THE REASONS AND METHODS FOR TEACHING PRONOUNCIATION WITHOUT IMITATION

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ABSTRACT:

We teach pronunciation using 'listen and repeat' exercises because that's how it's always been done, and because common sense seems to say that it should work even if it doesn't. The generally poor results we get in the classroom are usually ascribed to listening problems. Instead, they are more likely to be the result of two basic misconceptions: the widespread notions (1) that speech sounds (and timing phenomena) can be learnt by imitation, and (2) that children do this when learning L1. From a theoretical perspective these notions are both dubious. With respect to the second, not only is there no evidence that children learn to pronounce this way, but evidence is accumulating that they do not. It is more likely that their bootstrap into the sound system is the imitative exchanges in infancy where their caregivers reflect their utterances back to them, reformulated into L1syllables. This basic paradigm can be reworked for the classroom, and has been successfully applied for many years by teachers using Gattegno's Silent Way. His approach has been significantly enhanced over that period and can be applied in conjunction with non-Silent Way approaches to grammar etc, and with intermediate and advanced students.

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INTRODUCTION

The word 'imitation' covers many different copying processes: mimicry (recreating a sensory experience), matching (producing an effect judged to be similar), emulation (achieving the observed end result by different means), and others. In the teaching of pronunciation, much of our practice is based on attempted auditory matching by the learner, where we ask him to match his output to a model he has heard spoken by the teacher or on a recording. A more colloquial name for what we do is 'listen and repeat' (L&R). It's simple to do, and since we all believe that children learn to pronounce by first listening to adults and then basing their production on what they have heard, it seems sensible to teach older learners on the same basis.

Unfortunately, the process of learning to pronounce isn't as simple as this, for either children orolder learners. And the problem is not just that the older learners cannot 'hear' new sounds ortiming patterns, even if that is true. The problem is that we have misunderstood what needs to belearnt, and how that can be done.

I have explained elsewhere why we should not teach the production of stress and various timing phenomena (including the 'rhythm' of English) using L&R (Messum, 2008; 2009). Roslyn Young and I have been working together to develop new ways to teach these aspects of pronunciation (Messum & Young, forthcoming).

In this paper, I will just discuss the teaching of speech sounds. I start by asking you how you would know that it was time for you to review the way you do this. The point of this paper is

to inspire you to reflect on your practice, and then perhaps to make a change!

Then I look at what adults have to do with themselves to learn the production of a sound that doesn't have a counterpart in a language they know, and how children learn speech sounds. At the end, I present a different way to teach this aspect of pronunciation.

For simplicity in the use of pronouns, I will label the caregiver of a child and teachers as female, and children and students as male.

Is it time to change?

There are various ways we can evaluate our teaching practice. The most important, of course, is to ask whether or not it is effective. If this causes us to have any concerns about the results that we get with L&R, we can start to ask other questions. For example: (Q1) Does the approach makes sense theoretically? And although learning a second language is different from learning a first, there is still value in another question: (Q2) Is L&R 'natural'? Do children learn to pronounce this way?

Q1: Is there a theoretical justification for teaching speech sounds by imitation?

There are distressingly few models of learning to guide our answer to this question. But in Caleb Gattegno's model (e.g. Gattegno, 1987; Young & Messum, 2011) awareness and awareness estake a central position. Schmidt (e.g. 1990) also makes the case for this, though under the concept of 'noticing'. With Gattegno as our guide, we should look at where our students' awareness is being directed when we ask them to L&R.

The process starts with the teacher providing a spoken model. The student knows that his task is to produce something similar. The principal resources available to him are (i) the skills he developed in the past to reproduce sounds he hears, and (ii) his criteria for judging speech sound similarity – criteria that are well-developed for his first language but not yet developed for problematic sounds in the target language.

With these resources, he will start by attending to the spoken model, capturing some image of it. Then he makes a response, using his existing skills of sound reproduction. He tries to attend tothe acoustic results of his response and captures some image of this. He compares the two images, and this gives him some idea of how successful he has been. His teacher may also give him feedback about this.

Notice, though, that the teacher has not directed him to attend to what he is doing with himself when he speaks: to attend to the movements of his articulators and the tactile and other sensations that these produce. If the student follows the directions the teacher gives him, then at the end of the process he knows nothing more about what he did with himself in order to be successful or unsuccessful than at the beginning. If he 'succeeded' then he knows that given a spoken model, he can imitate it. But he does not know what to do with himself to reproduce this in the absence of a model to trigger it. If he did not 'succeed' then he is no wiser about what he might have to do to get a better result next time.

In general, we do not start to learn a motor skill by matching outcomes. To learn to walk, grasp, swing a tennis racket, or drive a car, we are present to what we do and we observe the consequences. Only once we can already perform a skill can we imitate the results of someone else's performance.

This normal way of learning motor skills – learning by doing - is reliably successful in real life, and it can be allowed to function in the language classroom, as explained later.

For now, though, let us just note that we have identified an alternative reason to the one usually given to explain why students are so unsuccessful during L&R activities. The basic problem is not that they cannot 'hear' the model (even if this is true). The basic problem is that the teacher sets them the wrong task: she should ask them to be present to what they are doing with themselves when attempting to make a new sound and listening to the result, but instead she asks them to be present to a model they hear and then to compare it to what they produce in response. The teacher has misdirected the students' attention, and only those who subvert her instructions -by quietly practising on their own, just listening to themselves rather than trying to copy her -will be successful.

Q2: Do children learn to pronounce by imitation?

To answer our second question - 'Is L&R natural?' – We need to draw a distinction which isabsolutely fundamental, yet never drawn in the literature: between 'learning to pronounce aword' and 'learning to pronounce (speech) sounds'.

Confronted by a word that is new, say 'horripilation', a mature speaker learns to pronounce it byparsing it into three or four chunks (whether he encounters it on the page or hears someone elsesay it). Let's say that he breaks 'horripilation' into chunks corresponding to the spellings <ho>,<ri>, <pi> and <lation>. Each of these chunks are recognised as 'speech sounds' that the speaker already knows how to pronounce. That is, he knows how to say something for each that will be recognised by his listeners to be equivalent to the speech sounds that they make.

All our speaker now has to do is to string these four speech sounds together, and he has successfully pronounced the word in question.

The process is one of imitation, but not one of mimicry or auditory matching. This is serialimitation: copying a series of events using actions that produce equivalent results to each individual event. Each action is already known. Only the sequence is new.

We don't know when children start learning the pronunciation of words like this, but it's probably very early and may well be connected to the so-called 'vocabulary spurt' at around 50words/18 months. The alternative is some kind of mimicry of the whole word shape, and this is problematic for producing words spontaneously, swiftly and automatically as needed for fluent speech. (Even if this alternative turns out to be the way an infant recreates the very first words headopts.)

The important thing to notice is that serial imitation relies on prior learning. Our speaker has tohave learnt how to say speech sounds equivalent to those he hears before he can make use of thismechanism to 'learn to pronounce a word'. The question of 'learning to pronounce sounds' ishow this prerequisite is achieved.

It's possible that a child learns to pronounce sounds by imitation, which in this case would meana process of auditory matching. The cycle would be started by a caregiver producing a speech sound, then the child would try to copy it, evaluate how good his attempt was, try something else, evaluate that, and so on. Of course, the initial sound would not be presented as something to be learnt – parents don't usually tutor their children so explicitly – but might be a sound that the child extracts from a word.

The very few phoneticians and speech development theorists who have gone into print on this issue have asserted that some process like this must occur. Famously Fry (1968, p. 18) did so,and Kuhl has followed him:

"Infants learn to produce sounds by imitating those produced by another andimitation depends upon the ability to equate the sounds produced by others withones infants themselves produce." (Kuhl 1987).

However there is no evidence whatsoever for this assertion and the idea leads to many of the anomalies found in speech science (Messum, 2007; Howard & Messum, 2011).

There is an alternative, and one that is more plausible for many reasons.

Since an earlier stage than the onset of speech, infants have been learning about themselves through observing how others respond to their behaviour. In the literature, this activity of caregivers is described as 'mirroring' because children perceive what they do reflected back to them. The name is a little misleading though; caregivers sometimes do exactly what the child has done, but they usually respond by doing something appropriate but not necessarily the same. So,for example, in what is called 'affect attunement', caregivers respond to signs of anger or distress sin their infants by soothing them. This is a very different response from, say, bouncing them up and down, and helps the child to understand his expressions of emotion.

The same mechanism would give infants a bootstrap into the sound system of L1. We

know thatinfants babble, and that they become skilful at doing things that make certain sounds (explodingtheir lips apart to make what we hear as a /p/ or /b/, for example). These sound-making activitiesare called vocal motor schemes (VMS) (McCune & Vihman, 1987). We also know that young children play imitative games with their mothers and other caregivers, and that they understand that each party is doing what it considers to be 'the same' as the other (Meltzoff & Moor,e 1997).Further, every time these interactions are analysed, we find that it is overwhelmingly the mothers who 'imitate' the children rather than vice versa (e.g. Pawlby, 1977). When the object of these games is sounds, though, the form of that imitation is not usually mimicry but reformulation: the mothers reflect back to their infants their interpretation of the infant's output in well-formed syllables of L1.

From this, the infant can deduce that the result of his VMS is understood by his mother to be the same as the L1 syllable he hears her make.

With this equivalence relationship established (and tested by him to operate in both directions during those imitative exchanges), he is in a position to peel some of the sounds he hears his mother make out of the words in the stream of her speech, and to attempt to use them in the circumstances that he sees her using them. /mI/ might be heard when milk is served, and he can reproduce the VMS that he learnt to be equivalent to this, and discovers that he is now more ableto get what he wants as a result. What power!

In summary, the infant is present to his sound making activity and creates VMS's out of some of it. He learns from his mother's responses that some of them produce an acceptable rendition of aparticular sound that she makes, often a speech sound in L1. With this correspondenceestablished, he is launched into learning the approach to the pronunciation of words that willsupport efficient word learning.

This paradigm has been tested with a computer model of an infant interacting with caregivers who speak different languages. The infant manages to learn the pronunciation of words at a similar performance level as human 2 year olds. (Howard & Messum, 2011; forthcoming)

An alternative paradigm for teaching pronunciation

Gattegno (1962, pp. 5-9) understood what was happening between mothers and their children, and also the importance of directing older learners' attention to where it needs to be if they are to learn the motor skill of pronouncing new sounds.

In his Silent Way approach, the teacher does not provide a model, but instead asks the student to start making a target sound by trial and error. (Some way of referring to the target sound isneeded, of course. IPA symbols are one possibility; I prefer coloured rectangles for reasons explained below.)

The teacher's role is to give feedback on how well the student does, encouragement to keep experimenting, and suggestions of things he might try. The suggestions will often be visible –things for the student to notice – rather than oral instructions. For example, the teacher mightsilently hyperarticulate the sound if this would give a clue to the student, or use her hands toindicate a new tongue movement.

As soon as the student realises that the teacher does not think that his first attempt is goodenough, the student is faced with the need to do something different. And that means becomingpresent to his own articulators and deliberately using them in a new way. Then, listening to whatthe result is; listening this time in a state that is ready to hear something different because heknows he did something different.

It's difficult to create a new sound, so success won't be immediate. But this process continuesover the days of the class as the sound is embedded in longer sequences of sounds and practisedat different rates, loudness, and so on. At all times, the student will be encouraged to be present to the two things he needs to be present to in order to learn a new motor skill: the articulators which are creating the sound, and the resulting sound they create.

In this process, the model a teacher might provide would be an unhelpful distraction.

In the classroom

Gattegno's Silent Way has been developed since his death in 1988, particularly with respect tothe pronunciation materials. However, they are still adapted for the whole Silent Way approachand best suited for beginners.

If a teacher would prefer not to use the Silent Way, or is teaching intermediate or advanced students, then the paradigm that Gattegno pioneered for pronunciation can still be used, and is supported by the PronSci charts (see the gallery at www.pronsci.com for examples).

Here, colour rather than IPA symbols is used to refer to sounds without the teacher having to say them herself. A chart showing the sounds of English as coloured rectangles provides a synthetic vision of the sound system of the language and of the internal logic of its elements. The sound to colour coding then extends to charts where coloured letters mean that words and spelling combinations are displayed using standard orthography but with their pronunciation immediately apparent to the student. This is one of a number of reasons why colour is better than IPA symbols for most pedagogical purposes.

The teacher can point to sequences of coloured rectangles and/or words, and students can work on their pronunciation with their attention firmly on their own actions, the consequences and the evaluation that the teacher gives them. Gradually they develop their own criteria for correctness and develop secure motor schemes for producing the speech sounds of English as part of words and the longer sequences of speech.

CONCLUSION

'Listen and repeat' is easy for teachers to do but gives disappointing results. When we examine why, we see that it makes no sense as an approach for teaching the motor skills that are required for pronunciation. Nor is it likely to reflect the way that children learn the pronunciation of their first language.

The alternative is for us not to model sounds and sequences of sounds for our students but towork on their motor skills, which means that the teacher needs to act in the way that any sportscoach normally acts: by encouraging her charges to work on the problem for themselves andgiving them feedback on how they are doing in areas where they have not yet developed criteriafor themselves.

Speaking from experience, I know that it takes a degree of faith to start working this way. Butstudents do not find it unsatisfactory. Quite the opposite: they very much appreciate the chance to work on the problem themselves, and to have themselves heard in a space that is not overwhelmed by the teacher's expert production skills. Do try it!

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