

Chapter 10— Teaching Spanish Pronunciation in a Communicative Approach

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1— Classroom Approaches to the Teaching of Pronunciation

Approaches to the teaching of pronunciation of a foreign language have evolved over the years as methodology and teaching philosophy have changed. Most instructors who used grammar-translation methodology placed little emphasis on the teaching of pronunciation. When I took Spanish in high school in West Virginia, my first-year Spanish teacher relied chiefly on repetition: At the start of each new lesson we repeated all the new vocabulary words in chorus. My second-year teacher used a slightly different technique: He would have us read a sentence aloud before we translated it to English so that he could correct our pronunciation. In neither case, however, was any real effort made to instruct students explicitly in pronunciation. I do not recall any mention of aspirated /p,t,k/ or of fricative variants for /b,d,g/. We all knew, of course, that the double-*r* was to be trilled, but few of us ever attempted it. Since native-like pronunciation was simply not a goal of the grammar-translation approach, the approach cannot be faulted if students' pronunciations were relatively poor.

The advent of audiolingualism changed attitudes toward pronunciation completely. For audiolingualists the goal was the development of a set of automatic habits, including the learning of good articulatory habits right from the beginning of foreign language instruction. Techniques included liberal use of repetition in the memorization of dialogues, repetition drills, pattern drills, and various question-answer exercises such as recombination responses. In all such classroom activities the teacher attempted to maintain high pronunciation standards. And, in fact, all of these repetition techniques included a heavy dose of direct, overt error correction. It was not uncommon to require a student to repeat a single word or phrase five or ten times in order to get the pronunciation just right. In addition, audiolingualists developed special techniques for the teaching of pronunciation. These included minimal-pair drills, drills with similar words, discrimination drills, and so forth.

The teaching of pronunciation also included explicit instruction in and explanation of articulatory phonetics, and many of the early audiolingual texts incorporated phonetic transcriptions in the first few lessons. The results of the audiolingual experiment were mixed. The heightened attention to

pronunciation unquestionably produced students whose pronunciation was superior to that of students who had studied under a strict grammar-translation approach. It is logical, after all, that pronunciation should be better in an approach which emphasizes pronunciation, even at the expense of other skills such as free expression of ideas or experimentation with production of novel utterances in the target language.

It is difficult to make simple generalizations about the teaching of pronunciation since the decline of audiolingualism in the late sixties and early seventies. A 'cognitive approach' (which consists of 'explain, practice, and apply' cycles based on a grammatical syllabus) has dominated foreign language textbooks and teaching in the United States since about 1970. The audiolingual approach has been retained for the teaching of pronunciation in most of these texts although a decline in emphasis on pronunciation, and especially the use of phonetic symbols, has been apparent. It is probably safe to say that the amount of explicit instruction on pronunciation varies from one instructor to another.

Today, foreign language instruction in the United States is strongly influenced by the 'proficiency' movement (Higgs 1984, James 1985, Omaggio 1986, Byrnes and Canale 1987), and by a wide variety of innovative approaches which we might group generally under the umbrella term 'communicative approaches' (Widdowson 1978, Brumfit and Johnson 1979, Blair 1982, Johnson 1982, Finocchiaro and Brumfit 1983, Krashen and Terrell 1983, Oller and Richard-Amato 1983, Savignon and Berns 1984). Although the proficiency movement itself emphasizes the goal of language use, textbooks which claim to be proficiency-oriented are invariably still based on a grammatical syllabus, whereas most communicative approach texts (which are very common for ESL, but less so in the foreign language area) are based either on a situational-topical or a notional-functional syllabus (see, e.g., Terrell et al. 1986 and Byrd et al. 1984). Another distinguishing feature between the proficiency movement and communicative approaches is that proficiency adherents stress accuracy in early stages of instruction far more than do instructors using communicative approaches. However, it is not clear if accuracy in pronunciation is included in the proficiency movement's 'concern for the development of linguistic accuracy from the beginning of instruction.' In the clearest statement of the proficiency movement's position, Omaggio 1986, there is no mention of the teaching of pronunciation. In most texts which claim to be 'proficiency-oriented' the teaching of pronunciation differs little from that found in audiolingual texts.

Communicative approaches likewise have not known what to do with pronunciation. While such approaches have been associated with the functional-notional syllabus (see Finocchiaro and Brumfit 1983), with the Council of Europe's innovations in curriculum design (van Ek 1976), and with the explosion of L2 research in North America and Europe (see Anderson 1984), neither the Europeans nor the North Americans have devoted much time to the study of acquisition of sound systems. The best statement of the relationship between the teaching of pronunciation and communicative approaches is found in Celce-Murcia 1987, which we will examine below. In the next section, I offer a brief overview of early research on the acquisition

of pronunciation, concentrating on the contrastive analysis hypothesis. Afterwards I will summarize current research.

2—

Early Research: Contrastive Analysis

Most pronunciation explanations and exercises for audiolingual instructional materials were based on contrastive analysis. Such an analysis of the sound systems of English and Spanish, for example, should indicate potential cases of transfer, i.e., the use of some native language sound (or sound pattern) in the target language. Transfer is deemed positive when the result is an acceptable sound in the target language, e.g., use of English /f/ for Spanish /f/, or it may be negative when the consequence is *not* an acceptable sound in the target language, as when American retroflex is used in place of Spanish flap /r/ or trilled /rr/. There are other possible sources of error. Developmental errors are those which are made by children as they acquire their first language. Researchers have shown that second language learners frequently, though not invariably, make the same sorts of grammatical errors as children learning the target language as their native language (Dulay, Burt, and Krashen 1982). Both children and adults tend to produce a simplified version of the input. Undoubtedly, second language learners make the same sorts of pronunciation errors as children, in the sense that what is physiologically or acoustically difficult for children will in most cases be difficult for adults. Long consonant clusters such as /ksQs/ in the word *sixths* are intrinsically difficult for all language learners, including children learning English as their first language. This classification of errors as transfer or developmental is superficially clear and uncomplicated to work with; but in reality, there are many errors which may be seen as either transfer *or* developmental, and indeed in some cases it is apparent that both tendencies are at work. Both children acquiring Spanish as their first language and adults acquiring Spanish as a second language whose first language lacks a trilled /rr/ have difficulty learning to pronounce such a complex sound.

Instructional strategies based on a contrastive analysis (CA) assume that native language pronunciation habits will transfer automatically to the target language unless preventive measures are taken. Most linguists who made use of contrastive analyses also supposed that the L1 orthographic system would result in negative transfer and hinder the students learning to pronounce the target language.

Here is a list of common errors made by English-speaking students in a beginning level Spanish-as-a-foreign-language course.

1. Retroflexion of /r/ and /rr/.
2. Lengthening (and sometimes diphthongization) of most vowels, especially in stressed position.
3. Velarized /l/ in syllable-final and word-final positions.
4. Aspiration of voiceless stops /p,t,k/, especially in stressed syllables.
5. Stops instead of continuant allophones of /b,d,g/ in all positions.
6. Labiodental fricative for orthographic *v*.
7. Schwa for /a/ (and sometimes /e/) in unstressed syllables.

Although this list was generated from my own experience teaching Spanish to English speakers, even the most superficial CA of English and Spanish will predict all of these errors. On the other hand, a CA also predicts errors which do not ordinarily occur. The English low front vowel /æ/ is the ordinary pronunciation for the letter *a* in stressed position. However, except for a few cognates like *español/Spanish, patio/patio*, students do not ordinarily transfer English /æ/ when pronouncing words like *casa, sal, pasado*, etc. Nor have I ever heard a student use /ay/ for the letter *i* in words like *si, piso, vi*, etc.

Another obstacle to relying exclusively on CA is its inability to predict areas and levels of difficulty. Stockwell and Bowen (1965) proposed a rather elaborate schema for predicting difficulty which utilized the notion of phonemic contrast and optional vs. obligatory choice. Optional meant the possible choice of a phoneme, while obligatory meant that once a phoneme was chosen in a certain context, the choice of allophone was obligatory. Consequently, to choose to begin a word with /b/ or /d/ is optional in both Spanish and English (depending on the word the speaker wishes to use), but once the choice is made, the selection between a stop or fricative variant for either /b/ or /d/ will be obligatorily determined by the phonotactic environment of the phoneme. For example, in the context of a preceding article *un* with its final nasal, the allophone will be a stop [b] and after the article *una*, the allophone will be a continuant [β]. Added to these two categories was a third category: the absence of the unit. For example, the continuant sounds [β] and [β̥] do not systematically exist in English.

In Stockwell and Bowen's framework, the most difficult areas were those in which the contrast and/or the allophone is alien to English, but is either obligatory or optional in Spanish. Neither /rr/ nor /x/ exists in English, but they are optional choices in Spanish. The continuant allophone [β] is also wanting in English, but is an obligatory choice in Spanish (given the context). Nevertheless, just these three examples illustrate some of the problems inherent in defining a difficulty hierarchy. Although neither /rr/ nor /x/ occurs in English, there is no sound close to /rr/, while /h/ is an acceptable substitute for /x/ (and indeed is the normal sound used in many varieties of Spanish, including the Caribbean). In addition, Stockwell and Bowen consider [β] to be more difficult than /rr/ or /x/ since theoretically it should be more difficult to acquire an allophonic rule than a new phoneme. But since the other member of the allophonic alternation, a bilabial voiced stop [b], does exist in English, it can be readily transferred with no major consequences.

For these and other reasons, Stockwell and Bowen add three other factors to their 'hierarchy of difficulty': functional load, potential mishearing, and pattern congruity. Unfortunately, though the addition of these criteria makes the prediction process more accurate, Stockwell and Bowen conclude that 'matching these criteria against one another is no easy task, and there is clearly no "right" or "best" sequence of presentation.'

3—

Recent Research in the Acquisition of Sound Systems

Recent research in the acquisition of sound systems has taken several paths. It has long been thought that children always acquire a sound system perfectly while adults never do. Thus, one important avenue of research has looked at the question

of the age factor in second language acquisition (see, for example, Krashen, Scarcella, and Long 1982). Another direction of research has dealt with the question of transfer and interference from the native language (Ioup and Weinburger 1987). Language instructors have long agreed that the sound system of the native language affects the ways adults pronounce words in a new language (L2). Related to this topic is the study of interlanguage phonology, the sound system that the learner uses as the acquisition process unfolds. Results from these lines of investigation could inform our methodological decisions in several ways. First, information about possible age-related differences in the ability to acquire the phonology of a second language could lead us to reevaluate our aspirations for phonetic accuracy. Second, information from research on the processes involved in the acquisition of L2 phonology could help us make decisions about the manner in which pronunciation is integrated into the L2 course.

3.1—

Child-Adult Differences

Let us first look at studies of child and adult second language acquisition. There is strong evidence that the younger children are when they acquire a second language in a natural environment, the more native-like their pronunciation will be (Asher and Garcia 1969; Oyama 1976). Seliger, Krashen, and Ladefoged (1975), looking at cases of long-term acquisition, found that 85% of subjects who arrived in the United States before age 10 claim to have acquired a native accent, while only 50% of those who arrived between the ages of 10 and 15 reached native levels, and only 2% of those who were over age 15 upon arrival in the United States boast of having no foreign accent.

When short-term acquisition of pronunciation is measured, either in a classroom setting (Asher and Price, 1969) or in a natural environment (Snow and Hoefnagel-Hohle 1978), older children are better than younger, adolescents are better than younger children, and adults are better than children. Apparently, then, increase in age results in a short-term ability to reproduce the sound system of a second language, but as exposure and experience increase, children 'catch up' and eventually surpass both adolescents and adults.

There have been three prevalent hypotheses to account for child-adult differences. The following terminology is taken from Krashen (1981): the neurological hypothesis, the cognitive hypothesis, and the affective hypothesis. Let us examine each briefly.

One relatively simple and straightforward hypothesis might be expressed as follows: A biological program guarantees that a child will acquire the sound system of a language perfectly; after childhood this biological program no longer operates intact. Lenneberg (1967) suggested that the development of cerebral dominance, or lateralization, might be responsible for child-adult differences. Nevertheless, in Krashen's 1982 survey of the relevant research, he concluded that 'there is little doubt that most children show left hemisphere dominance for much of language function well before puberty.' Still, there could be other sorts of biological explanations for child-adult differences which do not depend on 'cerebral dominance.' One hypothesis which I will not investigate here is the possibility of 'sensitive' periods for various language components. Other biological explanations might include the

idea that adults no longer have the ability to perceive phonetic detail in a new language. Or perhaps the muscles used in articulation of sound lose their earlier flexibility.

If any of the possible biological explanations are correct, then our philosophical position as language instructors would be easy: Adult L2 learners cannot acquire a perfect accent so why waste time on pronunciation instruction? Nonetheless, some adult L2 learners acquire very good accents, sometimes all but indistinguishable from a native speaker's (see the case of informant E below). Thus, if biological changes play a role in the ultimate level of acquisition of a sound system, they may only limit the learner in ways still poorly understood.

The cognitive hypothesis is related to Piaget's concept of formal operations (Piaget 1958). According to Piaget, at about age 12 the child begins to think abstractly. With regard to language, Krashen (1982:208) believes that 'the ability to think abstractly about language, to conceptualize linguistic generalizations, to mentally manipulate abstract linguistic categories, in short, to construct or even understand a theory of language, a grammar, may be dependent on those abilities that develop with formal operations.' Does this new cognitive ability explain the fact that older children and adults are initially faster in acquiring a second language? Since older adolescents and adults can analyze the input to a limited extent, they can consciously make generalizations and produce output more quickly than children, who must depend on some natural acquisition mechanism that requires more extensive input and target language interactional experiences. With regard to pronunciation, older learners can analyze sounds according to articulatory positions and even ask native speakers questions about how a certain sound is pronounced. In addition, they can consciously use sounds from their native language as close substitutes.

If Piaget is correct, factors helpful in increasing the initial rate of acquisition may be less beneficial over the long run. Cognitive strategies for rapid production in the target language permit the older learner to communicate quickly in the target language. But this immediate production of the target language shifts attention from the input to the learner's own output. The young child, who does not have this cognitive 'advantage,' must attend to the input for a much longer period before attempting to speak. One possible explanation is that heightened attention to input without pressures for output leads ultimately to long-term superiority over the older learner. If this hypothesis proves to be correct, it would constitute even stronger support for the notion of 'stages' of language acquisition, to be discussed below.

Another hypothesis is that affective factors explain the difference between child-adult acquisition. Affective factors are extremely complex, however, and it would be desirable to identify factors responsible for the native-like acquisition of pronunciation. Following Schumann 1975, we might wish to test the claim that the degree to which the learner 'acculturates' to native speakers of the target language will determine the ultimate success of sound system acquisition. The prediction would be that all children acquiring their first language will achieve 'perfect' acquisition since they will all identify with native speakers of the target language. Most children acquiring a second language will also be successful, some becoming bicultural in the process. But adults,

the hypothesis predicts, will vary greatly in their success in acquiring the sound system since motivation for and desire to acculturate to and identify with native speakers of the target language will vary as well. If this version of an acculturation hypothesis is correct, the acquisition of a good accent will depend on factors which for the most part escape the instructor's control.

In summary, the research on child-adult acquisition of sound systems of a second language suggests that older is better initially, but with few exceptions only young children ultimately attain a native level of production. This may be due to biological, cognitive, or affective factors, or possibly result from the interaction of all three. In any case, even if we cannot at present resolve this dilemma on a theoretical basis, we can draw conclusions which carry implications for the classroom foreign language instructor. First, since we are unsure of the constraints on the acquisition of a new sound system by adults, the goal should be the acquisition of a clear and understandable pronunciation not apt to offend the native speaker. The audiolingual goal of native-like pronunciation is unrealistic and, in any case, its adoption can occasion undue anxiety. Second, adult students can use their cognitive skills to analyze and produce new sounds and sound patterns; however, it is preferable that they have the opportunity to attend to input in meaningful contexts for some time before being required to produce utterances in the target language, in order to take advantage of both input *and* cognitive skills. Finally, other factors being equal, we would predict that students who seek out contact with native speakers and interact with them using the target language will be more successful in developing an acceptable pronunciation.

3.2—

The Origin of Pronunciation Errors

Let us turn now to the other main line of research: the origin of pronunciation errors. As I noted in the previous section, researchers working on the acquisition of a second language sound system have been dissatisfied with the inability of a contrastive analysis to predict all learner errors along with their relative difficulty. For this reason, several researchers in the seventies began to employ error analysis techniques to determine what sorts of errors learners committed and how many of these were actually predicted by a contrastive analysis. (See Dulay, Burt, and Krashen 1982, for a summary and examples of this work.) Most of this research concentrated on errors in morphology and syntax. The results varied considerably: Many beginner errors could indeed be attributed to native language (L1) transfer, but intermediate and advanced learners tended to make developmental errors more often. On the other hand, the few studies of phonology which were done tended to corroborate L1 as the source of most errors. Mulford and Hecht (1980), cited in Hatch (1983:23-24), studied a six-year-old Icelandic child acquiring English and found that a contrastive analysis predicted the errors actually made by the child better than a developmental hypothesis did. None of these results would surprise a language instructor, who would immediately agree that most (but certainly not all) pronunciation errors appear to originate in the native language sound system.

The thrust of most recent research in the acquisition of phonology has not been to deny the influence of L1, but rather to determine exactly how this influence operates and how it interacts with other factors which function in the acquisition of a sound system. Tarone (1987), in a survey of recent research,

posits two further sources in addition to transfer from L1 and developmental processes: overgeneralization and avoidance. She cites Brière's 1966 study in which he found that most errors of English-speaking students trying to imitate sounds from Arabic, French, and Vietnamese were indeed predictable from a CA, but many were not. Some students substituted a uvular /r/ for a voiced fricative velar consonant /g/, though neither sound is used in English. Brière found that some new sounds were difficult while others were not. He also showed that position in the syllable affected ability to pronounce certain sounds.

Tarone also cites Johansson's 1973 study of subjects whose task was to repeat sentences in Swedish. The native tongues of the subjects ranged from Czech to Hungarian, and included such languages as English, Finnish, Greek, and Serbo-Croatian. She concluded that 'there is definite evidence for the claim that the learners confronted with a new language use not only sounds which occur in L1 and L2, but also other sounds which could not be directly predicted by contrastive analysis.'

Tarone's own earlier research (Tarone 1972, 1976) indicated that syllable structure plays an important role in the acquisition of L2 phonology. She posits two competing constraints: the native language syllable structure and universal physiological constraints on what constitutes a 'good' syllable. Presumably, the latter constraints influence children acquiring the target language as their first language, function in 'fast speech' phenomena, and ultimately play a role in phonological change. It is clear that in the learning of Spanish and English as second languages, both transfer and developmental tendencies of syllable structure reinforce each other. English speakers learning Spanish have an advantage since they start from a language with complex syllable structure and have to learn one which more closely conforms to a preferred CV structure. By contrast, Spanish speakers learning English have to acquire syllable types alien to Spanish and complex even for native speakers, e.g. long consonant clusters like [skt], in *asked*, or [fQs], as in *fifths*. Finally, Tarone cites Celce-Murcia (1977), who reported on a child who simply avoided the use of words which contained particularly 'difficult' sounds.

Major (1987) has extended our knowledge of the interaction between the contrastive analysis hypothesis and the developmental hypothesis with studies of Portuguese speakers learning English and English speakers learning French. In both cases he found that beginning speakers relied more on L1 transfer while more advanced learners showed fewer instances of transfer. More specifically, transfer errors decreased as the learner gained more experience with the target language. He predicts that developmental errors will play only a limited role at first, then increase in importance, finally decreasing as the learner gains more control of the target language. In his study of English speakers learning French, Major shows that the intrinsic difficulty of a sound may result in more attention being given to it. Thus the most difficult sounds may ultimately be acquired, since the learner attends to them in the input more often, while sounds very similar to ones in the native language may pass unnoticed. There are examples of this phenomenon among English speakers learning Spanish. As I have noted above, the Spanish /r/ and /rr/ are so different from English that virtually all students of Spanish consciously notice and attempt to produce the Spanish sounds, although not all are successful.

On the other hand, if it is not pointed out, the fact that Spanish does not distinguish a bilabial /b/ from a labiodental /v/ (the latter is never used in Spanish in spite of the fact that the letter *v* is quite common) may not be noticed or attended to and some learners may continue to use /v/ for orthographic *v* indefinitely.

4—

Error Analysis

This section examines the results of a sample error analysis done on the speech of three native speakers of English who are learning Spanish. The three informants live in the Dominican Republic. The data base consists of recorded oral interviews. None of the three informants has ever studied Spanish in a classroom, nor studied a Spanish grammar or pronunciation text independently. Thus, their speech has developed exclusively from natural oral interaction in the Dominican Republic. I will refer to the informants as C, E, and R, using the initials of their first names.

Informant C is married to a Dominican male and has raised a family in the Dominican Republic. She has lived there for eighteen years and speaks Spanish fluently. C does not attempt to avoid speaking Spanish though clearly still English-dominant. Informant E is also married to a Dominican male and has two small children. She has lived in the Dominican Republic for three years. Although she is also still English-dominant, E is fluent in Spanish and even speaks it frequently to her children who are bilingual, but Spanish-dominant. Informant R is a young unmarried male who has been in the Dominican Republic for one year. He lives with a Dominican family, but most of his friends are either Americans or Dominicans who speak English. All three informants teach English in Santo Domingo, but none was originally a language teacher. All claim to be positively motivated to learn Spanish. However, since the two females are married to Dominicans and do not plan to reside in the United States in the immediate future, it is safe to assume that their motivation for acculturation and integration is greater than that of Informant R, who considers his stay temporary.

A detailed error analysis was attempted on a recording of conversations with the three informants. Such an analysis proved uninteresting because the number of clear segmental errors was quite low. Thus, what follows is an attempt to give a general characterization of the pronunciation of each of the three informants.

Informant C's pronunciation is very good, but clearly nonnative. She does not normally make mistakes with vowels, /l/ is not velar, /p,t,k/ are very infrequently aspirated, and the /rr/ is correct. The error which stands out most is a slight retroflexion of /r/ in some words. (It was quite noticeable in the word *obrero*.) Although /b,d,g/ are usually correct, the number of stops seemed to me higher than what a native speaker would customarily use. (The voiced continuants /b,d,g/ in Dominican speech are articulatorily quite weak.) There are a number of cases of unstressed /a/ which are pronounced as schwa, but probably not more than 30%. C often uses lax /l/ for Spanish /i/ in words which are similar to English: *mínimo*, *institución*, *sindicato*, but even this mistake is not immediately noticeable.

Informant E's pronunciation is so good that I mistook her for a native speaker the first time I met her. In her recorded interview, I found no clear errors except for an occasional use of schwa for unstressed /a/. Her use of

Dominican phonology (e.g., deletion of syllable- and word-final /s/) and strong use of Dominican patterns of rhythm and intonation suggest at the outset that she is a native speaker. (For me, it was only the occasional grammatical errors not normally made by native speakers which led me to suspect that she was not a native speaker.)

Informant R's pronunciation is also good, although since he is not as proficient as C and E, his pronunciation is neither as fluid nor as smooth as theirs. He does not aspirate /p,t,k/, he uses short vowels, his /b,d,g/ are almost always continuants, there is no velarization of /l/, and the /r/ is pronounced as a flap. The trill is usually a long, voiced, but weak fricative. Like C, he frequently uses schwa for unstressed /a/ and even for other vowels in unstressed position: *dominicano*.

To determine the level of acquisition of phonology of the three informants, I played approximately thirty seconds of speech from the interviews for a group of sixteen instructors of Spanish, six nonnative speakers, and ten natives. All sixteen identified Informants C and R as nonnative speakers (although several thought that C was a Brazilian), while only two (both native speakers) were certain that E was a nonnative, three (all nonnative speakers) were uncertain, and nine believed her to be a native speaker of Spanish (and several identified her as from the Caribbean, and one Venezuelan identified her as a Dominican).

What can we conclude from this 'informal' error analysis of these three informants who have acquired Spanish in a 'natural' context without instruction? The most striking fact is that it is certainly possible for an adult native speaker of English to acquire very good pronunciation in Spanish (even a near-native level) with only natural input and no formal instruction. (In addition, these data suggest that, contrary to popular belief, it may be possible for an adult to acquire a native-like pronunciation in a second language.) Second, adult learners can acquire both new sounds and new distributions of allophones. All informants acquired a flapped /r/ (although C and E had trouble using it consistently) and a new distribution of allophones for /p,t,k/ and /b,d,g/. Third, native language influence can persist: All informants used schwa in unstressed syllables, two of the three somewhat extensively. Finally, no pronunciation error of these three informants interfered with comprehension of output.

5— Suprasegmentals, Syllable Structure, and the Acquisition of Spanish Sounds

Part of the research in section 4 suggests that factors which operate within the target language itself and those which arise from universal constraints may also play an important role in the acquisition of a sound system of a second language. Accordingly, in section 5 I will consider the relationship between individual sounds and the overall articulatory set, plus the rhythm and intonation of Spanish.

First, consider the articulatory tension of Spanish. In general, Spanish sounds are produced crisply with heightened articulatory tension. In particular, syllable-initial consonants and following vowels, particularly if stressed, are clearly and forcefully pronounced. In syllable-final position, on the other hand, consonants may be articulatorily weakened, resulting in various

sorts of substitutions and assimilations. Keeping this generalization in mind, let us reexamine the list of transfer errors from section 2.

Some of the errors clearly fit the criterion and result from a laxing of articulatory tension. To avoid aspiration of /p,t,k/ the student must learn to hold the organs of articulation tensely, avoiding any escape of air during the articulatory gestures for these sounds. When pronouncing vowels, the tongue must be held tensely without any postsyllabic movement which would result in vowel-glide combinations as in English. Compare, for example, the Spanish short unglided vowel of *ti* with the English long-glided *tea*. The use of schwa in unstressed syllables is also undoubtedly due to the lack of articulatory tension, especially exacerbated by the large differences of length and tension between English stressed and unstressed vowels.

Another important general characteristic of the Spanish sound system has to do with the relationship between syllables and words. In general, Spanish tends to minimize the phonotactic differences between syllable boundaries and word boundaries. This means, e.g., that the combination /s/ + /m/ will be pronounced more or less the same within a word as between two words: *mismo* and *es mio*. This is not to say that there are no differences between syllable and word boundaries. The behavior of /r/ and /rr/ is different: /rr/ is obligatory in word-initial position, but /r/ and /rr/ contrast word internally in syllable-initial position (*pero* vs. *perro*) unless preceded by a consonant (*Enrique*). On the other hand, English tends to observe word boundaries more strongly and in some cases avoids linking sounds from the end of one word to the beginning of the other. For example, the combination /ne/ is usually different in *a neck* and *an egg*. Thus English speakers learning Spanish will not automatically make nasal assimilation across word boundaries, *un beso* [mb], *un gato* [hg], although they will normally observe it within a word, *también* [mb], *tengo* [hg]. To this list of errors we must add the avoidance of voicing assimilation in *isla* and *es Lola*, lack of sinalefa, *una expresión*, and avoidance of consonantal liaison with the following word, *el animal* [e-la-ni-mal]. In all of these cases, I suggest that the source of the error is again the lack of an appropriate overall articulatory set with regard to syllable and word boundaries.

There are two possible consequences of this claim about articulatory tension. One is that pronunciation can best be improved after the students have some control over syntax and morphology so that they can produce longer utterances and adopt a more Spanish-like articulatory set in general. Second is the implication that students should concentrate on imitating rhythm, intonation, and general articulatory flow as opposed to individual sounds. Both of these points suggest to me that an overemphasis on the imitation of individual sounds and sound combinations in very early stages of language acquisition can be counterproductive.

Other errors do not originate from the lack of correct levels of articulatory tension or improper analysis of the syllable. The pronunciation of /b,d,g/ as continuants in Spanish even in syllable-initial position is clearly a weakening process and a greater articulatory tension will not lead to their correct pronunciation. (Although there may be something to the idea that it takes greater tension to prevent complete closure in /b,d,g/, but this is only speculation.)

6—**Krashen's Theory of Second Language Acquisition**

In recent years, Krashen's 'second language acquisition theory' has had a profound influence on the teaching of English as a second language and to a lesser extent on the teaching of foreign languages. In this section, I consider possible implications of Krashen's framework for dealing with pronunciation in a communicatively oriented class. Krashen's theory is made up of a set of five related hypotheses: the acquisition/learning hypothesis, the monitor hypothesis, the input hypothesis, the affective filter hypothesis, and the natural order hypothesis.

The acquisition/learning hypothesis claims that there are two sources of knowledge which a learner may draw upon in understanding and producing utterances. The first source is said to be implicit knowledge representing linguistic generalizations that are processed and stored during experiences in which the target language is used for communication. The second source is said to be explicit knowledge about the way the target language functions. This knowledge is believed to stem from experiences during which the learner studies or listens to explanations about the way language functions and then does exercises to practice the application of the principle(s) being studied. In the realm of pronunciation it is relatively easy to think of clear-cut examples of both explicit and implicit knowledge. A student could learn to pronounce Spanish unaspirated /p,t,k/ without having been told or even consciously noticed that there is a difference between the voiceless stops of the two languages (since in most cases students would also be unaware of the aspiration of these same phonemes in English). By contrast, it is unlikely that any English-speaking learner of Spanish could learn to produce a trilled /rr/ without consciously and explicitly attending to the way native speakers pronounce this sound.

In other cases, both explicit and implicit knowledge may have interacted in the acquisition process. Some learners may correctly produce the Spanish vowels short with no after-gliding, automatically acquiring this knowledge implicitly. In my experience, however, most students have reported that comments like the following, which might have been made by native speakers or teachers, were quite helpful in improving their pronunciation: Make your Spanish vowels shorter (than in English); Don't let your tongue change positions when pronouncing Spanish vowels; Don't use the English sound *uh* for Spanish *ah*. However, instructors generally agree that most features of a good pronunciation are 'acquired' (following Krashen's use of this word) and not taught (or 'learned,' using Krashen's term).

The input hypothesis attempts to delineate the conditions under which acquisition (but not learning) can occur. It claims that the acquisition process is activated by understanding input in the target language under certain conditions to be explained below. The idea is that if the learner focuses on meaning in a communicative context, the relevant generalizations will be automatically acquired. In the case of the sound system, the prediction would be that the ability to produce L2 sounds and use them according to their correct patterning in the target language would automatically develop by listening to and understanding input.

The input hypothesis has several implications worth pursuing. The most important in my opinion is that good pronunciation habits will ultimately depend on the ability to attend to and process input. Learners will produce what they have heard; consequently, the ability to produce sounds correctly must be based on meaningful experiences in which they have the opportunity to hear and discriminate the new sounds and sound patterns. It would also seem to imply that learners will acquire a sound system better with meaningful input than with artificial exercises designed to focus on certain sounds or on sound patterns. I know of no hard evidence to support or reject this conclusion.

The monitor hypothesis claims that 'learned' knowledge is used mainly to 'edit' output. In addition, research indicates that most learners are unable to 'monitor' extensively when engaged in normal conversation. The implication for the teaching of pronunciation is that if learners cannot monitor extensively, then even if students know explicitly how to produce a sound correctly (e.g., to avoid velarization of word-final /l/) or how to pattern sounds in an utterance (e.g., word-final voicing assimilation), they may be unable to think of and apply this knowledge when speaking. Another implication is that beginning a course with sound-focused exercises would not be an efficient way to begin the acquisition of a new sound system. Again, I know of no empirical evidence which addresses the issue of how much learners can use rules of pronunciation to alter their speech during normal conversation.

The affective filter hypothesis predicts that acquisition (but not learning) is unlikely if the learner, for whatever reason, is not 'open' to the target language and culture. The idea is that the learner may create affective 'blocks' which filter out the input, keeping it from a posited 'Language Acquisition Device.' One does not have to accept the idea of a filter (which blocks input) or a language acquisition device to believe that if there is no motivation for learning the language, nor empathy or identification with speakers of the target language, acquisition will be difficult. Indeed, it seems likely that the acquisition of native-like levels of phonology will be correlated directly with the strength of 'assimilative' motivation on the part of the learner (Graham 1984).

The natural order hypothesis claims that grammatical forms and structures are acquired in a predetermined order. The cause of the natural order is unknown, but it is logical to suppose that factors of semantic and syntactic difficulty, frequency of use, and other such factors will be found to play a part in determining the natural order of acquisition. As far as I am aware, no claims have been made for a natural order of acquisition for L2 phonology, although the topic has been examined in some detail for child L1 acquisition (cf. Jakobson 1968).

7—

Stages of Language Acquisition

In section 3 I suggested that one of the reasons why children might be better at language acquisition than adults is that they focus for a longer period on the input without having to deal with output problems. I speculated that children's inability to process input on an explicit cognitive level and to use metalanguage to talk about and manipulate language forced them to rely completely on the input itself. Because of this and similar observations, several newer approaches to language instruction

include a 'comprehension' stage in which learners concentrate on making sense of input without being forced to output utterances in the target language. This is true of Suggestopedia (Lozanov 1979), Total Physical Response (Asher 1977), various comprehension techniques loosely grouped together as comprehension approaches (Winitz 1981), and the Natural Approach (Terrell 1977, Terrell 1982, Krashen and Terrell 1983, Terrell 1986).

It is in the Natural Approach that the notion of stages of acquisition has been most emphasized. Beginners are said to benefit from the possibility of proceeding through three stages of acquisition at their own pace. Stage 1, the comprehension stage, consists of various sorts of activities in which the students respond with gestures, yes-no, or other means to demonstrate comprehension. In stage 2, early speech, students respond with single words or short phrases. In stage 3, students are given opportunities to put words together to form more complex utterances. Thus students are allowed not only to begin the acquisition process in meaningful interactions, but begin production based on previous input instead of explicit rules which have been practiced in artificial exercises. In the next section we shall see how the concept of stages plays a role in the teaching strategies which I recommend.

8—

The Role of Instruction in the Acquisition of Pronunciation

The central issue in the teaching of pronunciation is to determine the possible role of explicit instruction. The evidence to date suggests that learners in both natural and classroom contexts can acquire very good pronunciations without explicit instruction, while many students who do receive instruction pronounce poorly. However, even if explicit instruction in the sound system of the target language is not necessary for its acquisition, I propose that some type of instruction at various stages of language acquisition will be beneficial for many learners. Pursuant to this notion, I propose a schema for thinking about the teaching of pronunciation. However, it is important to keep in mind that only empirical research can determine the extent to which instruction can affect the acquisition of phonology. The discussion centers on the interaction of the notion of 'stages' of acquisition introduced in the preceding section and a set of proposals for explicit teaching of pronunciation skills. In particular, I introduce the concept of 'advanced organizers' for stages 1 and 2 and of 'meaningful monitor activities' for stage 3.

8.1—

Advanced Organizers

8.1.1—

Stage 1

Experienced instructors agree that many beginning students are able to make use of certain information about the target language sound system. In stage 1 activities, students concentrate on listening comprehension skills. However, even in stage 1, some information in advance (which I refer to as an 'advanced organizer') about the sounds and the sound system of the target language can aid learners in making sense of the input by reducing the 'noise' level caused by new sounds and sound patterns that distract them from the meaning of the utterances they attempt to process.

I illustrate this notion first through my recent experiences learning spoken Arabic in Morocco. In my initial contacts with Arabic, I experienced difficulties in forming a clear sound image of the words I heard. There were

two pieces of information which would have been helpful to know before my contact with the language. First was the fact that words can be initially identified by their consonants and that variation in vowels is less important. This information was very useful, because when I finally became aware of it, I stopped trying to differentiate systematically between tense /lax, long/short, and full/reduced vowels. I had been trying to impose a complex English vowel system on Arabic, with the result that I was missing the important elements of the words, the consonants.

8.1.2— Stage 2

Certain kinds of advanced information may also help learners in their initial attempts to produce words they have heard and comprehended in the input. I would have profited greatly by knowing in advance that there are six consonantal sounds (which I informally call 'back') produced by articulatory gestures made at the velum or posterior to it in Moroccan Arabic. In the first few days in Morocco, many native speakers attempted to teach me these 'back' consonants by having me repeat words which contained them. The problem was that I had no idea of how many different consonants I was being forced to reproduce since several of them sounded alike to me. The mistake was to attempt to produce them before I could systematically distinguish them in the input, with the result that I became quite confused and discouraged. But by the end of the two-week stay, I had a chance to hear these consonants in words that I recognized and understood and was beginning to distinguish them auditorily.

The information in an advanced organizer may reduce the initial learning task to more reasonable expectations. My initial attempts in Arabic at using glottal stops at the ends of some words were a disaster. These attempts were so difficult and distracting that I would lose track of what I was trying to say. I soon realized that the words I produced without glottal stops and even those with incorrect substitutions of one 'back' consonant for another were understood by native speakers. While the continued use of incorrect phonemes or allophones would certainly lead to fossilization were I to continue to ignore these sounds indefinitely, not emphasizing them in the initial stages led to a tremendous boost in morale: I decided that I just might be able to learn Moroccan Arabic.

Now let us turn to advanced organizers for stages 1 and 2 for English speakers learning Spanish. Here are two suggestions for advanced organizers that I believe may be helpful to many students in their initial attempts at understanding input in Spanish.

1. Spanish syllables tend to be almost equal in length and Spanish speakers never use an *uh* sound. So in English *The ball is in the yard*, only the words *ball* and *yard* receive heavy stress. Because Spanish avoids an uneven rhythm with heavy stress, your first impression will be that Spanish is spoken very quickly. Concentrate on identifying the words you know and do not be discouraged with what seems to you to be fast speech: You will soon get used to Spanish rhythm.
2. The Spanish *r* sounds are either flaps or trills in which the tongue hits the roof of the mouth once (flap) or more times (trill). As you listen

to input in Spanish, keep in mind that Spanish speakers never use an American *r* sound.

Here are three possible advanced organizers for the pronunciation of single words in Stage 2.

1. Keep your mouth and tongue tense in the pronunciation of Spanish words. Make all vowels short and do not draw out syllables with heavy stress.
2. Never use an American *r* sound when pronouncing Spanish words which contain the letter *r*.
3. Use 'soft' sounds for the letters *b*, *v*, *d*, and *g*.

Clearly, these three rules-of-thumb must be accompanied by oral examples, but, if used as a general strategy, just these three generalizations can greatly improve pronunciation.

Finally, instructors should explain to beginning students that a reasonable goal is a 'good' pronunciation. Native speakers do not expect learners to develop perfect native-speaker-like pronunciation. Pronunciation mistakes typically made by English speakers seldom interfere with comprehension by a native speaker.

8.1.3— Stage 3

Since in stage 3 students participate in a large variety of meaningful and communication activities, it follows that any focus on pronunciation during these activities would be misguided. However, it is possible to designate certain activities as 'meaningful monitor activities' in which students are instructed to focus on a single principle of pronunciation, perhaps a sound or a pattern of sounds. This implies that we must design an activity in which we include multiple occurrences of a particular pronunciation item. In this section I use Celce-Murcia's framework to illustrate communication-monitor activities which focus on four common problems English speakers encounter when learning Spanish.

8.2— *Meaningful Monitor Activities*

Celce-Murcia (1987:1-12) suggests four steps in the organization of a meaningful pronunciation activity. (1) Identify your students' problem areas (different groups of students may have different problems). (2) Find lexical/grammatical contexts with many natural occurrences of the problem sound(s). (3) Develop communicative tasks which incorporate the word. (4) Develop at least three or four exercises so that you can recycle the problem and keep practicing the target sound(s) with the new contexts.' She concludes: 'in other words, the same types of activities used to teach other language areas can also be used to teach pronunciation.' Here are some suggestions meant to be illustrative of Celce-Murcia's approach.

8.2.1— Tense /p,t,k/ with No Aspiration

Students interact in pairs, one taking the part of a son or daughter and the other a parent. The parent wants to know what the son or daughter would like for lunch. Parent 1 suggests items, all of which must have a /p/, /t/, or /k/ sound: *¿Quieres comer/tomar coliflor/brócoli/carne?* etc. Student 2 replies, *Si, me gusta el/la*

coliflor/bróculi/carne pero quisiera solamente un poco. Students are instructed to carefully monitor their production of /p,t,k/ without aspiration.

8.2.2—

Continuant /b,d,g/

Students interact in pairs. Student 1 asks an either/or question concerning professions. Student 2 answers truthfully, but must pick one of the two choices. The instructor prepares the list of professions in advance, using only words which contain at least one example of /b/, /d/, or /g/. (Do not count words which begin with /b,d,g/ since in this position the stop variant is acceptable.) Here are some examples; note that the word *abogado* contains all three phonemes: *abogado, médico, administrador, senador, contador, negociante/hombre de negocios, trabajador*, etc. Students are instructed to carefully monitor their production of /b,d,g/ as continuants.

8.2.3—

The Letters r and rr

Use tongue-twisters such as the well-known *erre con erre cigarro, erre con erre barril, rápido corren los carros del ferrocarril*, as the basis for a contest. Students work in pairs and measure the number of attempts it takes to say the entire tongue-twister without missing a single trilled /r/, and finally, the number of seconds it takes to say the tongue-twister.

Students interact in pairs. Student 1 asks either/or questions to determine what student 2 wants to do during the weekend. Student 1 offers a choice and student 2 must select one of the two choices. The choice should always include two infinitives. Both students are instructed to consciously monitor the production of a simple flapped /r/ for the -r of the infinitives. *¿Quieres nadar en la piscina o jugar al tenis con Alison?* (Note that it would be too difficult for most students to try to monitor all occurrences of /r/.

8.2.4—

Short Vowels and Avoidance of Schwa

Students prepare a list of the names of fifteen relatives. The instructor prepares a large family tree with spaces to fill in the names. Include grandparents, parents, five siblings, children, cousins, uncles/aunts and so forth. Include more than most students need. (Remind the students that a chart prepared ahead of time will not be exact for any single student.) Student 2 gives student 1 his/her list of relatives. Student 2 must ask questions to which student 1 replies only *sí* or *no*: *¿Es Craig Watson tu hermano?* Students are instructed to monitor the use of gender markers /-o/ and /-a/. The /-o/ should be short and tense and the /-a/ open with no schwa coloring.

9—

Conclusions

The place of pronunciation instruction in a communicative approach is unsettled. A traditional contrastive analysis predicts most, but not all, areas of the sound system students will have trouble with, and is useful to the instructor. Nevertheless, although we have learned a great deal about the acquisition of sound systems from recent research, we are still unable to answer the basic question of what limits there may be on the acquisition of a new phonology after the first language sound system is established. Nor do we know

with certainty why children acquire a new sound system perfectly while adults rarely do. Even Krashen's second language acquisition theory as

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currently formulated gives us little insight into the acquisition of sound systems.

Consequently, in this chapter, I have made some suggestions about the teaching of pronunciation based on what little we do know about the acquisition of sound systems and second language acquisition in general. I have emphasized that learners should be allowed to acquire languages in 'stages' and that a comprehensive stage in which they are not forced to produce the target language before some experience in processing meaningful input may contribute to more accurate acquisition of the target language sounds and sound patterns. As strategies for teaching pronunciation I have suggested the use of information about the sounds and sound system in 'advanced organizers' with beginners in stages 1 and 2, and 'meaningful monitor activities' with beginners in stage 3 and with intermediates. In the case of Spanish, I have suggested that many of the traits peculiar to Spanish stem from the language's general articulatory set and its particular rhythm. If this hypothesis is correct, then it follows that students will improve their pronunciations only when they have acquired more general traits of the sound system which operate over phrases and utterances. In this case, the most important guideline is to insure opportunities for substantial amounts of meaningful input before the student begins output activities.

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