

Using Speech Archives in Teaching English Pronunciation

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1 Introduction: The Aim of the Study EFL/ESL pronunciation teaching is usually based on teaching materials presenting one of the two main standard accents (British or American). This approach may not be very reliable, in particular when such materials are based on authors' intuitions rather than empirical research. The latter would probably lead to discovering a variety of different (native speakers') realizations of various phonetic features.

While a number of generalizations and simplifications are probably necessary for a coherent and comprehensible approach to foreign-language pronunciation teaching, I believe that (at least at university level) one should not underestimate their students, who sometimes feel too constricted by the hard-and-fast rules we expect them to follow.

It is mainly for this reason that I have analysed an archive of English native speakers' readings of a short text on the Internet (<http://accent.gmu.edu/index.php>). Details on this collection of readings are given below. My main expectation before listening to the recordings was that at least some of the phonemic and phonetic features occurring in the native speakers' reading of the passage would justify a more 'liberal' approach to the students' own oral performance, either when they speak, read, or transcribe English texts.

2 The Speech Accent Archive Used for this Study The speech corpus (or 'archive' as it is called) in question is maintained by Steven H. Weinberger at the Department of English, George Mason University, Virginia, USA, and consists of reading recordings of the following 'elicitation paragraph':

Please call Stella. Ask her to bring these things with her from the store: Six spoons of fresh snow peas, five thick slabs of blue cheese, and maybe a snack for her brother Bob. We also need a small plastic snake and a big toy frog for the kids. She can scoop these things into three red bags, and we will go meet her Wednesday at the train station.

The archive is constantly updated and the text has until now been read and recorded by approximately 780 subjects. Around 575 of these are non-native speakers of English whose L1 is one of approximately 175 different languages. However, my 'target' readers were not these, but the remaining 208 readers, whose mother tongue *is* English, and who are prevaillingly North American speakers (138 from the US and 20 from Canada); 28 are from the UK and Ireland, 12 from Australia and New Zealand, and the remaining 10 from various other English-speaking areas.

3 Phonemic and Phonetic Features of the Elicitation Text Before listening to these recordings, I tried to establish which phonemic and phonetic features the elicitation paragraph could be used to examine. Only the first 96 of the recordings have already been transcribed (in narrow phonetic transcription); in any case, I mostly relied on my own auditory judgment when trying to identify these features, which are specified below.

It can first of all be noticed that several vowels and consonants do not occur in the elicitation paragraph. Thus among the consonants, there is no word containing /ʒ/, /j/ or /dʒ/, and /h/ is only used in the weak form of the grammatical word 'her', where it can be elided; in addition, /v/ is only used in final position, so it cannot be contrasted, for example, with a prevocalic /f/ as in 'father'. Finally, /r/ is used in a number of words in prevocalic and final position, but there is no example with its pre-consonantal position (as in 'bird'). As for the vowels, there is no word with /ɜ:/ which would allow, among other things, to contrast it with /ə/, and /ʊ/ is only used in the function word 'into', in which it can be weakened to /ə/. The vowel /ɑ:/ occurs only in 'ask', while there are no examples of the lexical sets 'dance', 'father' and 'farm'. More seriously, none of the following diphthongs is exemplified: the rising /aɪ/ and /aʊ/, and the centring /ɪə/, /eə/, and /ʊə/ (or their rhotic equivalents, i.e. a vowel plus /r/).

Still, the paragraph allows to examine a number of important allophonic realizations of vowels and consonants, as well as some prosodic features, all of which I have tried to summarize in the table below:

Feature	Examples
Various vowel contrasts	these/things, fresh/slabs, call/frog
Diphthong/monophthong 1	snake, snow
Diphthong/monophthong 2	please, cheese; blue, spoons
Schwa in final position	Stella
Vowel duration – full/clipped	please/meet, bags/snack, spoons/scoop
Aspirated/unaspirated p,t,k	peas/spoons, toy/store, call/school
Glottalization of p,t,k	scoop these, meet her, six spoons
Devoicing of sonorants	please, train
Final devoicing of weak consonants	Bob, frog; peas, bags, kids, things
Clear/dark l	Blue; small, also
Voicing of /t/	meet her
Allophones of /r/	red, bring, fresh, train
Rhoticity	brother, store
Morpheme-final <ng>	Things
Weak forms of function words	her, we; a, the, at, to, for, from, and; can
Compounds (1) vs. phrases (2)	1. snow peas, 2. plastic snake

Table 1. Segmental and prosodic features that can be analyzed from the elicitation paragraph

4 Analysis of English Speakers' Readings While listening to the recordings I noticed, of course, a number of regional segmental and prosodic features that differ from the standard features we are more familiar with, but this is not really of any interest for this study. I decided to focus on three prosodic features that we often consider important in English phonetics practical classes, namely:

- a) weak forms of function words,

- b) accentuation of compounds, and
- c) sentence intonation

With regard to the first feature, we ask our students to follow the general rule of using weak forms of function words unless these are accented or (in the case of e.g. prepositions) if they occur in the so-called stranded position. However, in the recordings in question, these words were often realized in their strong forms. The table below shows the function words we would expect to be weakened, and the number of readers who used a strong form for at least one occurrence of each word.

Function word	Number of speakers
A	19
At	175
For	31
From	12
Of	10
To	9
And	160
Her	14

Table 2. Number of speakers pronouncing strong forms of function words (out of 208)

I was surprised by two things: firstly, by the number of readers who used the strong form of the indefinite article (i.e. /eɪ/, some of them even for all its occurrences) and secondly, by the number of readers using the strong forms of 'at' and 'and'. While I cannot explain the reason for the former, the latter clearly shows a tendency to use the strong form of a function word in initial position (in the sense of the beginning of a prosodic unit, which of course is not necessarily sentence-initial position). As far as I was able to judge (a number of realizations seem to be mid-way between a strong and a weak form), 33 speakers only used weak forms and 7 only strong forms of function words. I found a clear (and expected) connection between the average number of strong forms of 'slow' and 'fast' readers (i.e. those that I specifically labelled as such). The average number of strong forms for the former was approximately three times the number of that of the latter. Concerning the second feature, the table below shows the number of speakers using an unexpected (wrong?) position of the primary accent in the four compounds occurring in the paragraph:

Compound	Number of speakers
snow 'peas	36
'blue cheese	76
'toy frog	25
train 'station	8

Table 3. Number of speakers with unexpected position of primary accent (out of 208)

According to the transcriptions in British dictionaries (e.g. the electronic version of the Cambridge ALD, 2005) the compound *snow peas* (as well as *train station*) are accented on the first element, while *blue cheese* and *toy frog* have the primary accent on the second element. The problem is, however, that *snow pea* is an Americanism (the UK equivalent is *mangetout*), which may explain why a number of non-American (but also some American) speakers accent it on the second element. Secondly, as we can see

from American dictionaries (e.g. Random House Dictionary, 1983), but not from the British ones, *blue cheese* is accented in American English on the first element, so we should actually consider the 62 pronunciations *'blue cheese* by American speakers correct, and the other 76 wrong (!). In any case, it should also be pointed out that in a number of cases it is difficult to decide which element is accented, because all the compounds (except for *train station*) occur at the end of non-final intonation units, where the level nuclear tone makes accentuation unclear.

Finally, concerning the intonation patterns used by the speakers, it can be concluded that most of the speakers use the expected rising tunes (including level nuclear tones) in non-final intonation units and one of the falling nuclear tones in final word groups. However, in addition to some very specific types of intonation of some US speakers, there is a very interesting characteristic of most Northern Irish subjects, namely the prevailing rising intonation for intonation units in both non-final *and* final position, e.g.: *Please call ↗ Stella. Ask her to bring these things with her from the ↗ store: (...)*

This is precisely the intonation we ask our students *not* to use in final word groups in reading, because it conveys the unwanted impression of 'dictating' rather than 'interpreting' the text, although from a native-speaker's point of view this may simply be a specific non-standard type of intonation pattern.

5 Conclusion: Reconsidering Some Criteria in the EFL Environment This brief analysis of the speech archive shows (at least with regard to the selected prosodic features I have examined) that a considerable percentage of native speakers fail to follow the rules we present to EFL learners as reliable and important. In the case of choosing between strong and weak forms, we should perhaps only give basic guidelines to students and accept all the variants that are not clearly wrong (such as using a weak form of an accented function word). Regarding accentuation of compounds, there also seems to be good reason for a more tolerant approach; but the reason, in my view, has more to do with the complexity of this feature and the lack of reliable rules, which obviously presents a problem even to a number of native speakers of English, let alone anyone else. However, concerning the feature of intonation patterns, we should probably still insist on the general rules concerning the basic subdivision of these patterns into rising and falling tunes, but prepare students for specific types of intonation deviating from the RP or GA standard.

References

Cambridge Advanced Learner's Dictionary, [Electronic] Version 2. CUP, 2005.
Random House Dictionary. Random House, New York, 1983.
Speech Accent Archive <http://accent.gmu.edu/index.php>