It is proposed that the target for teaching pronunciation in English as a Second Language must be the authentic, connected speech that is used by most native speakers, not an artificial and over-correct model too closely tied to the writing system, a different modality entirely. In English, this means learning the language's rhythmic patterns to make hypotheses about where words begin and end. Students can dramatically improve their overall rhythm of English and thus their intelligibility by: (1) shortening function words; (2) linking words together; (3) pronouncing /t/ and /d/ authentically; and (4) pronouncing final consonant groups. Detailed techniques for teaching these areas of pronunciation are outlined. It is claimed that use of these techniques for individualized pronunciation instruction has resulted in noticeable improvement in intelligibility, grammar, confidence, and listening comprehension. (MSE)
Although the goal or target language that we teach our students may be quite clear in the area of writing, what is considered to be "correct" in teaching speaking skills is often based on unspecified assumptions. The authors will argue that the target for teaching pronunciation must be the authentic, connected speech that is actually used by most native speakers, and not an artificial overcorrect model that is too closely tied to the writing system. Examples will be given of connected speech rules that can be easily taught to students, such as simplifying final consonant groups, reducing function words, linking, and resyllabification. To illustrate, brief "before" and "after" videotaped examples of constructed and extemporaneous connected speech will be shown. Finally, the benefits to teaching connected speech will be discussed. These include a relatively quick improvement in actual pronunciation, better grammar, better phrasing, improved intelligibility, improved listening comprehension, and psychological relief.
Teaching the Pronunciation of Connected Speech

by Rebecca M. Dauer and Sandra C. Browne

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INTRODUCTION

In order to teach anything, we must clearly identify what it is that we’re teaching and what are the specific goals for our students. In teaching a language, we must first decide what model to teach. At one time, that model was exclusively the written language of great works of literature, and the goal for students was to be able to read and understand texts. Nowadays, however, the model is increasingly that of the authentic spoken language, and the goal for students is to be able to "communicate" effectively in English at a normal speed (as well as to read, write, and understand English). But what is authentic language? Regardless of what we claim to be teaching, most ESL classes begin with words and sentences in standard orthography on the printed page of a textbook. This predisposes both the student and the teacher into viewing spoken language as consisting of a linear sequence of sounds (represented by letters) which can be put together into discrete words (with white spaces between them) and sentences (with punctuation marks between them).

In fact, written and spoken language are two completely different modalities. Modern research in speech synthesis and recognition by computers, in cognitive psychology, in speech production, and in linguistic theory has confirmed that there is no one-to-one correspondence between written letters or words and their acoustic or motor correlates. Word boundaries are not clearly marked in the actual flow of speech. There are no spaces between words.

One of the main tasks of the listener, therefore, is to figure out where words begin and end. In English, we seem to use rhythmic patterns, especially the strong or stressed syllables, in order to make hypotheses about where new words begin. The rhythm of an utterance, including the location of stress and the number of intervening unstressed syllables, set up a structure within which we carry out lexical access (search for possible matches based on phonetic features). Students need to learn how to speak so as to facilitate native speakers' comprehension, that is, that enables listeners to perform lexical access efficiently and normally.

In order for students to "communicate" with native speakers at a normal speed, the model of English we must teach them is the fluent language as it is actually spoken in conversation, that is "connected speech", and not an artificially slow, word by word variety, nor an artificially precise, overcorrect form of speech.

The precise goal for students would be to acquire a "comfortably intelligible pronunciation" (Abercrombie, 1956), that is, a pronunciation that can be understood with relatively little or no effort on the part of the listener. As Morley (1991) put it, "intelligible pronunciation is an essential component of communicative competence"; our students need language not just to survive, but to succeed. Therefore, the goal is not simply " intelligibility", but a pleasant, natural style of speaking that does not
place a severe cognitive load on the listener and that can be understood in less than ideal conditions (with background noise, on the phone).

Of course, there are many components to intelligibility, including word usage, grammar, sentence structure, organization, clarity of ideas, and the attention of the listener, besides just the speaker's pronunciation. Intelligibility depends on the efforts and overall language ability of both the speaker and the listener.

However, getting back to pronunciation, we need to first decide which features are the most important for intelligibility. If rhythmic patterns are what the listener uses to figure out word boundaries and begin the process of decoding (understanding) speech, then it is essential that we teach the rhythmic patterns of English to our students. Stressed syllables must stand out from unstressed syllables, and strong and weak syllables must be grouped together into units (phonological words).

Students can dramatically improve their overall rhythm of English, and thus their intelligibility, by: (1) reducing function words; (2) linking words together; (3) pronouncing /t/ and /d/ authentically; and (4) pronouncing final consonant groups. We will discuss in detail techniques for teaching these four areas.

REDUcing FUNCT.on WORDS

Students can be easily taught how to shorten function words (articles, auxiliaries, prepositions, pronouns, and conjunctions). This is an important part of normal spoken English that many students are not aware of.

Delete "h" in pronouns and auxiliaries which begin with "h" and link the remaining sounds to the preceding word.

1. Bill saw him yesterday. 
im
   I wish Don had told me. 
   ad

2. Did he ask her to go? 
   i ar
   Pete has been helpful. 
   az

3. Is that his new car? 
   iz
   You should have told me. 
   av

Note that /h/ is not deleted at the beginning of a phrase (after a pause).

Use weak forms for other function words.

4. Take your time. 
yar
   What do they want? 
   da

5. There's no smoking in our home. 
   z
   I was there yesterday. 
   wz (→ wz)

6. She has to go now. 
   ta
   Judy and Joe were there. 
   an (→ n)

7. I like them very much. 
   ðm (→ ðm → m)
   Talk to you later! 
   ya
Resyllabify contractions to smooth the transition from one word to the next by using homophonic spellings.

8. How've you been? Why're you so angry?
   "how view" "wire"
9. Why'd she go? We’ll go tomorrow.
   "wide she" "wheel"
10. I'd like a coke. You might've told me.
    "eye dlike" "might of"

"To" as both a preposition and part of an infinitive should be reduced and linked to the preceding word.

11. I have to leave now. She ought to know better.
    hæfla  otta  (→ otta)

Negatives in verb forms should be shortened and linked to the other words in the phrase.

12. You shouldn't have done that. jʊdənæv
13. She wouldn't have told him, if she'd known how hurt he'd be. wʊdənæv
14. I haven't had a drink. Sue hasn't given up smoking yet.
    hævænt  (hævænt?)  hazænt  (hæzænt?)

Students often confuse "can" and "can't." Ask them to listen to and imitate the vowel sound. If it's reduced, it's "can."

15. She says he can come. She say's he can't come.
    kæn  (kæn?)  kænt  (kænt?)
16. Can you come to the party? He can't go today.
    kæn  kæn?

Note that "can" is not reduced in phrase final position nor when it is used contrastively.

Many weak forms may be confused because of phonetic similarity. Students need to be made aware that they will not hear and do not need to make the difference between the following function words.

17. He'd go if he could. She said he'd gone. How'd he do it?
    would + go  had + gone  did + do
18. Bill should (have/of) come in earlier today.
19. Where's Jerry? He (has/is) gone.
20. Do you think (are/our) folks are coming this weekend?
21. "...and then they told (them/him), 'You're fired!'"
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**LINKING**

**Linking a final consonant to an initial vowel.** When a word ends in a consonant sound and the next word begins with a vowel sound, move the consonant sound to the next syllable.

1. Patsy drove up in a black Infiniti.  
   He has a bad attitude.  
   drou va pi na blæ kɪnɪnɪtɪ  
   za  dætɪtud
2. I'd like some orange juice.  
   His office is small.  
   mɔrɪndʒ  
   zɔfɪ  sɪl

**Linking two vowels.** When a word ends in a vowel and the next word begins with another vowel, use a short /y/ after front vowels and a short /w/ after back vowels; also, use /r/ and /l/ after final /ar/ and /al/.

3. May I ask what the answer is?  
   Did you feel it peel off?  
   miː ɪ əsk  
   ˈdɪɹ ʃən,  
   fiːl ˈpɛl  
4. She bought a yellow Audi.  
   He's too old for that.  
   ʃiː  
   ˈhiːz ˈtʊ ˈɑld  
   ɑld
5. The orchestra can't go on without the oboe player.  
6. His father read him a story about dragons.

**Linking two consonants.** When a word ends in a consonant and the next word begins with another consonant, link the first consonant sound to the second without releasing it.

If the two sounds are the same (or made in the same place), hold the first one and lengthen it.

7. I admire black cats.  
   We can help Paul.  
   kɪk  
   ˈpiːp
8. He's a bad dog.  
   I need time to think.  
   dɪd  
   ˈdɪt
9. They should help Bob.  
   pib
10. They gave Victor the money.  
    We need some more money.  
    ˈvɪktɔr  
    ˈwɛ ˈniːd ˈsʌm ˈmɔr ˈmʌni
11. She'll juggle with three knives.  
    Classes start on Monday.  
    ʃiːl  
    klaːsɪz  
    ˈstɑːrt ɒn ˈmɒndədi

If the sounds are different, try to move the tongue silently inside the mouth into the position for the second consonant, or try saying both consonants at the same time.

12. Keep talking.  
    You laugh too much.  
    ˈkiːp  
    ˈjuː ˈlɑːf ˈtuː ˈmʌŋk
13. That's a big dog.  
    My back tire is flat.  
    ðætʃes  
    ˈmiː ˈbækt ˈtɪəri  
    ɪz  
    flæt
/t/ or /d/ are two of the most common sounds in English. It is important to teach the two main variants of these sounds in American and Canadian English because they have important consequences for linking. (The following examples are from Dauer, 1993.)

Syllable final /t/ before a pause or consonant (or /an/) is pronounced as a glottal stop (or together with a glottal stop). The glottal stop is the sound in the middle of "uh oh". Have students repeat this "word" and ask them what it means. Then have them say just the first syllable "uh" and hold it. They'll notice that they can't breathe. This is because all the air has been stopped by the vocal folds coming together tightly in the larynx. (Another method is to pretend that you are about to lift up a very heavy object.) Then they can try the sound at the ends of words and in phrases such as

1. It rained. It was late.
2. You can't sit there. He might not come.
3. Great Britain has many mountains.

The common mistake is either to drop /t/ altogether or to follow it by another sound (/h, a/) which could be heard as a new syllable. Vietnamese are likely to replace final /t/ by /s/ (therefore, it rained = /Is rein?/), so it is especially important to teach them to use the glottal stop.

It's also important to point out that the glottal stop has a meaning in most varieties of English: it means /t/. If it is inserted before or after vowels (to separate words), it can be misinterpreted as /t/. Compare:

4. Have a good date. vs. Have a good day.
5. He felt like one. vs. He fell like one.
6. Is that your plant? vs. Is that your plan?

In American and Canadian English, /t/ and /d/ before unstressed vowels are pronounced alike, like a quick voiced /d/ (a tap), both within and across word boundaries.

7. leader = liter = lead her letter = let her
8. medal = metal out
9. It’ll be fine. one at a time

Note its use in the past tense.

10. started, it needed a

Give students a few examples and then ask them to think of others.

11. thirty, forty, little, butter...
People who have lived here for a while will probably pronounce /t/ as a tap at least some of the time. Check that they don’t drop medial /t/ in words like:

12. united better

Compare:

13. They can seat us. vs. They can see us.

14. the date I left vs. the day I left

Students should experiment with tapping /t/ so that they know what it is, even if they choose not to do so in their own speech. It’s extremely important for them not to expect /t/ and /d/ to sound differently when listening to Americans and Canadians.

MAKING CONSONANT GROUPS EASIER TO PRONOUNCE

Many of our students speak languages that allow very few, if any, consonants at the end of a syllable. English, however, permits a maximum of 4 consonants at the end of a word (as in glimpsed) and words ending in 2 or 3 consonants are common (changed, worlds, next, watched). How can we make these kinds of words easier to pronounce? The common mistake that our students make is simply to drop one or more of the consonants, beginning from the end of the word. Besides excessively shortening what is usually a stressed syllable (thus destroying the rhythm), this may also affect the grammar, because the final consonant is often a grammatical -s or -ed ending. The following methods can make final consonant groups easier to pronounce.

Link the final consonant to the following sound. Wherever possible, final consonants should be linked to following vowels in the same phrase, as discussed above. This simplifies the syllable structure by spreading the consonants over two syllables. Two techniques that can help students develop proper linking are backward build-up and silent articulation.

In backward build-up, students repeat each syllable, beginning with the last one and adding preceding syllables, one at a time. (Be sure to keep the intonation and reductions the same throughout). For example:

1. first of all → /
   /'vɔl/
   /'tɔ 'vɔl/
   /'fars to 'vɔl/

2. He changed his mind. → /
   /'mɛnd/
   /diz 'mɛnd/
   /'tʃɛnd3 diz 'mɛnd/
   /hi 'tʃɛnd3 diz 'mɛnd/

For sequences that include difficult sounds (such as /v, z, θ/), have the students silently articulate the sequence, concentrating on the feeling, and then say it aloud.
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3. five dollars lives there in the
4. made some I'd like problem

This is especially effective when the student has partial control of these sounds; that is, in some contexts he can say the sound, but not in others, or he can't put the two sounds in the same word (such as /r/ and /l/ in curl or world).

Pronounce final /t/ as a glottal stop before a consonant or pause. It's much easier to connect a glottal stop than a fully articulated /t/ to following consonants:

5. I felt fine. He sent one.

Omit one of the consonants, but not final grammatical -s or -ed. In fluent speech, sequences of three consonants at the end of a word are often simplified by omitting the middle consonant. This occurs especially in sequences of voiceless consonants with a middle /t/ or /θ/.

6. acts = axe ducts = ducks

This rule can easily be taught to non-native speakers by giving them a few examples and then having them predict which consonant may be dropped in additional examples:

7. gifts tests accepts
8. asked fifths months

Further linking with a following vowel will make these words even easier to pronounce. Students are amazed, delighted, and relieved to learn that they don't have to pronounce /θ/ in months, for example.

This rule can be extended across word boundaries. /t/ or /d/ may be omitted as the middle consonant in a sequence of three consonants:

9. first thing best movie next president
10. slept late told Bob friend came

However, if a vowel follows, /t/ or /d/ should be linked to it and not omitted in standard English.

11. first hour best apple next idea
12. slept a lot told him friend is

Unfortunately, not all consonant groups can be simplified. When students are faced with words like wasps or marched, they should slow down and pause, not rush through them (often they are nouns or verbs and occur at the end of a grammatical unit anyway). If worst comes to worst, they can substitute a synonym that is easier to pronounce!
Although some of these rules are oversimplifications, they can be very useful and are easy to learn. They can validate the hypotheses that students who have already been exposed to a lot of English have made and make them feel better about their own speech. For those who have just arrived, the rules can make them aware of why they've been having trouble understanding native speakers.

BENEFITS TO TEACHING CONNECTED SPEECH

Noticeable improvement is evident in videotaped "before" and "after" exercises of students who have had individualized instruction in these techniques.

Teaching just these few techniques can bring about relatively quick improvement in pronunciation, and the improvement goes beyond just mastery of the specific techniques taught. Students may suddenly be able to pronounce certain sounds that they could only pronounce correctly at the beginning of a word, but not in other positions. Through linking, sounds such as /m, n, d, z, tʃ, dʒ, ɵ, ʒ, f, v/ become easier to pronounce by becoming syllable initial or medial. Better rhythmic grouping also leads to an improvement in overall intonation.

These techniques can also lead to an improvement in grammar. The -s and -ed endings and function words are less likely to be dropped. Words are grouped into larger units (verb forms like would have gone) and can be more easily remembered.

Learners gain psychological relief and increased confidence. By using the techniques outlined here, they no longer need to struggle to pronounce difficult words like months. Listeners also experience psychological relief because they don't have to make such an effort to understand the learner. They can process speech by a non-native speaker in the same way that they process speech by a native speaker. Content words are distinguished from function words, and relationships between words are become clearer. Even though the differences may be small, intelligibility can be greatly enhanced.

Finally, learners can improve their listening comprehension even if their own pronunciation still needs work. Their expectations are changed. Instead of trying to hear a mythical one-to-one correspondence between written and spoken forms, they begin to listen for the actual cues that native speakers use in processing speech.

REFERENCES

