Teaching “Comprehensible” Second Language Pronunciation: A Research Synthesis

Kazuya Saito
Email: k.Saito@bbk.ac.uk
Web: http://kazuyasaito.net/
My background:

I am a late bilingual (Japan → US → Canada → UK)...

Therefore, my research interest lies in “foreign accents” in L2 speech.
Organization

(1) Reviewing previous literature

(2) What to teach?
   - Which pronunciation features are relevant (or irrelevant) to successful communication, and thus should be taught as a priority?

(3) How to teach?
   - How should we help L2 students achieve such comprehensible pronunciation in the most effective/efficient manner?
For ppt slides, please check the following:

- **My personal website:**
  - [http://kazuyasaito.net/](http://kazuyasaito.net/)

- **L-SLARF Facebook**
Overview: How to conceptualize, define and measure L2 pronunciation (since 1990)?

Tracey Derwing  Murray Munro  Jennifer Jenkins  John Levis  James Flege
Many L2 learners perceive attaining “nativelike pronunciation” as an idealized goal (especially in EFL classrooms).

Many scholars have questioned whether “nativelikeness” actually matters in real-life situations…

(e.g., Derwing, 2003 for ESL; Tokumoto & Shibata, 2011 for EFL)
Adult L2 speech learning: Review

English continues to serve as a *lingua franca* in many academic and business settings all over the world.

Most of the English users are actually non-native speakers.

(e.g., Jenkins, 2002; Levis, 2005)
Adult L2 speech learning: Review

Few L2 learners demonstrate perfect proficiency in all aspects of L2 (like monolinguals do).

Many successful L2 users can be accented but highly comprehensible.

(e.g., Abrahamsson & Hyltenstam, 2009; Flege, Munro, & MacKay, 1995)
Adult L2 speech learning: Review

It is important to set a realistic goal for adult L2 speech learning.

Nativelikness vs. Comprehensibility

(e.g., Derwing & Munro, 2009; Isaacs & Trofimovich, 2012; Jenkins, 2002)
Pedagogical implications for pronunciation teaching (Levis, 2005)

**Nativeness Principle (traditional approach)**
- Focusing equally on all pronunciation features in a L2
- To become “nativelike”

**Intelligibility Principle (new approach)**
- Focusing selectively on certain features affecting comprehensibility/intelligibility
- To become “comprehensible”/”intelligible”
Key references


Question

- Which pronunciation problems are relevant (or irrelevant) to successful comprehensibility? Which pronunciation features should be taught as a priority?
Suzukida & Saito (under review)

$N = 40$ IELTS speech samples produced by Japanese learners with varied L2 proficiency (0-40 years of experience abroad)

$N = 7$ native listeners’ comprehensibility judgements
L2 comprehensibility judgements

- Listening to speech files randomly

**Comprehensibility**

1 2 3 4 5 6 7 8 9

(Difficult to understand  Easy to understand)

- Low
- Mid
- High

+ For each sample, making an intuitive judgement
Suzukida & Saito (under review)

Comprehensibility judgements

\[ N = 40 \text{ IELTS samples} \]
\( (\text{representing low, mid & high L2 proficiency}) \)

- Segmental analyses
- Syllable analyses
- Word stress analyses
- Intonation analyses
Pronunciation analyses

- **Segmental errors**
  - High functional load errors (“road” mispronounced as “load”)
  - Low functional load errors (“the” mispronounced as “da”)

- **Syllable errors**
  - Play “pleɪ” mispronounced as “pəleɪ”

- **Word stress errors**
  - “guiTAR” mispronounced as “GUItar”

- **Intonation errors**
  - “My hardest challenge? That would be my first part time job.”
Results of multiple regression

65%: Pronunciation variables (segmentals, syllables, word stress, intonation)

35%: Other variables (rater factors, lexicogrammar)

For a review on factors affecting L2 comprehensibility, see Saito, Trofimovich & Isaacs (2017) in Applied Linguistics
Divided into three comprehensibility groups!

- Low (n = 13): (3.2 - 4.5)
- Mid (n = 14): (4.6 - 6.5)
- High (n = 13): (6.7 - 8.7)

Comprehensibility

1 2 3 4 5 6 7 8 9
( Hard to understand  Easy to understand)
ANOVAs (1 = difficult, 9 = easy)

**Low** (3.2-4.5)
- High FL segmentals
- Syllable (vowel insertion)

**Mid** (4.6-6.5)
- High FL segmentals
- Syllable (vowel insertion)

**High** (6.7-8.7)
- Low FL segmentals
- Prosody (word stress, intonation)
Concurring with my previous survey projects with $N = 120$ expert teachers


Conclusion：What-to-teach

Low ⇔ mid level comprehensibility
- HF consonants：l, r, w, stops (p, k), nasals (m, n)
- HF vowels：æ (vs. a), ɪ (vs. /i/)
- Syllables (avoid vowel insertion)

Mid ⇔ high level comprehensibility
- Word stress, intonation
- Syllables (avoid vowel insertion)
- Other consonants/vowels
Check out my website (kazuyasaito.net) for sample teaching materials:

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<th>Publications in Instructional Resources</th>
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(http://kazuyasaito.net/publication.html)
References


Question

• How should we teach L2 pronunciation in the most effective/efficient way?

✓ Explicit phonetic instruction?
✓ Contextualized usage of language?
✓ Fun and meaningful activities?
✓ Useful online tools?
Explicit phonetic instruction

Option 1. Perception training

- Let students hear the acoustic features of target sounds via minimal pair pair activities!

“Rock” vs. “Lock”?

“Read” vs. “Lead”? 
Web Materials: English Accent Coach

Explicit phonetic instruction

Option 2. Articulation training

- Let students understand the articulatory features of target sounds!
Web Materials: Iowa Uni Phonetic Lab

http://soundsofspeech.uiowa.edu/english/english.html

This site contains animated libraries of the phonetic sounds of English, German, and Spanish. Available for each consonant and vowel is an animated articulatory diagram, a step-by-step description, and video-audio of the sound spoken in context. It is intended for students of phonetics, linguistics, and foreign language. There is also an interactive diagram of the articulatory anatomy.

Now Available!!!

English Sounds of Speech Mobile App

Android
Google Play Store

Revenue from purchases are used to support further development of this application.

iOS
Apple iTunes Store

(If you bought the Android version prior to Jan 2nd 2014 and would like an update to the newest version please contact us at uiwf@uiowa.edu)
Audiolingual teaching methods vs. L2 pronunciation development
Research Evidence

Mcdonald, Power, & Yule (1994)
- 23 ESL learners
- 10 key lexical items

Elliott (1997)
- 66 English learners of Spanish
- 19 Spanish allophones

Saito (2011)
- 20 Japanese learners of English
- 5 English-specific segmentals (including English /r/ and /l/)

Improvement was clear at a controlled-speech level but not at a spontaneous-speech level

(See also Saito, 2012 for research synthesis)
Key references


Contextualized Instruction to teach L2 pronunciation!


Design \((N = 100+)\)

**Pre-tests**

Four 1-hour meaning oriented sessions with *communicative* focus on English /r/ form

**Post-tests**
Communicative Tasks & Recasts

**Main Activities**

*Theme: “Developing a convincing argument”*

**Activity 1.** How to critique?

**Activity 2.** English Debating

**Activity 3.** Argument-creation and Public Speech

**Warm-up Games**

**Activity 4.** English Karuta (noticing activities)

**Activity 5.** Guessing Game (awareness activities)

**Activity 6.** English Card Game (awareness activities)
English Debating
“Running inside is better than running outside”
Communicative focus-on-form techniques used in the project:

**Focused tasks (e.g., Ellis, 2003)**
- Creating obligatory contexts where learners need to use target features accurately to complete tasks successfully

**Input enhancement (e.g., Han et al., 2008)**
- Italicizing/color-coding target features

**Recasts (e.g., Lyster & Saito, 2010)**
- Correcting without interrupting a flow of communication
Results

Trained items
\[ M = 62.4 \rightarrow 68.9\% \ (6.5\% \text{ gain}) \]

Untrained items
\[ M = 57.7 \rightarrow 67.7\% \ (10\% \text{ gain}) \]

• The amount of improvement resulting from 4 hr of instruction (6-10% gain) could be comparable to other intensive lab training studies (e.g., Logan et al., 1992, for 8% gain after 10+ hr of training). (p. 25)
Results

Production
Neither /r/ nor /l/ → Good/probably /r/ at controlled and spontaneous speech tests

- A communitive focus on form could be an optimal method to allow students to automatize their new phonetic knowledge.
Key references (FonF in L2 grammar)

**FonF tasks**

**Input enhancement**

**Corrective feedback (reactive FonF)**
Conclusion: How-to-teach

Explicit phonetic instruction
- Perception training
- Articulatory training

Practicing in communication
- Focused tasks
- Input enhancement
- Recasts
THANK YOU!!