

THE BIDIALECTAL AURAL REHABILITATION PROTOCOL (BARP)

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In 1980, the Committee on Rehabilitative Audiology of the American Speech-Language-Hearing Association drafted a list of proposed minimal competencies requisite for professionals providing aural rehabilitation services (Asha, 1980). Among the Committee's proposed competencies was that in addition to demonstrating a basic understanding of normal communication processes, persons providing aural rehabilitation services should have a theoretical grounding in sociolinguistics and urban language. Similarly, Maestras y Moores and Moores (1980) advocated that hearing and speech specialists should develop a sensitivity toward hearing impaired persons whose reference group may employ a dialect or language different from that of the specialist. These statements are of particular interest to speech, language, and hearing professionals who provide clinical services to the black hearing impaired because (a) according to Moores and Oden (1978), there is a higher incidence of acquired hearing loss in blacks when compared with other racial and minority groups; and (b) many members of the black community exhibit linguistic features which differ uniquely from those features considered to be representative of standard English (Williams & Wolfram, 1977; Maestras y Moores & Moores, 1980).

Past researchers investigating the black deaf and hard of hearing have found that, for this special population, the lack of functional communication skills represents a major barrier in their interactions with not only the hearing community, but with other hearing impaired persons as well (Bowe, 1971; Anderson & Bowe, 1972; Smith, 1972; Lombardo, 1976). For some black adventitiously hearing impaired individuals, receiving messages through a defective hearing mechanism may be further complicated by linguistic barriers that exist because of dialect differences. In essence, these black hearing impaired individuals experience a phenomenon identified as dialectal interference. For purposes of this report, dialectal interference is defined as the transposition of a Standard English speech message by a black adventitiously hearing impaired listener into the normal language patterns that are characteristic of his/ her respective linguistic community, such that (a) the original meaning of the spoken message may be partially or totally misunderstood by the listener, or (b) when called upon to repeat the original message (as is often the case in a speechreading test situation), the same black adventitiously hearing impaired person may utter the message in Black English.

PURPOSE

To date, no aural rehabilitative protocol has been developed which takes into account those linguistic differences which may inhibit the successful implementation of an aural rehabilitation program for some black adventitiously hearing impaired persons. Thus, the purpose of this report is twofold:

1. To describe how dialectal differences may interfere with linguistic information received by some black adventitiously hearing impaired persons through presentation of a case report.
2. To introduce the Bidialectal Aural Rehabilitation Protocol (BARP) which can be used to differentially diagnose dialectal interference as a factor which may be contributing to the speechreading problems encountered by Black English speakers who are also hearing impaired.

CASE REPORT

Patient RH, a 53 year old black male, was initially evaluated in July, 1980. He was married and was a retired shipyard worker and former barber. The patient had a seventh grade education. Past medical history included a

reported blow to the head in 1949 (age 22 years) which resulted in bleeding from the ear canals, followed by infection and bilateral hearing loss. RH was also reported to have active syphilis between 1947 and 1949. A recent venereal disease test was negative for active syphilis. The patient underwent treatment for alcohol abuse in 1972. Currently, RH is an evangelist at a local church.

Audiometric Profile. Table 1 displays the results of the audiometric evaluations performed on RH in 1976 and 1980, respectively. The audiometric assessments yielded data on pure tone threshold levels, speech awareness thresholds (SAT's) and

Table 1. Audiometric profile of patient RH during 1976 and 1980.

		Frequency	250	500	1K	2K	4K	8K
Test Date: 11-10-76 Age: 49 Years	Right		80dB	100dB	105dB	100dB	90dB	85dB
	Left		80dB	100dB	110dB	110+dB	110+dB	90+dB
Test Date: 8-7-80 Age: 53 Years	Right		90+dB	105dB	110+dB	110+dB	95dB	90+dB
	Left		90+dB	110dB	110+dB	110+dB	110+dB	90+dB
			Speech Awareness Thresholds		Speech Discrimination Scores			
Test Date: 11-10-76 Age: 49 Years	Right		80dB		56%			
	Left		85dB		20%			
	Both		---		40%			
Test Date: 8-7-80 Age: 53 Years	Right		85dB		0%			
	Left		95dB		0%			

speech discrimination scores. Inspection of the audiometric profiles indicates that the patient exhibited a profound bilateral hearing loss that worsened progressively between 1976 and 1980. While speech awareness levels essentially remained unchanged between the two test periods, speech discrimination scores were untestable by 1980.

During the course of this study, RH used an Oticon 375 PPX body type hearing aid in the right ear. This particular hearing aid is recognized by audiologists as being one of the most powerful aids for signal gain that is presently available for consumer use (Ryals, 1982).

Evaluation and Therapy Findings. The initial evaluation consisted of the *Utley Sentence Speechreading Test*, Form A (Utley, 1946), and an oral mechanism examination. The Utley Test was administered using normal voice in a face-to-face situation with amplification via the patient's body aid. Live voice and amplification were both utilized due to the severity of the patient's hearing loss. RH obtained a raw score of 11/31 items or 36 percent correct response. Score interpretation indicated poor speechreading abilities. Results of the oral mechanism examination indicated mild hypernasality and a rapid rate of speech. Vocal pitch and intensity were within normal limits. Intermittent slurred speech was also noted, apparently caused by the patient's rapid rate of speech.

A traditional speechreading program was initiated with RH. Therapy activities were primarily derived from the Jeffers and Barley (1971) speechreading text and the Polsinelli (no date) Lesson Plans for Lipreading Instruction. During the first two weeks of therapy (totalling four sessions), RH was observed to exhibit linguistic transpositions of clinician-presented verbal stimuli. An analysis of the patient's responses on the

speech-reading exercises indicated that they contained many linguistic features commonly recognized as Black English Vernacular

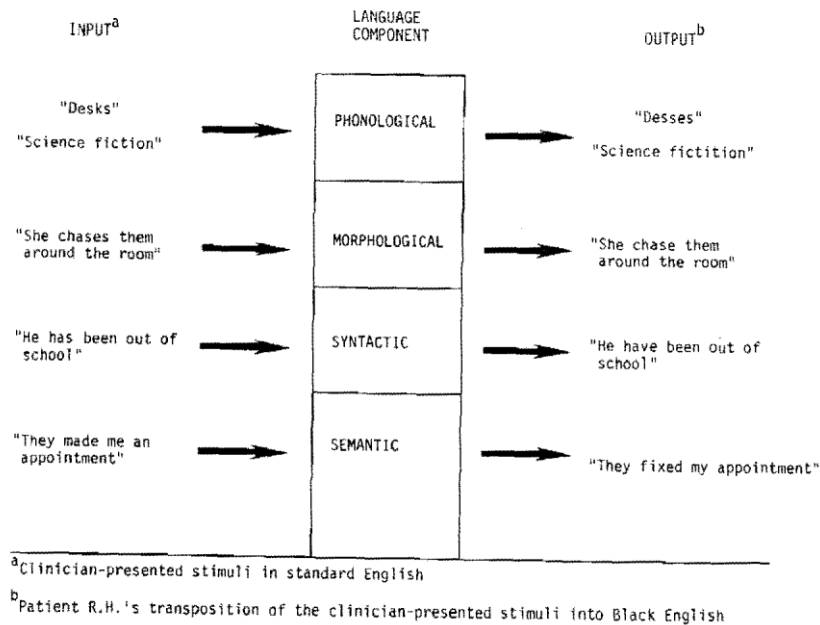


Figure 1. Examples of the linguistic transpositions exhibited by patient RH on each of the four basic components of language.

(Williams and Wolfram, 1977). Examples of RH's linguistic transpositions for each component of language (phonology, morphology, syntax, and semantics) appear in Figure 1. For each example, "Input" represents the verbal stimuli presented to the client by the clinician in Standard English during aural rehabilitation exercises. "Output" is the patient's response resulting from transposition of the clinician-presented stimuli into Black English.

Table 2. Translation of twenty sentences of the Utley Sentence Speechreading Test: Form A into Black English.

Black English Version of Utley Test Sentences: Form A*	Standard Utley Test Sentences: Form A
1. Where you been?	Where have you been?
2. I done forgot	I have forgotten
3. I ain't got nothin'	I have nothing
4. Dat's right	That is right
5. How you been?	How have you been?
6. How tall (is) you?***	How tall are you?
7. It awful cold	It is awfully cold
8. My folk at home	My folks are home
9. Where you goin'?	Where are you going?
10. 'Scuse me	Excuse me
11. What you want?	What do you want?
12. How much you weigh?	How much do you weigh?
13. I cain't stan' him	I cannot stand him
14. She home last week	She was home last week
15. I cain't remember	I cannot remember
16. You lookin' good	You look well
17. The train be runnin' every hour	The train runs every hour
18. You better go slow	You had better go slow
19. It say dat in the book	It says that in the book
20. How much rain done fell?	How much rain fell?

*Only sentences that could be subjected to translation are shown. The remaining eleven sentences were omitted due to lack of a Black English counterpart.

**The verb *is* shown in parentheses may or may not be present in the Black English version of this sentence.

Based on the two-week observation period, it was hypothesized that some of the incorrect responses that RH obtained on the Utley Test were perhaps attributable to dialectal interference. To test this hypothesis, 20 of the 31 sentences which comprise the Utley Test, Form A were translated into Black English (Table 2). Selection of the 20 sentences was based solely on their ability to be translated into Black English. The remaining 11 sentences were omitted because there was no Black English counterpart. The Black English version of the Utley Test was administered again using live voice and amplification. Results of the patient's performance on the Black English version of the Utley Test were compared with the score obtained by Rif on the same 20 sentences presented during the initial administration of the standard Utley Test. A total of 65 percent (13/ 20) of the translated Black English sentences were repeated accurately by the patient compared to only 30 percent (6/ 20) accurate sentence repetition on the standard Utley Test. In addition, the patient was able to identify which version of the sentence was being presented by the clinician with 83 percent accuracy (33/ 40) when sentences comprising both the standard version and the translated Black English version of the Utley test were presented randomly.

Further assessment of the patient's ability to differentiate Black English from Standard English was conducted by administering the Discrimination Subtest of the SCRDT Black English Test (Hoover, Lewis & Politzer, 1976). The Discrimination Subtest consists of 30 randomly presented sentences. Fifteen of these sentences are constructed using phonological and grammatical structures of Black English. The remaining 15 sentences are representative of Standard English. The patient was asked to identify whether the sentences he heard were presented in Black English or Standard English form. Results indicated that RH was able to differentiate between the Black English and Standard English sentence forms with 87 percent accuracy (26/ 30 correct

responses). In addition to identifying the linguistic form of each sentence, RH was asked to repeat each sentence he heard verbatim. Repetition of the 15 Standard English sentences on the SCRDT Discrimination Subtest was performed with 48 percent accuracy (7/ 15 correct responses), compared to 66 percent accuracy (11/ 15 correct responses) on the Black English sentences. In view of the above findings, the hypothesis that some of RH's incorrect responses on the standard Utley Test were attributable to dialectal interference seemed tenable. Thus, the authors concluded that the traditional (Standard English) speechreading program should be modified to include exercises which helped the patient increase his ability to discriminate between Black English messages and Standard English messages.

MODIFICATION OF THE SPEECHREADING PROGRAM

Adler (1973), Bar (1975) and Taylor (1978) have argued that differences in the verbal and nonverbal rules between clinician and client may result in unintended episodes of insult, discomfort, and hypersensitivity for both the client and the clinician. These professionals advocate that diagnostic and therapeutic materials should be selected which are appropriate to the cultural, ethnic, and socioeconomic background of the patient. Toward this end, RH's speechreading program was modified to include activities and exercises which attempted to help the patient differentiate Standard English from Black English conversational situations. Specifically, speechreading exercises were selected from the Jeffers and Barley (1971) text and Polsinelli's (no date) Lesson Plans for Lipreading Instruction. Whenever possible, the exercises were translated into Black English. Once a Black English translation was developed, selected portions of Feigenbaum's (1969) program (which incorporated methods of foreign language instruction to teach Standard English to speakers of other languages and dialects) were utilized to increase the patient's ability to discriminate between Standard English and Black English sentence forms. A brief description of the exercises as proposed by Feigenbaum follows:

1. *Presentation Drill.* The clinician presents two contrasting sentences, one in Standard English and the other in Black English. The patient is asked to describe how the two sentences differ by indicating the particular feature(s) that distinguish one sentence from the other. In addition, the patient is asked to identify which version is presented by labeling each sentence as being either Standard English or Black English. Below is an example of contrasting sentence pairs which represent differences in phonological and grammatical features, respectively:

Phonological Contrast:

Black English — We bof want to go

Standard English — We both want to go

Grammatical Contrast:

Black English — I ain't got no money

Standard English — I don't have any money

A discussion regarding these two sentence pairs would focus on the underlined words. Sentences are presented orally and in writing.

2. *Discrimination Drill.* The clinician presents sentence pairs to the patient. The patient speechreads the sentences and states whether the phonological or grammatical features within the sentence pairs are the same or different.

3. *Identification Drill.* The clinician presents only one sentence at a time. The patient speechreads each sentence, and is asked to state whether the sentence is of a Standard English or Black English variety.

The remaining two drill activities within Feigenbaum's program (i.e., translation drill and response drill) are exercises which require the patient to produce speech. Since the emphasis of the bidialectal speechreading program was to increase the patient's ability to discriminate between the two dialects of English, the translation and response drills were found to be incongruous with program goals, and therefore were not employed.

In an attempt to increase the patient's ability to speechread lengthier messages, paragraphs were presented to RH in Standard English and Black English. Each paragraph focused on an individual theme (i.e., holidays,

home furniture, post office activities, etc.) RH was required to answer yes-no and content questions regarding the paragraphs, or to retell the paragraph.

RH also maintained a record of his speechreading attempts with people he encountered within his residential community, his church, and during social and business engagements. The patient paid particular attention to those factors which enhanced or hindered effective speechreading (i.e., quiet environment, face-to-face interaction, rapid rate of speech, competing noise). Finally, the patient and clinician discussed ways in which the speaking situation could have been modified to facilitate his speechreading attempts.

RESULTS

Alternate forms of the standard Utley- Sentence Speech- reading Test (Forms A and B) were readministered to RH on four additional occasions, conducted on one and one-half to two, month intervals. The rationale for use of the standard Utley Test was that (a) the primary purpose of the bidialectal aural rehabilitation program for this particular patient was to increase his ability to speechread Standard English by heightening his awareness of those phonological and grammatical features which distinguished Black English from Standard English, and (b) at present, normative data are unavailable on the translated Black English version of the Utley Test.

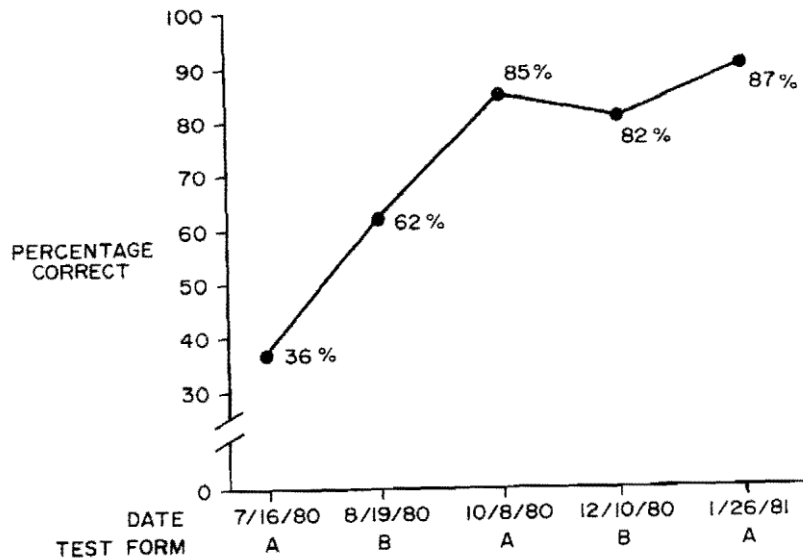


Figure 2. Retest results of patient RH on the Utley Sentence Speechreading Test (1946), Forms A & B.

As demonstrated in Figure 2, retest results indicated a rapid increase in speechreading abilities within the first three months of therapy. After the first three months, however, the patient was found to plateau in the 80th percentile range. Score interpretation indicates that the patient exhibited *excellent* speechreading skills by the time therapy was terminated, as determined by the Utley score interpretation scale. Thus, it appeared that using a bidialectal approach to train an adventitiously hearing impaired speaker of Black English to speechread, increased his ability to comprehend Standard English messages. The patient may be described as possessing the capability of switching to the appropriate linguistic channel when conversing with either a Black English or Standard English speaker.

THE BIDIALECTAL AURAL REHABILITATION PROTOCOL

In an effort to provide aural rehabilitation specialists with test instruments and procedures which may be used to provide effective service to hearing impaired individuals who are also speakers of Black English, the following diagnostic and therapeutic protocol is proposed:

Diagnostic Protocol

1. Perform complete audiometric evaluation.

2. Perform oral mechanism examination.
3. Determine the client's knowledge of the amplification device he/she is using and the benefits derived.
4. Obtain a language and speech sample and evaluate for the presence of Black English features.
5. Administer a speechreading assessment tool in its standard form (e.g., the Utley Test).
6. If one or more Black English features are present as determined by an analysis of the language and speech sample (Step # 4):
 - a. translate the speechreading assessment tool into its Black English form.
 - b. administer the speechreading assessment tool in its Black English form, or administer a formal Black English discrimination test (e.g., the SCRDT Discrimination Test, 1976).
7. Analyze and compare the client's performance on the standard speechreading assessment tool (Step # 5) and the Black English speechreading assessment tool (Step # 8).
8. Identify those Standard English features that the client is transposing into Black English features.
9. Use the results obtained from the identification of the transposed features (Step # 8) as baseline data, and initiate the bidialectal aural rehabilitation therapy program.

Therapeutic Protocol

1. Translate speechreading exercises into Black English or whenever possible, adapt published materials that have been written in Black English to develop speechreading exercises.
2. Utilize the Presentation, Discrimination, and Identification Drills developed by Feigenbaum (1969) to increase the client's ability to differentiate Black English from Standard English.
3. Make arrangements to have speakers of Black English and speakers of Standard English attend therapy sessions to engage in spontaneous conversation with the patient.
4. Allow for experientially based carry-over activities within a variety of community settings.
5. Utilize standard speechreading tests and construct criterion-referenced tests to reevaluate the client's speechreading abilities at regular intervals of time. Clinician-constructed tests should examine the client's speechreading abilities in both Standard English and Black English.

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