

# **TEACHING SCHWA: USING INTENTIONAL ‘STUTTERING’ ON CONSONANTS TO IMPROVE ENGLISH PRONUNCIATION**

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Taking an articulatory perspective, the phonetician JC Catford distinguished schwa from other vowels in English, and further distinguished two types of ‘schwa’: one vowel-like (e.g. the final sound of ‘tuna’) but the other non-vocalic and incidental, the result of a particular type of transition from one consonant to the next: an ‘open transition’. This can be pedagogically conceived as intentional closely repeated articulations (or ‘stuttering’) on consonants, which is a familiar starting point for students to learn authentic production. When they have this experiential understanding of what reduction is, there is a positive carryover into their production of the other type of schwa, and a change in what they expect to hear in native speech. This enhances their comprehension of spoken English.

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## **INTRODUCTION**

Schwa is difficult to teach using those conventional approaches which base pronunciation teaching on first developing listening skills. Since students often report being unable to hear schwa in running speech, teachers have to draw attention to it, which lends it an undue level of prominence and therefore negates one of its inherent qualities. Additionally, with some syllables that are conventionally analysed as containing schwa, there is no ‘vowel’ being articulated by the speaker.

Our general orientation is to use an Articulatory Approach to teach students to pronounce. We treat pronunciation as a motor skill, and treat teaching pronunciation as a coaching-type activity. Our teaching tip is easy to implement, and it even works with students who have had poor pronunciation for many years. They are delighted to find that they can make schwa and can begin to hear it in reduced syllables.

## **NATURE OF SCHWA**

The phonetic background to this tip comes from J C Catford, who was one of the leading phoneticians of the last century. In his early career he was also a language teacher. In articles spanning several decades, Catford pointed out that there are actually two types of schwa in English if one examines the phenomenon from a production point of view (Catford 1966, 1977, 1985, 1988). In some contexts, schwa is articulated as a minimal, reduced, vowel-type sound, and in

other contexts it is not actively articulated and is instead no more than an incidental noise that occurs when the speaker passes from one consonant to another one.

Catford described this second type of schwa as an ‘open transition’. It is a ‘transition’ because it occurs in the transition from one consonant to the next, and ‘open’ because the articulatory gestures of the consonants don’t overlap and something happens in the open space between them—a noise appears, creating a syllable. This contrasts with the situation of a ‘close transition’ between consonants, where the articulation of the consonants overlaps and no sound can appear between them.

Catford describes all the ways that transitions can occur between different consonants, but as an illustration of the idea, contrast the way you move between the relevant consonants in the words below.

*plight polite*                      *train terrain*                      *tusk tussock*                      *claps collapse*

Catford identified three physical differences between open transitions and full vowels. They differ in their duration, in the cross-sectional area of the channel through which air passes (the extent to which the vocal tract gets opened), and in their phonation.

Catford (1985) quotes figures showing that:

- on average, open transitions are completed in only a quarter of the time it takes to say a vowel.
- in his own speech, the channel area for the open transition in *cop apart* was just 20 mm<sup>2</sup> while that for the vowels in *copper part* and *cop up, Art* were both over 200 mm<sup>2</sup>.
- open transitions may be fully voiced, partially voiced or totally voiceless (voiceless, for example in the *to* of *He went to Tokyo*), while vowels are almost always voiced.

We advise teachers to watch themselves making open transitions so that they can notice how quick they are, how little movement they involve, and how their voicing depends on their context.

A table adapted from Catford (1977, p. 219) shows these differences: three types of relationship between the consonants involved and two sorts of transitions: close transitions, in which the articulation is continuous, and open transitions, where the first consonant is completed before the second one starts.

	<b>Close transition</b>	<b>Open transition</b>
<b>Homorganic consonants</b>	Continuity of articulatory stricture	Momentary relaxation of the stricture followed by renewed tensing

	<i>Top part, that time, these zeroes, glove fair</i>	<i>Top apart, that attire, these azaleas, love affair</i>
<b>Heterorganic consonants</b>	Articulatory overlap <i>Back part, these fairs, play</i>	No overlap - gap between articulations <i>Back apart, these affairs, palatial</i>
<b>Contiguous consonants</b>	Articulatory accommodation (shift or gliding) <i>Eight things, this shop, train</i>	No accommodation - articulations follow each other with a minimal opening <i>Eight Athenians, Call this a shop, terrain</i>

Open transitions, the second type of schwa, turn out to be very useful pedagogically, as students can learn to make them authentically without confusing them with their L1 vowels. Additionally, it gives them a strong sense of what a reduced vowel is in English.

### **NEED FOR CONCEPTUAL CHANGE**

Helen Fraser (2001, p. 20) pointed out that learners of an L2 bring with them their concepts of pronunciation derived from L1. They will need to change some of these concepts for L2. English schwa, and reduced vowels in general, are an alien concept to most learners. Furthermore, a syllable without an articulated ‘vowel’ is conceptually impossible in most languages but commonplace in English. Schwa won’t be said or recognised in speech by learners unless they can change their concept of a syllable to encompass the possibility of a syllable which doesn’t contain a well-formed vowel.

### **IN THE CLASSROOM**

In the classroom, we start with how open transitions are produced. We introduce the idea of intentional stuttering on consonants, using the names of objects in the classroom. “b-b-b-board” or “t-t-t-table” for example. Everyone can do this, although occasionally some people need a few minutes to be able to do it smoothly and well.

Involuntary stuttering of various kinds is common among young children as a normal part of learning to speak. Young children may stutter when their speech and language abilities aren't developed enough to keep up with what they want to say. (Mayo Clinic n.d) The motor activity of stuttering on consonants is therefore familiar to everyone and the word ‘stuttering’ is in common parlance as well as being a medical term. Among speech and language therapists, stuttering on consonants is sometimes technically described as ‘incomplete syllable repetition’ (Teesson et al.,

2003) so this term is available as a synonym if a teacher is reluctant to use ‘stuttering’ because of its association with disability. We also recommend that teachers be sensitive to whether their students have had trouble with stuttering when introducing this type of practice.

On a phonemic chart, we now create a sentence that works well for British English, using back-chaining so the students are not influenced by the meaning of what they will be saying. We start with /tu:/, and get the students to repeat the initial consonant /t/: /t.t.t.tu:/. Next, we get the students to control their articulation with exactly two repetitions of [t]: /t.t.tu:/.

Now we can add /kɔ:/ to what they have been saying, /kɔ: t.t.tu:/ and then an initial schwa, /ə kɔ: t.t.tu:/. The result is the phrase *a quarter to two*, pronounced exactly as a native speaker of British English would say it.

In our experience, students never recognise what they have just said, and this is often also true for non-native teachers of English. This level of authenticity in English pronunciation is very rare among L2 speakers.

We make sure that students have mastered the production of this phrase before we start giving clues to the meaning. When they do understand, they are shocked, but they know that it sounds right. They are always delighted.

The students can now compare the way they previously pronounced this sentence to this new version, alternating between the two. Then, to properly establish the authentic version, they have to explore the feel of what is happening in their mouths when they use their articulators in this new way.

When they think about the meaning of the sentence, old pronunciation habits can take over again, but working from intentional ‘stuttering’, they can re-create and control the authentic version. The work needs to be extended to other contexts and sentences but now, through stuttering, they have reconceived English to include syllables with no vowels.

In the phrase *a quarter to two*, notice that you do not use your voice during the period of aspiration noise that appears between the /t/ sounds: so you are not producing a vowel. And your tongue is not forming a shape for a vowel: its tip is just momentarily released from the alveolar ridge and then returns there. Compare the similar way that you say the first syllable of *potato*.

This is Catford’s ‘open transition’; when English speakers make this type of schwa, they skip the vowel entirely and only produce the flanking consonants. This is not possible in most languages and is the reason why a concept change is necessary. Students don’t usually think of a syllable without a vowel so they always add one.

Another example is: Fred, f-f-Fred, *An offer for Fred*. And, for a voiced consonant: ninth, n-n-ninth, *Nine and a ninth*.

As the next step, we make use of a process similar to stuttering, but between heterorganic consonants. For example, in the phrase *tea for two*. We work on the open transition between the /f/ and the /t/, /f.tu:/. This is similar to ‘stuttering’ between the same consonants. We have other sentences and phrases like this:

*I’ll get her to tell you*

*A piece of paper per person*

*These azaleas*

*We were wondering, we were working, we were walking*

*Bacon and eggs*

We also work on examples such as this one from Catford: *My shoe’s dirty - My shoes are dirty*. When voiced consonants are used, there is a little voicing between the consonants, but speakers don’t try to make a vowel sound. The mechanics of speech create the sound; the speaker doesn’t will it.

Thus when we work from a motor skill perspective— i.e., what speakers actually do to produce such sounds—this makes the task easy. And since many sentences in English have some examples of schwa as an open transition, students soon understand just how common this phenomenon is in the spoken language.

Once students realise how open transitions are made, they find the other type of reduced sounds easier to make. They have the concept of syllables which do not contain normal vowels. This is a pivotal moment in teaching pronunciation. For the rest of the course, whenever a student is articulating a vowel where there should be a schwa, we can say, “Now say it in English,” and he knows what to do to reduce the syllable correctly.

## **SUMMARY**

We devised this way of working on schwa during a class in St Andrews in 2012 and have been using it ever since. It demonstrates how you can work on pronunciation as a motor skill rather than as sounds to be copied. In contrast to received wisdom, which says that perception needs to come first, our experience is that students make better progress with pronouncing schwa when they don’t try to copy a model which contains it.

The Articulatory Approach gives students three things:

- it gives them the means to pronounce well;
- it creates any concept change that is needed; and
- once students can start to make features of pronunciation, they start to be able to hear them in normal speech.

Notice, too, that we are teaching neither phonetics nor phonology. We are straightforwardly teaching students how to pronounce, as the motor skill that pronouncing clearly is.

## **ABOUT THE AUTHORS**

Roslyn Young, [roslyn.young@pronsci.com](mailto:roslyn.young@pronsci.com), taught English literature in Australian schools for a few years before moving to France in 1967. She worked at the University of Franche-Comté, in the Applied Linguistics Centre from 1968 until she retired, teaching English and sometimes French in intensive courses using Caleb Gattegno's Silent Way. She also worked as a teacher trainer at the Centre. Piers Messum and she launched Pronunciation Science Ltd in 2011 to conduct research into pronunciation and pronunciation teaching and to work towards excellence in this field. Gattegno viewed pronunciation as a motor skill: they have explored in more depth what this implies. They have developed materials in several languages. She has published many articles on teaching, pronunciation and the Silent Way.

Piers Messum, [p.messum@pronsci.com](mailto:p.messum@pronsci.com), has taught in Japan, France and the UK. He currently teaches pronunciation to business people and develops materials through Pronunciation Science Ltd. His PhD concerned how children learn L1 pronunciation, and he continues to be active in this field of research. He is a past treasurer of IATEFL's Pronunciation SIG. In collaboration with Roslyn Young, he has written extensively on pronunciation teaching and on the nature of learning as described by Caleb Gattegno. Their book on Gattegno, "How We Learn and How We Should be Taught" was published in 2011.

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