
‘Can late starters attain a native accent in a foreign language?
A test of the critical period hypothesis’.


1) Introduction

p. 32 Scovel (1988): "neuromotor involvement" in pronunciation

pp. 32-34 Previous studies showing correlation with age of arrival (acquisition)

pp. 34-45 young children have an advantage that is not deterministic
adults have a disadvantage that is not deterministic


laboratory training of English speakers in Chinese and Japanese sound patterns
methodological problems

2) Methods

Subjects:

Speech samples:

Group 1 - five native speakers of British English (3 male, 2 female)
from south of England or Midlands
21-43 years of age (mean: 30)
university background
no noticeable regional accent

Group 2 - ten native speakers of Dutch (8 male, 2 female)
23-52 years of age (mean: 37)
English instructors at postsecondary level
high level of proficiency; trained in R[ceived] P[ronunciation]

Group 3 - twelve native speakers of Dutch (5 male, 7 female)
19-43 years of age (mean: 30)
students or lecturers at a Dutch university
moderate to heavy accents

Groups 2 and 3: age of first exposure 12 years of age (in school)
7-12 years of formal instruction in English
[length of time spent in English-speaking countries apparently not controlled for]

Speech raters:
four native speakers of English (2 male, 2 female)
from York in the north of England
19-53 years of age
physics teacher, caterer, occupational therapist, child
psychologist
no noticeable regional accent

Thompson (1991) showed naive judges to be stricter

Materials:

Four different tasks involving different degrees of self-monitoring:

1) talk about most recent holiday abroad for three minutes
2) read aloud a short English text of 84 words
3) read aloud ten English sentences (5-10 words in length)
4) read aloud 25 English words (1-5 syllables; most English phonemes included)

Order of items in tasks (3) and (4) different for each subject

Subjects not informed about purpose of study (but most realized it after tasks (2) or (3))

Error-free and idiomatic 16-20 sec. excerpts edited out of task (1)
(to accommodate subjects, particularly those in Group 3, who had difficulty with task (1))

Scovel (1981) showed that 8 sec. suffices for foreign accent identification

"Four different audiotapes were made for each of the four judges"
Each tape contained samples from all 27 subjects for *one* task

Order of samples on each tape pseudo-randomized:

1) first two samples from native speakers (Group 1)
2) no consecutive samples from native speakers (Group 1)
3) no more than two consecutive samples from subjects in Groups 2 and 3

Each sample followed by four seconds for evaluation

"Thus, for each judge there were four audiotapes, one for each task, each tape containing a unique order of speech samples"

Procedure:

Order of tapes different for each judge
Judges informed of presence of L2 speakers

5-point rating scale:
1 - very strong foreign accent, definitely non-native
2 - strong foreign accent
3 - noticeable foreign accent
4 - slight foreign accent
5 - no foreign accent at all, definitely native

3) Results

Table 1.1 (p. 41)

Group 2 subjects received perfect scores on tasks (3) and (4) Outperformed natives (Group 1) on *all* tasks (significantly on task (3); task (3) yields lowest mean for Group 1 native speakers)

Figure 1.1 (p. 42)

Group 2 subjects overlap with natives on a multidimensional scale (30 = perfect score)

Group x task interaction (invariant across judges)

Group differences (partial ANOVAS):

Groups 1 and 2 > Group 3 -- significant on all tasks
Group 1 = Group 2

Task differences per group (Tukey tests):

Groups 1 and 2: task 4 > tasks 1, 2, & 3
Groups 3: task 4 > tasks 1 & 2 > task 3

4) Discussion

Biological disadvantages compensated for by learner and context variables

- intensive exposure
  subjects were taught almost exclusively in English at university level
  intensive contacts with native speakers at international conferences and/or during prolonged stays in English-speaking countries (usually Great Britain)

- intensive training
  non-native subjects who came closest to sounding native were university students majoring in English who had received intensive university-level training in RP and phonetics

- intensive motivation
  subjects highly motivated not to have a Dutch accent
Cognitive and affective variables were not investigated, however

“...only systematic and detailed studies of the cognitive and affective characteristics of excellent second language learners and of the language input they receive can bring to light which combination(s) of learner characteristics and variables of learning context can compensate for the biological disadvantages of a late start.” (p. 45)

Problems:

1) judges did not have unlimited access to speech sample (task 1)
   -- BUT this is a pronunciation study

2) use of naive judges questionable -- more sophisticated judges (e.g. linguists, language testers) or measures (e.g. acoustic) may have been more accurate

3) the age of first exposure of both Groups 2 and 3 falls within the 12-15-year-old age range of Snow and Hoefnagel-Hoehle’s (1978) best subjects

4) Dutch and English closely related (authors announce their intention to conduct a follow-up study in French, a syllable-timed language)

5) Native speakers rated lower than Group 2

   Group 1 from south of England or Midlands (not RP speakers?)
   Group 2 trained in RP
   Judges from north of England

6) Monitoring hierarchy of tasks not confirmed (1 > 2 > 3 > 4)