

**AN EXPLORATORY STUDY OF PRONUNCIATION
INTELLIGIBILITY IN THE BRAZILIAN LEARNER'S ENGLISH
Inteligibilidade da Pronúncia do Aprendiz Brasileiro de Inglês**

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Abstract

This study aims at investigating the extent to which pronunciation errors at the segmental level – consonants, vowels, epenthesis and word stress – in the speech of Brazilian learners of English affect their intelligibility to native speakers. Quantitative and qualitative analyses revealed one main finding: out of the four error types investigated, word stress errors are likely to be a source of unintelligibility to native speakers who are familiar with the Brazilian accent.

Key-words: *pronunciation; intelligibility; Brazilian learners; segmental errors.*

Resumo

Este trabalho investiga até que ponto erros de pronúncia no nível segmental (consoantes, vogais, epêntese e acentuação de palavras) encontrados na fala espontânea de aprendizes brasileiros de inglês afetam sua inteligibilidade para falantes nativos. Análise quantitativa e qualitativa revelam que, dentre os quatro tipos de erros segmentais investigados, a acentuação de palavras pode impedir a inteligibilidade para falantes nativos da língua inglesa.

Palavras-chave: *pronúncia; inteligibilidade; aprendizes brasileiros; erros segmentais.*

1. Introduction

The view of an intelligible pronunciation in a foreign language emerged decades ago. As early as 1956, Abercrombie recommended

that except for intending secret agents and intending teachers, “most other language learners need no more than a comfortably intelligible pronunciation” (1956:37). By comfortably intelligible he meant a type of pronunciation which can be understood by a listener without much effort. Abercrombie’s view has been pursued and/or discussed by various authors and scholars (Pennington & Richards, 1986; Kenworthy, 1987; Tench, 1991; Morley, 1991; Gimson & Cruttenden, 1994; Underhill, 1994; Brazil, 1994; Dalton & Seidlhofer, 1995; Jenner, 1996; Jenkins, 2000).

A number of studies on pronunciation intelligibility to native speakers (NSs) have been carried out. The aim of these studies has been to identify which non-native speakers (NNSs) pronunciation errors hinder communication with NSs (Albrechtsen, Henriksen & Færch, 1980; Garcia 1990; Anderson-Hsieh, Johson & Koehler, 1992; Suenobo, Kanzaki & Yamane 1992; Munro & Derwing, 1995; among others).

By identifying these errors, researchers have attempted to rank those aspects of pronunciation which most seriously threaten the intelligibility of NNSs’ messages when interacting with NSs. According to these studies, thus, there seem to be certain aspects of pronunciation which are more important than others to guarantee successful communication between NNSs and NSs of English.

In line with these attempts, the objective of this study is to investigate to what extent segmental errors in the pronunciation of Brazilian learners of English affect their intelligibility to native speakers.

The concept of intelligibility which will be followed in the present study is the one proposed by James (1998). James (1998: 212) refers to intelligibility as being “the accessibility of the basic, literal meaning, the propositional content encoded in an utterance”. This concept is clearly focused on the language produced by learners, “in terms of its textual well-formedness” (1998:217). If there is an error in the propositional content, unintelligibility may occur. This concept is followed for two main reasons: (1) James relates lack of intelligibility to an occurrence of an error; and (2) he clearly focuses on these errors

as being produced by language learners. James' concept of intelligibility, thus, serves my purpose, since this study focuses on pronunciation errors in the speech of Brazilian learners of English which may be a cause of lack of intelligibility to native speakers.

2. Segmental error types

Segmental errors in the present research correspond to aspects of pronunciation which differ from those found in the target language and which occur in sounds which are considered difficult for Brazilian learners to produce. They comprise consonants, vowels, epenthesis and word stress errors. Following Mascherpe (1970), Lieff & Nunes (1993), Avery & Ehrlich (1994), Rebello (1997) and Baptista (2001), these error types are summarised in the tables below:

- The voiceless dental fricative [θ] is realised as [t], [s] or [f]
 - The voiced dental fricative [ð] is realised as [d], [v] or [z]
 - The voiced palatal approximant [r] is realised as [h]
 - The two alveolar stops [t] and [d] are pronounced as the affricates [tʃ] and [dʒ] before [i:], [ɪ] or [j]
 - The three voiceless stops [p], [t] and [k] in onset position are realised without aspiration.
- The velar [ɰ] is realised as [w]
- The three nasals [m], [n] and [ŋ] are not pronounced in final position. Instead, the previous vowel is nasalised.

Table 1: Consonant errors

- Both [ɛ] and [æ] are produced as [ɛ] or as [æ] or as some sound in between
- A vowel like [i] is pronounced instead of [ɪ]
- A vowel like [u] is pronounced instead of [ʊ]

Table 2: Vowel errors

Initial /s/ consonant clusters are simplified by the insertion of the epenthetic vowel [i] and the /s/ is voiced when followed by sonorants.

Table 3: Epenthesis

Word stress errors

The English unpredictable stress pattern causes difficulties. One example includes the word 'comfortable', which tends to be pronounced with the primary stress either on the syllable 'ta' or on 'for'.

Table 4: Word stress errors

3. Methodology

3.1. Participants

Six Brazilian learners of English enrolled in the Extracurricular course at UFSC (Federal University of Santa Catarina), advanced level, three males and three females, with ages ranging from 17 to 25, took part in the experiment. The main criterion for selection was that the learners should not be undergraduate students of English. The reason for this is that the selected learners, differently from undergraduate students of English, are expected to achieve, as one of their goals, an intelligible pronunciation, without having to pursue a near, or, possibly, a native-like pronunciation. Their speech should, thus, be analysed, and the intelligibility of the segmental errors they produce should be measured, as a way to provide them with a possible list of the segmental error types they should avoid in their speech. The six participants are undergraduate students in the following courses: Journalism (two of them), Electrical Engineering, Architecture, Dentistry and Mechanical Production Engineering.

Three native speakers of English participated as raters: a New Zealander (a woman), an Englishwoman and a Scotsman. All of them

are English teachers and the period they have lived in Brazil ranges from one to four years.

The decision to include native speakers as listeners in this study is due to the fact that they are likely to be, as well as any NNSs of a different L1, interlocutors of Brazilian learners of English.

3.2. Learners' data

The participants were interviewed one at a time by a thirty-five year-old Englishman who has lived in Florianópolis for some months and is interested in coming to live in the city permanently. The participants were encouraged to convince the Englishman that Florianópolis may or may not be a good place to live in. Topics such as young people's lifestyles and pastimes, things people do and places to go in the city, participants' occupations, ambitions, preferences, etc. were discussed. Each interview lasted about 20 minutes.

All the interviews were recorded in a quiet room. A digital portable minidisc recorder Sony MZ-R37, with a stereo microphone, was used to ensure high quality sound for the raters.

A total of thirty speech samples containing segmental errors were selected from the six interviews, five from each of the six informants. The interviews were edited and the selection of the speech samples followed two criteria.

First, the samples selected were those which contained the most frequent segmental errors occurring in the interviews. Nine types of errors were considered the most frequent ones. They were divided into four groups: (1) consonants; (2) vowels; (3) epenthesis; and (4) word stress. The Englishman who played the role of the interviewer, and who is also an English teacher, confirmed the existence of these errors. In each sample only the words containing the errors were transcribed. There were words which contained more than one error. Second, the content

of each sample had to make sense and should not contain errors of grammar, vocabulary or many discontinuities of speech (repetitions, restructurings and self-corrections) which, when used extensively, may affect fluency. This would ensure that only pronunciation would be evaluated by the raters. This second criterion justifies my choice of advanced learners for this study, since these learners are less likely to make grammatical and lexical errors in spontaneous speech.

The four groups of the most frequent errors are presented in Table 5:

Consonants:	<ol style="list-style-type: none"> 1. [d] for /ð/ 2. [t] for /θ/ 3. [w] for /l/ 4. Lack of aspiration of voiceless stops
Vowels:	<ol style="list-style-type: none"> 5. [ɛ] for /æ/ 6. [i] for /ɪ/
Epenthesis in initial /s/ clusters:	<ol style="list-style-type: none"> 7. /sm/, /sp/ and /st/
Word stress:	<ol style="list-style-type: none"> 8. Misplacement of primary stress on the first syllable; 9. stress on the first syllable instead of on the second.

Table 5: Most frequent segmental errors

Three samples of the Englishman who interviewed the participants were selected and included among the Brazilian learners' samples. These samples, which were not analysed, functioned as a native speaker reference, and their aim was to reduce the influence that one non-native speaker's sample might have on the next which had to be

judged¹. The thirty-three speech samples were randomly ordered onto the same disc for the ratings. They are shown in Appendix 1, following the order in which they were presented to the raters.

3.3. Raters' data

There were two listening sessions. In the first, the raters were asked to indicate the degree of intelligibility of the thirty speech samples on a 6-point scale:

- 1 = very easy to understand
- 6 = impossible to understand

Data obtained through ratings on a scale has proved to be useful in investigations on pronunciation intelligibility and degree of foreign accent (Albrechtsen, Henriksen & Færch, 1980; Anderson-Hsieh, Johnson & Koehler, 1992; Koster & Koet, 1993; Munro and Derwing, 1995; 1997). A 6-point scale was considered appropriate, since it was assumed that more detailed degrees would make the judgements difficult.

In the second session, which occurred two days later, the raters were required to listen again to the speech samples they had judged and, with the samples orthographic transcriptions, were asked to answer the following questions:

- (1) Which word(s) did you find impossible or difficult to understand? Could you explain why?²
- (2) Which word(s) have you found to have a foreign accent? Could you explain why?
- (3) Which word(s) has/have helped you understand another word?

¹ This arrangement of the samples was adapted from the methodology adopted by Anderson-Hsieh, Johnson & Koehler (1992) in their investigation of the relationship between native speaker ratings of non-native pronunciation and deviances in segmentals, prosody, and syllable structure.

² This question was adapted from da Silva's (1999) data-gathering in his investigation of the intelligibility of Brazilian students to listeners of different first languages.

Since there were thirty-three samples, each rater answered the questions related to eleven samples. This procedure was followed because it was assumed that more than eleven samples would make the task very tiring and perhaps unreliable.

Before listening to the speech samples in each session, the raters were informed of the context in which the interviews had occurred.

The listening sessions were held with the researcher and each of the raters individually. The samples were played on a Sony MZ-R37 stereo minidisc recorder in a quiet room. The raters heard each of the samples once and then, during a pause, indicated their ratings and answered the questions. They did not use earphones when they listened. The researcher controlled the minidisc recorder and observed the three raters as they answered their tasks.

It is important to consider that having only three native speakers as judges may be considered a drawback. The design adopted in this study was to carry out quantitative and qualitative analyses. In order to carry out a quantitative analysis it would be necessary to select a substantial amount of speech samples. Since this study is exploratory, I decided to limit the number of judges instead of limiting the number of speech samples, and, thus, be able to carry out an adequate quantitative analysis.

4. Results and discussion

4.1. Quantitative results

These results include the raters' judgements of the thirty speech samples on the 6-point scale.

The interrater reliability coefficients were calculated between all possible pairs of raters. Pearson correlation coefficient was applied. The results ranged from 0.43 to 0.795 indicating that they are all positive and statistically significant ($p < 0.05$).

Although positive, the interrater correlations were not found to be strong. The strongest one was between rater 1 (the New Zealander) and rater 3 (the Scotsman). The correlations which include rater 2 (the Englishwoman) were the weakest. This result was expected and may be explained by the fact that the three raters have different nationalities and, thus, the accents that they may use as a reference for judgement are different.

The fact that the interrater coefficient was positive means that they agree with each other. Having established their agreement, the three ratings across raters were added. The minimum value would be three and the maximum eighteen³.

Two steps were followed in the analysis of the relationship between the segmental errors and the ratings. First, the correlation between the total number of errors in each sample and the ratings was calculated. Second, the relationship between the number of errors in each category (consonant, vowel, epenthesis and word stress) and the ratings was computed. Before presenting the results, it is important to explain that the unit of analysis of this study, which is the sample, is very small and did not allow the occurrence of a high number of errors. This fact justifies the statistical reasoning and the procedures which were applied in this part of the analysis.

The correlation between the total number of errors in each sample and the pronunciation scores was computed applying Pearson correlation coefficient. The correlation result was 0.249. This number reveals that the correlation was positive, but very weak and not significant. The weakness of this result suggests that it is not reasonable to assume that there is a linear relationship between the total number of errors in each sample and the global ratings. This means that it is not possible to state that the number of errors of each sample affected the global ratings.

³ The adding of the ratings across raters follows the procedure used by Varonis & Gass (1982) in order to obtain one score as the dependent variable.

In order to calculate the relationship between the number of errors in each category (consonant, vowel, epenthesis and word stress) and the ratings a multiple regression analysis was performed in order to measure the significance of the quantity of errors in each of the categories in relation to the pronunciation ratings. The total number of errors in each variable was: consonants = 31; vowels = 15; Epenthesis = 7; and word stress = 7. The results revealed that at $p < 0.05$ word stress and consonant errors are significant. Vowel errors and epenthesis did not show significance.

The t-test was also applied and the samples were classified on the basis of the presence or absence of errors. A test of the difference of the average between the ratings of the groups with and without errors was made for each type of error. Word stress was the only category where significance was found.

According to the statistical treatment given to the data of this study, the results reported above reveal that only the relationship between word stress errors and pronunciation ratings was significant.

In talking to the raters afterwards, all of them admitted that their familiarity with the Brazilian accent helped them to understand the samples. As an attempt to support this claim, an Englishwoman who has lived in Brazil for nine years was asked to judge the samples on the 6-point scale. Her answers, which were not analysed, ranged from 1 to 3. This shows that the samples were much more intelligible to her than to the first three raters. She also admitted that her familiarity with the Brazilian accent facilitated her intelligibility. She even commented that if she had been asked to judge the samples in her first year in Brazil, her answers would have been completely different.

4.2. Qualitative results

The presentation of these results will be divided into three parts following the questions which were posed to the raters.

4.2.1. Which word(s) did you find impossible or difficult to understand? Could you explain why?

The number of words which were considered impossible or difficult to understand is very low in relation to the total number of words in which errors were found. Despite this low number, some aspects of pronunciation intelligibility of the learners included in this study were revealed. They will be considered in each group of errors. A summary of the raters' responses is illustrated in Appendix 2.

Consonants

An interesting aspect was the way the two words 'the authors' (sample 13), pronounced as [də'ɔ'tərz], were understood. Each of these words had a consonantal error and the intention was to investigate the intelligibility of each error individually. However, the two words blended together were understood as 'daughters'. The use of [ə] instead of [i] in 'the' may have also contributed to this lack of intelligibility. The fact that the learner's intended words 'the authors' were heard as 'daughters' may suggest that it is not only the occurrence of an individual error which may lead to unintelligibility, but the blending of two or three errors in a sequence of two different words may be understood as a third word.

Another factor is the lack of aspiration in initial voiceless stops. This error type occurred eight times. Only one word containing this error was considered impossible to understand. It was 'people', pronounced as [pi:pəw], in 'interview people' (sample 23). In this word there was also another error: the use of [w] instead of /l/. This may suggest that lack of aspiration alone did not seem to be a source of unintelligibility for the raters included in this study. The same fact occurred with the use of [w] instead of /l/, which caused difficulties only when accompanied by other types of error in the same word. These errors were the lack of aspiration of /p/ in 'people' previously mentioned, and epenthesis in 'small', pronounced as [iz'məw] in 'small hotel' (sample 5) and in 'quiet and small place' (sample 19).

Vowels

Only two words containing a vowel error, [i] instead of /ɪ/, were considered impossible to understand because the raters heard them differently from the learners' intended words. They were: (1) 'living', pronounced as [liviŋ], which was heard as 'leaving' (sample 25); and (2) 'sit', pronounced as [sit], which was heard either as seat or as sleep (sample 31).

Only one word was considered difficult, [ɛ] instead of /æ/ in 'dad', pronounced as [dɛd], (sample 15). However, as the rater mentioned, moderate. Words with vowel errors, thus, did not seem to cause much difficulty to the raters.

Epenthesis

Although there were seven cases of epenthesis, none of them was judged as being impossible to understand. Two cases were considered difficult to understand and occurred in the word 'small', pronounced as [iz^hmɔw] (samples 5 and 19). In this word there was also voicing of the initial voiceless fricative /s/ and the use of [w] instead of /l/. These results may reveal two facts related to epenthesis intelligibility in this study. First, epenthesis alone did not seem to cause difficulty, since all the words which contained only an epenthesis error were considered intelligible. Second, since the voicing of the initial voiceless fricative in the cluster /sm/ occurred only in the word considered difficult to understand, it is possible to suggest that this voicing may be a factor which, when associated with epenthesis, may hinder intelligibility.

Word stress

The main finding regarding word stress errors is the high number of words which were considered impossible or difficult to understand. They were:

- (1) 'graduate' (sample 3) pronounced as [grɛdju^hɛɪt];
- (2) 'sometimes' (sample 11) pronounced as [sʌm^htʌɪmz];
- (3) 'efforts' (sample 14) pronounced as [ɛ^hfɔrts];
- (4) 'architecture' (sample 20) pronounced as [ɑrkɪtɛk^htʃɪ];
- (5) 'interview' (sample 23) pronounced as [ɪntɜ^hvju:].

A sixth word was heard differently from the learner's intended word: (6) 'museums', pronounced as [ˈmju:ziəms], was heard as musics (sample 30). Not only the stress error, but also the lack of voicing of the final fricative /s/ in 'museums' may have influenced this lack of intelligibility.

Out of seven words containing word stress errors, only one was considered intelligible. These results show that word stress errors seemed to be a strong source of unintelligibility.

The fact that the word 'museum', pronounced as [ˈmju:ziəms], was understood as 'musics' can be associated with results reported by Benrabah (1987, as cited by Benrabah, 1997). In his study, an Algerian speaker's pronunciation of 'forgot' and 'upset' was FORgot and UPset; these words were heard as 'forelock' and 'absent' respectively. Benrabah (1997 :161) explains that "natives as listeners tend to impose their interpretation based on their "aural expectancies" relying heavily on the stress pattern produced and totally disregarding segmental information". This imposition seemed to occur in the case of the word 'musics', since rater 3 even commented that there was a grammatical error in that word.

4.2.2. Which word(s) have you found to have a foreign accent? Could you explain why?

The words selected were those considered to have a foreign accent but which were not found to be difficult to understand. The foreign accent referred to is the Brazilian accent. Eight words containing five different types of errors were found. The errors include: (1) [t] for /θ/, in 'enthusiastic' [ɛnˈtu:ziəstɪk](sample 21); (2) [d] for /ð/, in 'mother' [ˈmʌðərs] (sample 22); (3) [ɛ] for /æ/, in 'bad' [bɛd] (sample 9); (4) [i] for /ɪ/, in 'rich' [ritʃ] (sample 4); and (5) epenthesis in 'spent' [isˈpɛnt] (sample 12). The words previously mentioned show that more than half of the errors were identified by the raters as a feature of foreign accent, but not of unintelligibility. This may support their claim in relation to their familiarity with the Brazilian accent.

4.2.3. Which word(s) has/have helped you understand another word?

The answers to this question have revealed the importance of the co-text⁴ for intelligibility.

There are five samples in which the co-text clearly helped to understand a word which contained errors. They are:

Consonants

- (1) [t] instead of /θ/ in 'I'm in the third [tɜ:rd] semester now', where 'semester' helped rater 1 to understand 'third';
- (2) [d] instead of /ð/ in 'I miss my mother's [mʌdərs] food', where 'I miss' helped rater 2 to understand the rest of the sentence;

Vowels

- (3) [ɛ] instead of /æ/ in 'when I visit my dad [dɛd]', where 'my' helped rater 2 to understand 'dad';

Epenthesis

- (4) Epenthesis in 'we spent [is|pɛnt] a lot of time', where 'a lot of time' helped rater 2 to understand 'spent';

Word stress

- (5) Word stress error in 'when I graduate [grɛdju|ɛɪt]', where 'when' helped rater 1 to understand 'graduate'.

However, the co-text also helped raters to hear words which are different from the learners' intended words. This happened with two types of errors.

The first was the use of the vowel [i] instead of /ɪ/ in two samples: (1) 'I like to go to a bar + sit with my friends and talk', where 'sit', pronounced as [sɪt], was understood as 'sleep'; and (2) 'at least where I'm living', where 'living', pronounced as [lɪvɪŋ], was understood as

⁴ Co-text refers to the elements which are linguistically present in the speech event (Jenkins, 2000 :81).

‘leaving’. ‘Sleep’ and ‘leaving’ make sense in the two samples mentioned. Rater 2 even laughed when judging sample (1). Rater 3, who answered the questions related to the two samples, commented that he had judged them on a 6-point scale as being easy to understand because of the way he had heard ‘sit’ and ‘living’.

The second was wrong word stress in ‘museums + theaters’, where ‘museums’ was understood as ‘musics’. The word ‘theaters’ helped this miscomprehension, since ‘music’ and ‘theaters’ are closely related.

4.3. Relationship between quantitative and qualitative results

Although ‘samples’ were the units of analysis in the quantitative analysis, whereas ‘words’ were the units in the qualitative analysis, it is possible to find three relationships between the results obtained in the two analyses.

The first has to do with word stress errors. This type of error was the only one found to be statistically significant. This fact can be supported and explained by the qualitative analyses, since six, out of seven words containing this error, were considered impossible or difficult to understand. This suggests that the high number of words with stress errors made the samples either unintelligible or difficult to understand. Word stress errors in this study, thus, reduced the intelligibility of native speakers who are familiar with the Brazilian accent. These results confirm Dalton & Seildhofer’s (1995 :39) claim that “incorrect word-stress decreases intelligibility – and may even lead to embarrassing misunderstandings”.

The second includes vowel errors. Although there were two words considered impossible to understand, ‘sit and living’, the samples in which they appeared received good scores. This may be explained by the co-text, which helped the comprehension of ‘sleep and leaving’ in the place of ‘sit and leaving’ respectively. This fact could not have been revealed by the quantitative analysis alone and may justify the need to include a qualitative analysis to supplement the quantitative one in studies on pronunciation intelligibility.

Finally, the third comprises the three types of errors – consonants, vowels and epenthesis – which were not found to be statistically significant. Although some words with these types of errors were considered difficult to understand, they did not seem to affect the intelligibility of the samples. This result may be explained by the fact that most of these errors were recognised as a feature of foreign accent, but not of unintelligibility.

5. Final remarks

This study is exploratory and the results here are limited and need further discussion. Despite this limitation, these results seem to point to one main aspect: out of the four segmental errors investigated, word stress errors in the speech of Brazilian learners may be a source of unintelligibility even to native speakers who are familiar with the Brazilian accent.

This aspect gives support to two suggestions for future research. First, to investigate the extent to which segmental errors in the speech of Brazilian learners of English affect their intelligibility to native speakers who are not familiar with the Brazilian accent. Second, since word stress signifies prominence on the suprasegmental level (Dalton & Seidlhofer, 1995), to investigate how far the occurrence, in the speech of Brazilian learners of English, of stress errors in prominent and non-prominent words affects these learners intelligibility to native speakers who are not familiar with the Brazilian accent.

Since intelligibility is considered a complex area due to the difficulties in measuring it precisely, it is hoped that more detailed studies in this area will follow. A better understanding of the pronunciation aspects which mostly affect Brazilian learners intelligibility to native speakers will be helpful to establish priorities in pronunciation teaching to Brazilians.

Enviado em: 05/2002. Aceito em: 02/2003.

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APPENDIX 1

Order of samples with errors as presented to the raters
(the symbol '+' stands for a short pause)

1. I'm in the third semester now
də tɜ:rd
2. My dad still lives there
dæd stiw livz dɜr
3. When I graduate
grædju'eɪt

4. If you're not rich
ritʃ
5. Small hotel
iz'mɔw həʊtəw
6. I like two kinds of music
tu: kaɪdz
7. Good theaters
'tɪətə's
8. For about twenty minutes (native speaker sample)
9. I have a bad memory
bəd
10. He's very smart
is'mɑ:rt
11. Sometimes I go to the beach
sʌm'taɪmz
12. We spent a lot of time
is'pɛnt
13. The authors of the + lyrics
də 'ɔ:tərz də
14. I have to make a lot of efforts
ɛ'fɔrts
15. When I visit my dad
'vɪzɪt dæd
16. Good place to live (native speaker sample)
17. And I thought it was strange
is'treɪndʒ
18. When I was six or seven years old
sɪks
19. Quiet and small place
kwaɪət iz'mɔw pleɪs
20. My favourite kind of architecture is the + contemporary one
kaɪnd ɑ:kɪtɛk'tʃə

21. I don't feel so enthusiastic
fiw ɛn'tuziɛstɪk
22. I miss my mother's food
mis 'mʌdərs
23. Interview people
intə'vju: 'pi:pəw
24. You need to read a lot (native speaker sample)
25. At least + where I'm living
livɪŋ
26. I go to + theaters
'tɪətə's
27. The American life + style
də is'taɪw
28. A very interesting movie
ɪntə'restɪŋ
29. The first time I didn't like here
də taɪm
30. Museums + theaters
'mju:ziəms 'tɪətə's
31. I like to go to a bar + sit with my friends and talk
sit
32. I'm good at Spanish
is'pæniʃ
33. Three years ago
tri:

APPENDIX 2
Summary of the raters' answers

Samples	Words impossible or difficult to understand	Words with a foreign accent	Words which helped to understand another word	Rater
small hotel	difficult – there was a sound before 'small'			1
the authors of the lyrics	impossible – 'the authors' sounds like 'daughters'			2
I miss my mother's food		'mother' sounded like 'muder' – but still clear enough – maybe because of context	No problem especially because 'I miss' helped with the rest of the sentence	2
I have to make a lot of efforts	impossible – 'efforts'	strange pronunciation especially on last word		2
I don't feel so enthusiastic		'enthusiastic' was pronounced without the 'th' sound – but still clear enough		2
when I visit my dad	moderate – 'dad'	'dad' – different vowel sound 'a' – closed sound		2
we spent a lot of time		spent – maybe 'cause it has a vowel sound at the beginning		3
at least where I'm living	impossible – 'living' (sounds 'leaving')			3
museums, theaters	impossible – 'museums' (sounded like 'musics')	'theaters'		3
I like to go to a bar, sit with my friends and talk	impossible – 'sit' (seat or sleep)			3