Working With Adult Foreign Accent: Strategies for Intervention

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The prospect of providing accent reduction treatment for adult nonnative English-speakers often alarms native English-speaking clinicians because they may have had little training for or experience with this type of therapy. The American Speech-Language Hearing Association (ASHA, 1983) categorizes foreign accent as a “social dialect” and includes accent reduction within the scope of our practice. However, there is currently no generally accepted program for use with adult nonnative English speakers.

It is helpful that general textbooks are beginning to include foreign accent as a topic of study (e.g., Bernthal & Bankson, 1993), although textbooks generally focus on speech and language therapy with bilingual children. Specialized training and the ability to speak the language of the child are highly recommended for a person who is going to work with bilingual children. The treatment program outlined here is not designed for work with these clients.

Despite the lack of a generally accepted program, the demand for adult accent reduction treatment exists in many areas of this country. The purpose of this tutorial is to offer clinicians who have some knowledge of therapy with children and adults a basic therapy program that can be adapted for the specific needs of their individual nonnative clients. The therapy program described here is based on the assumption that the adult second-language learner comes to English with an intact phonological system as well as refined perceptual and articulatory skills in the first language. Therefore, the differences that make up foreign accent are not due only to problems in articulating new sounds, as is sometimes assumed, but, to some extent, are also related to differences in the organization of the first- and second-language sound systems. The program relies both on articulatory and phonological treatment to reduce the impact of foreign accent on English pronunciation.

This tutorial begins with a historical perspective on accent reduction work. Next, assessment and a recommended basic treatment program are discussed. Finally, some specific suggestions for both treatment goals and work with this type of client are given.

HISTORICAL PERSPECTIVE ON ACCENT REDUCTION

Before the existence of books, it is likely that second-language learners listened to, watched, and imitated native speakers of the language to be learned. Visual methods of training (books and manuals) were developed when imitation of a live native speaker was not possible. In fact, one of the earliest printed books taught Latin (including pronunciation), which no longer had native speakers (Dunkel, 1963). As knowledge of the details of sound production increased in western cultures, special fine-grained orthographies, such as the International Phonetic Alphabet (IPA) and diacritical markings, were created and used in pronouncing dictionaries (e.g., Jones, 1937) and speech correction books (e.g., Ripman, 1924). The orthographic symbols represented articulatory positions that were thought to generate particular sounds. The nonnative speaker of the new language or dialect was expected to arrange the articulators in a particular way and to be able to produce the sound. But, most adults find learning authentic pronunciation solely from written description...
impossible; today, many adult foreigners look for formal training.

The two formal training avenues for adult learning, classroom (English as a second language [ESL] or Speech) and individual clinical sessions, differ principally in the educational backgrounds of the teacher and the clinician, in the intensity of focus on pronunciation, and in the ability to concentrate on individual problems. However, speech-language pathologists often coordinate services with ESL teachers. Numerous issues unite classroom and clinical work, including the aims of accent reduction training, the type of training that will be successful, the efficacy of various components of training methods (perhaps the most controversial of which is perceptual/sound discrimination), and the basic question of whether adults are capable of learning new sounds and variations on old sounds.

Speech Production

During the early 1900s, clinical and classroom instruction both used imitation of a native speaker along with explanations of articulatory positions for sound. Clinical training added specialized techniques that were adapted from individual articulation treatment designed for children (e.g., Van Riper, 1954). The two avenues began to diverge during the middle of the century. For the most part, clinical training for nonnative English speakers continued along traditional articulatory placement lines (Greene & Wells, 1927), whereas classroom work moved away from established methods, especially for the teaching of second languages to native English speakers (Leather, 1983; Morley, 1991).

During the 1960s, the language laboratory was instituted, at least in part, to mass produce authentic accents in many languages through the imitation of tape-recorded native speakers. Some of the earliest research on training methods (e.g., Lane & Schneider, 1963; Neufeld, 1978) was initiated when it was understood that students could not always evaluate the accuracy of their own efforts at imitation. Simple auditory training (listening to tapes or listening and trying to imitate native speakers on tape), even with articulatory position information, did not produce native-like pronunciation for most adults. It was realized that the listeners had difficulty hearing the distinctions they were trying to learn to produce. (And it also follows that most clients cannot learn English pronunciation simply by imitating native-speaking clinicians.) Some experimenters (e.g., Catford & Pisoni, 1970; Henning, 1966; Mueller & Niedzielski, 1968; Pimsleur, 1963) investigated the addition of discrimination training to auditory training and the use of discrimination training alone. These studies are difficult to interpret because of differences in the types and amounts of training and, most importantly, differences in the definition of what constitutes “discrimination training.” In general, the early results suggested that some types of discrimination training may be helpful for some kinds of differences between languages.

For example, Pimsleur (1963) found that subjects who were trained to (a) discriminate the difference between a French vowel and an English diphthongized counterpart of that vowel, followed by (b) listening practice with the French vowel, did not produce the French vowel better than a control group that did not receive the discrimination training. However, subjects trained to (a) discriminate among three nasalized French vowels, followed by (b) listening practice, did pronounce these sounds better than a control group.

Henning (1966) also found better results for the production of some sounds for one group that received feedback and comparisons between French sounds and those English sounds thought most likely to cause interference in learning compared with another group that only practiced imitating the French sounds. Catford and Pisoni (1970), on the other hand, found passive listening to (a) tapes of nonnative sounds, (b) comparisons between these sounds, and (c) comparisons between the nonnative sounds and English sounds to be less effective for accurate sound production than having an expert articulatory phonetician train subjects in the articulatory placement of nonnative sounds. Discrimination training (especially discrimination training aimed at improving self-monitoring) continues to be part of most ESL classroom training.

During the 1970s, ESL classroom research looked to additional factors that were thought to be related to pronunciation learning, such as attitude, motivation, and personality variables (e.g., Acton, 1984) to find keys to more native-like pronunciation, but without great success. More recently, supra-segmental factors such as intonation patterns and rhythm have been emphasized in classroom training (e.g., de Bot & Mailfert, 1982).

According to a recent review of ESL training by Morley (1991), the aim of most ESL pronunciation work has shifted from developing native-like pronunciation of each sound to improving pronunciation within the context of the development of functional language and interactive skills. Adults who have completed ESL classroom work often turn to speech-language pathologists to refine their pronunciation. It is important for the speech clinician to be aware of the classroom training these clients may have received.

This tutorial has touched on only a few of the results of ESL research on second-language pronunciation in order to bring them to the attention of clinicians. The reviews by Leather (1983) and Morley (1991) highlight other results and issues from this area that may be important in the development of clinical work with nonnative speakers of English. In particular, the ongoing discussion of appropriate aims for ESL programs can inform the discussion of development of clinical programs for nonnative speakers.

Speech Perception

Research has also continued, during the past 20 years, in the area of the perception of speech. Much of this literature focuses on the development of speech perception during language acquisition in children as well as on second-language perception (see, for example, the chapters in Goodman and Nasbbaum, 1994). Current research indicates that our speech perception systems have been influenced by the learning of our first language, and that when we listen to the sounds of a foreign language, we do so using the
sound categories of our first language (e.g., Best, 1995, Flege, 1995, Pisoni, Lively, & Logan, 1994; Werker, 1994). Therefore, at least part of the origin of foreign accent lies in the inability to hear the sounds of the new language accurately.

A simplified rendition of current theories (e.g., Best, 1995; Flege, 1995) would say that when we hear a new sound in a new language, we categorize it as a similar sound in our native language and we use that similar sound when speaking the new language. This means that we hear many sounds in a second language only as sounds we already know from our first language. For example, if you tried to learn French vowels, it was probably difficult at first for you to hear the difference between the rounded high front French vowel /e/ and the rounded high back French vowel /u/. They both may have sounded like English /u/ to you, so you tended to use English /u/ for both of them (Flege, 1984). Sometimes, the L1 (first language) sound will pass undetected in speaking the L2 (second language) sound. At other times, the L1 sound will be sufficiently different that the difference is noticeable to native speakers of the second language. The specific reasons underlying such similarity judgments are the subject of considerable contemporary research.

Researchers have found that speech perception can be changed, at least to some extent (see the review in Pisoni, Lively, & Logan, 1994). Most of the research, however, has been performed in a laboratory setting rather than in the clinical setting, and the methods of training are not easily transferable. Often, the sounds heard by the subjects over headphones in laboratory studies are synthetic sounds rather than unaltered sounds produced by native speakers. Findings should be reviewed for possible clinical testing. For example, Pisoni and his colleagues (reviewed in Pisoni, Lively, & Logan, 1994) found that Japanese listeners generalized better when they heard /θ/ and /θ/ samples from multiple speakers rather than just one speaker. This implies that we should examine the generalization of successful clinical training to other speakers.

Jamieson and Morosan (1986) successfully used /θ/ and /θ/ synthetic sounds that were exaggerated at first and then gradually reduced (faded) to train French-speaking Canadians to hear the English contrast. This would suggest that we examine the use of fading techniques in a clinical setting, although the presentations of sounds cannot be as strictly controlled as in a laboratory. Studies such as these will eventually help us to refine clinical treatment methods. (For a review of laboratory training studies, see Jamieson, 1995.)

There are other aspects of speech that some researchers speculate may contribute to foreign accent. For example, phonotactic constraints from the L1 may cause problems in the L2. Thus, if an L1 does not allow voiced stops in word final position, these sounds may be deleted or replaced by voiceless stops (at least at first) when speaking an L2 (e.g., Eckman & Iverson, 1994; Yavas, 1994). Additionally, word stress patterns and sentence intonation patterns may differ between languages (e.g., Prator & Robinett, 1985). If the L1 tends to stress words on the last syllable, it will be difficult to learn to stress English words on other than the last syllables. It is also likely that learned motor patterns for sounds play a part in what we hear as foreign accent (e.g., Weinreich, 1953). Once a sound has been learned and practiced for years, it is difficult to make that sound in a slightly different way. If this were not true, it would be easy for speech pathologists to change the articulations of children who misarticulate, for example, /θ/.

WHO ARE THE CLIENTS?

Adult second-language speakers who seek out or are referred for accent reduction services have generally studied classroom English in their home countries or in the United States and they read and write English adequately for educational or business purposes. If potential clients have never studied English, they are better served by introductory ESL classes. Clinical experience suggests that there are three major types of adult foreign clients seen by speech-language pathologists.

1. Foreigners who have been in this country a short time (usually less than 5 years). These clients studied English in school but never heard native English spoken (except through radio or movies) and never used English on a daily basis to communicate.

2. Foreigners who have been in this country a long time (approximately 5–10 years). These clients speak English fluently but may need to improve their communication skills (reduce their accents) for promotion to supervisory positions or simply for job retention.

3. Foreigners who speak a different dialect of English as their native language. The phonemic, phonological, or intonation differences between their native English and American English may be enough to make them difficult to understand, especially on the telephone.

WHAT DIFFERENCES WILL YOU HEAR WHEN EVALUATING A NONNATIVE ACCENT?

Foreign accent is the difference in sounds and rhythm that we hear when a nonnative speaker talks. It is assumed that these differences relate in some way to differences between the native language and English. As discussed above, we assume that at least some of the "error" sounds produced by nonnative speakers of English are substitutions of L1 sounds for English sounds, probably based on a perceived similarity between the L1 sound and the English sound (Best, 1995; Flege, 1995). Other "error" sounds may result from an attempt to adapt an L1 sound for use in English. These sounds no longer match the original L1 sounds, but neither do they match English sounds.

Clinicians who have not worked with foreigners are often afraid of missing problems in nonnative speech. They request lists of "errors" to expect with each foreign accent. Our student clinicians have generally found that some experience with the basic program for nonnative speakers
gives them the necessary foundation for work with adults from many language backgrounds. Although it is helpful to investigate the sounds and patterns of the L1 in order to confirm hypotheses made concerning the source of differences in English, it is not usually necessary because English speakers hear the differences that constitute foreign accent. As a general rule, these differences are not random, but fall into the patterns described below.

Because the clinician-evaluator is usually a native English speaker, he or she tends to hear best the sound categories of English. This means that evaluators will have difficulty correctly perceiving the sounds that the nonnative English speaker is making just as, when working with children, clinicians may have difficulty hearing differences made by English-speaking children using non-adult rules. However, it will be easy for you to recognize that some productions by your clients do not fit your English categories. Some sounds may be omitted. Some sounds may sound exactly or very like an English sound. (Usual examples are /i/, /u/, /e/, /o/, /æ/, /ʌ/, and /ɑ/.) The sounds you will hear fall into at least the following six classes (which should be recognizable from your experience with English-speaking clients). These categories are also related to those suggested by perception researchers (e.g., Best, 1995), but the focus here is on the perception of differences produced in the L2 by the native L2 speaker rather than on how nonnative speakers perceive English sounds. Clinical and research findings from the English productions of native Korean speakers are included as illustrations of each class. (Except where noted, examples are from clinical experience with and discussion with approximately 50 native Korean speakers.)

**Class 1.** The L1 phoneme always sounds like the English phoneme. The phonemes may not necessarily be the same in phonetic detail, but are sufficiently similar that English listeners cannot hear the differences.

**Example:** Many Korean phonemes sound correct for English in all positions. Korean /m n j g p t k/ are examples. Korean unaspirated /p/ does not have the same specification as the English /b/, but English speakers usually hear no differences. (Schmidt, 1997)

**Class 2.** The L1 phoneme sometimes or always sounds distorted but falls into the English category consistently. In this case, there is a difference in phonetic specification that is noticeable to English speakers.

**Example:** Korean /tʰv/ is more aspirated than English /tʃ/ and often sounds mildly distorted to native English speakers. (Schmidt, 1997)

**Class 3.** The L1 phoneme never sounds like the English phoneme. The phoneme used by the client sounds like another English phoneme or (rarely) an unknown sound.

**Example:** Korean speakers perceive Korean unaspirated /tʃ/ as the closest sound to English /z/. (Schmidt, 1996). Their productions of English /z/ tend to sound like English /dʒ/ to native English speakers. (Schmidt, 1997)

**Class 4.** The L1 phoneme sometimes sounds correct and sometimes does not. There may be several reasons for the inconsistency.

a. The English phoneme may have been learned in school or from listening to L1 speakers or English speakers, but the client may not always be able to use it correctly. This category contains Class 3 sounds that the client has some knowledge about and skill with but does not use consistently.

**Example:** Korean speakers begin to study English in elementary school. They learn that although Korean /pʰ/ sounds like the closest phoneme to English /f/, they must learn to make an /f/. Some of them have been taught to bite the lower lip during /f/ production, resulting in an awkward articulatory gesture that is difficult to incorporate into speech. They also may forget to use the /f/ where it is required.

b. The L1 phoneme differs in category range. In this case, the clinician will hear some productions of the phoneme as correct. Other productions may sound distorted or may fall into another English category.

**Example:** Korean speakers appear to have a wider /f/ category, which may include English /f/. They are taught in the classroom that the difference between the two phonemes is length. If the /f/ production in some words is short enough, the English speaker will hear it sometimes as /f/, even though it is always a Korean /f/ (Schmidt & Meyers, 1995). Also, if a language has fewer fricatives than does English, it may be that the tolerance for /s/ position is much wider than in English. Korean /s/ may be dental or alveolar or (in some cases) almost interdental. When the Korean /s/ is transferred to English, some speakers seem to vary greatly in their productions of different words.

c. The L1 phoneme has different allophones from the English phoneme. Again, some productions of the phoneme will be heard as correct, and others may sound distorted or fall into another English category or may be omitted.

**Example:** Korean /s/ before high vowels such as /i/ is an /ʃ/ allophone. Therefore, Koreans speaking English may be heard to “substitute” /ʃ/ for /s/ in words like “seat.”

**Class 5.** Epenthetic consonants or vowels may be used when the native language does not allow English combinations of sounds or when the client exaggerates the production of a sound.

**Example:** Korean speakers often insert an epenthetic schwa within consonant clusters. Also, some Korean speakers add a vowel in final position when the final sound is voiced. They may do this because the Korean language does not have final voiced consonants and they are working hard to produce a strong final voiced consonant.

**Class 6.** English spelling in unfamiliar words is sometimes converted incorrectly into pronunciation.

**Example:** Words like “hop” may be pronounced /houp/ during assessment. It is necessary to examine vowel differences in particular to see if there was simply a mispronunciation of the spelling letters.
ASSESSMENT

A good foreign accent assessment tool will offer a chance for the speaker to produce the sounds of English in contexts that help the clinician to see any patterns of differences that might occur. The clinician also needs an opportunity to focus on small amounts of listening at one time to hear some kinds of differences, as well as to step back and observe overall patterns for other kinds of differences. For this reason, we use word productions, paragraph reading, and spontaneous speech samples to gather data.

Test items should offer several opportunities in different contexts for the production of contrasts because (as noted above) inconsistency in production is important. Several tests designed for the assessment of nonnative English speakers are commercially available. Specialized tests for specific first language groups are becoming more common. Because there are no norms for this population (either developmental or that fit all nonnative English speakers), general tests can also be constructed by the clinician using the consonants and vowels of English.

It is important to remember during assessment that nonnative English speakers may exhibit untreated disorders of speech, language, fluency, or voice in their first language. Ideally, the clinician will hear more than one speaker from a single language in order to gain an understanding of the general pattern of differences produced by speakers from that language. However, that is not always possible and, therefore, at times you may ascribe individual differences to general language differences. You can ask the client questions about differences that puzzle you. Many of the explanations in the examples from the Korean language were first obtained by asking clients about their English instruction and about what they felt were their problems in English. Foreign clients are often willing and able informants. If a clinician is skilled at analyzing errors and error patterns in children and adults who are native English speakers, this training will carry over into the analysis of foreign accent.

BASIC FOREIGN ACCENT REDUCTION THERAPY

The therapy described here does not require any special materials aside from what can be easily constructed by the clinician. Until we have more data on the efficacy of various types of therapy for this population, a conservative treatment program based on familiar traditional articulatory and phonological treatment methods is recommended. (For an example of a clinical training test, see Schmidt & Meyers, 1995.) Because the client comes to therapy with an intact phonology (a system of phonemes and contrasts between these phonemes) that is different from the phonology of English, therapy that focuses on phonological contrasts between sounds in English is logical. The client may need to learn which sounds make a difference between words in English. Because the client has learned motor skills for the production of the sounds of the L1 that may need to be modified for more accurate production of English sounds, articulatory placement therapy is often required.

Preliminary goals for therapy sessions may include:
1. one vowel contrast,
2. one consonant contrast,
3. grammar,
4. sentence stress and sentence rhythm,
5. professional vocabulary, and
6. other (filled pauses, voice and breathing, pragmatics, idioms).

Because there is data to indicate that nonnative speakers of English hear at least some English sounds as sounds of their L1 system (see the discussion of speech perception above), this basic therapy uses auditory training before production training for the vowel and consonant contrasts.

Some clients will learn to produce the sound through auditory contrast training and some will benefit more from specific articulatory placement contrast therapy (Schmidt & Meyers, 1995). At present, there is no way to differentiate between the two types of clients. Clinically, we implement production goals concurrently with one of the perception goals if no progress is being made on perception alone. The therapy suggested here is designed to include both phonological and articulatory elements and should be adapted for individuals.

Vowel and Consonant Goals

Vowel and consonant goals concern contrasts that the client is not making in English. Ideally, the client will learn to hear the contrast and then to make the contrast. Both vowel and consonant therapy follow the same design. A set of 10 minimal pairs is used as a basis for the first three levels. After baseline performance has been established at each level, explanations are given for the contrast that the client is learning. This requires that the clinician understand and be able to explain at least some of the major acoustic cues that English speakers use for the contrast as well as the articulatory differences between the sounds.

In this therapy program, we test the client’s current status on each goal each session before therapy on the particular goals. This method probes generalization by the client. If the client reaches the criterion during the pre-therapy testing, we go on to the next goal. If the client does not reach the criterion, we work on that goal. During therapy, we aim for gradual improvement on each goal as usual.

Level 1: Same/different discrimination. The client listens to minimal pairs with the consonant contrast in initial position or the vowel contrast between two consonants and decides whether the two words were the same word or different words. The clinician presents three “same” and seven “different” pairs from the minimal pair list in random order with no feedback. If the sounds are visually different, the clinician’s mouth should be covered while presenting the sounds so that no visual cues can be seen. The covering (an index card is one possibility) is held at least 8
inches away from the mouth in order to avoid distortion of the sounds. After the first probe of the client’s perception, we explain (if possible) what difference the client should be listening for.

It is suggested that consonants be targeted first in word initial position (except for final stop devoicing) because it is generally easier for new clinicians to produce for discrimination and elicit the production of consonants in initial position. Vowels are placed between consonants because there are numerous minimally different pairs that can be chosen for therapy.

Because vowels tend to be longer before voiced consonants than before voiceless consonants, pairs may differ in length normally in English. However, it is suggested that, for the same/different discrimination goal, the clinician make the pairs equal in length. As noted above, many of the foreign clients (for example, Chinese and Korean) learned in the classroom at home that English /i/ and /u/ are long and short versions of the same vowel. Therefore, the evaluator sometimes hears one sound and sometimes another, although the client is always producing an /i/. In order for the client to learn that the two vowels are different, the cues presented by the clinician should emphasize quality differences rather than the length differences. As treatment proceeds, the pairs should be varied in length. That is, some pairs should be both long or both short because this gives a better indication of the length of vowels the client will be hearing outside the clinic.

Also, both members of the pairs should be presented with the same even intonation pattern, at least at first. English speakers tend to lengthen and slide down in pitch at the ends of phrases so that the first member of the pair is presented with an even intonation while the pitch falls on the second member of the pair. Clients who speak a tone language as their L1 (in which the meaning of a word changes depending on whether the word is said, for example, with a rising or a falling pitch) may interpret the change in pitch as the most important cue. In other words, the clinician should make sure that the difference explained and presented to the client is the difference to be learned. Because there are multiple cues to contrasts in any language, and not all relevant cues are known for English, it is not always possible to explain in detail what the client should listen for and what the client should ignore.

Although the same/different training usually employs minimally different pairs of words, treatment with isolated sounds is sometimes necessary. For example, some speakers from Bengal and Nepal do not contrast /s/ and /ʃ/ and usually produce /ʃ/ for both English sounds. These clients are usually trained to hear the difference between high and low frequency isolated sound pairs before being trained to differentiate word pairs.

**Level 2: Categorization (discrimination in identification labeling).** When clients can hear that two sounds are different, they are trained to label each one correctly. One member of each of 10 minimal pairs is presented to the client by the clinician. The client points to a word or symbol to indicate which category is heard. IPA symbols may be used if the client is familiar with them, or, if not, English orthographic symbols may be used. Key words (words that the client can perceive correctly and consistently as being different and which the client can refer to as a reference key) are usually included. Within Level 1 and Level 2, the client is discouraged from repeating the target words. If the client is hearing the word inaccurately, the repetition of the word by the client will be inaccurate.

**Level 3: Production of contrasts in minimal pairs.** Now that the client can hear the English contrast and knows which sounds belong in which category, accurate production of the contrast becomes the goal. The same minimal pair list may be used to establish the contrast. Some clients will need a minimal articulatory placement explanation and instruction, whereas others will need extensive training. Some clients will immediately generalize the perceptual training to production. Generalization of consonants to other positions is tested and trained if necessary before moving to Level 4.

**Level 4 vowels: Vocabulary words.** At this point, the client can hear and make the targeted vowel contrast with increased accuracy. New lexical items should be learned more accurately. Because most of our clients are professional or pre-professional, it is important to extend the use of the vowels to previously learned professional vocabulary words that are not pronounced intelligibly. The client is asked to use vocabulary words in sentences and longer descriptions that are professionally relevant.

**Level 4 consonants: Higher levels of articulatory complexity.** Consonant contrasts usually require practice in many different vowel and consonant contexts before they generalize to spontaneous speech. Phrases or sentences with both pairs of the contrast are constructed by the clinician. The sounds preceding and following the target phonemes are varied as much as possible.

**Grammatical Errors**

Usually, the clients have studied English in their native countries and they know that, for example, grammatical morphemes are often required for agreement between the noun and the verb. They do not need to be taught about articles, pronouns, and present and past tense (although they may not have learned the pronunciation of the allophones of the present and past tense). If they need to learn basic English grammar, an ESL class is recommended. At least part of the difficulty the client faces in adding those endings is related to the difference in or lack of bound morphemes in their native language. For some, it is hard to remember to add morphemes in English. Also, languages such as Chinese use a single pronoun for male and female, and it is difficult to remember to use different ones in English.

Grammar is targeted in our therapy program in short (usually 5 to 10 minutes) stretches of spontaneous speech. Baseline measurements are made for errors such as the deletion of articles per minute or errors in noun/verb agreement. During treatment, the client is stopped and asked to repair grammatical errors. The goal with this method is to reduce the number of times the client is stopped and asked to repair a grammatical error.
asked to stop and repair a sentence is annoying and provides the impetus to concentrate on the inclusion of English grammatical elements. Some clients can handle a focus on several grammatical errors at once, whereas others can only deal with one or two aspects at a time.

Sentence Stress and Sentence Rhythm

Nonnative speakers of English often seem as if they talk too fast with a choppy rhythm in English. One part of the problem appears to be the length of vowels in stressed syllables. The clients usually do not need to slow their overall rate; instead, they must learn to selectively lengthen vowels in particular words. (Of course, some people talk too fast no matter what language they are speaking.) Prator and Robinett (1985) recommended teaching nonnative English speakers that content words (such as nouns, verbs, adjectives, and adverbs) are stressed and have longer vowels, whereas function words (such as articles and personal pronouns) are unstressed and may have reduced vowels. Many languages have different sentence stress requirements. Clinically, we have found this approach useful.

Choppiness often comes from not blending words together within phrases. Words produced separately without coarticulation may be the norm in the L1. Working with sentences, the client can be made aware of when it is appropriate, for example, to blend the final sound of one word with the initial sound of the next word. For instance, in the sentence “Art took Andy to the store,” the /t/ is only produced once, and the final /k/ becomes initial in the next syllable in normal spoken English. The vowels of “to the” are reduced and shortened.

Work with these two aspects of sentence production is conducted first in reading sentences, with the clinician pointing out opportunities for blending. The client then takes over the task of identifying these opportunities. The client next learns to apply the concept of blending in the context of reading paragraphs, and finally in spontaneous speech.

Professional Vocabulary

Because most adult clients are likely to be students or professionals, specialized vocabulary is a necessary focus. Even if the clinician is unfamiliar with the topic, most of the vocabulary will be pronounceable by a native English speaker. Some words, of course, require a dictionary, and names are always difficult even for native English speakers. As noted previously, professional vocabulary words may have been learned incorrectly during the early part of the client’s study of English. The syllable stress may be incorrect, or one or more of the vowels or consonants may be from the L1.

Part of each session is spent in professional discussion. The client may role-play various professional activities or may lecture about a topic. The clinician collects vocabulary words for later work and may also target various grammatical structures. We avoid set dialogues unless the client reports their frequent use.

Other

Filled pauses. The newest arrivals among the foreigners are unused to making up sentences in English. Instead, they translate from their L1 as they go along. Reasonably, many of them fill the translation pauses with voiced murmurs that are usually called “uhms.” However, this strategy may develop into a habit that reduces communication effectiveness. Longtime residents may have habituated filled pauses as have many native English speakers. Filled pauses are more distracting for nonnative English speakers because the listener may try to interpret the filler as an English word.

This goal is targeted in spontaneous speech unless the client uses filled pauses in reading paragraphs. The clinician takes a baseline sample of fillers per minute. The client is informed of the effect of the filled pauses. If necessary, a sample is recorded and played back for the client. The clinician and then the client identify the filled pauses. During treatment, behavior modification is used. The clinician signals the presence of a filled pause in the client’s speech. The signal may be raising a hand, pointing to a card with a mutually agreed on symbol or word, clicking a clicker, or making an ostentatious mark on a score sheet.

Voice and breathing. Often, clients are concentrating so hard on producing grammatically correct English sentences that other aspects of speech production suffer. For example, some clients forget to coordinate breathing with speaking. They may hold their breath while they think, either before beginning a sentence or during pauses within sentences. Vocal tension as well as general muscular tension may be evident. Do not assume that a tense harsh voice is used in the L1 because this is not always true. And, if it is the case, the client can be offered a different, more relaxed method of speaking English. In some Asian countries, men with high status use a very low pitched, low volume mode of speech. And in some countries, it is appropriate for women to use what sounds to native English speakers like a breathy, tentative mode of speech. These modes may not be appropriate for the client’s goals in speaking English and may contribute to unintelligibility. We discuss cultural differences in overall speech mode with the client so that the client can make an informed choice. Use the techniques you learned for use with voice clients if the client chooses to change.

Pragmatics. Pragmatic skills may be the focus of one segment of therapy for some clients. Cultures differ, for example, in the amount of eye contact and body posture considered polite with authority figures. Observation of the client during the assessment procedure will provide starting points. The point should be made again that speaking with a foreign accent does not preclude a client from displaying individually based pragmatic differences. As with an English-speaking client, discussion and the offering of different possibilities are suggested.

Idioms. Because natural spoken English is filled with idioms, we explain new idiomatic expressions each session. Although there are published materials containing lists of idioms, these are sometimes obscure, obsolete, or out of context. We construct paragraphs using current idioms and
idiomatic expressions from our daily lives for use in therapy. As you are watching TV, start writing a paragraph with an idiom that you hear. Once your ear is listening for idioms, other related idioms come more readily to mind. Using idiomatic expressions during therapy is another way to acquaint the clients with what they will hear in everyday speech. Clients are encouraged to keep a notebook of words and expressions they do not understand.

Suggested Initial Vowel and Consonant Specific Targets

During initial therapy, the client is learning about sounds in a new way. Remember how startling and interesting your first course in phonetics was? The following goals concern phonological contrasts that the client is not making in speaking English.

1. One vowel difference. The /a/ versus /e/ contrast is usually not found in the L1. Because front vowels are more visible than back vowels, this contrast makes a good starting point. After the client has mastered this contrast, the entire set of front vowels is tested (for the ability to discriminate and produce) and trained, if necessary. Back vowels are then tested and treated where necessary.

2. One consonant difference. The clinician first evaluates the impact of the client’s consonant differences on intelligibility. Choosing the first consonant contrast depends on many factors. (One important factor, often overlooked, is that the first goals help the client to understand what therapy is like and, thus, should be ones on which we expect early success.) Some researchers suggest using universal markedness or sonority relations among sounds to select targets (e.g., Carlisle, 1994; Eckman & Iverson, 1994). Future clinical research should help clarify appropriate choices.

As a beginning guideline for new clinicians, the following are suggested:

1. Look at overall intelligibility and sound frequency. Choose the most frequently occurring consonant contrast or set of contrasts that will contribute most heavily to intelligibility. Shriberg and Kent (1995, p. 350) list /n t s r l/ as the five most frequently occurring consonants in adult speech. The /n t/ are not usually problems for this population, although /s r l/ contrasts frequently are.

2. Look for consonants occurring frequently in professional vocabulary even if they are less frequently occurring. As you gather a spontaneous speech sample, listen for words that are hard to understand in descriptions of jobs or interests. Because the client is often a student or professional, the consonants important in these words may help determine a starting point.

3. The first consonant contrast may be one that you are knowledgeable about and comfortable with in terms of describing acoustic cues as well as eliciting correct placement. We do not generally target the English /θ ð/ early in treatment, although they are easy to differentiate from their common L1 replacements (/t d/ or /s z/) because these sounds may not affect intelligibility as much as other sounds. Most English speakers are accustomed to hearing fricatives or stops for /θ ð/ from foreigners. We do include these fricatives if the client is working on the complete set of English fricatives (Schmidt & Meyers, 1995).

The client may request or be particularly concerned about a certain contrast. The /l/ - /r/ contrast is frequently the first that Asian clients will want to learn. Selected or grouped fricatives are the first choice for other clients.

One other consonant contrast may be important to target early in treatment. The language systems of many nonnative English speakers lack voiced obstruents at the ends of words. These clients may follow the rules of their L1 in devoicing or omitting the final voiced obstruents. Or, they may add an epenthetic vowel, which makes the final consonant syllable initial rather than syllable final.

By teaching the client two of the important English cues to final voicing (vowel length and continuation of voicing from the vowel into the following voiced consonant), the client is introduced to long versus short vowels in a context where long and short vowels are actually required. Voiced stops and some of the voiced fricatives and the voiced affricate (such as /l/ and /dz/ if these are accurately produced in English by the client) are used. We proceed with same/different discrimination, labeling, and then production, as with other contrasts.

Eckman & Iverson (1994) also suggested that final sounds should be targeted early in treatment. Yavas (1994) suggested a different step-by-step method for working with final voiced stops that does not employ perception training. Many clients will tend to produce final consonants with following vowels (usually schwa) either when they are tested or during initial production therapy. Tape-recorded productions by the client are often useful for focusing the client’s attention on the extra sound.

GENERAL NOTES REGARDING INTERVENTION

You will find a wide range of individual abilities in your clients, just as you do with native English speaking clients. Some people are more talented at learning new sounds and adjusting their phonological systems than others. To some L2 speakers, whose language or articularatory systems have functioned well in learning a first language, the challenge of learning a second language is taxing. These clients appear to progress slowly and may require more work in integrating new articulations than do other clients.

Keep the practice on each task short and focused. Give very specific feedback about what the client is doing wrong and what the client needs to do to change. These clients benefit from clear and detailed explanation.

Foreign clients usually do not become bored practicing a contrast. In fact, they may want to practice more than is
necessary for a gradual development of a new contrast. If the client tends to worsen during extended practice rather than improve, short practice sets scattered throughout the therapy session are recommended.

If possible, it is very useful to ask another clinician to produce discrimination level words for the client in order to see if the client has learned only the cues that you are producing or has understood the more general cues to the contrast you are teaching. Do this at the point when you feel the client is really labeling/producing well. Check by having another mouth say the words or another set of ears listen to the client.

Children’s books (beginning readers) are useful for reading level tasks. These materials allow the client to focus on the task rather than on content. Some clinicians use newspaper articles that require background and explanation so that focus on the goal is lost. Some clinicians attempt to use newspaper cartoons as a basis for tasks. These clinicians usually find that humor is hard to explain and does not translate directly across languages. Clients are not insulted by children's books if the reason for their use is explained.

CONCLUDING REMARKS

It is hoped that much of what has been presented here is familiar to the reader. The concepts and techniques discussed in this tutorial should be similar to those you have already learned and used. Basic work with nonnative English speakers requires an extension of skills and methodology rather than a completely different approach. Individual foreign clients will differ in their abilities and motivations just as with other populations with whom you have worked.

Research, both basic and applied, is continuing in areas that will directly affect therapy for nonnative speakers of English. In fact, as we learn more about the perceptual and productive abilities of humans through the examination of second-language learners, you can expect the knowledge gained to be applied to therapy with all types of populations.

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REFERENCES


