

Teaching English pronunciation in an intensive Silent Way course

This unpublished manuscript from 2015 was written in response to a call for chapters of a book on pronunciation that was to “depict [a] course which is either ‘pronunciation-centered’ or ‘pronunciation-inclusive.’”

The section headings follow a template that was given for the structure of the chapter.

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TWO ANECDOTES

On teaching pronunciation - Piers

One of my very first English language students was a delightful, middle-aged Chinese woman who had lived in London for some years but had little English. Her pronunciation often made her incomprehensible. I set to work on her sounds:

Teacher: /θ/

Student: /s/

Teacher (kindly): No, /θ/

Student (with a genuine, winning smile): Ah, /s/

At the time, I had no idea what to do. I repeated this type of exchange a few more times during the lesson, with different vowels and consonants and then, with no words spoken or needed, we mutually agreed not to work on pronunciation any more.

On teaching - Roslyn

My cousin once provided her students with a supply of paper and asked them to experiment with making and flying paper planes. Everyone set about the task with enthusiasm and soon they were launching their creations. Many planes were plunging to the ground, but new designs quickly took their place.

My cousin was an expert at making paper planes. After some time, she made one and threw it. It flew right across the room, swooping up and down elegantly. Everyone thought her plane was admirable; but everyone lost interest in making paper planes themselves. The group's will to experiment had disappeared.

SETTING

The intensive Silent Way (SW) course described in this chapter was organized by a French association that specializes in training teachers in the pedagogical approach described by Caleb Gattegno. This includes the SW for second language (L2) teaching (e.g., Gattegno 1962, 1976, 1985). Gattegno summarized his approach as "the subordination of teaching to learning", and mainly developed it for mathematics, literacy and language teaching.

The advertisement for the course explained that it was for anyone who had done several years of English at school but couldn't speak the language, and also for teachers wanting to find out about the approach. Twenty people enrolled, three of whom were teachers of English. The students were Swiss or French adults who all spoke English with a French accent. The level of their English ranged widely, from 'novice high' to 'advanced mid/high' on the speaking proficiency scale of the American Council on the Teaching of Foreign

Languages. They were happy to work on their pronunciation and it was the detailed work on this that allowed us to keep such a heterogeneous class working together.

The course took place in Besançon, a small city in France close to the Swiss border, over two weekends in September 2014. It ran from 2:00 - 7:30 pm on the Saturdays and from 9:00 am to 4:30 pm on the Sundays. The total teaching time was 21 hours. For simplicity in the use of pronouns below, we designate the teacher as female and the students as male.

CONCEPTUAL UNDERPINNINGS

Approaches and exercises for learning to pronounce

Celce-Murcia et al. (1996/2010:2) state that there are two general approaches to pronunciation teaching, which they call 'Intuitive-Imitative' and 'Analytic-Linguistic'. The Intuitive-Imitative approach supposes that students can learn to pronounce L2 by their "ability to listen to and imitate the rhythms and sounds of the target language without the intervention of any explicit information." The Analytic-Linguistic approach, on the other hand, "utilizes information and tools ... to supplement listening, imitation, and production."

"[It] explicitly informs the learner of and focuses attention on the sounds and rhythms of the target language. This approach was developed [in the late 19th century] to complement rather than to replace the Intuitive-Imitative Approach [e.g., Direct Method appeals to mimicry, imitation], aspects of which were typically incorporated into the practice phase of a typical analytic-linguistic language lesson." (Explanatory notes by Murphy and Baker, 2015)

Learning, of course, takes place as a result of exercises undertaken by students. The basic exercise supporting the Imitative-Intuitive approach is Listen & Repeat (L&R), in which a teacher provides a model which the students are asked to listen to and immediately match. L&R "continues to flourish" (Murphy and Baker 2015:xx). As Celce-Murcia et al. noted it retains a place within the Analytic-Linguistic approach (for example Morley 1991:509); it is still the exercise contemporary teachers use whenever they lack the skills or confidence to teach pronunciation with more sophistication, and it is also commonly found within and across modern, communicative EFL/ESL student textbooks.

The preparatory exercises in the Analytic-Linguistic approach develop awareness and skills around problematic features of pronunciation. They are followed by performance exercises in which the students deploy their new skills. Specialist pronunciation materials vary in the extent to which both types of exercises start with an instruction to 'Listen' (e.g. Gilbert 2012; Hancock 2012; Grant 2010). New Analytic-Linguistic exercises have been devised in response to the advent of the Communicative approach to language teaching (Murphy and Baker 2015).

To distinguish the Analytic-Linguistic performance exercises beginning with 'Listen' from simple L&R exercises, we characterize the former as 'Listen & Say' (L&S): when students listen to and copy the material, they use an act of 'saying' that is more conscious and considered than the immediate response asked of them by the instruction to simply 'repeat'. Note, though, that both L&R and L&S exercises start with 'Listen', and the preparatory exercises found in the Analytic-Linguistic approach also often begin with a listening component.

Pronunciation teaching within the Silent Way did not emerge out of either of the two general approaches described above. Instead, we can identify at least three sources:

- Gattegno spoke many languages well. He knew from personal experience that to learn to pronounce a new language is to acquire new motor skills, and that these motor skills are developed by careful exploration of movements and attention to their results.
- Gattegno taught many L2s to many L1 speakers over many years. He was an intelligent and inventive teacher, who was confident enough to try entirely new things if a situation seemed to demand it.
- Gattegno was a teacher of mathematics and reading as well as languages, and he prepared other teachers in these disciplines. Over his lifetime, he developed a general model of learning (Gattegno 1987; Young and Messum 2011) which informed the development of the Silent Way.

Gattegno's model of learning

The SW is based on a model of learning in which learning (as opposed to being given information) happens by means of an awareness or a series of awarenesses: discrete events that come in all sizes, from the well-known and easily recognized 'Aha' moment to small movements of the mind not usually noticed until one starts looking for them (Young and Messum, 2011, 2013).

In the following incident, significant awarenesses are marked with asterisks.

In spring 1992, I was in a public telephone box in Besançon. At the end of the call, I hung up and turned to go out the door. I pushed on the glass panel and, as *it didn't open, I pushed a little harder. When *it still didn't move, *I realized that I was trapped. Immediately, I turned my whole attention to the problem. I pushed again on the door, *a little higher, hoping that this would help. *Still the door didn't open. I pushed on the door *a little harder, *lower down the panel, but *could feel that there was no change in the resistance the door was offering to my hand. Then *I realized that this door was made, not of a single pane of glass, but of two tall narrow

panels side by side. I pushed *on the left hand side of the right hand panel and immediately *realized that there was more give in the door, that *this was a more promising place to explore. I pushed *a little harder, trying to estimate where the door was likely to yield most easily to my efforts. Then *I realized that I should push on the other panel as well. I did so and *the door opened easily. I walked out of the box and went on my way.

There are a number of ways of speaking about having an awareness: ‘noticing’, ‘realizing that’, ‘being struck by’, and so on. Having an awareness can lead to a state of being aware of something. This state of awareness, discussed by many writers in the SLA field (e.g. Bailey 2006), is not what Gattegno was referring to when he used the word ‘awareness’ as a countable noun. Rather, Gattegno was interested in what happens in the moment that lies between being unaware and being aware—dawn rather than the day—and how teachers can work to provoke awarenesses in their students.

In this model, the awareness is the conceptual unit of learning; the awareness is to education what the atom is to chemistry.

Conceiving of learning this way, one can begin to make an inventory of what awarenesses are necessary for learning anything, i.e. for creating know-hows, always being careful to distinguish awarenesses from units of knowledge. (Learning is not seen as a process of information transmission in which knowledge spontaneously becomes know-hows.)

If a language teacher wants to subordinate her teaching to students’ learning, she must conduct the class so that (1) students’ presence is drawn to the linguistic issue of the moment, and (2) awarenesses are triggered around this issue in an orderly fashion. To know what to do and to make the right decisions in the moment, the teacher must have learned to watch herself closely as a learner. She must be aware of how she uses her presence and how she changes as a result of the awarenesses she is constantly having. Knowing these things in herself, she can recognize them in her students.

The Silent Way is sometimes wrongly identified with the materials Gattegno used for teaching beginners: colored wall charts, Cuisenaire rods etc. All of these have a valuable place as means of provoking awarenesses, but the core of the approach is Gattegno’s understanding of how languages are learnt and should be taught, rather than any particular materials. Silent Way classes sometimes use no Silent Way materials at all.

Gattegno on teaching pronunciation

Gattegno gave his first language lesson in 1928 aged 17, and his last in 1988, the year of his death. He identified some of the landmarks in the evolution of his teaching as being: the introduction of Cuisenaire rods to create linguistic situations in 1954; producing colored word charts and a fidel (for English, Spanish and French) in 1961; beginning courses with

work dedicated to pronunciation in 1974; and making the teacher not only silent but invisible for his English and Hebrew video series in 1977 (Gattegno 1977). The materials he produced for Japanese, Hindi, German and Ojibwe in the 1980s (Logan 2011) show that he was making further conceptual developments then.

Gattegno was aware that pronunciation is much more than producing chains of sounds. For example, he drew attention to speech breathing and how it differs across languages (Gattegno 1962:26), he commented on how one has to reorganize more of one's body than just the mouth when one changes from one language to another (Gattegno 1998 as cited in Messum 2007), and noted how energy is distributed over time in different languages (Gattegno 1981, personal communication). Over the years, Silent Way teachers have looked at languages from Gattegno's perspective, and seen that they affect how pronunciation should be taught. For example, few students will discover English speech breathing, its articulatory setting and its stress and reduction system on their own. These are the features that unify the pronunciation of Kachru's (1992) 'inner-circle' (i.e., first language (L1), native-speaker) varieties of English, and it is best to introduce them before working on the vowel and consonant sounds of any particular variety.

We consider the following to be Gattegno's most important insights into the teaching of pronunciation:

1. It is best (a) to start work on pronunciation at the very beginning of a course, (b) to work at this point without reference to meaning or grammar, and (c) to address likely difficulties early.
2. To teach pronunciation is to teach a motor skill that is particularly challenging because most of the articulatory gestures involved are invisible and hard to feel. (This makes any 'listen first' approach to teaching pronunciation problematic, but we cannot address this issue here.) Each student must work on himself, and the teacher must make sure that the students understand how to do this.
3. The teacher should provide neither a personal model nor a recording to be imitated. Gattegno did not begin with listening as a way of teaching pronunciation.
4. Students should work within, and through, an explicit synthesis of any system they are learning.

We apply these principles in our own teaching for the following reasons.

1a - Start work on pronunciation immediately

As soon as students start speaking, it is a teacher's responsibility not to mislead them by approving incorrect lexical choice, grammatical structure, or pronunciation. To do so would lead them to develop incorrect criteria that later may be impossible to change (Higgs and

Clifford 1982). Word choice can easily be improved, grammar can be dealt with step by step, but the whole of pronunciation is potentially in play as soon as the first sentences are said. Therefore, at the start of any course we get students to build the framework for their pronunciation of English so that every sentence they then say will allow them to practise and further develop a system of which the elements are all in place.

The alternative is that students accumulate the basics over an extended period, with sub-standard pronunciation having to be accepted until the system is complete, and fossilization of early practices the likely outcome.

1b - Work non-communicatively

Pronunciation is, at least in part, a motor skill. If communication is 'playing the language game', then acquiring the motor skills to play the game can best be done, as in any sport, in dedicated practice sessions where the game itself is not being played. The students can then concentrate on the motor activities that create sounds or rhythmic and melodic strings of sounds in L2 without reference to meaning or grammar, which are just distractions at this point.

The challenge for the teacher is to keep motor skill practice intrinsically interesting and relevant, i.e. clearly carrying a potential for high performance in 'the game' to come. As soon as practice drops into mere repetition it takes on the character of old-style, pre-planned 'drills' and students quickly lose interest. In the SW, exercises are introduced in the moment, in response to students' errors, and last only as long as teacher and students feel they serve a clear purpose. When motor skill practice has these characteristics, students are happy to spend time on it, just as sportspeople appreciate well-run practice sessions.

1c - Do difficult things as early as possible

Gattegno often asked language teachers what they thought they should be teaching. His own answer was: whatever students would have most trouble learning without the help of a teacher. For this reason, we introduce difficult features of pronunciation early, allowing students to work on them for the whole course under expert supervision.

As a corollary of seeing pronunciation as primarily a motor skill, and one that will take time to develop, Silent Way teachers work on pronunciation intensively at the very beginning of any course (pronunciation-centered work). From then on, learners practise their pronunciation, sentence by sentence, alongside all the other language skills (pronunciation-inclusive work). When problems occur in this second phase, the teacher deals with them in micro-lessons of pronunciation-centered work which might last from five seconds to five minutes.

2 - To teach pronunciation is to teach a challenging motor skill

Pronunciation is a motor activity which is more challenging to acquire than most others.

- i. The learner cannot see what L2 speakers do, only hear the result.
- ii. The learner has developed a system of categorical perception for L1 (Trubetzkoy's 'sieve'), that obscures aspects of the L2 sound system. (Two sounds that are distinct in L2 are heard as identical because the difference between them is not significant in L1.)
- iii. Most learners are insensitive to their articulators and are unaware of the actions they make to produce sounds.
- iv. The learner does not hear his own output as others do; at best he hears it mixed in with bone-conducted sound. Much of the time he may not 'hear' his vocal output at all but instead may experience the output of his forward model of speech production, which is tuned for L1 not L2.

Consider the first two points through an analogy from sport: an expert tennis player learning badminton. If the player was handicapped as a learner of pronunciation is handicapped, he would see the results of his badminton coach's actions (the shuttlecock landing on his side of the net) but not what the coach did to achieve this. And - because of categorical perception - he would continue to see the markings of a tennis court while his coach and other players were using badminton court markings. The challenge to learn to play badminton well in these circumstances would be daunting, without even considering the problems which would be caused by analogies to points three and four.

Mainstream pronunciation teaching does recognize point (ii), that of not 'hearing' L2, as a serious problem. In the Imitative-Intuitive approach, it is assumed that this problem will resolve itself with exposure to L2 over the course of time. In the Analytic-Linguistic approach, the students' insensitivity to new sounds is addressed explicitly through listening exercises, recently including High Variability Phonetic Training (Wong 2015). In both approaches, it is believed that as students improve their perception of L2 sounds, they will be better able to match their production of L2 sounds to the models provided. However, two further issues emerge if students try to learn new sounds and other features of pronunciation by 'imitation' (i.e. by self-supervised auditory matching):

- v. It is difficult for the learner to compare the input and output: both are ephemeral, as are his mental images of them.
- vi. To act on any disparity the learner does identify, he must discover, or be told, how to modify his production. This is not trivial, for the reasons given in (i), (iii) and (iv).

All of these issues need to be addressed if the 'listen first' paradigm is to be successful. They only become explicit when, as Gattegno did, one focuses on pronunciation as motor skill development, and for us this perspective is too often neglected in the work of contemporary language teachers. As will become clear, Gattegno addressed some of the issues himself by changing the paradigm and therefore avoiding them. If pronunciation is a motor skill with the characteristics described above, he saw that what was needed was to implement the classic elements of motor skill development : presence to what one is doing and knowledge of the results. However, for reasons we now explain, this must not start with the students listening to a model.

3 - Don't provide a model

For pronunciation, it seems to be common sense that teachers would provide a model for students to aim at, i.e. that listening should precede and inform production. However, for young children learning L1 there is no evidence to support the idea that the pronunciation of speech sounds is developed this way (Messum and Howard 2015). For L2, in addition to (i) to (vi) given above, there are further psychological and pedagogical reasons for not providing a model for older learners (Messum and Young 2012). Here, we only have space to outline some of the pedagogical reasons.

As a student, the reader may well have lived the experience of the Chinese woman in Piers's anecdote. From our personal experience, and our observation of many learners, we do not believe that increased exposure to L2 or listening exercises for L2 make any great difference to this problem. Both are widely employed in mainstream teaching and the results lead to Tom McArthur's tongue-in-cheek observation that "Pronunciation is that part of a student which is the same at the end of a language course as at the beginning."

Our experience directly contradicts the 'listen first' approach: learning to produce a sound, a tone or another feature of pronunciation is the best way to learn to hear it (cf. Catford and Pisoni 1970; Linebaugh and Roche 2015).

When a teacher gives students a model to copy, she is directing them to place their presence in their ear in order to capture what is said to them. Most learners will keep their presence there in order to capture what they say in response and to compare the two auditory images. Their attempts to match the model use their existing powers of imitation, drawing on L1 speech sounds in the case of inexperienced learners, and on a more general capacity for imitative noise production in the case of better learners. For students in both groups, doing something novel with their articulators is not a natural response because their presence is not in their mouths but firmly in their ears.

Exceptional students transcend this. They move their presence to their articulators and begin exploring and experimenting even though the exercise proposed to them has not invited them to do so.

To turn all students into exceptional students, it is only necessary to draw them into exploring and experimenting from the beginning. Gattegno saw that the best way to do this is for the teacher not to provide a model. This induces students to become present to their articulators and present to the sounds they produce. The teacher's role is to provide learners with three types of supportive feedback: the evaluation of their performance that they are not yet in a position to make for themselves, technical coaching in what they should be doing with themselves physically ("Try relaxing your lips"), and encouragement to continue exploring.

Another pedagogical benefit of the teacher's 'silence' (which is not to say that she is mute, but that she doesn't model what the students are attempting to produce) is that the students cooperate more with each other and become less judgmental of themselves. In contrast, when a teacher provides a model the gap between what she and they can do discourages exploration and experimentation, as illustrated by Roslyn's anecdote of the paper planes.

4 - Use syntheses

In learning outside the classroom, there is always a dialogue between the learner's overall goal and the particular task of the moment. Within the classroom, where the learning of L2 is unavoidably artificial, the overall goal or wider context can easily be missed or lost by students.

We agree with Fraser (2006:69) that an important part of pronunciation teaching is changing the students' concepts. One way to do this is to give students good 'maps' (synthetic views) of L2, but maps in themselves are not enough. Students must engage with the maps because to transform a map into a set of new concepts, it needs to be used. So, for example, the Rectangle chart, Spelling chart and Word charts described in section 7 are synthetic lightings on English. We engage students by pointing sounds and words on the charts and getting them to do so, too, throughout the course. Students always see the particular in the context of the complete system from which it is drawn and learn to make informed choices, using the concepts built into the charts to structure their production and utterances.

NEEDS ASSESSMENT

We do not conduct a formal needs assessment at the beginning of a course. With respect to our students' initial proficiency, we do not know of any pronunciation test that would provide more than the information we quickly glean from working with students in class.

With respect to our students' aspirations, we believe that they cannot make an informed judgment about their potential to learn to pronounce well until they have worked in the way we offer. They come to understand:

- i. that they are learning a new motor skill, as they have successfully done many times before;
- ii. what demands this will make of them; and
- iii. the payoff they can expect for spending their time and effort on it.

They can then indicate to the teacher, by the way they respond to opportunities, what aspirations they now have for their pronunciation. Of course, if we are in any doubt, we will discuss this explicitly with the student.

LEARNERS' ROLES

In Silent Way classes, the teacher has an agenda but the lessons are not planned. As we discuss in more detail later, in the initial, pronunciation-centered part of a course, which usually lasts about three hours, the students are introduced to the distinctive characteristics of English:

- they discover English speech breathing and open transitions between consonants, and use them to create stress and reduction in simple phrases like “It’s a quarter to two,” or “Two twos are four”;
- they start learning to hold their tongue in its English setting (Honikman 1964);
- they begin to differentiate gestures for the full inventory of English vowel and consonant sounds.

With no concern for meaning at this point, the students also learn to coordinate all these movements. Their role is to experiment, and the teacher knows that presence and constant experimentation will increase the students’ sensitivity to their sound producing mechanisms, our priority at this stage.

Subsequent pronunciation-inclusive work takes place within general English lessons for non-beginners taught using the Silent Way. In these, one of the learners’ roles is to provide the content of the ‘class conversations’, by talking to each other, expressing their thoughts and feelings.

Students need to learn what a class conversation is. The teacher seeds the first few by giving the students an open question such as, “What did you do last weekend?” or “What are your plans for the summer?” and allows them to take this to where it might naturally lead if they were speaking L1. Once students realize that these conversations are genuine exchanges and that the teacher takes no responsibility for the content, class conversations become as interesting as the students can make them.

There are ground rules:

1. **Be yourself.** Everything said must be something that someone personally wants to say.
2. **Continuous feedback.** In every sentence said, mistakes are worked on before the conversation moves on; it does so only when the choice of words and their order are correct and the pronunciation is as good as the students can manage at the time.
3. **Authenticity.** The thread of the conversation is maintained, even if the correction process opens up a lengthy period of work on a particular problem which turns out to be an error (a misconception about the language) rather than a simple mistake. When students cannot say something correctly but genuinely have something to say, their error creates a 'teachable moment': they are poised to notice and integrate the new facet of the language that the teacher introduces. This is why Gattegno called errors 'gifts to the class'. After this work is done, the teacher withdraws from the role of informant and the students go back to their conversation which, because of its authenticity, is a powerful generator of teachable moments.

The fact that the learners provide the content of the class conversation means that work on pronunciation is always directly connected to expression. There is a personal, affective impetus in every utterance. As a result, some problems in prosody simply disappear; others appear in teachable moments and can therefore be dealt with profitably in a way that is not possible when they are worked on through preset exercises.

GOALS AND OBJECTIVES

Our goals and objectives for a course are informed by the fact that pronunciation is, at least in large part, a motor skill. What does this imply? Consider how you learnt a sport or a musical instrument.

- You probably had periods of instruction, when you learnt to make the movements you would need, and practised them under the guidance of a teacher.
- During this time, you were also developing criteria for what was considered right and wrong, excellent, good and only adequate, and so on.
- You also practised on your own: doing exercises proposed by your teacher, or working to improve a golf stroke or a set of piano scales that you were yourself dissatisfied with after a game or a performance.

Without the work outside the formal lessons, your progress would have been minimal.

Because pronunciation is a motor skill and these take time to develop, SW teachers do not expect students to perfect their pronunciation in a short course. Instead, they aim to provide learners with:

- starting points for the development of a new set of skills—the native-like movements of their articulators that students will need to further develop and automatize;
- enough experience in class to have developed inner criteria with which they can correct themselves when they work on their own;
- some palpable success, which will give them the energy and enthusiasm needed to continue the work outside classes and after the course.

Course Design

Gattegno insisted that there is more to pronunciation than just producing chains of sounds. Among other things, he drew attention to speech breathing and how it differs across languages (Gattegno 1962, p. 26). Over the years, SW teachers have looked at the pronunciation of the languages they teach from Gattegno's somatic and motor perspective, and have seen that this affects how they should be taught. For example, few students will discover English speech breathing, its articulatory setting, and the means by which its stress and reduction system is implemented on their own. These are the features that unify the pronunciation of English and it is best to introduce them before working on the vowel and consonant sounds of any particular variant (British, American, etc).

In the initial, pronunciation-centered phase of a SW course, we therefore delay working on sounds *per se* until the underlying systems of English pronunciation have been introduced. If we ask students to graft the articulatory gestures for new English sounds onto their L1 prosodic system and articulatory setting, we are wasting their time. We first need to introduce them to the physical movements which create stress and reduction, and to the unusual articulatory setting that underlies English. While doing this, we are also introducing them to ways of working on themselves that are appropriate for learning pronunciation as a motor skill: being present to one's articulators, consciously trying new things, attending closely to the results, and so on.

We use the word 'Framework' to name the underlying systems of English pronunciation and some of their manifestations. The components of the Framework are:

1. Speech breathing for English.
2. Vowel reduction as either open transitions or the minimal sound necessary to create a syllable.

3. Sentence stress as ‘pushes’ made with the abdominal muscles.
4. /p/ aspiration as pulsatile speech breathing combined with relaxed lips.
5. The Articulatory Setting of the English tongue.
6. /t/ aspiration as pulsatile speech breathing combined with a relaxed tongue tip and the English articulatory setting.

This Framework is explained in a series of videos within a playlist called ‘Teaching Pronunciation Differently’ on the PronSci channel on YouTube. Some of the activities we use to teach these components are introduced in the next section. Where this work needs sounds or sequences of sounds, we use the ‘long’ vowels (of non-rhotic British English) /i:/ /ɜ:/ /u:/ /ɔ:/ and /ɑ:/ because students can usually approximate them; a few consonants (/s/ /m/ /n/ /k/ and /f/); and then /p/ /t/ and schwa when we reach them. (See for example <<https://youtu.be/TjMz6wkV0w>>.)

When students have had some experience with the Framework, we gradually increase the number of sounds, making sure students begin to develop a distinctive articulatory gesture for each one and we give them the chance to try these gestures out in various contexts. We use a colored Rectangle chart (see below) as our phonemic map. At this point we are not looking for perfection; we are happy if the students are starting to escape the ‘grip’ of L1 (Underhill 2013) and to develop a set of articulatory gestures for English.

Once the students know what to do with themselves to pronounce English, they need to practise this in the pronunciation-inclusive phase: free speech during class conversations. There is now no formal organization to the work on pronunciation. Difficulties are dealt with as they emerge.

ACTIVITY TYPES

All SW pronunciation activities aim for students to become more aware of what they have to do with themselves to make English sounds, and for them to gain increasing control of the process.

0 - Sensitization of students to their articulators

The teacher, speaking in the students’ L1 if possible, leads students through an exploration which begins like this: “Put the tip of your tongue on the cutting edge of your upper front teeth ... Now run it upwards ... Can you feel where the teeth meet the gums? ... Run your tongue back and forth over the place where they join ... Now move your tongue back a little further... Can you feel a bump? [The alveolar ridge] ... What direction does the roof of your mouth take now?”

The teacher keeps the students present to their mouths for several minutes (<<https://youtu.be/J15-i8uKtDE>>). Later in the course, whenever she asks them to feel what they are doing, they know they are being asked to be present and watchful. This exercise also sets an exploratory tone for the rest of the course. If there is no shared L1, another way of doing this work is to display an illustration of the mid-sagittal section of the head on a wall. The teacher draws the students' attention around their mouths by slowly passing a pointer along the trajectory she wants them to follow with the tip of their tongues. This can be done silently.

1 - Expiratory breath control

Speech is produced on a rising column of lightly pressurized air. For most languages, the pressure is generated smoothly, but English is characterized by a pulsatile style of expiratory breath control: pressure is generated in a series of 'pushes', created most naturally by the muscles of the abdomen.

As a first step, students have to become aware of their abdominal muscles and to establish conscious control over them to create a pulsatile airflow. For this, we ask students to exhale sharply through their noses, mouths closed (<<https://youtu.be/EGFusdW9Qu8>>). This activity engages the abdominal muscles, as does pretending to blow out a candle or coughing. It gives students an action they can deploy for creating stressed syllables in English. The action is hyper-articulated, of course, but once established, this style of breath control can become automatic and imperceptible.

Students practise these exercises both sitting and standing. We use the image of a toothpaste tube being squeezed at the bottom and the toothpaste coming out at the top to give students a sense of the mechanics of pulsatile speech breathing.

2 - Vowel reduction

From an articulatory point of view, a schwa between two consonants is unlike a normal vowel; Catford (2001) called it an "open transition" (pp. 111-116). This contrasts with a 'close transition' between two consonants when their articulation overlaps: *terrain* vs. *train*, for example. We introduce students to reduced sounds like schwa through stuttering. When a stutterer produces "t-t-two", there is no attempt to place a vowel between each of the successive /t/ articulations. The vocalic sound which appears is not deliberately articulated: it arises due to the mechanics of speech.

Back chaining now enables students to discover how native speakers say phrases that are very familiar to learners but which many mispronounce. For example, /tu:/, /t.t.tu:/, /kɔ:/, /əkɔ:/, /əkɔ:t.t.tu:/ (where each dot represents an open transition/stutter). It is always a revelation when students discover that this is how English speakers actually produce the phrase: *a quarter to two!*

One major difficulty in teaching vowel reduction within any paradigm that starts with 'Listen' is that students emphasize schwa when they produce it in order to hear it 'properly'. They are thinking within their L1 paradigm for the nature of a vowel. By treating vowel reduction as akin to a stutter rather than as a vowel sound to be imitated, we avoid the pedagogical paradox of emphasizing a sound that should be almost imperceptible and we help students to change their concept of a syllable to include an open transition as a possible nucleus.

For other schwa sounds, those at the beginning or end of words rather than between consonants, the schwa is the minimal sound necessary to create a syllable. This is best introduced as part of sentence stress.

3 - Sentence stress as 'pushes' with the abdominal muscles

Using the 'long' vowels and a few consonants pointed on a Rectangle chart (see below), we start to create words and phrases which quickly include both stressed and reduced syllables: /ti:m/ /sti:m/ /sti:mə/ /ə sti:mə/; /fɑ:m/ /ə fɑ:mə/ /ə fɑ:məz kɑ:t/, etc. We coach students to consciously produce one abdominal 'push' (i.e. a contraction of the abdominal muscles) for each stressed syllable. Any schwa sounds which are not open transitions appear either on the run up to the push for the stressed syllable or on the remnants of the pressure that the push created. In this way, they are reduced naturally.

4 - /p/ aspiration

There are two ways for a child learning L1 to release voiceless bilabial plosives: either by actively dropping the jaw to open the closure, or by relaxing the lips and allowing the closure to be blown open by the buildup of air pressure behind it. The first of these develops into the /p/ found in most languages; the second into the aspirated /p/ of English.

As with expiratory breath control, for /p/ we ask students to recreate the ontogeny of English pronunciation by making their lips limp and loose, and discovering how the air pressure created by a strong abdominal push will blow their lips apart. This creates a hyperarticulated aspirated /p/. Once students can integrate this gesture into single syllable words, we add syllables: [p^hi:], [p^hi:tə] [p^hɔ:tə] [p^hi:tə p^hɔ:tə] and finally *Peter Porter was a poet*.

In itself, aspirated /p/ is a low priority, but it is a sound that is distinctively English and students can consciously follow these instructions to create it. They know that they have made a difference to their pronunciation through careful control of their articulators. They can hear that they now sound more like English speakers, they know exactly what they have done to achieve this (so they can do it again at will) and it is quite easy. This early work on /p/ aspiration, then, has value: students realize how to improve their pronunciation and are inspired by their own success.

5 - The Articulatory Setting of the English tongue

To play a sport or musical instrument, one has to adopt a basic posture from which movements can then be economically and comfortably made (e.g. the different postures used for fencing, hockey and boxing).

Similarly, every language has a basic posture of the tongue, lips, jaw, etc. called its articulatory setting (AS) (Honikman, 1964; Messum, 2010). With the correct AS, students can move into the pronunciation of L2 more easily because the articulators are optimally placed for the L2 articulations. If students do not develop the correct L2 AS, then they cannot avoid sounding non-native and some sounds may be impossible to make at all. An AS is a muscular disposition which can be taught and learned just as the basic posture needed for any sport can be taught and learned.

It seems plausible that speakers of all languages brace the tongue somewhere in the mouth as part of their AS. (A freely floating tongue would be difficult for young learners to sense and control, and every aspect of language must be learnable by children.) In French, the tip of the tongue is kept in contact with the back of the lower front teeth during the production of most sounds. This means that alveolar consonants like /t/, /d/, and /n/ are produced with the blade of the tongue.

In English, the back of the tongue is spread laterally: the sides of the tongue are lightly braced against the upper rear molars. Since the tongue is a muscular hydrostat (its volume is conserved whatever position it adopts) the result of the spreading is that the tip of the tongue is retracted. The tip can now flick upwards, brush against, or hover near the alveolar ridge to produce the alveolar consonants.

Rather than using drawings of the mouth made from any one particular angle, we show students the distinctive English AS using a model made from Cuisenaire rods. This model can be seen in Messum and Young (2017), a fuller treatment of how to teach the AS of English.

6 - /t/ aspiration

The aspiration of /t/ at the start of a stressed syllable (*Tiny Tim, atomic*) is the combined result of pulsatile speech breathing and two aspects of the English AS: the positioning of the tongue and the systemic relaxation of principal articulators.

For /t/, it is the tip of the tongue that is relaxed (for /p/, it was the lips). We ask students to consciously adopt the English AS by spreading the back of their tongue and feeling the sides touching the upper molars. They notice that in this position, it is necessarily the tip of the tongue which touches the alveolar ridge for a /t/ closure. Such a closure is intrinsically weaker when made by the tip rather than the blade, but we ask students to weaken it further by consciously relaxing the tip. It is now easy for air pressure created by a strong abdominal push to blow the tongue tip off the alveolar ridge. This coordinated set of

movements creates an English-like aspirated /t/ in contrast to how speakers of French, for example, typically produce a /t/ by dropping the jaw to actively remove the blade of the tongue from the alveolar ridge.

Once students can aspirate initial stressed /t/ in single syllable words, we begin to add syllables: [t^hi:], [t^hu:]; [t^hi:tʃ], [t^hi:tʃə], [t^hi:tʃə t^hɔ:k]; etc. Then we extend the work on vowel reduction described above from stuttering on a single consonant to a stutter-like movement between different consonants. We combine this with /t/ aspiration in the phrase *Tea for two and two for tea*, where both *for two* and *for tea* have to be ‘stuttered’: /f.t^hu:/ /f.t^hi:/.

Like aspirated /p/, aspirated /t/ is a low priority in itself. However, the production of [t^h] integrates all the aspects of English pronunciation that have come before, including the AS. Working on it at this stage in the course brings the benefits that we described for the work on aspirated /p/ and two further ones. First, the students realize that they are entering a coherent system. Second, when they say *Tea for two and two for tea* so differently from how they said it previously, they are aware that they have escaped the grip of L1 and have moved into English.

7 - Performance pieces

Once the Framework has been introduced, we normally ask students to work on a short text (usually some verse) that it will be pleasant for them to say many times over. We call this a pronunciation ‘performance piece’. The students use it as a way of practicing the movements of pronunciation without the distraction of having to formulate and deliver normal speech. Because students get to know their piece so well, they can come to observe every movement of their tongue and other articulators while performing it.

At this point, our way of working has already shown students how to actively practise a piece rather than simply repeating it. When practicing, a student makes himself present to different aspects of his pronunciation and then at some point brings them all together in a performance which will tell him what he now needs to revisit. Practice becomes mere repetition when a student stops bothering: stops being present to what he is doing and just speaks automatically.

8 - Intonation

We have no intonation activities within our Framework. English speech breathing, its articulatory setting and perhaps even its reduced syllables must be practised as motor skills before students try to integrate them into actual language use, but the intonation of English does not need to be ‘pre-taught’ as a motor skill in the same way. The major challenge of intonation is conceptual. There will be differences in what Roach (1991:163) calls the syntagmatic use of intonation—its accentual, grammatical and discourse functions—between English and students’ L1. As Roach points out, syntagmatic intonation indicates

“the relationship between some linguistic element and the context in which it occurs.” This means that it makes no sense to teach intonation without a context, and for us that always means a genuine context: a student’s expression of something he is moved to say. We therefore teach intonation during class conversations.

INSTRUCTIONAL RESOURCES

The primary pronunciation resource we use is a set of PronSci charts (SW charts for non-beginners), which may be seen at < <https://www.pronsci.com/materials>>.

The Rectangle chart

Like other phonemic charts, the PronSci Rectangle chart shows the inventory of sounds in English. However, each sound in the language is represented by a colored rectangle rather than an IPA symbol. The colors are then used to color letters in the Spelling and Word charts, described below. The spatial organization of the Rectangle chart turns it into a schematic 'map' that illustrates the articulatory relationships between consonants and, unusually, vowels. As a result, some of the regularities of English that are presented in the form of pronunciation ‘rules’ in textbooks can easily be made visually apparent.

The Rectangle chart is divided into three sections: vowels and diphthongs at the top, consonants in the central section and reduced sounds at the bottom. The reduced sounds are shown as dots rather than as rectangles, visually indicating the reduced energy used to make schwa-type sounds. When students point words on the chart, the pointer rises for a stressed vowel, and drops for a reduced sound. Thus the system of stress and reduction in English is demonstrated visually.

Some sounds are used during the work on the Framework, but the full set of English sounds is worked on properly only once the underlying systems of English pronunciation have been presented and practised. Thus work on all individual sounds takes place in an L2 context, and all sounds are new articulations even if the phoneme exists in the students’ L1 inventory.

We begin work with the vowels. To introduce a vowel, we point to a rectangle but do not make the sound. Instead, we silently hyper-articulate the vowel, exaggerating any features that can naturally be made visible. The students try to match what we are doing, producing various sounds. We select one example from among these, getting the student to do what he did for everyone to see. We modify the shape of our mouth and use various gestures to encourage students to ‘tune’ their attempts. What we indicate as the best token at any given moment is always made by a student. Everyone is aware that this token is unlikely to be perfect and so feels free to try to improve on it. In this way, the students explore the range of acceptable articulations and the range of acceptable results. For new sounds, they won’t perfect their pronunciation in the first lesson, and we don't look for this.

After building up a stock of about six or seven vowels, we begin adding consonants. For example, we close our lips to show that a particular rectangle represents a bilabial and pair it with a vowel on the chart: /pɑ:/. Some students produce [pa], some [ba]. We choose [pa] and then connect it with the work done previously as part of the Framework to coach the students to [p^ha] and then [p^hɑ:]. We vary the vowel and add a second syllable. As our stock of consonants increases, we create longer strings (words and short phrases, although the students may not recognize them as such).

We introduce the set of reduced sounds as early as possible. Schwa is taught both as an open transition, using 'stuttering', and as the reduced version of /ɜ:/ as explained above. In this way, all the sounds of English can be introduced and worked on individually and in combinations; with the teacher never giving an auditory model, but encouraging articulatory experimentation and 'mouth gymnastics' on the part of the students.

The Spelling chart

The Spelling chart (also known as a Fidel) displays all the possible spellings for each sound grouped together. Any set of spellings has the same color-coding and relative position as its corresponding sound on the Rectangle chart. The letters are written in two sizes; the bigger letters show regular spellings, while the smaller ones give exceptional, non-systemic ones. The Spelling chart has a strong effect on students, who can now reconceive written forms that they are familiar with as groups of letters coded as sounds.

The Rectangle chart is appropriate when the teacher wants students to work with utterances as chains of sounds; for example, when the challenge is 'mouth gymnastics'. The Spelling chart is appropriate when students are working on the pronunciation of a word or a chain of words. It has a strong effect on students, who reconceive written forms that they are familiar with as groups of letters coded as sounds and positioned visually within the stress and reduction system.

The Word charts

There are 16 Word charts which contain the high frequency and grammatical vocabulary of English: about 500 words organized by theme or part of speech. Within these categories the words are presented in alphabetical order. They, too, are colored using the pronunciation color code. In English, there are about fifty very common words which have both full and reduced pronunciations (e.g. *as*, *some*, *that*). These are shown using the colors of their full pronunciation (e.g. /ðem/), but with a colored dot placed under the vowel to indicate the pronunciation of the reduced form (/ðəm/).

With the full set of charts, the teacher uses a pointer to help students to produce, analyze and correct sounds and chains of sounds, words and whole utterances. Students soon start interacting with the charts themselves and pointers are also available for them.

No textbook is used on a course because the students generate the content from their lives. The students do not take notes, for several reasons:

- Notes are of no use when one is actually speaking.
- When a personal note is being taken, that student is no longer present to the work being done in the class.
- Writing a note relieves the student of the tension associated with a problem. We do not want this tension relieved prematurely. Instead, we want the student to continue to work until the construction no longer feels problematic to him.
- The teacher is not imparting propositional knowledge, so all that could be noted would be student hypotheses, which we want them to test rather than note.

This said, at the end of a piece of work students sometimes want to write down a few example sentences and this can be helpful.

INSIDE THE CLASSROOM

Gattegno pointed out that although language is used to communicate, it is more insightful to see it as a vehicle for expression (Young and Messum 2013). We can also learn from the French poet Louise de Vilmorin, who famously said to an interviewer, “Talk to me about myself. That’s all that interests me.”

In a Silent Way class, the students are asked to speak about whatever they are moved to say, from the trivial to the profound, and to be truthful. They describe and talk about their lives, their feelings and their opinions. That is, they are doing in class what they want to be able to do outside the class: they are ‘training for the task’. The conversations are what the students make them. They often set friendly challenges for each other.

The pronunciation-centered work described earlier is essentially ‘mouth gymnastics’. Now this work has to be integrated with students’ self-expression. In the course being described, students had many years’ experience of speaking English with a French accent, so the first contact between their pronunciation and standard English was a shock.

To seed the first conversation in this class, the teacher used the charts to point to the words of a very open question: “Where are you from?” (<<https://youtu.be/OYAgt-gtWcl>>).

The pronunciation of the question was worked on until the class as a whole could reduce the vowels in *are* and *you* and make the /r/-liaison between *where* and *are*. Since the students were unaware that English reduces so many of its common words, provoking the necessary awarenesses took a few minutes. The teacher never modelled the sentence.

When the students could say the question reasonably well, the teacher indicated that the pronunciation was satisfactory and that the question could be put into circulation. One student, N, put the question to S, who was able to answer easily. S then returned it to N. Although N's *Geneva* was easy to understand, the syllables were all equally stressed. The teacher asked her to point the word on the Spelling chart, which requires the student to differentiate between full vowels and reduced sounds. N pointed the first two syllables as full vowels and realized a moment later that she must be wrong. The teacher asked her, "How many syllables?" and then, "Where is the stress?" N now realized that there must be some reduced sounds somewhere in the word. After reflecting for a few moments, she pointed <*Geneva*> with a full vowel in the middle syllable and two syllables containing reduced sounds around it. She then said the word, consciously saying what she had pointed and hearing the result with some surprise. She went back to her place, S asked the question again, and N answered correctly (ibid., at 1:29).

B, an advanced and fluent speaker of English who understood N's mistakes, then picked up the question fully expecting to be able to make three apparently minor changes to his pronunciation: the /r/-liaison, reduction of *are* to schwa, and reduction of *you*. He was surprised to find that at his usual rate of speech his mouth did not produce what he understood conceptually. After checking that he did indeed know the correct sequence of sounds, the teacher did not intervene further because she knew that B would work on the problem for himself. In SW classes, it is quite common for students to withdraw from the conversation for a few minutes and enter a period of private, personal practice as B now did (ibid., at 8:15). He needed to build the phrase up step by step, speaking very slowly, but he did not need the teacher for this.

Pronunciation really is a motor skill. As Diedrichsen and Kornysheva (2015) point out, there are no short cuts: "Learning motor skills evolves from the effortful selection of single movement elements to their combined fast and accurate production." B needed to build the phrase up step by step, speaking very slowly, but he did not need the teacher for this.

Notice how fruitful the question *Where are you from?* can be. No student struggled with its grammar or meaning, but it led to valuable work on reduced forms, stress and reduction, /r/ liaison, and intonation. The teacher established pronunciation as a priority from the beginning.

On the video, notice, too, the murmuring in the class as other students try the sentence that someone else is working on. We believe that this spontaneous exploration, which is typical of a SW class, is a direct result of the teacher providing challenges which are within the reach of the students while not providing a model (cf. our story of the paper planes before the teacher made the mistake of throwing hers).

Soon it becomes unnecessary to seed the class conversations. Students are willing to speak

freely because the teacher controls the quality of the language but not the content of the exchanges.

A typical cycle in a SW class for non-beginners starts with a student adding something to the class conversation. If there is a mistake that the students fail to notice, the teacher silently indicates that there is a problem. The speaker, and then other students are first given the opportunity to correct the choice and order of words, if necessary with help from the teacher. This often leads to the consideration of alternative constructions. The teacher might propose an expansion. Only now are any problems in pronunciation worked on, in a micro-lesson with its own typical sequence:

- i. The problem is identified and, if the student does not immediately self-correct, it becomes the focus of work.
- ii. The teacher draws the student to the root of the problem, whether conceptual or motor, by indicating a starting point, usually an element of the Framework or something on the charts. If it is a motor skill problem, the teacher will encourage the student to be simultaneously present to what he is doing with his vocal apparatus and to what the result feels and sounds like.
- iii. Since the teacher's purpose is for students to develop inner criteria for pronunciation correctness, her feedback is designed to develop their motor, tactile and auditory criteria for the boundary between an acceptable and an unacceptable rendition of a sound or feature, rather than being simple reinforcement. She knows that an acceptable-sounding rendition does not prove that the student has yet done what is necessary. She wants the final result to be achieved reliably and for the right reasons.
- iv. However, knowing that it takes time to develop motor skills, she moves the lesson back to the class conversation when she makes a judgment that the student has made as much progress as is possible at this point.
- v. If necessary, she asks previous speakers to recreate the context by reiterating their utterances, and the latest speaker now adds his contribution.

Rather than trying to arrive at the new sound or feature immediately, the teacher is always seeking ways for the students to develop motor, tactile and auditory criteria for the boundary between an acceptable and an unacceptable rendition of a sound or feature. She wants the final result to be achieved for the right reasons rather than simply being hit upon.

When the sentence is correct, the class returns to the most recent exchanges in the conversation. These are normally reiterated by the original speakers and the student adds

his sentence to them. The work on pronunciation is thus a response to a genuine problem experienced by a student which is worked on immediately.

FINAL THOUGHTS

We believe that there are two principal goals for pronunciation teaching.

Firstly, that students develop a set of correct and functioning concepts for the pronunciation of L2. For this, the teacher should present pronunciation in the form of systems (but not rules). By channeling their speech through this conceptual apparatus, the students discover for themselves that this is indeed how the language is structured.

Secondly, that every student develops a set of articulatory gestures for L2 which makes his pronunciation at the very least highly intelligible and comprehensible but sets no ceiling on his performance. For this, the new articulatory gestures which will lead to students becoming skilled speakers should be developed from the start. As with any motor activity, this means focusing their attention on what they are doing and what the results are. Their actions then improve and become automatic with practice. In this work, what a native speaker sounds like is actually a distraction. The only sure way to keep students focused on their actions and the results is for the teacher to be the principal source of evaluation but to refrain from providing a model of any kind. This was Gattegno's fundamental insight.

Gattegno's approach to teaching pronunciation has been used in SW classes for many languages for over 50 years. At his explicit invitation (Gattegno, 1983), it has been developed further by SW teachers, and has been successfully used in classes taught with other approaches to grammar, vocabulary, etc. It is a full-fledged alternative to the Intuitive-Imitative and Analytic-Linguistic approaches for teaching pronunciation, distinct from them in a number of ways but most obviously because it does not begin with listening to and imitating a model.

DISCUSSION QUESTIONS

1. Infants are surrounded by adults and older children who walk, and people sometimes think that infants learn to walk by imitation. But how do infants learn to crawl, when most have never seen anyone around them doing so?
2. Is it possible to imitate a gesture that you have not previously learned to make?
3. Can you walk along a line on the floor giving a good impression of being a tightrope walker? If so, are you now ready to walk a tightrope or do you feel the need for more learning? Why?
4. How might questions 1-3 be relevant to how pronunciation is learned and taught?

5. Before being able to learn the pronunciation of an L2 autonomously, what does a learner have to know about learning to pronounce?

MINI PROJECTS/TASKS

1. Reread this chapter's discussion of articulatory settings. Adopt and consciously maintain the French AS (put the tip of your tongue behind your lower front teeth) and say Rue Robert à Reims and Robert Road in Ryde. Now say the same sentences while consciously maintaining an English AS.
2. "The retroflex /t/, found in languages like Tamil, is made with the tip of the tongue curled back to touch the highest point of the palate." Read the preceding sentence aloud until you can easily replace every English /t/, /d/ and /l/ with a retroflex version of each. What have you noticed about the learning process and your accent? How should this exercise inform your teaching of English?

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