

## Pronunciation instruction Classroom practice and empirical research

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*ABSTRACT: The present paper reviews the literature in the area of English pronunciation instruction. It starts by focusing on the way it has been addressed by different approaches to Second Language Teaching, from Direct Approaches to Communicative Methodologies. Then textbooks and pronunciation manuals are analyzed. Finally, data from empirical research is summarized. The conclusion is that there no integration between research and the production of materials for pronunciation instruction. Also, communicative aspects and the student's mother tongue are not taken into account.*

*RESUMO: O trabalho faz uma resenha critica do ensino de pronúncia para alunos de inglês como língua estrangeira. Inicialmente mostra como as diferentes abordagens de ensino trataram da questão, desde a abordagem direta até as abordagens comunicativas. Em seguida faz um levantamento dos livros didáticos e dos manuais de pronúncia da língua inglesa. Finalmente resume dados de pesquisa. A conclusão é de que há falta de integração entre pesquisa e produção de materiais para*

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*o ensino da pronúncia, além de não levar em conta aspectos comunicativos e a língua materna do aluno.*

**KEYWORDS:** *Pronunciation instruction, phonology, foreign languages.*

**PALAVRAS-CHAVE:** *Ensino da pronúncia, fonologia, línguas estrangeiras.*

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Pronunciation instruction was absent from the second/foreign language (L2)<sup>1</sup> classroom for a long time due to the conventional beliefs that pronunciation is not important, cannot be taught, and can be “picked up” by learners. These beliefs have been questioned and pronunciation teaching has undergone a shift, so that nowadays, its frameworks may encompass not only linguistic competence, but also discourse, sociolinguistic, and strategic competence (Morley, 1994).

Pronunciation instruction is increasingly being recognised as one of the important components of the L2 classroom. As observed by Pennington (1994, p. 105), the value of pronunciation instruction lies in the fact that it can help learners develop their interlanguage phonology by giving them “the perceptual and the productive experience they need to reconceptualize the performance targets while offering motivation to change and social experiences to develop a new value set”.

The present paper reviews some literature in the area of English pronunciation instruction, focusing on the way it has

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<sup>1</sup> From now on, the term L2 will be used as referring to both second and foreign language, unless it is necessary to make a distinction between them.

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been addressed by different approaches to Second Language Teaching, pronunciation material writers, and empirical research.

### *Pronunciation instruction and the approaches to language teaching*

An analysis of the most important approaches to L2 teaching gives a better picture of the status of pronunciation instruction. Celce-Murcia, Goodwin and Brinton (1996) highlight the methodology and beliefs of the main L2 approaches<sup>2</sup>, which are briefly summarized in the following paragraphs.

The Direct Method and the Naturalistic Approaches regard the process of learning a L2 as being the same as that of acquiring a L1. Thus, by listening to an appropriate model, L2 learners “pick-up” the pronunciation. Consequently, the methodology for pronunciation teaching consists of imitating a model through repetition, and the imitation can start after an initial “silent period”, during which the learner listens to L2 samples, but is not required to speak.

The Reform Movement establishes important changes to pronunciation instruction. As speech is a primary goal, it is emphasized from the initial stages of language learning. There is integration between phonetics and L2 teaching, and phonetic training is provided for both teachers and learners. The implication for methodology is that pronunciation is explicitly taught with the aid of the phonetic alphabet.

Audiolingualism and the Oral Approach equally emphasize pronunciation teaching from the start. The main contribution to classroom methodology is the concept of phonemic contrasts, which are believed to contribute to improve learners’ perception and production. The methodology exploits the use of minimal pair drills and the imitation of appropriate

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<sup>2</sup> The authors disregard the approaches of Grammar and Translation and English for Specific Purposes on the grounds that the pronunciation is not relevant to them.

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models. Besides, learners receive some form of phonetic information to help them with the acquisition of the pronunciation component.

After a period of time when pronunciation occupied a relevant place in the language curriculum, it practically disappeared with the development of the Cognitive Approach. This was justified by the belief that language is governed by rules, thus habit formation cannot contribute to L2 acquisition. The conclusion is that teaching pronunciation is a waste of time, since it cannot be learnt.

The pronunciation component reappears in the language curriculum with the Silent Way approach. Again, pronunciation is supposed to be taught from the first levels, with the help of tools such as pointers, charts and colourful rods. It is believed that explicit instruction improves pronunciation accuracy, and the instruction is implemented with the help of the tools previously mentioned. The teacher speaks little, just indicating what learners are expected to do.

Pronunciation is still important for the Community Language Learning approach. Central beliefs here are that private classes are the ideal condition for learning, and that learning is optimised when learners take decisions about the course content and “listen” to themselves. The methodology follows many steps. First, learners decide on an utterance they want to learn and the instructor gives an idiomatic version of it in the target language. The learners practice the utterance divided into chunks until they can produce it fluently, and then record it on tape. The utterance is played back and the learners have to give the target version for the chunked-translation presented by the instructor. The learners decide on the pronunciation aspects in which they want further practice and use the instructor as a “human computer” that can be turned on and off to provide data for repetition drills as many times as the learners think necessary.

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Finally, the Communicative Approach acknowledges the importance of the pronunciation component too, but differently from previous approaches, it aims at intelligible pronunciation, rather than total accuracy. It states that traditional methods of pronunciation teaching are incompatible with the notion that language teaching should be communication-oriented. Despite recognizing the importance of pronunciation teaching, the Communicative Approach followers tended to ignore it, or focus on the suprasegmentals<sup>3</sup> for some time. At present, they recognize the importance of segments and suprasegmentals in the teaching of intelligible pronunciation. Thus, pronunciation tasks should appeal to all kinds of learners and aim at an interaction between fluency and accuracy. This can be accomplished with the use of tools of other disciplines, technology developments, the consideration of sociopsychological factors, and the learners' active participation in the curriculum selection and in the learning process as a whole. The methodology is still under constant development, and although the Communicative Approach has recognized the necessity of teaching pronunciation, teachers and material developers who follow this approach have found it difficult to incorporate the communicative feature in the teaching of pronunciation.

### *Proposals for pronunciation instruction based on the Communicative Approach*

More robust attempts to design pronunciation materials according to the Communicative Approach guidelines are found in some teachers' pronunciation manuals, or researchers' reports of their experiences carried out in both tailored-made or general language classes. Some of these guidelines and suggestion are summarized in the following paragraphs.

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<sup>3</sup> This is particularly true for British materials such as Brazil (1991, *Pronunciation for advanced learners of English*)

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Bowen (1972) proposes 3 realistic goals for the teaching of pronunciation: (a) ability to communicate orally with ease and efficiency; (b) ability to produce the basic contrasts of the target language sound system; and (c) ability to understand fluent speech as produced by native speakers. The accomplishment of such goals might benefit from the use of an eclectic approach to the teaching of pronunciation, especially for post-puberty language learners. For Bowen, the success of pronunciation instruction depends essentially on motivating the learner by integrating pronunciation with the other elements of instruction, which might be accomplished by contextualizing the pronunciation lesson.

Bowen observes that even a pronunciation lesson that includes a combination of techniques (e.g., modeling and imitation, phonetic description, practice, and minimal pair drills) seems ineffective in the acquisition of pronunciation. This could be related to the lack of contextualization of the tasks that make up the lesson, which do not motivate learners. For Bowen, motivation is a powerful factor influencing the improvement of learners' pronunciation. The author believes that successful pronunciation teaching is directly related to having motivated learners and meaningfully contextualized pronunciation instruction. The author exemplifies contextualized pronunciation teaching by designing activities with minimal-pair sentences, such as the following example:

This pen leaks. (Then don't write with it.)  
This pan leaks. (Then don't cook with it.)  
(Bowen, 1972, p. 93)

These sentences must be part of a situation, which can be easily illustrated and which can show learners the meaning load of phonemes, such as /ɛ/ and /æ/ (pen vs. pan) in English. In addition, it would be helpful if the situation where the target elements are practiced is relevant for the learners. Finally, the

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two elements being elicited by the minimal-pair sentences should have approximately the same probability of being used in the carrier sentence.

Bowen's demonstrations of how to capture learners' attention and make them feel motivated to study pronunciation are relevant. The technique suggested by him seems quite appropriate to make learners aware of pronunciation difficulties and hopefully motivate them. Nevertheless, the minimal pair sentences are hard to create, and it should be very difficult to maintain a real communicative environment in class by simply using this type of technique.

Acton (1984) makes a more comprehensive proposal by describing a method to help fluent non-native speakers of English to improve their pronunciation of the target language. The author believes that changing the pronunciation of fluent language learners is harder and he suggests a tailored 48-hour program directed at professionals who intend to work on their pronunciation. The success of the course depends, first, on the understanding that the context of learning and change is not limited to the classroom, but involves students' integration of classroom activities and their attitudes on the job. Furthermore, the instructor must help learners become aware of and use their strong points at work, as well as apply strategies learned in class to real situations. On the other hand, students must feel responsible for their success in the course and develop the ability to work on their own in the future. Finally, as the actual aim of the course is to improve intelligibility, that requires work on segments, suprasegmentals, stress control, body movements, voice quality, and even dressing style.

Acton's proposal is suitable for highly motivated learners that are already convinced of the importance of having intelligible pronunciation. Unfortunately, the reality of most language classrooms is rather different, not only in terms of motivation, but also in relation to the sophisticated facilities and

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amount of time allocated to pronunciation required by the method.

The supremacy of sound practice and the neglect of the communicative element becomes clear if we analyze the list of activities provided by Celce-Murcia (1987) and Celce-Murcia, et al. (1996, p. 8-10), which are still being used to teach pronunciation: (a) listen and imitate, (b) minimal pair drill, (c) contextualized minimal pairs, (d) tongue twisters, (e) developmental approximation drills, (f) practice of vowel shifts and stress shifts related by affixation, (g) phonetic training, (h) visual aids, (i) reading aloud/recitation, and (j) recording of learner's production

Celce-Murcia (1987) observes that the traditional pronunciation teaching techniques (a)-(f) seem to be inadequate as a starting point, but that they might be relevant for motivated learners who seem unable to master certain sounds presented through communicative tasks. She also suggests that pronunciation teachers should use appropriate poems and song lyrics and even play-extracts in their classes, since such authentic materials can contribute to showing the communicative value of pronunciation.

Contrary to Celce-Murcia (1987), Celce-Murcia et al. (1996) do not reject techniques (a)-(f) as a starting point. Actually, these techniques are used by the authors when beginning a pronunciation lesson, which ideally should consist of five steps: (a) description and analysis; (b) listening discrimination; (c) controlled practice and feedback; (d) guided practice with feedback; and (e) communicative practice and feedback.

In order to design more communicative tasks to pronunciation teaching, Celce-Murcia (1987) suggests the use of activities such as role playing, problem solving and games, which she believes are not restricted to the teaching of vocabulary, functions or grammar points. The design of communicative tasks for pronunciation teaching involves the



acknowledgement of four steps (Celce-Murcia, 1987, p. 10): (a) identify your students' problems, (b) find lexical/grammatical contexts with many natural occurrences of the problem sound(s), (c) develop communicative tasks that incorporate the words, and (d) develop at least three or four tasks so that you can recycle the problem and keep practicing the target sound(s) in new contexts.

The proposals briefly described in this section make a claim for the development of communicative tasks for the pronunciation class. The authors suggest a variety of techniques that are expected to help language teachers who work with different clienteles to teach pronunciation directed at the development of intelligible pronunciation.

*Analysis of popular course books and pronunciation manuals*

Some popular coursebooks for English teaching in Brazil are *Headway* (Soars & Soars, 1987); *Interchange* and its new version—*New Interchange* (Richards, Proctor & Hull, 1990, 1997); *American Dimensions* (O'neill, Mugglestone & Anger, 1992), and *Cambridge English for the World* (Littlejohn & Hicks, 1996). In addition to the textbooks, some language courses at universities use pronunciation manuals. This is one of the rare cases when the pronunciation component is likely to be the subject of a whole semester course. At Universidade Federal de Santa Catarina, some of the manuals used are: *Manual of American Pronunciation* (Prator & Robinett, 1985; *Teaching American Pronunciation* (Orion, 1987), *Clear Speech* (Gilbert, 1993) *Pronunciation Tasks* (Hewings, 1993.) and *Sound Advantage* (Hagen & Grogan, 1992). In the following paragraphs, some levels of the textbook series will be analyzed as to how they deal with the pronunciation component, and the pronunciation manuals previously mentioned will be briefly reviewed, concentrating on the way the authors work with consonants and syllables. Pronunciation content and kinds of activity are the two main categories used to carry out the analysis

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of both textbooks and pronunciation manuals, and the subcomponents of these categories are summarized on Table 1:

Table 1 – Suggested curriculum content and teaching procedures for pronunciation instruction.

Pronunciation Content	Teaching Procedures
(a) sound discrimination (vowels and consonants);	a) connecting the pronunciation material with the language class or work environment;
(b) word and sentence stress;	(b) using visual aids such as mouth and lip illustration of sound articulation;
(c) rhythm;	(c) offering explicit instruction about pronunciation, including phonetic transcription;
(d) intonation;	(d) comparing the L1 and the L2;
(e) reduction;	(e) constant recycling of the pronunciation points;
(f) linking;	(f) providing learners with rule induction and deduction activities;
(g) deletion;	(g) listen and repeat activities;
(h) substitution;	(h) minimal pair drills;
(i) non-verbal behavior;	(i) contextualized minimal pairs;
(j) connection to	(j) tongue twisters, rhymes,

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vocabulary grammar;	and	poems, etc.;
(k) inflectional endings (-s and -ed);		(k) silent practice;
(l) consonant clusters;		(l) reading aloud, recitation;
(m) practice of vowel shifts and stress shifts related to affixation.		(m) recording learners' speech samples;
		(n) practicing at the word, sentence and paragraph level;
		(o) developing of self-monitoring strategies;
		(p) contrasting spelling and sounds;
		(q) working in pairs or groups so that learners receive peer feedback;
		(r) working with naturalistic speech samples as used by native speakers.

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The textbooks analyzed deal mainly with the teaching of intonation, stress, consonant and vowel contrasts, and inflectional endings. Two textbook series—Headway and American Dimensions—contain exercises involving the relation between spelling and sound, and for the book American Dimension's (intermediate) and Headway (advanced) this relation is the focus of many exercises (irregular spelling, silent letters). The two series also emphasize the way prefixes and word class can cause stress alternation. The Interchange/New Interchange series presents short exercises that deal mainly with intonation,

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reduction, linking, consonant release, and word, sentence, emphatic and contrasting stress. The only series that completely disregards the pronunciation component is Cambridge Language for the World. The other series vary in the extent they explore pronunciation, as well as in the procedures used.

From the Headway series, the intermediate book does not contain any pronunciation practice in itself, but an additional pronunciation manual was designed by Bowler and Cunningham (1990) to accompany it. In addition to offering pronunciation practice, the manual recycles the content of the textbook, for the pronunciation tasks deal with grammar points, vocabulary and topics found in the same sequence in the textbook. The manual also contains illustrations showing lip and tongue position for the articulation of the sounds. Another positive feature is that the authors of the pronunciation book try to highlight when sound contrasts are a problem for learners of a specific L1. Nevertheless, the exercises are not designed to suit all of the learners with different L1 background, since the way sounds are contrasted is not always appropriate for some L1 learners mentioned<sup>4</sup>. Furthermore, not all the problems faced by learners of different L1 backgrounds are mentioned. For example, although word-initial /s/ clusters are a source of difficulty for Brazilian learners, they are described as being an exclusive problem for Spanish, Greek, Italian, and Turkish learners. The same thing happens with the contrast /ʃ e /tʃ/, which is a source of difficulty for Brazilian learners due to their spelling. The main techniques used for pronunciation practice are (a) listening discrimination; (b) listen and repeat; (c) rule deduction; and (d) controlled practice. The upper-intermediate book brings some information on pronunciation in four out of 12 units. In each unit there is one exercise (sometimes two) dealing with pronunciation

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<sup>4</sup> For example, the sounds /j/ and /dʒ/ are supposed to be a problem for Portuguese learners, but actually, for Brazilian Portuguese learners, the problematic contrast is /ʒ/ and /dʒ/.

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aspects. The advanced general textbook provides practice with the phonetic alphabet; calling special attention to the relation spelling-pronunciation, including a few exercises with homophones, homographs, homonyms, rhymes and stress patterns. The pronunciation component seems to be important for the authors of Headway. Although the textbooks vary in the quantity of pronunciation tasks and the exercises tend to be limited to the linguistic aspects of pronunciation, the authors try to keep the pronunciation tasks connected with the content of the unit in which they appear.

A very popular series in Brazil is *Interchange/New Interchange* (Richards et al., 1990, 1998). The four books in the series are designed to take learners from the beginning up to the intermediate level. An analysis of books 1, 2 and 3 reveals that the pronunciation component is present in almost all units. The pronunciation tasks are generally very short and simple, consisting of presentation through a model, listening discrimination, identification, repetition, and a few exercises requiring learners' elaboration of examples based on the model. Most of these procedures, as well as the content (stress, intonation, linking, deletion), are recurrent in the three books, as well as the way they are presented and practiced. What varies is the grammar of the sentences and the vocabulary being practiced, which are directly connected to the unit where the pronunciation task appears.

The intermediate volume of the American Dimensions series contains very short exercises that offer extra information about the pronunciation of vocabulary and grammar that appear in the same unit as the pronunciation task. The pronunciation content of these exercises is also reviewed after every two units, together with the grammar and vocabulary review. There is no explicit instruction about the pronunciation item, and generally learners have to carry out a discrimination task (minimal pair or list of words in which one of them contains a sound that differs from the others) in order to guess the rule that governs the target

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pronunciation item. After that, learners are normally required to repeat after a model or read aloud words, sentences or short dialogs. Similar to Headway and Interchange/New Interchange, American Dimensions approach the pronunciation component with a focus on the linguistic aspects, neglecting the communicative aspect.

As regards the pronunciation manuals, most of them are directed at intermediate or advanced learners (Prator & Robinet, 1985; Orion, 1987; Hagen & Grogan, 1992; and Gilbert, 1993). Hewings' (1993) manual is the only one directed at pre-intermediate learners.

Orion's, Prator and Robinet's, and Hagen and Grogan's manuals begin by presenting the phonetic alphabet. These manuals, as well as Hewings' and Gilbert's discuss most of the segments and suprasegmentals present in Table 1. However, some manuals tend to emphasize some of those contents and they vary in the way and the sequence they choose to present them.

Prator and Robinett's manual is directed at advanced learners. Actually, the book contains so much detailed information about the English sound system that, as suggested by the authors, it is suitable for learners studying to be language teachers. The units start with detailed phonetic descriptions of segments and suprasegmentals, and there are a lot of exercises that require learners to use phonetic transcriptions. The syllable component is discussed in the units dealing with rhythm and stress, with an emphasis on the contrast stressed/unstressed at word and sentence levels. As regards consonants, they are introduced toward the middle of the book, with an emphasis on voicing, place and manner or articulation. There is also a thorough description of all types of consonant clusters and some information about the difficulties they may offer. The authors employ illustrations to help learners to articulate the sounds properly, as well as plenty of listen and repeat tasks. The pronunciation items are recycled throughout the units with exercises that involve perception and production at the word,

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sentence, and paragraph level. Learners are also required to read aloud or record texts, conversations, limericks, etc., and the sounds are practiced at initial, medial and final positions. The manual contains an impressive inventory of English pronunciation aspects that the authors believe to be more relevant to help improve L2 learners' pronunciation. The content selection was based on previous analysis of learners of different L1 backgrounds speech samples. The manual's value lies in this careful compilation of pronunciation difficulties and the comprehensive phonetic descriptions. The exercises, however, lack the communicative element. Most units follow a sequence that includes: (a) detailed description of the pronunciation focus, (b) listen discrimination via a native speaker's model, (c) listen and repeat, and (d) reading aloud or answering questions.

In Orion's manual, the concept of syllable is discussed together with stress, which is dealt with at the word and sentence levels. The exercises focus on having learners count syllables and identify the stress and reduced vowels. The units working on consonants contain illustrated information on place and manner of articulation. The consonants are introduced in pairs emphasizing the voiced/voiceless contrast, with the exception of the liquids and glides. Additional information about spelling and irregular pronunciations (e.g. past tense ending, silent letters) is included, as well as additional exercises with other contrasts known to be difficult to some language learners (e.g., /t~/θ/; /θ~/s/). There are also some exercises including some types of consonant clusters (/p/ and /b/ plus liquids, /l/ preceding /t/ and /d/, and some initial and final /s/ clusters). The sequence of tasks is mostly the same throughout the units and it consists of: (a) making learners aware of the articulators' position in the mouth via illustration and directions, (b) listening to a contrast, first in words, then in sentences; (c) discriminating sounds, (e) listening and repeating minimal pairs, (f) practicing minimal pair sentences and illustrating them to help memorization, and (g)

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dialog practice in pairs. There is also an exercise to recycle the contents of previous units (especially stress and intonation), which is integrated with the content of the current unit, and a home assignment that includes a variety of tasks (e.g., identifying and practicing the target sounds in words, sentences, riddles, proverbs or poems) to be completed at home and practiced in class with the help of peer feedback. Orion's book is comprehensive and includes clear instructions and descriptions of sounds' articulation. It also tries to explore the particularities of each consonant sound, which are practiced in initial, medial and final position. However, although the book is said to contain a variety of communication activities, most of the units include exercises that go from presentation up to controlled practice of contents.

In Hewings' manual, the consonants are presented in categories (e.g., plosive, fricatives). There is a unit for each category and all of its components are presented simultaneously. The normal procedure throughout the units is to have learners (a) listen and repeat words containing the target sounds, (b) complete a discrimination task (underline words containing the target sounds in a conversation, sentence or word; classify words according to a specific target sound), (c) listen and repeat a list of words that are used subsequently to complete short conversations or sentences, (d) read conversations. Sometimes, learners are asked to deduce rules or give short answers using some vocabulary previously practiced. The units dealing with consonants also bring illustrations showing how they are articulated. Subsequent units offer additional practice with the consonants again, but now grouped in pairs (e.g., /p/~b/). This manual includes practice with some consonant clusters—initial, medial, final, and across words. The units dealing with clusters also discuss the processes of deletion and linking. Some interesting features of Hewings' manual are the flexibility of the units, a variety of task types, vocabulary that is appropriate to the learners' level, and vocabulary recycling. However, sometimes



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the tasks that ask for deduction appear as the first step in a unit, and this might hinder motivation due to the level of difficulty of some of the tasks. Furthermore, some units lack a smooth transition between content presentation and more open-ending tasks, and many units finish with controlled or guided practice.

Gilbert's Clear Speech starts with a comprehensive test to help teachers to build a pronunciation profile of their learners. She presents some of the pronunciation contents in a rather different way from other material writers, which is connected to her belief that work on rhythm can be a more effective way of improving learners' pronunciation. The first unit focuses on syllable counting at the word and sentence level, also including information on past tense endings and letters that are not pronounced. From unit 2-7, the focus is on consonants. Gilbert presents the consonants in pairs, but the contrast is in terms of manner of articulation (e.g., continuants versus stops), using pairs that have the same place of articulation (e.g., two alveolars, such as /s/ and /t/). In some units and an appendix, there is practice with contrasts that might be difficult for learners of some L1 backgrounds (e.g., /t~/θ/). Each contrastive pair is accompanied by lip and tongue illustrations of how they are articulated, together with some tips to practice producing the two sounds. During the practice, learners alternate between the two sounds in isolation and in words containing them in final position, beginning with silent practice and then saying them out loud. The practice goes on with minimal pairs (both at the word and sentence level), concentrating on the target sounds in final position. After receiving information and practicing linking, the learners have some more practice by repeating limericks, songs, or rhymes in order to improve rhythm. Finally, learners' perception is checked with the help of sentence dictation, and there is a brief review of the previous unit teaching point. In addition to these activities, the units dealing with consonants also contain lots of pair practice of minimal pair sentences with peer feedback and dialog reading, but communicative tasks are almost

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absent. Different from many manuals, Gilbert's focuses on the perception and production of consonants in final position, which is particularly important for learners whose L1 sound inventory has a limited number of consonants occupying the final position (e.g., Brazilian Portuguese). The choice to contrast consonants in terms of manner of articulation has its negative and positive points. On one hand, it enlarges the contrast between the two sounds being studied, thus making it easier for learners to hear and produce the contrast. On the other hand, it disregards major difficulties such as that posed by the contrast voiced/voiceless, which might hinder learners' motivation<sup>5</sup>.

Hagen and Grogan (1992) discuss the syllable at the beginning of their manual, calling learners attention to how it is defined and counted, including information about stress, pitch patterns, the relationship between vowel length and syllable stress (here special attention is given to the schwa sound), as well as the ellipsis of /ə/. Some units begin with a pre-test involving a listening discrimination task, which is followed by a chart with examples and information about the target teaching point. The next tasks normally involve listening for a model, followed by repetition exercises. Some perception exercises require learners to listen to words which are not spelled and decide whether they have a certain sound or are the same or different. For isolated sounds, there is the help of illustrations and directions to guide their correct articulation. The production exercises normally include practice at the word, phrase, and sentence level. In the chapter on consonants, the authors also address the notion of unreleased consonants and the difficulties posed by clusters, calling attention to the way some language learners use an epenthetic vowel or delete consonants while producing difficult clusters. In the appendixes, there is further practice with all of

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<sup>5</sup> At least that was the impression I had when I was taught English pronunciation using Gilbert's book, for I could not see the point of practicing some contrasts such as /r/~s/.

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the consonants, which are practiced via the reading of minimal pairs or short sentences, with the help of directions about their articulation. Here the consonants are practiced in initial, medial, and final position. By designing tasks that ask for listening discrimination of words that are not spelled, Hagan and Grogan are trying to prevent learners from being dependent on spelling. Two negative points in the manual are that the initial units lack exercises that go beyond controlled practice, and the sequence of exercises in the units on vowels tends to be quite repetitive. These two factors make it hard to keep learners motivated<sup>6</sup>. The last 7 units contain more open-ended tasks, giving the learner the opportunity to speak more freely (e.g., paragraph reading, short presentations dealing with cultural aspects, picture description, pair/native speaker interviews, and sentence completion), as well as to monitor their pronunciation performance in more communicative tasks. However, the difficulty here is the abrupt transition from controlled to open-ended tasks. In these tasks learners are required to read aloud, make presentations and describe the same picture, and in large groups, the teacher is not able to provide feedback to everybody. Furthermore, the topic for the short presentations and the pictures are the same for every learner, which does not contribute to keeping learners motivated.

The review of general language textbooks for English as a L2 indicates that there is a lot to be done to develop materials that approach pronunciation with a focus on communication and intelligibility. Some pronunciation manuals have tried to include, and sometimes integrate a wide range of information on segments and suprasegmentals. There was some variation in the way the two aspects were presented and the amount of attention given to each of its subcomponents. Despite this effort to include a great deal of pronunciation items, the manuals still stop short of offering tasks that range from the more controlled to the more

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<sup>6</sup> This was the feedback I received from a group to which I taught pronunciation with the help of Hagen and Grogan manual (1992)

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communicative. A similar conclusion is drawn by Jones (1997), after a review several pronunciation materials. This reinforces the assumption that followers of the Communicative Approach are still struggling to cope with the pronunciation component adequately.

### EMPIRICAL RESEARCH

The recognition of the importance of pronunciation by most approaches to L2 teaching has not always been reflected in the place pronunciation instruction occupies in the language curriculum. Actually, the analysis of some pronunciation materials and course books designed in light of the Communicative Approach reveals that pronunciation instruction is still superficially addressed in most cases. It is possible that this gap in the material has stimulated some researchers to investigate to what extent certain types of pronunciation instruction are effective.

#### *Studies on the effects of pronunciation instruction*

One researcher concerned with the effects of pronunciation instruction is Neufeld (1977, 1979). He attempted to design research procedures that focused on specific psycholinguistic issues, and to control for the interference of extra linguistic factors. The results he obtained in one of these studies (1977) suggest that many adult learners, exposed to instruction on intonation and articulation of 3 unknown languages, were capable of reproducing lengthy utterances of these languages at a native-like level. Something interesting about the instructional procedure tested was that the subjects were not allowed to vocally produce the utterances being taught during the first lessons. All the subjects could do at that moment was complete the discrimination exercises, and in the second half of the program, they had to whisper the utterances. The results indicate

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that some adult learners were able to achieve native-like proficiency in a particular skill – imitating utterances.

Strange and Dittmann (1984) tested the validity of using a specific computer-based task in the acquisition of the contrast /r/-/l/ categorical perception by Japanese learners of English. The researchers had 4 female subjects for the experimental group and four for the control group. The pretest and posttest materials consisted of the same real-speech minimal pairs; rock/lock synthetic speech series, and rake/lake synthetic speech series. The training involved computer-based discrimination tasks that provided immediate feedback about the answers' correctness. The results revealed that the experimental group performance on the synthetic stimulus improved, but this improvement did not transfer to natural-speech stimulus.

Jamieson and Morosan (1986) tested the effects of pronunciation instruction on the acquisition of the contrast /ð/ ~ /θ/ by French learners of English. They propose that in order to be successful, training should include three components: (a) acoustic training appropriate for normal speech; (b) identification training with immediate feedback; and (c) acoustic uncertainty provided by increasing variability in the acoustic signal. The authors suggest the use of the “fading technique” to train a perceptual contrast, and they describe it as follows:

This technique attempts to train a perceptual contrast, without subject errors, by beginning with clearly discriminable stimuli which may exaggerate the normal perceptual differences or add other salient features. Progress in training is made by slowly reducing the magnitude of the perceptual contrast, in small steps, so that the task never becomes too difficult and errors remain infrequent. (Jamieson and Morosan, 1986, p. 208)

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The results indicate that the kind of training employed by Jamieson and Morosan contributed to the subjects' improvement in the discrimination of both synthetic and natural speech tokens.

Yule, Hoffman and Damico (1987) and Yule and Macdonald (1994) predicted that some subjects would achieve lower scores on a phoneme discrimination task immediately after receiving a certain amount of pronunciation instruction. They administered a delayed posttest to investigate whether the same subjects would improve their performance after the period the pronunciation instruction had taken place. Cognitive Theory supports the authors' prediction. This theory seems particularly relevant for SLA because it emphasizes the importance of practice as a way of optimizing the information-processing limitations of human learners. The optimization results from the automatization of skills that initially require the use of controlled processes, which utilizes a lot of information-processing capacity. Although practice can help learners to overcome their limited processing limitations, one cannot assume that practice will result in immediate skill automatization. Initially practice may contribute to the accumulation of information, which will be organized as learners reach phase 2, and eventually becomes automatized as restructuring takes place (Karmiloff-Smith, 1986). This process is also known as the U-shape curve, where learners' performance is seen as "declining as more complex internal representations replace less complex ones, and increasing again as skill becomes expertise." (MacLaughlin, 1987, p. 152).

Fifty-six intermediate-level ESL learners enrolled in a pronunciation course participated as the subjects of Yule et al.'s (1987) study. The materials consisted of (a) a test containing a phoneme discrimination exercise, and (b) a *confidence-rating scale* going from 5 to 1, which was used to describe how sure the subjects were about making the correct discrimination. The subjects were tested three times: (T1) in the week previous to the beginning of the course; (T2) eight weeks after the course had

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begun; and (T3) fifteen weeks after the course had begun. The pronunciation course was based on Prator and Robinett's (1985) pronunciation manual.

The results corroborate Yule et al.'s (1987) predictions. Indeed some learners worsened their performance after receiving 7 weeks of instruction (T2). The same subjects improved their performance in the same task after 15 weeks (T3). In addition to the improvements in percentage of correct responses, the confidence rating part of the T3 test indicated that subjects' self-monitoring ability also improved after a longer exposure to pronunciation instruction. Thus, Yule et al. (1987, 768) suggest "there is a complex interaction over time between simply identifying a sound contrast and being confident that the identification is accurate." This ability is believed to help learners to decide whether they understand what native speakers are saying and to ask for repetition or clarification where necessary, thus facilitating communication.

Macdonald, Yule and Power (1994) tested how four different instructional conditions related to learners' improvement in the production of some target words and phrases in the field of metrical systems (e.g. derived units, multiples). Two of them consisted of drilling activities, of which one was teacher-centered and the other was a self-study task in the lab. The third condition consisted of modified interactions, in which an instructor would prompt for clarification of the words and phrases being tested by the researchers. Finally, the fourth condition was that of the control group, which had no instruction on the target words and phrases. The subjects were tested before, immediately after, and two days after the instructional intervention, which for the three experimental groups consisted of a single session. For the teacher-centered and the self-study group, the instructional session lasted ten minutes, while for the modified interaction group, it lasted thirty minutes. Based on the results obtained, the researchers concluded that apparently none of the instructional conditions tested were superior to the others,

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since the three experimental groups and the control group yielded similar results. According to Macdonald and her collaborators (1994), the results also point to the important role played by individual differences in the L2 acquisition process. Individual differences can be a powerful variable, which makes it difficult to account for the effects of instruction.

Elliot (1995) made use of a multimodal methodology in order to test the effects of instruction on pronunciation of the Spanish sounds /a e i o u w b d d g g p t k l s z r R/ by American learners. The multimodal methodology is designed to take into consideration different learning styles and makes use of different learning strategies. Therefore, the pronunciation instruction provided in Elliot's (1995) experiment consisted of linguistic description of target segments (e.g., point, place and manner of articulation), varied presentation of the target segments in order to account for different learning styles and preferences: aural (sound identification), oral (repetition), visual (diagrams), use of inductive and deductive methods, (d) use of drills and practice exercises, and (e) immediate feedback to prevent fossilisation. Elliot's experiment consisted of a pretest, an instructional period and a posttest, using two experimental groups (43 subjects) and a control group (23 subjects) of intermediate language learners. The pretest and the posttest contained tasks checking learners' ability to mimic sounds at word and sentence levels, and their ability to pronounce written words and the overall accuracy of target sounds pronounced in spontaneous speech. The experimental groups were instructed over a period of 21 classes, with the instructor dedicating 10 to 15 minutes of each class to pronunciation instruction.

Elliot (1995) found a significant relationship between pronunciation improvement and instruction. This improvement seemed to be restricted to the effect of the instructional treatment, and could not be attributed to other variables tested in



the study, namely, field independence<sup>7</sup> and subjects' attitude towards pronunciation improvement.

Quijada (1997) tested the effects of pronunciation instruction on Spanish school children (sixth graders) learning English. The researcher supplemented the subjects' coursebook with a phonetic syllabus that included work with vowels (/ʌ/, /ɑ:/, /o:/, /ɒ/, /ə/, /e/), consonants (/d/, /ð/, /θ/, /v/, /b/, /t/, /tʃ/, /ʃ/, /k/, /g/, /r/), word stress, rhythm and intonation. The phonetic syllabus was used with the experimental group once a week, in a 50-minute session during three school terms. The control group did not have access to the phonetic syllabus, but was taught by the same instructor as the experimental group. The subjects received no pretest. The researcher relied on the fact that he had previously taught both experimental and control groups and already had a good idea of their pronunciation difficulties. Also, the subjects' English grades of the previous years were used as a kind of pretest measure.

The goal of Quijada's (1997) study was to test subjects' improvement regarding their receptive and productive skills after receiving instruction based on a multimodal methodology. Subjects' performance was evaluated by three judges, who scored the subjects' pronunciation from 5 (excellent) to 0 (very poor). The score attribution was based on the judges' overall impression of the subjects' pronunciation concerning authenticity and communication intelligibility. Problems with data collection and the absence of a pre-test to determine the pronunciation level of the subjects might have influenced the results, which suggest

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<sup>7</sup> Griffiths and Sheen (1992) advocate that field independence (FI) has nothing to do with L2 learning. They argue that the embedded figure tests, used in FI research, measure a certain type of ability, and are inappropriate to assess learning styles. Thus, SLA researchers should be more aware of the appropriate uses of FI tests in order to avoid misinterpretation and the formulation of inadequate hypotheses.

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that the improvement of the learners who received instruction was not very significant.

Another interesting study testing the effects of pronunciation instruction is Mathews' (1997). He carried out a pretest-posttest study with 99 Japanese university students (2 experimental and 2 control groups). The objective was to test whether formal training can influence the perception of segmental contrasts, thus contributing to their acquisition. The segmental contrasts tested were: (a) new contrasts: [l]~[ɹ], [θ]~[f]; (b) contrasts in which only one member is new: [θ]~[s], [f]~[s], [v]~[b]; (c) and contrasts in which both members exist in the L1: [p]~[b]. In the pretest, the stimulus pairs were presented in a discrimination task in which the subjects were asked to identify the members of each pair as being the same word or different. The oral instruction was given in the L2, written instruction in the L1. The words used were present in the subjects' course material. Twelve experimental pairs for each of the six contrasts were tested. The pretest data were collected one week before instruction began. For the posttest, the same material was used, and it took place six weeks after the pretest, one week after the training had finished.

The training sessions occurred 5 times over a period of 5 weeks, and they focused on the 5 contrasts that had new members. The methodology consisted of providing the subjects with information about the precise articulation of each of the 5 new sounds, with the help of silent visual demonstration, followed by the subjects' silent mimicry and the out-loud pronunciation of the same words. Immediate feedback was offered by the instructor and further correction continued if necessary. The lack of an oral model was thought to prevent learners from developing *stimulus-dependent representations*. Results indicated that the training had no effect on the acquisition of the contrasts [f]~[s] and [p]~[b], but the researcher explains that these contrasts were not very difficult for the subjects, thus

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there was no room for improvement. There was some improvement in the contrasts [v]~[b], [θ]~[s], [θ]~[f]. However, there was no effect for the contrast [l]~[ɹ]. The author concluded that pronunciation training can affect the acquisition of new segmental representations, but that the L1 phonological system imposes some constraints on this acquisition. That is why instruction had no effect on the acquisition of the contrast /l ~ /r/, which are allophones in the subjects' L1.

### *Evaluating empirical research*

The controversial results yielded by the studies reviewed in the previous section come as no surprise if we observe their heterogeneous designs. First, no single study sets out to investigate the same type of data, for they tested everything, from the production and perception of discrete segments and words and phrases to pronunciation proficiency based on native speakers' holistic perceptions. Second, the L1 and L2 varied (e.g., Japanese, Spanish, English), as well as the subjects' age and linguistic experience, and the language environment. Third, the instructional methodologies were very different in nature, and the instructional period varied from a single 10-minute session, to a weekly class over three school terms. These factors, added to other limitations and problems present in each study make it difficult to try and compare the results of such varied studies on the effects of pronunciation instruction.

As pointed out by Pennington and Richards (1986), the area of pronunciation instruction is in need of studies that generate “material and techniques representing authentic phonological productions in real communication” (p.220); as well as studies that are controlled and succeed in showing the effects of pronunciation instruction “in the context of information structure and interaction ... or in the context of real-life psychological and social concerns” (p. 220). The authors stress

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the need for data that help to clarify the status of pronunciation teaching. Thus they remind us that such data can only be obtained if future research succeeds at specifying the target pronunciation aspect and the teaching procedures, as well as at measuring the effects of the treatment adequately.

Other essential needs for pronunciation instruction are outlined by Morley (1991). First, it is necessary for L2 teachers to possess background in applied English phonetics and phonology. Second, there has to be an effort to develop “pronunciation/speech activities, tasks, material, methodologies and techniques” (p. 511) that incorporate the communicative element. Third, we need more evaluative measures and methods to verify learners’ intelligibility and communicability improvement. Fourth, researchers have to go on investigating the role of instruction on the acquisition of L2 pronunciation. Finally, Morley calls for controlled studies that investigate varied aspects of L2 phonology, as well as different theories that try to explain how the acquisition of a L2 phonological system takes place.

The studies on the effects of pronunciation instruction have concentrated on some of the needs in this area, for example, (a) testing the validity of a multimodal methodology (Elliot, 1995; Quijada, 1997), (b) the use of more controlled teaching techniques (Neufeld, 1977; Strange & Dittman 1984; Jameson & Morosan, 1986), (c) silent practice as a means to develop perceptual (Mathews, 1997) and productive skills (Neufeld), (d) immediate feedback (Jameson & Morosan, 1986; Strange & Dittmann, 1984; Mathews, 1997), (e) linking pronunciation to the normal language curriculum (Quijada, 1997), and (f) explicit instruction and visual demonstration of sound articulation (Mathews). In addition to these issues, some studies have compared the effectiveness of different types of instruction (Macdonald, et al., 1987) and checked the delayed effects of pronunciation instruction (Yule et al., 1987; Macdonald et al., 1987).

Although several of the needs for pronunciation instruction have been addressed by a few studies, a major gap in the literature is the absence of a clear link between research objectives and the assumptions made by SLA Theories and interphonology<sup>8</sup>. In addition, it is necessary to have a more expressive number of studies in the area of pronunciation

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<sup>8</sup> Examples of important theoretical issues discussed in the area of interphonology are the notions of *equivalent qualification* and *markedness*. Flege (1991, 32) defines equivalent classification as a mechanism that “seems to hinder or even prevent the establishment of phonetic categories, and may cause L2 learners to merge the acoustic characteristics of corresponding L1 and L2 sounds that have been identified with one another.” The concept of equivalence classification could be used to explain why, for example, Brazilian learners tend to present a single category for the vowels /æ/ and /ɛ/, which are generally realized as /ɛ/. This happens because in the Portuguese phonological system only /ɛ/ is a phoneme, while /æ/ might occur as an allophone in some dialects (Major, 1987). Thus, Brazilians hear both sounds as being the same, and do not establish a separate category for each of them. As to markedness, it is a concept mainly discussed by Eckman (1987). He proposes that the degree of difficulty of a certain linguistic item depends on its markedness, which is defined as follows (Eckman, 1987, 60): “A phenomenon A in some language is more marked than B if the presence of A in a language implies the presence of B; but the presence of B does not imply the presence of A”. A classic illustration of markedness is the contrast voiced/voiceless in coda consonants. This contrast does not exist in languages such as German, but it is present in the English sound system. Thus, a German learner of English is expected to have problems acquiring the voiced/voiceless contrast in coda position, despite having the same contrast in initial and medial position. On the other hand, English learners of German tend to have less problems to learn to suppress the contrast voiced/voiceless in coda position. The explanation for this difficulty is that voiced consonants are more marked among the words’ languages, and that it is easier to learn to suppress a contrast than to make it (Eckman, 1987).

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instruction in order to come up with more controlled and effective research designs, so that the results yielded by these studies can be comparable and more reliable. It seems that the link between theory and research, added to careful research designs and abundant research results may have two effects. First, it could help educators to realize the importance of pronunciation instruction in the language curriculum. Second, writers of pronunciation and general language materials might be able to re-evaluate the extent to which their work is appropriately addressing the pronunciation component.

## CONCLUSION

Studies testing the effects of pronunciation instruction on the development of learners' interlanguage phonology are scarce and yield controversial results. This might be an explanation for the lack of integration between research and materials in the area of pronunciation teaching (Baptista, 2000), and, it seems, between SLA research and research on classroom practice. The controversial results are mainly due to the diversity of study designs and to the fact that the corpora of some studies are sometimes selected without any theoretical basis. Further research is necessary in order to determine the real value of pronunciation instruction. However, it is important that future research on instruction be based on the results obtained by SLA phonology studies.

A brief analysis of some coursebooks and pronunciation manuals revealed that although some of them maintain that they are communicative, most of them pay little or no attention at all to this important aspect of language learning. Furthermore, pronunciation materials sometimes ignore other major factors such as the learners' L1. The justification for this might come from the fact that it is not easy to account for every L1 difficulties. Nevertheless, it seems that a motivating environment in the pronunciation classroom depends on working with issues

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that learners might recognize as being important to improve their pronunciation. That is why I suggest that ideally, at least in FL settings, the pronunciation manuals should have different versions, with exercises that address specific difficulties posed by L1 interference. The selection of pronunciation difficulties could be done with the help of interphonology research and learners' pronunciation profiles. In the case of Brazilian learners, interphonology research (Rebello, 1997; Silva Filho, 1998) indicates that pronunciation materials should deal with the syllable component, exploring, for example, the difficulties posed by consonant clusters and syllable-final consonants, the negative effects of using epenthesis to pronounce such clusters, as well as plenty of activities that call attention to the distinction between spelling and sound across languages.

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