

RHYTHMIC PATTERNS AS BASIC UNITS IN PRONUNCIATION TEACHING

Bertha Chela Flores

Universidad del Zulia

Resumen

En este trabajo se propone un modelo para la enseñanza de la pronunciación basado en unidades significativas o grupos tonales, y sugiere el uso de patrones rítmicos como realizaciones fonéticas básicas de éstos. Este modelo basa la instrucción en la longitud silábica, ya que: (a) ésta presenta las mayores diferencias fonéticas entre el inglés y varias otras lenguas; (b) parece ser la principal dificultad entre aprendientes de inglés y (c) es el principal obstáculo para alcanzar una pronunciación adecuada. El modelo propuesto considera el patrón rítmico como unidad básica y propone la enseñanza del ritmo en todos los niveles, e integrada a las actividades orales de un curso comunicativo.

Abstract

(This paper proposes, in the light of relevant research, a model for the teaching of pronunciation based on meaningful units or tone groups and it suggests rhythmic patterns as the basic phonetic realisation of these tone groups. Syllable length is presented as the starting point in pronunciation instruction since (a) it presents the most significant phonetic differences between English and various other languages; (b) it appears to be the most widely encountered difficulty among foreign learners of English and (c) it is a major obstacle in acquiring a near-native pronunciation. A basic model for the teaching of pronunciation is therefore proposed, which derives its primary unit from the rhythmic pattern and a technique is suggested for teaching rhythm at all levels and integrated with the oral activities of a communicative course).

INTRODUCTION

The renewal of interest in the teaching of pronunciation over the past decade or so has also brought with it a growing awareness of the importance of suprasegmental features in the comprehension and production of a second language. Anderson-Hsieh, et al. (1992) have provided promising empirical evidence in favor of prosody as a fac-

tor in the intelligibility of L2 speech. Anderson (1993) found a close relationship between intelligibility parameters and the duration of interstress intervals. Intonation figured importantly in listener judgment of comprehension and accent, in a study carried out by Munro and Derwing (1995). At the same time, materials designers are assigning a central role to these features:

...time spent helping students concentrate on *rhythm* and the *major intonational road signs* is more important than any other efforts to improve their pronunciation (Gilbert, 1993:43; italics in original).

Suprasegmental features involve stress, rhythm, intonation and coarticulatory phenomena which occur under the influence of stress and intonation, such as elisions, contractions and assimilations (Ladefoged, 1982). Pedagogical priorities, established according to levels of difficulties, are also needed within these suprasegmental features in order to teach and design materials which best favors the learning process. The purpose of this paper is to suggest, in the light of relevant research, the rhythm system as a starting point in pronunciation instruction. It has been found that a feature of rhythm-syllable length- (a) presents significant phonetic differences between English and various other languages (Anderson, 1993; Delattre, 1966; Fokes and Bond, 1989), (b) appears to be the most widely encountered difficulty among foreign learners of English (Chela-Flores, 1993; Faber, 1991; Taylor, 1991;) and (c) is a major obstacle in acquiring a near-native pronunciation (Adams and Munro, 1978; Anderson, 1993). A basic model for the teaching of pronunciation is therefore proposed, which derives its primary unit from rhythmic patterns and a technique is suggested for teaching rhythm at all levels and integrated with the oral activities of a communicative course.

SETTING PRIORITIES IN TEACHING

The literature in second language teaching has given a lot of weight to intonation as crucial for intelligibility. Brazil et al. (1980), for example, describe it as a 'function of discourse, with implications for context and for moment by moment assessment of the communicative value of each part of each utterance' (p.128). The functions of intonation that are commonly highlighted in English programs are those that indicate the distinction of sentence types, that is, questions versus statements and the expressions of the speaker's attitude: excitement, pleasure, annoyance, etc. However, Ohala (1983) has found that features such as high or rising pitch to mark questions,

low or falling pitch to mark nonquestions, high pitch to signal politeness, low pitch to signal assertiveness, etc. are remarkably similar across languages and cultures. If priorities in teaching are to be set according to levels of difficulty in the learning process, these features should rank low.

Another argument for considering pitch direction and pitch height less critical for the oral intelligibility of L2 learners is the fact that these features are highly variable within some languages. In Spanish, for example, pitch direction at the end of sentences differentiates the pronunciation of speakers from Chile, Mexico, Argentina, Venezuela, etc. In the same way, these features of intonation may distinguish English speakers. A high pitch in prenuclear unaccented syllables (e.g., /I beg your pardon!) or a falling-rising nucleus confined within one syllable (e.g., It's true) is characteristic of British English.

The variability of pitch height and pitch direction in English is also evident in the shifting of the functions attributed to nuclear tones. The high rise in English, for example has traditionally been attributed the effect of questions, especially those which are echoed (e.g. /What was his name again? (I've forgotten); He's coming for /how long?; Is it /raining, did you say?). Cruttenden (1995) reports on the use of high rises in various English dialects on declarative sentences (e.g., (talking about a dog) they'd put him in a large /pen, between large /dogs, and he was /scared; I nearly cracked into a tailgate on a /lorry today; I was reversing out and it was a sort of low /level, on one of those /transit vans).

One feature of English intonation which *is* stable, does not differ among the different dialects of English, but *does* differ significantly across languages is nuclear placement in marked utterances: in the sentence *If the feet and hands are warm, the whole body will be warm*, the tonic has been shifted from the last lexical item in the second tone group because it has been mentioned in the previous tone group. This movement of the tonic to various positions within the utterance is not easily heard or produced by second language learners. In a study carried out to measure the auditory perception of English suprasegmentals by Spanish speakers (Chela de Rodríguez, 1979), it was found that the tonic could not even be identified indirectly, within context, as in the following exercise:

- | | | |
|--|----------------------------------|--------------|
| 1. (1) I don't want to buy a brown coat. | (a) Yes, I know you hate brown. | <u> 4 </u> |
| (2) I don't want to buy a brown coat. | (b) Buy a jacket then. | <u> 2 </u> |
| (3) I don't want to buy a brown coat. | (c) But your brother does. | <u> 1 </u> |
| (4) I don't want to buy a brown coat. | (d) Why don't you rent one then? | <u> 3 </u> |

The identification of the tonic is not an easy task –not even for native speakers of English. Currie and Yule (1991) report on a series of experiments designed to investigate the notion of tonic– and to test whether judges previously trained could agree on tonic placement in any utterance. The results of the experiments showed quite clearly that even trained phoneticians found the task of identifying single tonics in actual utterances very difficult and there was marked disagreement among the decisions of the judges. The point at which the judges did coincide in their identification of a single tonic element was when an item in a sentence was a focus of contrast. Otherwise, they identified more than one tonic in a sentence ‘even to the point where every lexical item was perceived as a tonic’ (*ibid.*, p.272).

The evidence above seemed to raise some doubts on the nature of the unmarked tone group with its single tonic element and to suggest that what was identified as tonics were simply stressed syllables in lexical items which receive greater stress and which contrast with unstressed syllables and words, producing the single tonic phenomenon. In the light of these studies, Currie and Yule propose a basic model for the teaching of intonation which derives its primary unit from the rhythm of English; in other words, a system of intonation based on the recognition of stressed vs. unstressed syllables rather than on the tonic. The single tonic effect in an utterance should not be our first concern in teaching intonation since ‘for the vast majority of utterances in normal spontaneous speech, this type of prominence would be the exception’ (*ibid.*, 272).

In their model, Currie and Yule suggest a basic unmarked intonation contour to indicate stressed and unstressed syllables, and high and low points in a speaker’s range, as shown in Figure 1:

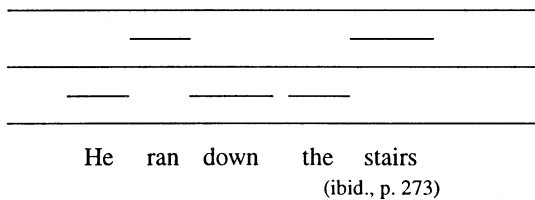


Figure 1

The unstressed syllables form a baseline; any movement from this baseline is perceived as prominence. The top and bottom lines in Figure 1 represent the high and low points in a speaker’s pitch range and the center line, the mid point. This basic unmarked intonation contour is manipulated in various ways according to the discourse

context; for example, unstressed items could, for the purpose of contrast, become higher in the pitch range and more prominent:

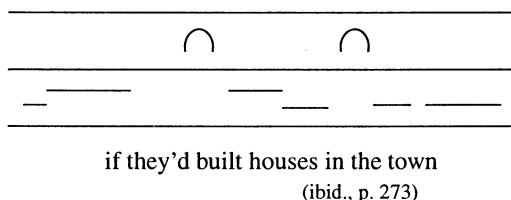


Figure 2

Such a model, however, is only concerned with the recognition of pitch height as correlating with stress. Stressed syllables could occur in the utterance without pitch prominence. Faber (1991) has argued that pitch height can only normally indicate stress on a syllable which is tonic. He gives as an example the sentence: '*I just won't PAY you until you do the work!*' (ibid., p.248) said on a single tone group and with a high fall on *pay*; in this sentence, many of the syllables that come before and after *pay* are stressed but don't necessarily have pitch prominence, indicating that pitch cannot be relied upon to tell us whether a syllable is stressed or not.

Although pitch has been found to be a more powerful indicator of stress when it operates than either length or loudness (Bolinger, 1986; Fry, 1958), syllable length has been found to be of significant importance for the comprehensibility of non-native speakers oral production (Anderson, 1993; Chela-Flores, 1993; Taylor, 1991). At the same time, syllable length has been found to present the most significant phonetic differences between English and four other languages, French, Spanish, English and German (Delattre, 1966). Difference in syllable duration was also found in a study carried out by Fokes and Bond (1989) in which the stress patterns of non-native speakers productions (Japanese, Chinese, Persian, Hausa and Spanish) were compared to those of native American English speakers. In this study in which the spectral and durational characteristics of vowels in stressed and reduced syllables were examined, none of the nonnative speakers produced words in which durational relationships were similar to the American pattern. The American productions clearly used the length of the vowel to signify syllable stress. This aspect of the rhythm system of English –vowel timing– was lacking in the nonnative speakers; they tended to produce stressed vowels that were too short and unstressed vowels that were too long.

Anderson (1993) also found syllable length of significant importance for the comprehensibility of non-native speakers oral production. In a study, carried out to define intelligibility parameters, she measured the duration of interstress intervals in English in the speech of nonnative speaking subjects and native English speakers. Native speakers had the shortest average duration of an interstress interval and the fewest number of stresses, the 'most intelligible' group had the next shortest time interval and the next fewest number of stresses and the 'least intelligible' group had the longest speaking time interval and the greatest number of stresses.

The difference in syllable length between English and a language like Spanish, for example, can be appreciated when we compare the way sentence focus is achieved in both languages. As mentioned above, sentence focus is achieved in English by shifting the tonic from the last stressed syllable, as shown in (2). Although words could also be highlighted phonetically in Spanish, by shifting the tonic from the end (Canellada & Madsen, 1987), as shown in (3), this procedure is not as effective as it is in English:

2. (a) *Susan lent me her **a**partment*
 (b) *Susan lent me **h**er apartment*
 (c) *Susan lent **m**e her apartment*
 (d) *Susan lent me her apartment*
3. (a) *Susana me prestó su **a**partamento*
 (b) *Susana me prestó su **s**u apartamento*
 (c) *Susana **m**e prestó su apartamento*
 (d) *Susana me prestó su apartamento*

The reason for this difference seems to be that in English the tonic stands out both by variation in pitch and by syllable length. Because of this difference in syllable length, grammatical words in English can easily stand out in the sentence, as with the words *her* and *me* in sentences 2(b) and 2(c) above. The same effect is not obtained in Spanish in 3(b) and 3(c), by shifting the tonic syllable within the sentence, because there is no significant difference in duration between stressed and unstressed syllables: Delattre (1966) found a ratio of 1.3:1 for Spanish, compared to 1.6:1 for English. A more common procedure in Spanish to highlight words in the sentence is carried out by lexical and syntactical means, changing word order or by adding other words to the sentences. Thus, the English sentences in (2) are better translated into Spanish by the sentences in (4):

4. (a) *Susana me prestó su apartamento*
 (b) *Susana me prestó el apartamento de ella*
 (c) *A mí me prestó Susana su apartamento*
 (d) *Fue Susana la que me prestó su apartamento*

This difference in syllable length between the two languages and its effect in sentence focus can be better appreciated in the following examples in which the auxiliary verb is contracted in English:

5. (a) *I'm going to study Russian.* 6. (a) *Voy a estudiar Ruso.*
 (b) *I **am** going to study Russian.* (b) *Sí voy a estudiar Ruso.*
 (c) *Voy a estudiar Ruso.*

Sentence 6(b) in Spanish is preferable as a translation of 5(b) in English than sentence 6(c). In this latter example, the Spanish speaker would have to make use not only of a higher pitch but also of a louder tone of voice and even of face and hand gestures to highlight the auxiliary verb.

Syllable length is given phonological priority in the teaching approach proposed in this paper for two main reasons: on the one hand, it is one of the features that differentiates English more significantly from various other languages, consequently, it is a feature that second language learners find difficult to acquire; on the other hand, it seems more important for an intelligible oral production than other features of pronunciation. Taylor (1991) refers to rhythm as being perhaps the most widely encountered difficulty among foreign learners of English; that the difficulty appears to be common to all groups of learners, irrespective of their native language; and that this difficulty gives rise to a similar kind of incorrect rhythm in the majority of cases.

MODEL FOR PRONUNCIATION TEACHING

In the model for pronunciation teaching proposed in Figure 3, rhythm is presented as the starting point in the instruction. The other two main areas of instruction: the pronunciation of vowels and consonants and intonation should be included after having achieved a certain control of the rhythm. As discussed above, priority is given to rhythm because of its importance on the oral intelligibility of the second language learner. Furthermore, it has been found that once there is a certain control of second language rhythm, it is easier to teach the pronunciation of vowels and consonants (Abberton, Parker & Fourcin, 1978) and of intonation (Chela de Rodríguez, 1981).

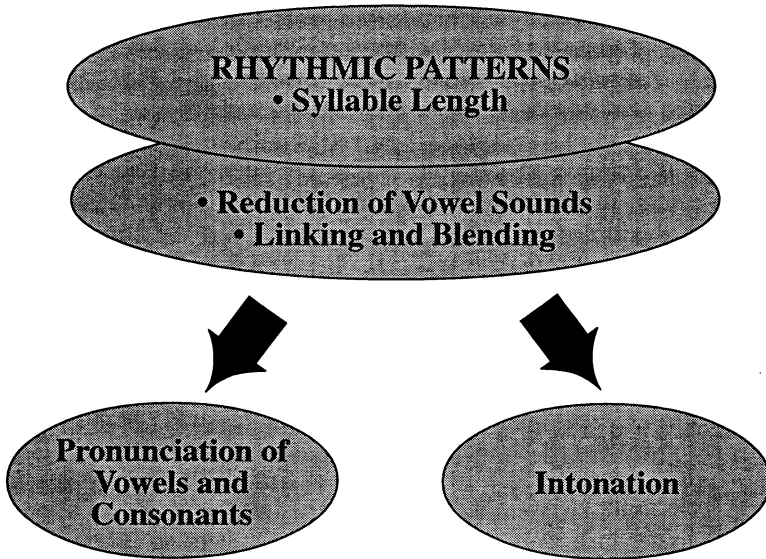


Figure 3

The basic features of rhythm have been identified as ‘syllable length, stressed syllables, full and reduced vowels, pause, linking and blending sounds between words, and how words are made prominent by accenting syllables and simultaneously lengthening syllables’ (Wong, 1987:24). The features of rhythm which are highlighted at first in the model suggested are the lengthening and shortening of stressed and unstressed syllables and words. Other factors closely related to rhythm- such as reduction of unstressed vowels, linking and blending of segments between words, are easier to teach once there is a certain control of rhythmic patterns. Pause is included within the teaching of rhythmic patterns, since these are presented in meaningful units or thought groups. Prominence, as discussed above, is achieved both by variation in pitch and by lengthening syllables. Since syllable duration is a more difficult aspect to acquire, this is dealt with first. Pitch variation and nuclear placement are dealt with, as needed, under intonation.

It could be thought that the reduction of vowel sounds should be introduced in the instruction before dealing with rhythmic patterns. Failure to reduce vowels correctly in the appropriate places, however, does not seem to be always the cause of the syllable-timed rhythm in the speech of non-native speakers of English. Taylor (1991) carried out a survey in which both speech and reading of experienced non-native teachers of English of varied language backgrounds were

recorded and analyzed. From the twenty four subjects who achieved acceptable English rhythm in his survey, fourteen used none or very few weak forms and generally did not properly reduce vowels in unstressed syllables. Taylor therefore concludes that lengthening and shortening syllables adequately in chunks is more important to avoid a syllabic pattern of sounds than other features of rhythm.

The teaching approach presented in this paper also suggests that rhythmic patterns should be seen first on their own and in a non-technical manner, that is, keeping the knowledge component of pronunciation teaching for later stages. The syllabic rhythm that characterizes the accented speech of second language learners is generally the result of the great demand placed in pronunciation teaching on linguistic awareness at a syllable or word level, even when dealing with suprasegmental features (Chela-Flores, 1993b). A great number of exercises on sentence stress and rhythm found in commercial materials lead the learner to approach the utterance word by word. The learner is asked to listen to stressed words, to decide which syllables have full or reduced vowels, to underline content or function words, to fill in blanks with missing stressed or unstressed words, etc. After the learner has been introduced to the different factors that make up the rhythm of English in this word-by-word manner, he is then supposed to perceive and produce without any specific training, adequate rhythmic patterns in chunks.

The teaching approach proposed in this paper reverses the above order of presentation. The instruction of the rhythm system begins with rhythmic patterns in meaningful units or at least in chunks, and in exercises in which attention is drawn just toward the pattern as a whole, without focusing on its parts. In this way, it has been found that there is a better chance of reducing a syllabic rhythm, since the learner first acquires the rhythmic swing of the utterance (Chela de Rodríguez, 1981). After the learner has been exposed to the rhythm system in context, in a non-technical manner, and after he is able to discriminate and produce rhythmic patterns in chunks, the different aspects that contribute to a contrastive syllable length, for example, the difference between content and function words could be analyzed, as needed. Recognition of the rules are also encouraged, as has been suggested for the teaching of grammar in communicative courses (Thompson, in press).

PERCEPTION AND PRODUCTION OF RHYTHMIC PATTERNS

Rhythm is perhaps one of the most difficult pronunciation features to teach because of the difficulty in perceiving and concentrating on the

rhythmic pattern as a chunk. Since rhythm is superimposed on the utterance, it is difficult to find means of directing the learner's aural attention to the pattern as a whole. It is not easy, for example, to present rhythmic patterns with near equivalents in the language (i.e., minimal pairs), a common procedure in pronunciation teaching. This is possible with vowels and consonants (e.g., *ship/sheep*, *cup/cap*, *think/sink*, *shoe/ chew*,) and even with pitch variations (e.g., *He's coming tomorrow. / He's coming tomorrow?; Who's coming with us, (Peter?/ Who's coming with us, (Peter?)*). However, different rhythmic patterns necessarily have different lexical and syntactical structures, making it difficult to direct the listener's attention to the problem in question. It is difficult, for example, to discriminate the rhythm in the following pairs of sentences, even though they have the same number of syllables: *Return with them / When you have time; The bus is more convenient than the car/ So stop bringing up that old argument*. It is even difficult to discriminate the rhythm in utterances that have the same pattern: e.g., *Impossible, She's used to it, It's personal*. Champagne-Muzar et al. (1993) found that phonetic instruction improved discrimination ability of segments and intonation, but not of rhythm; they attributed this failure 'to the nature of the rhythm discrimination task' which is considered 'extremely difficult even for native speaking individuals to master' (ibid., p.154)

The auditory difficulty in perceiving rhythmic patterns has led teachers and material designers to use body movements or kinesthesia to feel the differences in length between stressed and unstressed syllables. For this purpose, Gilbert (1978) introduced the use of rubber bands and elastic materials: the rubber bands are stretched to correspond with the length of syllables. Visual aid is also commonly given in graphic form, for instructional purposes, by means of dots and dashes, as in the following examples:

6. (a) $\overline{\quad} \cdot \cdot \cdot \cdot \overline{\quad}$
Tell her not to come
- (b) $\overline{\quad} \cdot \cdot \cdot \overline{\quad}$
Lots to be done
- (c) $\cdot \overline{\quad} \cdot \cdot \cdot \cdot \overline{\quad} \cdot \cdot \cdot \cdot \overline{\quad}$
The bus is more convenient than the car
- (d) $\cdot \overline{\quad} \cdot \cdot \cdot \overline{\quad} \cdot \cdot \cdot$
It's all in the shopping list

Graphic representations alone, however, just help us *visualize* the difference in length between stressed and unstressed syllables. This is not usually enough to perceive the auditory differences among rhythmic patterns. The difficulty found in discriminating rhythmic

patterns in speech could be associated with the difficulty found in hearing the background music of a film: the attention of the audience is placed on the actors and actresses, the plot, the scenery and even the clothes people are wearing. We can usually make comments on any of these aspects because they are in the foreground. The same cannot be done with the background music; sometimes we are not even sure whether there was music at all in a film. The music could become the main focus of attention, however, if we analyze it first on its own, and then watch the film with the sole objective of establishing the relation between the two.

There is a similar problem in perceiving rhythm in speech as that found with the background music in a film. There are other lexical, syntactical and even phonological aspects, such as the pronunciation of vowels and consonants, that catch our attention. As with the background music of a film, we would need to focus on rhythm first, isolated from other aspects of the language, before expecting the learner to discriminate it in a natural language situation. Neufeld (1987) found that articulatory and prosodic features of a foreign language, including rhythm, could actually be discriminated and produced better when they were presented without any explicit instruction in the meaning or pronunciation of the utterances or the grammatical rules of the language. A group of university students were tested for their ability to accurately reproduce the articulatory and prosodic features of Japanese and Chinese; the correct acoustic images of the languages were formed by forcing the subjects to focus on the phonological patterns without any explicit instruction in the meaning or pronunciation of the utterances or the grammatical rules of the language. The study demonstrated that nine out of twenty subjects managed to convince three native speakers that Japanese was their first language and six others qualified as near-native.

A technique has also been suggested by the author in previous works (1983, 1991, 1993) to overcome the auditory difficulty found in perceiving English rhythm. In this technique, rhythmic patterns are first practiced, isolated from the normal segments and sequences with which they co-occur in language. Ten lessons were prepared in which rhythmic patterns were first practiced as in (7): two patterns are presented at a time, graphically, by means of dots and lines and echoed with the nonsense syllable *ti* for unstressed syllables, *TA* for stressed syllables and *TAA* to indicate the tonic syllable.

7. (a) ___ . ___ (TA ti TAA)
 (b) . ___ . (ti TAA ti)

Only two rhythmic patterns are presented at a time in each lesson, as a minimal pair, so that the learner gets a better chance to

more accurately discriminate the auditory effects of the rhythm. The difference between the lessons consisted in the length of the patterns which ranged from two to twelve syllables. (See *Appendix 1* for a sample of a lesson). The emphasis of the exercises is on the contrastive syllable length perceived as a chunk. In the first exercise, the student is asked to discriminate aurally the two rhythmic patterns, which the teacher verbalizes with nonsense syllables. In the exercises that follow, the two rhythmic patterns seen in each lesson are practiced in normal language situations: within isolated utterances and within dialogues.

To evaluate their effectiveness, the ten lessons elaborated to practice rhythmic patterns in the manner described above, were tested for a semester with students of English from a teacher-training program at Universidad del Zulia (Chela de Rodríguez, 1981). The results showed that by isolating rhythmic patterns in the first part of the instruction, the learner could increase his acuity in perceiving the same patterns in normal language behavior. The students tested also reported that with this technique they were able to detect their own mistakes and felt more confident in their self-correction.

Although the results obtained with the technique described above were very encouraging, it was also found that rhythmic patterns were successfully produced only under controlled situations, when the students were concentrating in the pronunciation problem. More practice was needed before the students could handle the patterns automatically. Integration of this technique into other language activities is, therefore, recommended in order to achieve control of the patterns in spontaneous situations.

INTEGRATING THE TEACHING OF PRONUNCIATION INTO AN ENGLISH PROGRAM

The literature on foreign and second language acquisition has not clearly determined at which point in the L2 learning process formal pronunciation instruction should be introduced or how exactly it should be integrated with the rest of the language course. The learner is gradually immersed into the language in terms of grammar and vocabulary but, as Brown (1991:3) has stated, he is 'thrown in at the deep end' as far as pronunciation is concerned. He usually struggles on his own with the new sound system of the language in the initial stages of learning and receives formal pronunciation instruction at an intermediate to advanced level; instruction, at this stage, is considered as 'remedial training' and as an indication that pronunciation has deteriorated or fossilized at a relatively low level (Stern 1992:113).

Integration of pronunciation into other language activities and throughout a complete program is recommended for various reasons:

the integration of pronunciation with most of the grammar and vocabulary seen in a course should be mutually reinforcing; practicing pronunciation with similar grammar and vocabulary activities as those found in the course should help to fix lexical and syntactical aspects. Furthermore, since the structures and vocabulary are the same or almost the same for both activities, the learners will be able to concentrate better on the phonological features. Pronunciation errors should lessen and corrections should be easier and more meaningful throughout the course. Both the student and teacher should see the direct relevance of the pronunciation instruction to the rest of the course and the student will have a better understanding of the connection between pronunciation and effective aural-oral communication. Basic phonological training for auditory discrimination was successfully given to an ESP reading course in a nonnative environment, after the students recognized the immediate need for pronunciation instruction in a listening comprehension activity they had as part of the program (Chela-Flores, 1993 a).

But perhaps the most important reason for integrating pronunciation into the activities of a language course is the fact that the different phonological aspects can be recycled throughout the whole program; this will help the learner reach a stage of phonological development, suggested as necessary to achieve results from pronunciation training (Major, 1987; Pennington & Richards, 1986; Pennington, 1994; Yule & McDonald, 1994). Integration will also allow instruction at a beginner's level, which is not otherwise possible since many course materials available are designed for intermediate to advanced levels (Dauer, 1993; Gilbert, 1993; Grant, 1993; Hagen and Grogan, 1992; Lane, 1993, Morley, 1992).

Communicative courses in English, by and large, try to integrate formal pronunciation instruction from the first levels. However, in some cases this is done scantily and after all oral activities, including tracking, have been covered in each unit (e.g. Frankfort & Dye, 1994); in tracking, the learner attempts to repeat immediately after the speaker whatever the speaker says, on a word-by-word basis, and its main purpose is to focus on pronunciation features independent, as far as possible, of the lexical and syntactical content (Acton, 1984:126). Without previous pronunciation instruction, this technique seems pointless.

At other times, the integrated pronunciation practice in communicative courses is designed for intermediate to advanced levels (e.g., Cunningham & Bowler, 1990), leaving beginners unattended. In most cases, the exercises are predominantly segmental in their approach; attention paid to suprasegmental features is often focused on intonational factors such as pitch direction in questions and statements (e.g., Bonner, 1987).

The integration of pronunciation into an English program based on the model suggested in this paper (Figure 3) would cover the following factors:

- a) Rhythmic patterns (in which syllable length is emphasized) should be the starting point in the instruction. They should be seen first on their own, in meaningful units or at least in chunks and in a non-technical manner, that is, attention should be drawn just toward the pattern as a whole, without focusing on its parts.
- b) Other features of rhythm, segmental and intonational factors will be included once syllable length has been introduced and practiced.
- c) As far as possible, the same grammatical structures and vocabulary used in the course should be incorporated in the pronunciation exercises.
- d) Instruction should deal only with the immediate phonological needs of the course and it should concentrate on those features that cause difficulty to the group of learners taught.
- e) Instruction should begin from the onset of the English program.

Appendix 2 gives a sample of a pronunciation lesson integrated into the first unit of a beginner-level course (SPECTRUM 1, Frankfort & Dye, 1994). The exercises have been elaborated following the above suggestions. An inventory was done of the phonological features found in the vocabulary and grammar of the unit in question, in order to choose the most frequent rhythmic patterns and the intonational and segmental aspects that needed immediate attention. The two rhythmic patterns in (7) were chosen, since from the inventory done in the lesson, these two patterns had the greatest number of utterances. The patterns are first identified aurally with nonsense syllables (Exercise 1); they are then discriminated within phrases and sentences (Exercise 2) taken from the vocabulary and structures of the course (e.g., *Excuse me / I'm sorry ? / Maggie Sloan? / Yes, I am*). The two rhythmic patterns are also presented within conversations similar to the ones presented in the course (Exercises 3 and 4).

Other features of rhythm, such as linking and blending, and the pronunciation of final consonants and consonant clusters, are also presented within context and in situations similar as those found in the course: (e.g., A: *What's your first/last name?* B: *My last name's Brown* (Exercise 5). The learner must also be made aware of reduced sounds at a very early stage in the instruction. Although no specific exercise is given in this first lesson to practice reduced sounds, the concept can be introduced by comparison of cognate words in English and the learner's native language, in this case Spanish. Words such as

memorable, capital, chocolate, read in both languages will show the students that the main difference in pronunciation lies in the unstressed syllables in English, which lose their vowel quality. Furthermore, in some cases, as in *chocolate*, some of the unstressed syllables are omitted in English, i.e. /chóklit/ vs. /chocoláte/ in Spanish.

The intonational feature emphasized in this first lesson (Exercise 6) has to do with the shifting of the tonic in greetings: *How are you? / Fine, thanks, how are you?*. As mentioned above, the shifting of the tonic within the utterance is a difficult aspect to acquire in English and needs a lot of practice. The importance of integrating pronunciation with most of the grammar and vocabulary seen in a course is clear in cases like this. The greeting *How are you? / How are you?*, with different tonic syllables, are repeated at least 15 times each throughout the first unit. If the correct pronunciation is pointed out at first, the student will have enough time to recycle the pitch pattern in a real language situation. At the same time, this practice is mutually reinforcing since it also helps to fix the lexical and syntactical aspects presented in the unit.

In the last exercises that deal with suprasegmentals, several aspects are practiced at the same time. Syllable length, linking and pitch variation are included in Exercise 6 to practice the pronunciation of compound nouns that are commonly used in beginning levels. Since the basic signals of tone group boundaries- pitch change and lengthening of final syllables - have been practiced, the demarcation of meaningful units within stretches of speech is also added to this introductory lesson (Exercise 7).

As with intonation, our teaching approach suggests the gradual introduction of the pronunciation of vowels and consonants, according to the difficulty of the group taught and according to their occurrence in the lesson. In this first unit, there is an introduction to the alphabet, and therefore, the pronunciation of the letters of the alphabet could be included in an exercise such as the one suggested by Abbs and Freebairn (1982:24) and illustrated in Exercise 8.

It could be thought that too many aspects have been covered in just one lesson: syllable length, linking and blending, stress in compound nouns, pitch variation to indicate sentence focus and pitch change in final syllables; even the pronunciation of the letters of the alphabet have been covered in this first lesson. However, such a lesson does not turn out to be too loaded because (a) with the exception of syllable length, only a few samples of each feature have been introduced and practiced; (b) only immediate problems are being covered, and (c) since the same grammatical structures, vocabulary and situations used in the course text have been incorporated into the pronunciation exercises, the instruction should not interfere with the rest of the course.

CONCLUSION

The importance of rhythm when teaching pronunciation in meaningful units and integrated into a language course becomes evident in exercises such as the ones presented below. Although emphasis could be placed in the pronunciation of vowels and consonants, the basic immediate aural-oral needs the learner has in a communicative course is the comprehension and production of meaningful units or 'chunks' of speech. This implies a focus on phonological features that cover the utterance as a whole, that is, features of rhythm and intonation. As discussed above, pitch direction and pitch height are not the most difficult aspects to acquire, because of their similarity across languages. The shifting of the tonic from the last stressed syllable *is* difficult but not a first priority for the oral intelligibility of the L2 learner; in the majority of utterances, contrastive stress is the exception. The basic features of rhythm, on the other hand, are encountered in most utterances; furthermore, they differ significantly between English and various other languages, especially syllable duration, and they are difficult to perceive and produce. Priority should therefore be given to rhythm in teaching English pronunciation.

APPENDIX 1

PERCEPTION AND PRODUCTION OF RHYTHMIC PATTERNS

Exercise 1

Listen to the following rhythmic patterns and indicate whether pattern (a) or (b) is being pronounced.

- (a) • — • • (ti [˘]TAA ti ti)
 (b) — • • — (˘TA ti ti [˘]TAA)

Exercise 2

Listen to the following words, phrases and sentences which contain the rhythmic patterns from Exercise 1. Identify the pattern and place the appropriate letter (a) or (b) next to the utterance.

Examples: Hardly enough b
 It's beautiful a

- (a) Now we are alone _____
 (b) A little one _____
 (c) Send him away _____
 (d) Especially _____
 (e) A pair of them _____
 (f) Leave it behind _____
 (g) Not before tea _____
 (h) To borrow it _____
 (i) Lots to be done _____
 (j) Prepare for it _____

Exercise 3

Listen and repeat three times the following words, phrases and sentences which contain the rhythmic patterns practiced above. Remember that the stressed syllables must be longer and stronger than the unstressed ones.

- (a) • — • • (ti [˘]TAA ti ti)

He came with us	I gave her one
Impossible	It's personal
I knew it was	Return with them
He wants us to	We'll send for it
A bathing suit	Decidedly
Democracy	Applied to them
She's used to it	They must have been
Intelligence	I've heard of it

(b) — • • — (˘TA ti ti (TAA)

Pass me the eggs	What is it for?
Why don't you go?	Switch off the light
What is the time?	Not before ten
Quarter past nine	Was it approved?
Get into bed	Wait till he comes
Leave it alone	Charming young man
Come for a drink	Send him a card
Can you return?	When you have time

Exercise 4

Listen and repeat the following dialogue. Follow the rhythmic beat.

	— • • —
Peter:	What is the time?
	— • • —
Tina:	Quarter to ten.
	— • • —
Peter:	Gosh! Now I'll be late.
	• — • • — • • —
Tina:	You're always late. Put on your coat.
	• — • •
Peter:	It's cold outside?
	— • • —
Tina:	Pouring with rain.

APPENDIX 2
INTEGRATING PRONUNCIATION INTO AN ENGLISH PROGRAM

Exercise 1

Listen to the following rhythmic patterns and indicate whether pattern (a) or (b) is being pronounced.

- (a) — • — (ˈTA ti ˈTAA)
(b) • — • (ti ˈTAA ti)

Exercise 2

Listen to the following words, phrases and sentences which contain the rhythmic patterns from Exercise 1. Identify the pattern and place the appropriate letter (a) or (b) next to the utterance.

- (a) I'm sorry _b_
(b) Excuse me. ___
(c) Maggie Sloan? ___
(d) Yes, I am. ___
(e) We're neighbours. ___
(f) Call me Bill. ___
(g) How *are* you? ___
(h) How *are you*? ___
(i) What's your name? ___
(j) Loretta ___

Exercise 3

Listen and repeat the following dialogues. Follow the rhythmic beat.

- | | | | |
|-----|-------------------|-----|-------------------------|
| (a) | — • — | (b) | • — • |
| A: | What's your name? | A: | Excuse me, |
| B: | Thomas Sloan. | | Loretta? |
| | Call me Tom. | | We're neighbours! |
| A: | Moving in? | | How <i>are</i> you? |
| B: | Yes, I am. | B: | I'm sorry! I'm Deborah. |
| | | | Loretta's / my sister. |

Exercise 4

Repeat the following dialogue several times, using the names in the box. Follow the rhythmic beat.

A: Excuse me. What's your name?

B: I'm Joseph. Joseph Smith.

Call me Joe.

A: Is Patrick / your neighbor?

B: Yes, he is.

First Name	Last Name	
Michael	Johns	Mike
Susan	Brown	Sue
Patrick	Hill	Pat
Christie	West	Chris

Exercise 5

Use the names from the box in Exercise 3 to fill in the blank spaces. Pay close attention to final consonants.

(a) A: What's your first / last name?

B: My _____ name's _____.

(b) A: Excuse me, are you _____?

B: No, I'm not. I'm _____.

Exercise 6

Repeat the following dialogues. First using the informal greeting and then the formal one. Notice the difference in the pronunciation of *How are you?*

(a) A: (Informal) Hi, Michael/

How *are* you?

(Formal) Hello, Mrs. West/

B: (Informal) Not bad/

How are you?

(Formal) Fine, thanks/

Exercise 7

Listen and repeat the following compound nouns.

This is a textbook
 /thisizð/ workbook
 classroom
 blackboard

Exercise 8

Listen and repeat.

— . . . — . . . — . . . — . . . — . . .
 SPECTRUM / has a textbook / and a workbook./ We do the textbook / in the classroom /
 . . . — . . . — . . .
 and the workbook/ for homework.

Exercise 9

Place the letters of the alphabet that are missing under the correct column.

ei	i:	e	ai	ou	ju:	a
A	B		I			R
J	C	L			W	
	E	N				
	V	Z				

REFERENCES

- ABBS, B. & Freebairn, I. (1982). *Opening Strategies*. Longman.
- ABBERTON, E., Parker, A. & Fourcin, A. (1978). Speech improvements in deaf adults using laryngograph displays. *Speech and Hearing Work in Progress* (pp. 33-60). London: University College, Department of Phonetics and Linguistic.
- ACTON, W. (1991). Changing fossilized pronunciation. In A. Brown (Ed.) pp. 120-135. First published in 1984 in *TESOL Quarterly*, 18, 71-85.
- ADAMS, C. & Munro, R. (1978). In search of the acoustic correlates of stress: fundamental frequency, amplitude and duration in the connected utterance of some native and non-native speakers of English, *Phonetica*, 35, 125-156.
- ANDERSON, P. (1993). Defining intelligibility parameters: The secret of sounding native. Paper presented at the XXVII TESOL Annual Convention, Atlanta.
- ANDERSON-HSIEH, J. Johnson, R., & Koehler, K. (1992). The relationship between native speaker judgments of nonnative pronunciation and deviance in segmentals, prosody, and syllable structure. *Language Learning*, 42, 529-555.
- BOLINGER, D. (1986). *Two kinds of vowels, two kinds of rhythm*. Bloomington, IN: Indiana University Linguistics Club.
- BONNER, M. (1987). *On Your Way: Building Basic Skill in English*. Longman.
- BRAZIL, D., Coulthard, M., & Johns, C. (1980). *Discourse intonation and language teaching*. London: Longman.
- BROWN, A. (Ed.). (1991). *Teaching English Pronunciation: A book of readings*. London: Longman.
- BROWN, G. (1977). *Listening to Spoken English*. London: Longman.
- CANELLADA, M.J. & Madsen, J.K. (1987). *Pronunciación del español*. Madrid:Editorial Castalia.
- CRUTTENDEN, A. (1995). Rises in English. In J.W. Lewis (Ed.), *Studies in English and General Phonetics: essays in honour of Professor J.D. O'Connor*. London:Routledge.
- CUNNINGHAM, S. & Bowler, B. (1990). *HEADWAY*. Oxford: Oxford University Press.
- CHAMPAGNE-MUZAR, C., Schneiderman, E., & Bourdages, J. (1993). Second language accent: The role of the pedagogical environment. *International Review of Applied Linguistics*, XXXI/2, 143-160.
- CHELA DE RODRÍGUEZ, B. (1979). Teaching English suprasegmentals to Spanish speakers. In Fred Eckman (Ed.). *Studies in first and second language acquisition*, Rowley, Mass.: Newbury House, pp. 239-245.
- _____. (1981). Estudio teórico-metodológico de los aspectos fonéticos fundamentales para la comprensión auditiva y producción oral del inglés. *ARGOS*, 3, 5-189.
- _____. (1991). Recognizing and producing English rhythmic patterns. In Brown (Ed.) pp. 350-356. First published in 1983 in *English Teaching Forum* 21, 3:27-9 and 35.
- _____. (1993 a). Strengthening Visual and Auditory Images in EFL Reading. *English Teaching Forum*, 31(2), 22-27.
- _____. (1993 b). On the acquisition of English rhythm: Theoretical and practical issues. *Lenguas Modernas*, 20, 151-164.

- _____. (in press). Integrating pronunciation into a beginner-level course. *International Review of Applied Linguistics*.
- CURRIE, K. & Yule, G. (1991). A return to fundamentals in the teaching of intonation. In A. Brown (Ed.), pp. 270-275. First published in 1982 in *International Review of Applied Linguistics*, 20:228-32
- DAUER, R. (1993). *Accurate English - A Complete Course in Pronunciation*. Englewood Cliffs, NJ: Prentice Hall Regents.
- DELATTRE, P. (1966). A comparison of syllable length conditioning among languages *International Review of Applied Linguistics*, 4(3), 183-198.
- FABER, D. (1991). Teaching the rhythms of English: a new theoretical base. In A. Brown (Ed.), pp. 245/2258. First published in 1986 in *International Review of Applied Linguistics* 24: 205-16.
- FOKES, J. & Bond, Z. (1989). The vowels of stressed and unstressed syllables in nonnative English. *Language Learning*, 39, 3, 341-371.
- FRANKFORT, N., & Dye J. (1994 a). *SPECTRUM 1: A Communicative Course in English*. Englewood Cliffs, N.J. : Prentice Hall Regents.
- FRY, D.B. (1958). Experiments in the perception of stress. *Language and Speech*, 1:126-52.
- GILBERT, J. (1978). Gadgets: Nonverbal tools for teaching pronunciation. *CATESOL Occasional Papers*, 4, 68-78.
- _____. (1993). *Clear Speech: Pronunciation and Listening Comprehension in North American English Teacher's Resource Book*. Second Edition. Cambridge: Cambridge University Press.
- GRANT, L. 1993. *Well Said: Advanced English Pronunciation*. Boston: Heinle & Heinle.
- HAGEN, S. & Grogan, P. (1992). *Sound Advantage- A Pronunciation Book*. Englewood Cliffs, NJ: Regents/Prentice Hall.
- LADEFOGED, P. (1982). *A course in phonetics* (2nd ed.). New York: Harcourt Brace Jovanich.
- LANE, L. 1993. *Focus on Pronunciation- Principles and Practice for Effective Communication*. Longman.
- MORLEY, J. (1992a.) *Rapid Review of Vowels and Prosodic Contexts*. Ann Arbor, MI: University of Michigan Press.
- MUNRO, M. & Derwing, T. (1995). Foreign Accent, Comprehensibility, and Intelligibility in the Speech of Second Language Learners. *Language Learning*, 45, 1, 73-97.
- NEUFELD, G. (1987). On the acquisition of prosodic and articulatory features in adult language learning. In G.. Ioup and S. Weinberger (Eds.) *Interlanguage Phonology*. Cambridge: Newbury House Publishers.
- OHALA, J. (1983). Cross-Language Use of Pitch: An Ethological View. *Phonetica*, 40, 1-18.
- PENNINGTON, M., (1994). Recent Research in L2 Phonology: Implications for Practice. In J. Morley (Ed.), *Pronunciation Pedagogy and Theory* (pp. 94-108). Washington.
- PENNINGTON, M., & Richards, J. (1986). Pronunciation Revisited. *TESOL Quarterly*, 20 (2), 207-225.

- STERN, H.(1992). *Issues and Options in Language Teaching*. P. Allen and B. Harley (Eds.).
OXFORD: Oxford University Press.
- TAYLOR, D. (1991). Non-native speakers and the rhythm of English. In A. Brown (Ed.) pp. 235-244. First published in 1981 in *International Review of Applied Linguistics*, 19, 219-226.
- THOMPSON, G. (in press). Some common misconceptions about the communicative approach. *English Language Teaching Journal*.
- WONG, R. (1987). *Teaching pronunciation: Focus on rhythm and intonation*. Prentice Hall Regents Englewood Cliffs, New Jersey.
- YULE, G. & MacDonald, D. (1994). The effects of pronunciation teaching. In J. Morley (Ed.), *Pronunciation Pedagogy and Theory* (pp. 109-118). Washington D.C.: TESOL.