learners of Mandarin Chinese during the course of spoken word recognition by comparing their perceptual performance with native speakers'. To recognize a spoken word in Mandarin Chinese, unlike Indo-European languages, listeners have to extract both segmental and tonal information from the speech signal. Previous studies presented two different accounts regarding the processing interaction between segmental and tonal information. Some (e.g., Malins & Joanisse, 2010) suggested that both types of information are accessed concurrently and play comparable roles while others (e.g., Sereno & Lee, 2015) showed that segmental processing occurs earlier than the processing of tonal information. To further clarify the processing of lexical tone, the current study built on past work by examining this issue through an auditory lexical decision experiment conducted with both native and L2 listeners.

Two sets of monosyllabic Mandarin words were constructed in the study. The stimulus words selected in the first set (3-tone condition) were syllables that can be associated with three of the four Mandarin tones (i.e., T55, T35, T214 and T51) while words in the second set (1-tone condition) were syllables that can be associated with only one tone. Both listener groups were asked to make a word/nonword decision on the syllable they heard. Results showed both groups recognized fewer words from the 3-tone condition than from the 1-tone condition. However, L2 listeners' performance was inferior (lower accuracy and longer RTs) to native listeners. These results suggest that tonal processing occurs later than segmental processing, providing supporting evidence to the serial processing account, not the parallel processing one. The observed L1/L2 difference is likely due to L2 listeners' relative inexperience with Mandarin tones and their consequently having difficulties perceiving tone accurately and activating and selecting the correct lexical item promptly.

Using Readers Theater to Bridge the Oral Skills Gap From Perception to Production

Mark Tanner & Alisha Chugg

Readers Theater is a technique that has been used largely with elementary school students as a means of improving oral reading skills (Corcoran, 2005; Keehn, Harmon, and Shoho, 2008). Little attention has been given though to how this technique could be utilized in building Adult English language learners (ELLs) speaking fluency and accuracy.

While dramatic techniques have been used in ESL classrooms for several years (Boudreault, 2010), role-plays students may participate in are only practiced for a few minutes during an individual lesson as a means engaging learners in conversational discourse. Readers Theater, on the other hand, can make use of prepared scripts that incorporate a specified grammar principle, idiomatic expressions, and lesson vocabulary relating to the unit topic being studied. Another advantage of Readers Theater is that the technique does not demand the use of extensive costuming, props, or scenery (Moran, 2006). This presentation will share the results of an action research project conducted with 12 low-intermediate adult ELLs ages 18 to 36 years old from a variety of L1 backgrounds. These learners participated in a series of four readers theater activities implemented over the course of 14 weeks. Student feedback in surveys and end-of-course focus groups showed that they felt the technique had a positive impact on their perceived levels of fluency, accuracy, and level of self-confidence.

Beyond results, the presentation will share a sample script and discuss ways that ESL teachers can implement this fun and engaging activity that enriches learners' oral fluency, accuracy, and use of suprasegmentals in discourse. (253)

Longitudinal study of French liaisons and the long-term effects of explicit instruction

Anne Violin-Wigent

Although language acquisition is described as a slow process, instructors are constrained by the time limit of a semester to evaluate their students' progress. Most longitudinal research uses the same timeframe or even less. In this presentation, I follow a dozen learners over the course of three or four semesters to analyze the evolution of their accurate production of French liaisons. The corpus includes recordings of texts read during a 3rd-year pronunciation class as well as sentences read aloud and spontaneous speech collected during a 4th-year class on French syntax. Spontaneous data comes from several paired dialogues during which each student talked for about 10 minutes.

Overall, there seems to be little variation across time and task, although the 4th-year reading data shows the lowest accuracy. The 3rd-year and the 4th-year classes show a difference in terms of what factors are retained as significant by GoldVarb. In the 3rd year, only the type of liaisons was significant, with forbidden liaisons being more likely to be produced accurately than obligatory. This suggests that the actual pronunciation of this 'extra' liaison consonant was problematic and, therefore, not acquired. By opposition, in the 4th-year class, both in the reading and speaking tasks, the context of liaison was significant (but the type was not). This reflects a refinement in the acquisition of liaisons, from broader categories of 'always' vs. 'never' (types) to finer categories (contexts). More interestingly, the contexts themselves show a difference between the two tasks. Some contexts are similar in both formats while other categories tend to show better results in the guided task. Only one context (after a preposition) shows better results in a spontaneous format. This seems to suggest that, while some acquisition has taken place for the learners, some contexts remain difficult even after several semesters.

Success factors and constraints determining the acquirement of intelligible pronunciation among immigrants in the United States

Marcin Wojciech Telidecki

Correct articulation is accountable for our intelligibility, therefore it is one of the key aspects responsible for conveying our meaning without causing unnecessary confusions for the interlocutor. This study emphasized the importance of learning pronunciation by adult ESL learners on the path to the successful and more reliable communication.

The procedure in the study was as follows: one experimental group consisting of 20 learners were subjected to an intensive pronunciation training. The subjects of the study were Polish learners of English, who were instructed by the researcher for a period of three months in the English pronunciation. The pronunciation training was both practical and theoretical. In the study, the researcher used three pronunciation tests provided to learners at the beginning and at the end of the course, where the most important issues related to segmental and suprasegmental features of English were tested.

In this research, the study concerning students' abilities influenced by their first language (comparable analysis of both Polish and English sounds), perception, and awareness of their limitations towards the learning of pronunciation was described and analyzed. In the light of the findings it seems justified to introduce ESL pronunciation formal instruction as early as possible, to allow ESL learners (majority immigrants) to acculturate with the target language society and achieve success in communication with native speakers of English.

Terrible articulation will make individuals misconstrue the speaker effortlessly, while great elocution will urge them to listen the speaker eagerly. There is no successful communication without a correct pronunciation. The study findings give a useful insight into the area of learning pronunciation as well as provide stable grounds for further analysis and research.

Keywords: intelligibility, formal instruction, perception, pronunciation

Variations in the Production of the Neutral r-colored Vowel in L1 Spanish Speakers

Matthew Yaksic

In the present study we examine the production of neutral r-colored vowels in English by native Spanish speakers in words with different orthographic representations of the target sound ([ɝ] or [ɚ].) We hypothesize that native Spanish speakers will be influenced by orthography in their production of these sounds, whereas native English speakers will not (i.e., the vowels of 'girl' and 'earth' will be pronounced the same).

Method: Participants: Participants were four male L1 Spanish Speakers enrolled in an English education program in Cali, Colombia. Each was in the fourth semester of the 10-semester program. The control group consisted of three male native English speakers from the Midwest.

Procedure: Participants read a list of 16 target and 43 filler English words. For multi-syllabic items, the target items had either [ɝ] or [ɚ] represented as a stressed or unstressed syllable. The target items represented possible orthographic representations of the r-colored vowel: <<er>>, <ir>, <ur>, <or>, <ear>.

Analysis: First and second formants measurements of the vocalic portions (midpoint) for each target word were taken and where present, F3 was also measured, to determine the degree of rhoticism. The dependent variables of this experiment were the F1, F2, and F3 formants of the vowel qualities of each utterance of the target words produced by the participants and the independent variables were group (L1 English vs. L1 Spanish) and orthographic condition.

Preliminary results suggest that orthography plays a key role in determining how native Spanish speakers produce neutral r-colored vowels. Specifically, the Spanish speakers often altered the pronunciation of the vowel quality for each orthographical variation, while the native English speakers did not demonstrate any such changes. These results are discussed in light of the interaction between orthography and phonology.

Improving ITAs' Instructional Confidence Through Structured Contact Activities with U.S. Undergraduate Students

Katherine Yaw, Okim Kang, & Janay Crabtree

International teaching assistants (ITAs) in North American institutions of higher education boost the academic quality of education available to undergraduate students, but many university students regard ITAs not as opportune, but as problematic. ITA research shows that negative perceptions of ITAs can be mitigated by ITA programs, which introduce opportunities for structured contact between undergraduates and international students (Kang, Rubin, & Lindemann, 2015). Structured contact programs can promote collaboration and support positive effects of contact on intergroup attitudes (Pettigrew & Tropp, 2006). However, previous research mostly addressed U.S. undergraduate students' biases in their judgments of ITAs' speech but did not examine how such structured contact activities could impact ITAs' perception toward US undergraduate students and their teaching confidence. The current study focused on ITAs' attitude changes through structured contact programs that could offer benefits to ITAs and investigated the impact of such contact on ITAs' confidence in their teaching ability and understanding of U.S. culture. One hundred one international graduate students took an attitude survey two times at the beginning and the end of the academic semesters. They all participated in a long-standing ITA program at a major research university. The program was developed to help prospective ITAs improve their language, intercultural communication, and teaching skills. International students interacted with their U.S. undergraduate partners once a week for eight weeks for one hour each time. Results showed that after this contact, the prospective ITAs gained significantly more confidence in understanding spoken American English and gearing their teaching to their audience. Future applications of contact activities that promise to improve both ITAs and U.S. undergraduates' comprehension are discussed and specific recommendations are made for the development of the global citizenship.

An Acoustic Phonetic Account of VOT in Russian-Accented English

Mikhail Zaikovskii

Voiced Onset Time (VOT) is defined as the length of time that passes between the release of a stop consonant and the onset of voicing or the vibration of the vocal folds. Russian is known as a “true voice” language because it has a short positive VOT for voiceless stops and a long negative VOT for voiced stops. This study investigates whether or not Native speakers of Russian transfer the negative VOT of their L1 into L2 English. The VOTs and duration of the utterances that contain voiced and voiceless English stops produced by five males and five females are measured in running speech. Sancier & Fowler (1997) studied VOTs in a true voice language such as Brazilian Portuguese. They found that the native speaker of Brazilian Portuguese in their study had a longer VOT after an extended stay in the United States and shorter duration after an extended stay in Brazil. The authors came up with the explanation of these results as the influence of the English stops with long-lag VOT (typical for aspirating languages) on the duration of positive VOT in the speech of native speaker of Brazilian Portuguese. In light of the above, the goal of this study is twofold. The first is to find out if Russian speakers of English transfer the VOT of their native language into English. The second is to investigate whether or not the length of residence in an English-speaking country has any impact on the duration of VOT.

INVITED PRESENTATIONS

PSLLT 2018 Plenary

High variability training in the lab and in the language classroom

Ann Bradlow

Why is it so hard for second-language learners to gain control over certain sounds in a foreign language? And, what is the most effective way to improve perception and production of difficult foreign language sounds? In this presentation, I will review the principle behind a particularly effective approach to novel speech sound learning, namely the high variability training approach. Importantly, this training approach builds on current theories and models of speech perception in which naturally occurring variability across talkers and communicative settings is viewed as a source of information about underlying category structure, rather than as noise that must be separated from the signal in order to access essential, invariant linguistic information. I will then present data from two lines of research that have explored this training principle in laboratory-based studies: (1) acquisition of the English /r/-/l/ contrast by Japanese listeners, and (2) perceptual adaptation by native speakers of American English to foreign-accented English. Both lines of research demonstrate remarkable flexibility in speech perception and production even in monolingual adults. At the same time, for both novel L2 contrast learning and adaptation to foreign-accented speech, flexibility is constrained in principled, and therefore controllable, ways by L1-L2 structural mismatches as well as by the training conditions. Translation of these basic training principles to language classrooms is the next frontier for this research agenda.

Are phonological updates in the L2 mental lexicon perceptually driven?

Isabelle Darcy & Jeffrey Holliday

This study examines how second language (L2) learners mentally store words. Lexical encoding of difficult L2 phonemic contrasts has been shown to be challenging, but little is known about how learners update initially inaccurate lexical representations. Over time, sustained input helps the L2 phonological system develop, and processing of phonological dimensions becomes more accurate. Similarly, learners' lexical representations become more accurate over time. Given the assumed link between perceptual ability and word form learning [e.g. Pallier et al., 1997; 2001], it is possible that improvements in lexical representations depend on improvements in perceptual accuracy—yet this is still an open question. Learners may update their lexicon as a result of perception improvement: as a perceptual dimension is acquired (e.g. a specific vowel contrast), words containing it are updated.

We examine this question using a lexical decision task targeting two vowel contrasts in Korean: /o/-/ʌ/ (test) and /o/-/a/ (control), with the test contrast being especially challenging for L1 Mandarin learners of Korean. Each word (8 for each vowel within the contrast) was modified to create a paired non-word by switching the vowel (e.g. /o/ for /ʌ/ and vice versa). This resulted in 64 items per contrast (32 test, 32 control). 160 distractors were added. Participants (n = 13) completed the lexical decision, a vowel identification task, a background questionnaire, and a word familiarity questionnaire.

A mixed effects logistic regression model revealed a significant effect of contrast (test being less accurate than control; $\beta = 1.17$, $z = 3.34$, $p < .001$). Vowel identification data revealed that listeners who confused /o/ and /ʌ/ less often were also less likely to incorrectly accept non-words ($R2 \approx 0.352$, $p < .02$), suggesting that L2 learners' lexical representations are updated to reflect their current representation of L2 phonological contrasts. Thus, lexical updates appear perceptually driven.

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Utopian Goals Revisited

Tracey M. Derwing

In 2009, I gave a presentation at the inaugural PSLLT conference entitled *Utopian Goals for Pronunciation Teaching*. In this year's presentation, I will revisit those goals to see how far we have come, and how far we still have to go. Pronunciation is no longer the Cinderella in applied linguistics research; in fact, it has become the Belle of the Ball, in that not only are many more PhDs graduating with a focus on L2 pronunciation, but established academics whose primary interests are in another area of second language acquisition are now teaming up with collaborators to examine pronunciation in relation to their own research specialty. We have seen a huge increase in the number of empirical studies on L2 pronunciation, and the establishment of a journal devoted to L2 pronunciation issues. Innovations in technology devoted to pronunciation improvement have emerged as well. Furthermore, research directions not envisioned ten years ago have opened up. (However, there is still considerable room for improvement and development in our field. I will address the seven Utopian goals identified in the original paper, outlining progress thus far and suggesting ways forward. Those goals are the following: a focus on teacher education; appropriate curriculum choices; a focus on intelligibility/comprehensibility; more useful software/other technology; a focus on NS listeners; no more scapegoating of accent; and better strategies for integrating newcomers into the community.

The Ripples of Rhythm: Implications for Instruction

Wayne Dickerson

The work of Brazil, Coulthard, & Johns (1980), Bolinger (1986), Cauldwell (2001), Wells (2006) and others has led to a growing consensus about spontaneous English phrases: Their rhythm consists predominantly of only one pitch accent (nucleus) or two pitch accents (onset and nucleus) whose alternation with unaccented syllables is the essence of its rhythm. Deaccented lexical items are characteristic of unaccented strings surrounding pitch accents, strings that must be delivered with enough speed to promotes comprehension.

If we accept these findings, then our pronunciation teaching will differ from our traditional approach, which has been shaped by Prator's (1951) version of stress timing. The paper addresses the implications of this consensus model for the content of ESL pronunciation instruction, including:

- Rhythm, instead of being another pronunciation topic, comes first in the curriculum because it is the principle that organizes all other topics.
- Pitch accents: The content of instruction includes the position of the nucleus in a phrase and also the position of the onset.
- Word stress: We attend to the position of stress in a word and also to the level of the main stress in phrasal contexts.
- Vowels: We teach the articulation of vowels and also how to use their suprasegmentals to create pitch accents and highlight them in contrast to surrounding unaccented strings.

- Consonants: Our exercises include the phonemic segments of words and also segments arising from rhythmic compression in unaccented strings.
- Intonation: We focus on patterns associated with the nucleus and also on patterns associated with the onset.

Investigating the phonological content of learners' lexical representations for new L2 words

Rachel Hayes-Harb & Shannon Barrios

Adult learners are known to experience difficulty using novel second language (L2) phonological contrasts to distinguish words. For example, native speakers of Japanese exhibit difficulty distinguishing English /l/-/r/ minimal pairs. Indeed, even the ability to perceive and/or produce a novel contrast with relative accuracy does not guarantee an ability to implement the contrast to distinguish words in tasks that require lexical access. These observations lead to questions regarding the phonological content of learners' lexical representations of difficult L2 contrasts. In the present study we use an artificial lexicon design involving naïve L2 learners to examine the lexical encoding and implementation of novel L2 phonological contrasts. In the first experiment, native English speakers were taught a set of six Japanese-like auditory minimal pairs along with pictured meanings. The members of each pair were differentiated by vowel length (e.g., [teki] vs. [teeki]), which is contrastive in Japanese but not in English. Participants were then tested on their ability to match the pictures to auditory words. These test items were in four conditions: matched (see picture of the 'teki', hear [teki]), mismatched for vowel duration (see 'teki', hear [teeki], consonant duration mismatch (see 'teki', hear [tekki]), and mismatched for both (see 'teki', hear [teekki]). Accurate performance in all conditions would indicate that participants encoded and used representations that captured the phonological length contrast and associated the contrast with the vowel segments. However, we found that while participants correctly identified matched items as matched, they were more accurate at rejecting word forms mismatched for consonant length than for vowel length. The results from this and follow-up experiments suggest that that lexical processing of newly-learned words may not reflect a target-like memory for the phonological structure of the L2.

Uses and Misuses of Speech Rating Data

Murray J. Munro

Second-language speech can be usefully described and evaluated in terms of a number of partially-correlated, continuous dimensions. In particular, utterances can exhibit varying degrees of intelligibility, comprehensibility, fluency, accentedness and target accuracy (among other characteristics). These aspects of speech can be assessed through listener judgments. When interpreting speech rating data of this sort, a skeptical approach is needed to ensure that overly-simplistic conclusions are avoided. For instance, misunderstandings of the value of accentedness data contributed to a troubling 20th-century shift away from pronunciation teaching and research. Even quite recently, some researchers have inappropriately equated accent ratings with "phonology" or "success" in acquisition. Despite such missteps, the reliability and validity of speech rating data are supported by extensive empirical findings. Evidence also indicates that the effects of certain cognitive and social biases that might influence rater judgements can be controlled or at least mitigated. Speech rating data can therefore be immensely valuable in helping us to understand the nature of L2 pronunciation and to identify suitable general goals and specific foci for instruction. In this discussion, I propose formulating a set of best practices for collecting and interpreting speech rating data. Such a pursuit requires a review of our current understanding of the cognitive and sociophonetic bases of comprehensibility and intelligibility, as well as careful consideration of what we mean by such notions as "bias" and "subjectivity."

Discourse Intonation: Where are we now?

Lucy Pickering

Couper-Kuhlen (2015: 82) begins her chapter titled "intonation and discourse" with the comment: "What was the state of the art in the field of intonation and discourse a half-century ago? Actually, there was no such field." With this, she reminds us of how far we have come in a comparatively short time. Research in the 1990s and 2000s firmly established a field of enquiry that has generated a sophisticated understanding of the role of intonation and a robust framework within which to add new findings. Although direct applications to teaching during this time have been less consistent and widespread; nonetheless, we can point to changes in pedagogical approaches that have integrated these developments. Using examples from Pickering (2018), I revisit some of the important advances in our understanding of discourse intonation including systematic uses of pitch and prominence structure to contribute to both the informational and interactional significance of the discourse for interlocutors. I also highlight some of the most recent findings with regard to the teachability and learnability of intonation in discourse and the ways in which we might apply them to our classroom teaching.

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COLLOQUIUM

Towards a Protocol for a Multilingual Corpus for Pronunciation Researchers

Amanda Huensch & Shelley Staples

At PSLLT 2017, Tracey Derwing and Mary Grantham O'Brien initiated a discussion about the possibility of developing a protocol for the creation of a multilingual corpus/corpora for pronunciation researchers. From a practical perspective, such a protocol would result in an open, freely available resource that would take any one researcher much time, effort, and cost to develop. From a theoretical perspective, the resulting corpus would allow for a wide(r) variety of L1-L2 pairings, which is especially important given that English comprises 88% of learner corpus research and even within English only 2% of research is focused on pronunciation (Paquot & Plonsky, 2017). This colloquium provides a next step by taking stock of existing resources and exploring needs and feasibility-related issues of the project. We will begin by presenting a synthesis of and reflection on existing corpora, including an overview of available corpora (e.g., FLLOC, IJAS) and a critical reflection on their advantages and disadvantages (e.g., accessibility, ease of use). While the summary will provide a valuable resource, perhaps more importantly it will act as a guide to making decisions about future protocol creation. We will continue with a report on findings from a survey of the PSLLT community about their current uses, perceived needs, interests, and potential use-cases related to the development of multilingual corpora. Finally, we will end with an open discussion about moving forward with the project, which is critical as a means of involving stakeholders to ensure the feasibility, viability, and long-term success of the project.

The role of cross-language phonetic similarity in L2 consonant learning

Anabela Rato

Theoretical models of L2 speech acquisition (Best & Tyler, 2007; Flege, 1995) hypothesize that degree of perceived phonetic similarity between the L1 and L2 speech sound systems predicts the relative ease/difficulty learners have when acquiring the L2 phonological system but they not fully account for degree of production difficulty. Therefore, the goal of this study is to further our understanding of the role of both parameters in L2 speech acquisition by examining their predictive role in L2 consonant learning. Specifically, it aims to (1) assess cross-linguistic (CL) perceptual and acoustic similarity between the consonants of L2 European Portuguese (EP) and L1 Canadian English (CanE), (2) assess articulatory accuracy in consonant production, (3) make predictions regarding the learning of EP consonant sounds, and (4) test the predictions by examining the perceptual and production performance of L2 learners. Twenty inexperienced and 14 experienced adult L2 learners completed a perceptual assimilation task (PAT), a rated dissimilarity task (RDT) and two elicited production tasks. Preliminary analyses indicate that both the degree of perceived and acoustic cross-linguistic phonetic similarity between CanE (L1) and EP (TL) consonants predicted, to a great extent, the learning of the target speech sounds; (2) however, the two measures of cross-linguistic comparison were not be sufficient to predict the learning of the TL sounds which differed in articulatory difficulty; therefore, degree of production difficulty complemented predictions regarding L2 speech learning since it accounted for those cases in which learners could perceive the dissimilar (i.e., new) TL sound but not produce it accurately.

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Pronunciation in the L2 French classroom: Student and teacher attitudes

Jessica Sturm

Pronunciation instruction has been, relative to other aspects of the language, neglected in the L2 classroom (Olson, 2014) and specifically in the L2 French classroom (Sturm, 2013a; 2013b; 2017). Hannahs (2007) noted the lack of research focus on L2 French pronunciation, though that is rapidly changing as research and pedagogical interest in L2 pronunciation teaching grows. The current research investigates student and teacher attitudes toward pronunciation instruction in the L2 French classroom. Anecdotally, and from survey research published in papers such as Harlow and Muyskens (1994) and Grim and Sturm (2016), students want to learn. Grim and Sturm (2016) suggested from their survey of teachers and students that students are more interested in learning pronunciation than teachers are in teaching it. However, their survey did not ask explicit questions about pronunciations; they asked about classroom priorities and noted that students mentioned pronunciation more and ranked pronunciation higher than teachers did. This survey asks students and teachers directly about their attitudes toward pronunciation in the L2 French classroom. Results suggest that students are, as reported by Harlow and Muyskens (1994) and Grim and Sturm (2016), quite motivated to learn pronunciation and that the teachers surveyed do, in fact, teach pronunciation in their post-secondary classrooms.

Perception of French learners' mistakes

Anne Violin-Wigent & Viviane Ruellot

In this presentation, we seek to discuss and establish a protocol to investigate how mistakes in American learners' pronunciation of French target sounds are perceived by native French speakers. In the first part, we will review some of the published literature, with a particular focus on instruments and results from Isaacs and Trofimovich (2012) for English and from Walz (1980) and Bergeron and Trofimovich (2017) for French. Based on this, we will present some preliminary results of a small-scale study on how mistakes in French liaisons are perceived and evaluated by native French speakers, who are known not to always be cooperative with learners or foreigners. From this, we will lead a discussion centered on how to investigate what specific elements in terms of phonology/pronunciation have a stronger or weaker effect on native speakers' evaluations and/or on comprehensibility. By the end of the colloquium, we would like to have built a research team where each person or group would commit to investigating one particular feature of French (intonation, liaisons, stress, final consonants, speech rate, specific segments, etc.). In addition, we would like to have designed an informal protocol for comparability, compiled a list of features and associated researcher, as well as a calendar to share our findings.

Perception of Mandarin consonants:
Cross-linguistic mapping and the effect of L2 experience

Xinchun Wang

The perceived differences between L1 and L2 sounds and learners' L2 experience influence L2 speech perception (Flege, 1995). How and to what extent such differences contribute to L2 speech perception has been explored in previous studies but the findings are not consistent. This study presents the results of two perceptual experiments on Mandarin consonants. In Experiment 1, 16 native English listeners participated in a cross-linguistic mapping experiment in which they identified Mandarin consonants in CV syllables in terms of English consonants. The listeners then rated the sounds for the goodness of fitting to their L1 English consonants as they identified on a scale of 1 (poor fit) to 7 (good fit). To assess the degree of match of Mandarin consonants onto English sounds as perceived by the listeners, the percentage identifications and the goodness rating scores are both taken into consideration to derive the fit indexes.

In Experiment 2, two groups of English speaking Chinese as a Foreign Language (CFL) learners with different proficiency levels took a perceptual test in which they identified Mandarin consonants in CV syllabus in a forced choice task. Mandarin sounds that have high fit indexes to English sounds were better identified by learners across the two groups, while sounds that have low fit indexes were poorly identified, especially by the lower level learners. The findings suggest that phonetic mapping pattern of L2 onto L1 sounds by the native English listeners predicted the English CFL learners' perceptual difficulties with at least some Mandarin consonants. L2 experience is also an important factor for the participants' success in perceptual learning of Mandarin consonants, although both groups demonstrated very similar perceptual difficulties with the same categories. The findings are discussed in cross linguistic speech perception and L2 speech learning models.

TEACHING TIPS

Improving intelligibility: Using the three-minute thesis as a prosodic model

Heather Boldt & Margareta Larsson

Intonation is “long thought to be a key to effectiveness in spoken language” (Levis & Pickering, 2004). However, producing the expected pattern of intonation presents challenges for students, many of whom find that their production of English suprasegmentals is influenced by their L1, which can lead to obscured meaning. Luckily, videos of the 3-Minute-Thesis competition (3MT), held annually at hundreds of universities in over 60 countries, provides teachers with high-quality examples of clearly delivered winning presentations. Since the competition challenges its participants to communicate their research in three minutes or less to a non-specialist audience, each video is a short yet high-quality example of effective oral communication filled with powerful template sentences “in which all levels of the prosodic system are present (Gilbert, as cited in Grant 2014, p. 130). The purpose of this presentation is to demonstrate how two experienced practitioners have successfully used 3MT videos to improve the intelligibility of students enrolled in intermediate oral communication classes at two separate universities. The presenters will share a series of activities which incorporate current best practices, including the use of authentic language, focus on suprasegmentals, the importance of perception of target language, and the use of gesture to enhance communication; all with the ultimate goal of increased intelligibility. Close analysis and mirroring of language, with a focus on thought grouping, stress and intonation, helps students produce the multiple peaks and valleys within thought groups pointed out by Dickerson (2016) in his two-peak model. Also, since some of the 3MT presenters are NNS of English, they serve as valuable aspirational models. We will also share ideas on how to teach perception and production with other models. Using our framework, students report feeling more confident and more able to use their voices effectively, not only in presentations but also outside the classroom.

Smother news or the say mold story? Coaxing the Emma cross the border

Marsha J. Chan

Written words are separated on the page by spaces; spoken words in the stream of speech are not. Beginning and intermediate learners are often unable to parse utterances in spoken English, which are typically emitted in continuous streams of sounds carried by prosodic elements of stress, intonation, and rhythm. Spoken words bounded together in phrases are altered by phonological processes. For example, consonant sounds that belong orthographically to the ends of words are linked to the beginnings of words whose orthographic forms begin with vowels. Consonant-to-vowel (C-V) linking is among the most common types of connected speech, yet many adult learners of English, particularly those who have learned the language through the written version, lack ability to perceive and produce linked words in speech.

This teaching tip focuses on helping learners for whom final /m/ is difficult to produce due to the fact that their primary languages do not use the bilabial voiced continuant at all, or in the same way, as English, even though initial /m/ may be present in their languages. Beyond providing descriptions that explain place, manner, and voicing, this session shows ways that teachers can guide speakers of languages such as Chinese and Spanish to transfer their success pronouncing initial /m/ to pronouncing final /m/ in sentences with C-V linking through (1) lip sensitivity and visual, auditory, and tactile perception training, (2) gestures, (3) moving of paper M's across word boundaries, (4) practice of phrase build-up, and (5) video recorded practice material.

The Power of Prompts: Four Prompt Points

Jenelle Cox

Corrective feedback for second language learners generally includes recasts and prompts directed towards students' pronunciation errors. Prompts (cues of a student's errors, but no corrections given) (Gooch, Saito, & Lyster, 2016) have been shown to push students to produce modified output (Ellis & Sheen, 2006). Opportunities for modified output seem to give students the ability to move toward the correct target production, be it grammar, pronunciation, or vocabulary (Gooch, Saito, & Lyster, 2016). Pushing students to self-repair or to retrieve prior knowledge may strengthen their future ability to self-correct. Retrieving their own answers when a problem is presented or attempting to solve an incorrect answer before the correct answer is given, tends to "lead to increased learning and longer retention of the correct answer or solution, even when the attempted response is wrong, so long as corrective feedback is provided" (Brown, Roediger, & McDaniel, 2014). Allowing students to generate their own answers and to self-correct through prompts gives them the opportunity to engage in higher-order thinking tasks, (for example pulling from long-term memory), rather than just receiving knowledge given them by others. This teaching tip will help teachers to realize the benefits that come from prompts in encouraging students to reach into their long-term memory to self-correct. Teachers will be shown the importance of creating a safe environment for corrective feedback, how to use prompts in the classroom, why prompts may strengthen memory, and understand why encouraging self-correction may ultimately lead to automaticity in ESL students.

Improving speaker comprehensibility: Using sitcoms and engaging activities to develop learners' perception and production of word stress in English

Edna Lima & Zoe Zawadzki

Researchers have agreed that English suprasegmentals are crucial to L2 speaker comprehensibility and intelligibility and should, therefore, be an integral part of pronunciation instruction (Celce-Murcia, Brinton, Goodwin, & Griner, 2010; Derwing & Munro, 2015). Thus, a variety of methods and techniques have been proposed to teach suprasegmentals more effectively to English learners in terms of both perception and production skills. Two of such techniques are drama and imitation, as they "offer discourse-level practice with stress, intonation, and connected speech" (Goodwin, 2013, p. 7).

The activity presented in this session is designed to help students improve their perception and production of word stress through technology-implemented materials. First, students become aware of word stress features through a mini video lecture. Next, they complete a perception activity. In this activity, they watch a short clip from *The Big Bang Theory* and complete a cloze exercise where they choose the word they hear with the correct stress from a dropdown menu (e.g., ex.PER.i.ment or ex.per.i.MENT). Finally, students complete a production activity where they record themselves in *Audacity* imitating the actors. They record as many times as they wish until they are satisfied with their performance. When they are finished, they upload their recording to the course site for feedback.

The presenters will also provide suggestions for adapting the focus of the activity (e.g., intonation), the activity format (e.g., paper-based), and the text genre (e.g., a fable) for authentic listening materials to provide teachers with ideas on how to vary the activity and keep their students engaged and motivated to learn.

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Using Tasks to Develop Comprehensibility of Spoken Second Language Spanish

Avizia Long, Lorena Alarcón, & Sergio Ruiz-Perez

This study examines the efficacy of tasks for development of comprehensibility in second language (L2) Spanish. Tasks—defined as language-teaching activities during which learners negotiate for meaning to achieve a nonlinguistic outcome (e.g., Ellis, 2009)—have been shown to encourage development of L2 grammar and lexis. Recently, scholars have investigated the role of tasks in promoting L2 pronunciation development (see Gurzynski-Weiss, Long, & Solon, 2017), and this small body of work has focused on segmental and suprasegmental aspects of L2s. In response to the call for more research on perceptions of L2 intelligibility and comprehensibility—constructs believed to be crucial for effective communication (Derwing & Munro, 2009; Munro & Derwing, 2015)—this study combines developments in the fields of task-based language teaching (TBLT) and L2 pronunciation, respectively, to explore the potential for tasks to facilitate development of L2 Spanish comprehensibility.

Three tasks will be presented for their potential to facilitate comprehensibility of Spanish spoken by first- and second-year adult classroom learners. Each task targets a specific feature known to negatively impact comprehensibility of native English-speaking learners' spoken Spanish (McBride, 2015)—specifically, vowels, word reduction, and fluency. Each task has been designed such that, in pairs, learners must attend to the target pronunciation feature to complete the task. After brief demonstration of each task, ratings of comprehensibility of learners' spoken Spanish collected from native and near-native listeners of Spanish (all of whom report familiarity with spoken learner Spanish) will be presented, and practical strategies for classroom implementation will be suggested.

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Improving Articulatory Gestures with Selfies

Alison McGregor

It has long been established that speech perception for native-speaking English listeners is an auditory-visual phenomenon (McGurk & MacDonald, 1976); that is, there is a reliance on visual or lip-reading cues influencing listeners' speech perception of English (Sekiyama & Burnham, 2008). From an articulatory phonology perspective, movements of speech articulators are the consequence of gestures (lip and/or facial movements) in speech production. Gestural motions of articulators, therefore, function as both visual as well as auditory cues in the perception of speech and in the production mechanics of accurate speech production. In English pronunciation teaching and learning, common L1 pronunciation challenges for at least 12 different languages revolve around cross- linguistic differences in articulatory gestures or motions for the following American English sounds: /l/, /r/, /w/, /ʃ/, /ʒ/, /tʃ/, and /dʒ/. The gesture of lip rounding, although commonly taught as a distinctive feature for specific vowels, is not typically used in articulator training for consonants. This teaching tip addresses this gap by introducing a three-category lip rounding gesture technique and a series of selfie-mode cell phone steps for awareness raising and targeted practice to address common cross-linguistic challenges in learning English pronunciation. Participants will engage in 1) awareness raising for lip motions, 2) modeling with explicit information, and 3) step-by-step practice strategies for common L1 pronunciation challenges. Video clips of student training and progress will be used to demonstrate the techniques. Teacher resources and technique integration tips will be provided.

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A New Way of Using the Kazoo to Teach Intonation

Colleen Meyers

Intonation is important for clear communication because it "carries meaning in English (Wichmann, 2005)." It has the power to "reinforce, mitigate, or even undermine the words spoken (p. 229)." Among other functions, intonation is used to mark focus and to indicate the beginnings and endings of speech paragraphs (Pickering, 2004). However, intonation is not always easy to perceive, even for native speakers of English. Teaching intonation can be even more challenging for teachers.

Judy Gilbert (Gilbert, 2014) has long been a proponent of using the simple party favor, the kazoo, as a way to help learners of English to perceive and to produce the intonation patterns of North American English. Recently, research by Hardison (2018) has found that "based on perception and neuroimaging studies, speech is a multimodal phenomenon…which contributes to comprehension." She goes on to state that "Research shows a coordination of movements such as eyebrow raises and eyeblinks with pitch for English speakers." Based on Hardison's findings, this teaching tip will highlight yet another way that use of the kazoo can aid learners in perceiving and producing North American intonation patterns. That is, through focusing learner attention on what body movements (eyebrow raises and eyeblinks) make it easier to produce North American intonation patterns, these learners will gain another mode of perceiving intonation in other's speech and producing intonation in their own speech.

The presenter will demonstrate a video in which a speaker of Farsi is able to use a kazoo to perceive and produce eyebrow raises and eyeblinks to better perceive and employ effective patterns of North American intonation. (262 words)

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Listening Skills Instruction: Practical Tips for Processing Aural Input

Marnie Reed

English L2 learners face two listening challenges: successfully identifying words in continuous speech and understanding a speaker's intended meaning. Instructors need practical tips to help learners parse continuous speech and discern speaker intent. This Teaching Tip shares two 3-part strategies to facilitate processing utterance content and interpreting message meaning.

Segmental accuracy: A recommended training sequence for moving learners from accurate perception to accurate (and automatic!) production in the stream of speech

Monica Richards & Elena Cotos

A key reason L2 learners struggle to pronounce new segmentals is because their L1 has trained them to hear L2 phonemes as allophonic (Best & Tyler, 2007; Broersma & Cutler, 2008; Flege, 1995; Jenkins, 2000; Qian, Chukharev-Hudalainen, & Levis, 2018; Richards, 2011). L2 learners' segmental pronunciation, therefore, may *exactly* replicate what they hear and still fail to unmistakably produce the L2 phoneme they intend. When learners cannot accurately hear a word's phonemic structure, they can only self-assess their L2 pronunciation by comparing their conscious knowledge of how the word should be pronounced with the physiological "feel" of their vocal organ manipulation. But is performing this conscious task on a regular basis during the stream of speech even possible? After all, in discourse L2 learners must simultaneously engage in several higher-level cognitive processes that are also much harder in L2 than L1:

1) Comprehending what others are saying;
2) Identifying connections between what others are saying and what they already know;
3) Figuring out what ideas they want to say next; and
4) Figuring out *how* to say it (in terms of information structure, politeness, grammar, etc.)

It is therefore vital that L2 learners, like L1 speakers, be able to passively self-assess while listening to their own talk that the phones they pronounce truly are categorized in the L2 as the phoneme they intend. For the same reason, learners' physical production of accurate L2 phoneme distinctions cannot remain conscious but instead must become automated and habitual (Jenkins, 2000). This presentation therefore introduces a recommended training sequence for moving learners from accurate perception to accurate (and automatic!) production of challenging L2 segmentals in the stream of speech.

Practicing Pronunciation through Digital Storytelling

Mary Ritter

English language learners are “frequently misinterpreted as rude, abrupt, or disinterested solely because of the prosodics of their speech” (Celce-Murcia, 1996). Indeed, target-like prosody continues to be an obstacle even in advanced classes. This presentation will share a simple, accessible video-making app that encourages students to experiment with prosody while engaging in digital storytelling. Adobe Spark Video is a free app that allows users to create animated videos featuring their recorded voices along with drawings, icons, and music; because they involve an unseen narrator, these videos rely heavily on the voice to communicate meaning. In my presentation, I will discuss and show examples of an Adobe Spark Video project in which students produced narratives about creative differences; in scaffolding this project, I had students explore prosodic features of storytelling, moving from controlled and guided practice to free production. Session participants will learn to run Adobe Spark Video and create a short video based on a script. I will then draw attention to the role of intonation in this video format, consider the influence of pausing, pacing, and volume, and highlight the role of repeated practice in creating these videos. Finally, I will discuss how to adapt this digital storytelling project to different levels of proficiency or to multilingual groups. Viewers will walk away with the ability to use Adobe Spark Video for teaching pronunciation through digital storytelling.

Teaching tip: Developing a task-based pronunciation syllabus

Mari Sakai

Each year, a law school on the East Coast of the United States is the host of nearly 450 international attorneys who are in the U.S. for one year to complete a Master of Laws (LL.M.) degree. In order to support these students' language needs, the Legal English Language Center offers non-credit writing and conversation workshops.

I developed the syllabi for two eight-week long courses that focus on English conversation skills. Both courses were designed using a task-based approach. The first course comprises professional and academic conversation and speaking tasks that the law students will face during their academic year, while the second course focuses on tasks that are likely to occur in social situations.

During the teaching tips roundtable, I will give conference attendees copies of the two syllabi, and I will share key features of each course. First I will describe the 8 conversation tasks that were selected for each course. For example, the professional and academic conversation course includes a session on small talk at networking events, and the social conversation course includes a session on ordering at coffee shops and restaurants. Then I will present the rationale behind the structure of one class session (e.g., warm up with a perception task and review of previous week's audio flash cards).

Teaching Tips: Enhancing Thought Group Pedagogy Through Perception and Production

Mark Tanner

Although pronunciation is a key component in helping ELLs achieve fluency and accuracy in their L2 (Goodwin, 2014), ESL teachers often lack confidence and competence in knowing how to best teach pronunciation (Foote, et al. 2013; Gilbert, 2009, p. 1), which causes it to often be neglected in ESL classrooms (Derwing & Munro, 2014). This is unfortunate because research has shown that a focus on global pronunciation features can improve ELLs' intelligibility and comprehensibility (Derwing & Rossiter, 2003; Hahn, 2004; Zielinski, 2008).

A key global feature central to learners' intelligibility is that of thought groups (Murphy, 2014). Many pronunciation textbooks (Gilbert, 2012; Grant, 2009; Hahn & Dickerson, 1999; Miller, 2007; Reed, 2005) teach that thought groups (grammatical units which are separated by pauses in speech) are fundamental to improving an ELL's pronunciation. Teachers, however, still are not incorporating this power tool in their repertoire of instruction techniques.

This teaching tip is designed to help TESOL practitioners experience how to effectively integrate focused thought group instruction into their everyday listening / speaking classroom materials and instruction. Come be part of the TESOL community who knows how to teach ESL/EFL learners an essential pronunciation feature designed to improve students' intelligibility and pronunciation.

Personalizing peak vowel training in stressed syllables: A sneak peek at Blue Canoe for perception and production

Lara Wallace & Sofía Fernandez

Circumference or circumstance? Percentage or person page? At best, placing stress on a different syllable can momentarily confuse listeners; other times, it can lead to listeners' miscomprehension (Bond, 1999). Likewise, using a different peak vowel (think "circular" Vs "secular") can have similar results. With nearly three times the number of vowel sounds as letters we have for writing vowels in the English language, learning these sounds can be challenging. To distinguish between them, the Color Vowel Chart gives us a common language to use so that we can understand, for example, that the peak vowel is "purple shirt" circular, not "red pepper" secular. For International Teaching Assistants (ITAs) who are charged with instructing university classes, it is of utmost importance to both them and their students to be able to pronounce intelligibly such important words in their lessons. One of the keys to doing so proficiently, as Kang and Moran's (2014) research suggests, requires these speakers to have few vowel errors that are of high functional load. In this teaching tip, we will have a look at a method for identifying such words, then training learners' perception of vowel sounds and practicing their production of the sounds in context. This multimodal method is based on a communicative framework (Celce-Murcia, Brinton, & Goodwin, 2010) and utilizes the Color Vowel Chart and some of the features of Blue Canoe, an app currently being piloted that has been designed around the Color Vowel Chart. Participants will come away with a worksheet they can use with their students and a sneak peek at this promising app.

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