

Chapter 3

- nasal cavity
- hard palate
- soft palate
- teeth
- blade
- vocal cords
- glottis

A Young Englishman

High level

- **A desire for Spanish identity**
- **Grammar**
- **Vocabulary**

Problem

- **Distinct English accent
when speaking Spanish**

Introduction

- L2 **phonetic learning process**
- **Factors** influencing learners' success
- The **prediction** of problem areas.

Introduction

To determine the usefulness of L2 speech research for teachers,

- Research addressing questions to pronunciation teaching.
- Research goals and underlying assumptions and evaluate results in terms of their relevance to the goals of language pedagogy.

The phonetic learning process

- **Uninstructed** pronunciation learning → No optimal outcome for adult
- Some L2 learners need **guidance** to learn to produce intelligible speech
- To develop effective teaching strategies that promote speech intelligibility → **L2 phonetic learning process** should be considered

The phonetic learning process

Some questions we might pose

- What level of achievement in pronunciation can we expect from adult L2 learners?
- What personal, social, and experience factors contribute to successful pronunciation in adults?
- How long does it take for an adult to learn the sound system of the L2? Do aspects of a particular L2 phonological system vary in learning difficulty? Do some aspects take longer than others to learn? Are some aspects never likely to be learned at all?
- In what ways does knowledge of the L1 facilitate or hamper L2 phonetic learning?
- Is acquisition gradual? Do learners slowly approximate the sounds of the L2 over time-or is the process more abrupt?
- Is acquisition linear? Do learners have a learning trajectory indicating continual improvement or are there ups and downs in the learning process?
- What is the relationship between *perceiving* L2 segments and prosody and *producing* them? Do learners sometimes perceive speech distinctions correctly despite inaccurate production? Do they ever produce them correctly without accurate perception?

Factors influencing phonetic learning

Age

L2 experience

Personal factors

Instructional factors

Factors influencing phonetic learning

Age

- **“Joseph Conrad Effect”** : Conrad’s extraordinary mastery of English contrasted with his heavy accent
- **Adult pronunciation** learning seems to be **compromised** as learners get older to a greater degree than other aspects of language

Factors influencing phonetic learning - Age

- “How close is the relationship between age of learning(AOL) and accent?”
 - **Age** serves as a predictor or independent variable
 - **Pronunciation** serves as the dependent variable

Factors influencing phonetic learning - Age

Table 3.1. Foreign accent rating studies focusing on AOL

Study	L1	N	Native English comparison group	Raters
Asher & García (1969)	Spanish	71	30	19 <u>untrained</u>
Oyama (1976)	Italian	60	10	2 trained
Patkowski (1990)	Various	67	N/A	2 trained
Thompson (1991)	Russian	36	10	8 trained; 8 untrained
Flege, Munro, & MacKay (1995)	Italian	240	24	10 untrained
Flege, Yeni-Komshian, & Liu (1999)	Korean	240	24	10 untrained
Munro & Mann (2005)	Mandarin	32	14	14 moderately trained

- Table 3.1 shows **increased** age of learning is related to **less** native-like speech

Factors influencing phonetic learning - Age

- How to **interpret** the AOL facts, however, is a different matter.
- The fact that ages of 50 have higher earnings than ages of 20 in North America **does not mean** that getting older causes people to make more money.

“Critical Period”

- A term used to propose that language learning is **affected** by a **biologically**-based change in the brain **prior to adulthood**.
- **Innate acquisition mechanisms** facilitate L2 learning but **cease to operate** at about the time of puberty, thereby making L2 learning less successful.
- Certain language learning abilities are “**lost**” as we age.

Factors influencing phonetic learning - Age

A CLOSER LOOK: Oyama(1976)

- Oyama conducted research to examine the effects of two independent variables –age of L2 learning(AOL) and length of US residence(LOR) – on the strength of foreign accents.
- She found that later AOLs significantly predicted stronger accent scores and that LOR bore no such effect.
- In short, age of learning was a good predictor of accent strength; length of US residence was not.

An alternative perspective to Critical Period

- The ideas about L2 learning and puberty were based mainly on personal experience and anecdotal claims rather than on systematic evidence.
- Empirical studies showing that even child L2 learners often retain foreign accents.
- Research findings, in fact, do not support the claim that puberty marks an abrupt change in language learning abilities. Rather, “foreign accent-free” speech decreases gradually with AOL.

An alternative perspective to Critical Period

- Adult L2 learning might be **compromised** by a combination of factors such as **age**, including **developmental changes** in general perception mechanisms, **L2 experience**, and **motivational effects**.
- The difficulties adult L2 learners have in learning pronunciation are comparable to the problems they experience in learning **other complex behaviors** late in life. L2 learning is not a fundamentally different process from other kinds of learning, including L2 acquisition.

Factors influencing phonetic learning - Age

✓ First debate : The nature of the AOL effect

- At what age do changes in learning capabilities occur?
- Do adult L2 learners ever partially or completely overcome the negative effects of age on accent production?
- Do young learners always produce “accent-free” speech?

To sum up, applied linguist do not agree on the question of whether a critical period underlies the AOL effect

✓ **Second debate : Are AOL effects mediated by other factors?**

- Can motivation, aptitude, experience and instruction enhance phonetic learning?

Factors influencing phonetic learning - Age

Second debate

- The researchers concluded that the native-like performance was the result of a combination of **motivation** and language experience factors as well as **TYPOLOGICAL PROXIMITY**.
- By this they mean that speakers of languages that are **phonologically similar** to Dutch, such as English and German, were sometimes able to produce native-sounding Dutch speech, while speakers of more distant non-Indo-European languages were not.

Some dramatic surprises

- Several studies by Janet Werker and colleagues demonstrated that, before they reach one year of age, **infants cease to discriminate** certain phonetic categories that do not contrast in the language spoken around them.
- Rather than attributing these findings to a critical period, Werker and Tees characterized the changes as a **PERCEPTUAL REORGANIZATION** that results from early L1 experience.

Factors influencing phonetic learning - Age

A CLOSER LOOK: Perception and production

- The relationship between adult speakers' perception of L2 sounds and their production abilities had attracted the attention of speech researchers.
- Such research indicates not only that perception improves with training but that production sometimes spontaneously improves as well.
- Poor production is not always tied to poor perception, and the reverse is also true.
- People can produce certain sound distinctions quite well without being able to hear the difference between them.

Factors influencing phonetic learning - Age

- Research comparing older and younger learners provides us with useful information about the AOL-accent relationship.
- Mitigating factors such as motivation and L2 experience that must be explored if we are to gain a full understanding of the L2 phonetic acquisition process.
- Munro and Mann claimed “No model of an age-accent connection should ever hope to claim ‘before age X, a person is guaranteed to develop a native accent and, after age Y, a foreign accent is unavoidable’”.

Factors influencing phonetic learning - Age

- Munro and Mann claimed “No model of an age-accent connection should ever hope to claim ‘before age X, a person is guaranteed to develop a native accent and, after age Y, a foreign accent is unavoidable’.”
 - Inter-speaker differences
 - Intra-speaker differences related to the kind of task performed. (e.g. Picture story descriptions tended to be judged more native-like than did sentence and paragraph readings.)
 - No difference between the men and women. This cast doubt on the idea that accent and puberty are related since women normally experience the onset and offset of puberty earlier than men and would therefore be expected to show earlier changes if puberty were actually relevant.

Factors influencing phonetic learning

Language experience, personal and instructional factors

- In other studies, **only 4** out of 11 **predictor variables** showed significant relationship to the judgments: first language, aptitude for oral mimicry, length of residence(LOR), and strength of concern for pronunciation accuracy.

Factors influencing phonetic learning – L2 experience

L2 experience

- Language experience on pronunciation = a more complex problem than LOR.
 - Solutions
 1. Quantifying L2 experience
 2. Identifying the best time for adult phonetic learning

Factors influencing phonetic learning – L2 experience

1) Quantifying L2 experience, **why?**

- LOR does not always correspond to learners' **amount of L2 experience**.
- We have to consider the **quality** of that experience in order to understand its impact.
- Pronunciation data from Mandarin- and Slavic-speaking immigrants to Canada over several years shows that the Slavic language speakers outperformed the mandarin speakers in comprehensibility and fluency.
 - One contributing factor was greater **structural similarities** between Slavic languages and English than between Mandarin and English.
 - Another factor was the degree of **how much learners are integrated** into the English-speaking community

Factors influencing phonetic learning – L2 experience

1) Quantifying L2 experience, **how**?

- To correctly **measure** L2 experience in terms of LOR
 - Use complete detailed **questionnaires** about their actual L2 use in various situations.
 - Use mobile phones to **record interactions** in their L2
 - LENA, a small portable device that **counts the number of words** children hear from their caregivers

Factors influencing phonetic learning – L2 experience

2) Identifying the best time for adult phonetic learning, why?

- The possibility that adult L2 phonetic learning happens **mostly** during **a short initial period** after arrival in the L2 community.
- Fledge found **no** difference in accent scores between residents with 1 year and 5 years of residence. He suggested that 1-year residents may already have plateaued in their accent learning, such that they did not differ from longer-term residents.
- On the basis of such findings, we might hypothesize a WINDOW OF MAXIMAL OPPORTUNITY(WMO) for adult phonetic **learning that occurs during the early period of residence** in the L2-speaking area.

2) Identifying the best time for adult phonetic learning, why?

- Closely related to the WMO is the concept of FOSSILIZATION.
- Fossilization : A point at which improvement in L2 language skills seems to plateau, even when they continue to be massively exposed to the L2 on a regular basis.

Factors influencing phonetic learning – Personal factors

Motivation and willingness to communicate (Personal factors)

- “Strength of concern for pronunciation” was one of the factors that predicted pronunciation accuracy.
- A learner’s motivation to acquire good pronunciation.

Factors influencing phonetic learning – Personal factors

Motivation and willingness to communicate

One concern : how to find suitable ways to define motivation ?

- **Other factors** that correlate with motivation may influence learning and **may** therefore be the “**real**” causes.
- For example, highly motivated learners may also tend to have a special **aptitude**; in fact, having an aptitude for something may serve as a motivating force.
- So we **can't be sure** whether motivation, the aptitude, or both are the cause of good accent.
- Recent work has suggested that some of the **complexities of motivation** is the WILLINGNESS TO COMMUNICATE (WTC) which predicts whether a particular speaker will choose to communicate with someone else in a particular situation

Factors influencing phonetic learning – Personal factors

Aptitude for pronunciation

- Adults vary in their success in L2 acquisition.
- Some L2 speakers are simply better pronouncers than others because of **an underlying talent** for pronunciation itself.
 - Modern Language Aptitude Test(MLAT), phonological aspects of language figured importantly in their conception of aptitude.
 - The test involves phonetic coding ability, the ability to make and recall links between speech sounds and symbols.
- Finnish adults with greater **musical aptitude** scored higher on English pronunciation than did those with lesser aptitude.

Factors influencing phonetic learning – Instructional factors

Instruction(Instructional factors)

- Many believed that L2 pronunciation were beyond the control of L2 teachers.
 - The belief hastened a movement away from the teaching of pronunciation that had already begun by the 1970s.
 - The Audio Lingual Method had, up until that time, held sway in language classrooms
 - Pronunciation had been a central part of pedagogy; students were expected to develop native-like accents through listen-and-repeat drills focusing on segments and prosodic patterns.

The End

