

Minimal pairs: are they suitable to illustrate meaning confusion derived from mispronunciation in Brazilian learners' English?

(Pares mínimos: são eles adequados para ilustrar as confusões de significado na pronúncia incorreta de aprendizes brasileiros de inglês?)

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ABSTRACT: This article is an attempt to answer the following question: are minimal pairs suitable to illustrate meaning confusion derived from mispronunciation in Brazilian learners' English? Insights to answer this question are provided on the basis of an analysis of empirical data which investigated the pronunciation intelligibility of Brazilian learners' English. On the basis of the results obtained, I suggest that it is not possible to make generalisations and state that minimal pairs are definitely not suitable to illustrate meaning confusion. However, I argue that the linguistic context, or any other variable which influences listeners' comprehension, would need to be included when minimal pairs are used to illustrate listeners' misunderstanding owing to Brazilian learners' mispronunciation.

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RESUMO: Este artigo tenciona responder a seguinte questão? Pares mínimos são apropriados para exemplificar má compreensão de palavras devido a desvios de pronúncia produzidos por aprendizes brasileiros de inglês? A fim de responder a essa questão, parte dos resultados obtidos em uma pesquisa que investigou a inteligibilidade da fala de aprendizes brasileiros de inglês é mostrada. Baseando-me nesses resultados, sugiro que não é possível fazer generalizações e afirmar que pares mínimos não são apropriados para exemplificar má compreensão de palavras. Argumento, no entanto, que o contexto lingüístico, ou qualquer outra variável que possa influenciar a compreensão de ouvintes, deve ser incluído quando pares mínimos são utilizados para exemplificar a má compreensão resultante de desvios de pronúncia produzidos por aprendizes brasileiros de inglês.

KEY-WORDS: minimal pairs, mispronunciation, meaning confusion.

PALAVRAS-CHAVE: pares mínimos, desvio de pronúncia, má compreensão.

INTRODUCTION

A minimal pair is “a pair of words which differ in lexical meaning based on a difference in one sound” (Pennington, 1999, p.24). One example for English is the pair *three* and *tree*, where the distinguishing sounds are /θ/ and /t/.

Minimal pairs are used to illustrate meaning confusion of particular words as a result of Brazilian learners’ mispronunciation of English sounds. In presenting the pronunciation difficulties that Brazilian learners are likely to have, Lieff & Nunes (1993), for instance, mention pairs of

words, which, according to them, may not be distinct if Brazilian learners do not pronounce consonants correctly. Two pairs of consonants are mentioned. The first refers to the pronunciation of the consonant /h/ instead of /r/. According to Lief & Nunes (1993) the words *hat* and *rat* may not be distinct if the sound /r/ is not pronounced as such. The other pair is the pronunciation of the initial consonants /p/ and /b/ in the words *pill* and *bill*. If the initial consonant of *pill* is not aspirated, the opposition between *pill* and *bill* is likely to be unclear. As with consonants, Lief & Nunes (1993) use minimal pairs to exemplify meaning confusions due to Brazilian learners' mispronunciation of vowels. One of the confusions is between the minimal pair *live* and *leave*, which is likely to occur if /i:/ is pronounced instead of /ɪ/ in the word *live*.

Mascherpe (1970), when comparing the English and the Portuguese consonant and vowel sound systems, also uses minimal pairs to exemplify meaning confusion owing to Brazilian learners' mispronunciation of vowels. Two pairs are mentioned. The first is /i/ instead of /ɪ/ in the word *ship*, which, according to him, may cause the neutralisation of the phonological contrast existing between the pairs *sheep* and *ship*. The second is /u/ pronounced instead of /ʊ/ in *full*, making the meaning contrast of the pairs *fool* and *full* neutralised.

Baptista (2001), when presenting features of the American English sound system which are most problematic for Brazilian learners, focuses on the consonants /t/ and /d/ before /i/ pronounced as /tʃ/ and /dʒ/. She claims that there is likely to be meaning confusion between the words *deep* and *jeep*.

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A final example on the use of minimal pairs to illustrate meaning confusion involves the following personal experience: I once heard a teacher stating that as she had heard one of her Brazilian students pronouncing [tʃi:] instead of [θʃi:] when informing his telephone number, she drew a tree on the board instead of the number three. Her intention was to show that the learner's mispronunciation of *three* would cause misunderstanding.

The authors' and the teacher's observations previously presented led me to raise the following questions: Is that really the case? What are really the chances of misunderstandings if a learner pronounces *three* as [tʃi:] instead of [θʃi:]? or *live* as [li:v] instead of [lɪv]? or, in short, as the question I posed in the title: Are minimal pairs really suitable to illustrate meaning confusion derived from mispronunciation in Brazilian learners' English?

As an attempt to provide insights to answer this question, I present an analysis of part of empirical data derived from a study (Cruz, 2004) which investigated the pronunciation intelligibility in spontaneous speech of Brazilian learners' English. The objective of the study was to find the extent to which features of mispronunciation in the speech of Brazilian learners of English affected their intelligibility to British listeners. The method and the analysis of part of empirical data are presented in the next sections.

THE STUDY

Method

Ten Brazilian learners of English, with varying English proficiency levels, enrolled in the extracurricular

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courses at UFSC¹ (Federal University of Santa Catarina) were interviewed by an Englishman. Thirty samples containing features of mispronunciation were selected from the learner data, and presented to 25 British listeners living in Birmingham, England. The listeners were unfamiliar with the way Brazilians pronounce English words. Out of the 30 samples selected, 5 contained words which form minimal pairs. The listeners heard the samples once, and were asked to carry out tasks. In one of the tasks, they were required to write down what they had heard. The analysis and discussion here focuses on the listeners' orthographic transcriptions of the 5 samples containing words which form minimal pairs.

Listeners' recognition of words forming minimal pairs

The words produced by the Brazilian learners which form minimal pairs were *live*, *sit* and *three*. *Live* and *sit* were pronounced with /i/ – [liv] and [sit] – instead of with /ɪ/, and *three* with /t/ – [tɪi] – instead of with /θ/. The front vowel [i] can be considered as close to /i:/, which forms a minimal pair with /ɪ/. Both /i:/ and /ɪ/ distinguish words such as *leave* and *live*, *seat* and *sit*. The consonants /t/ and /θ/, in a minimal pair, also distinguish words such as *tree* and *three* (as exemplified in the introduction). Owing to the distinctive value of the pair of phonemes /i:/ – /ɪ/ and /t/ – /θ/ in the minimal pairs previously mentioned, it could be predicted that the listeners would be confused and write the learners' intended words *live*, *sit* and *three* as *leave*, *seat* and

¹ Extracurricular courses are open access language courses offered by UFSC. Each English level course lasts one semester, and includes three hours per week.

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tree. The analysis of the listeners' recognition of the words *live*, *sit* and *three* are discussed in separate sections.

[i] in *live* and *sit*

Live occurred once in two samples: "it's a good place to live" [itsagudp̄leistu//v] and "they said that I'm very old to live with my parents" [deisɛd̄d̄et̄əime:v̄ɛ.ioudtu//v widmaɪ'p̄ɛj̄ɛts], and twice in the sample "my sister came to live with me, I had to learn how to live with her" [maɪ'sist̄ə k̄h̄eimtu//v wɪt̄miəih̄ɛdtul̄ɜ̄ nhautu//v wɪth̄ɜ̄]. As can be seen, this word was pronounced with the vowel /i/ instead of with /ɪ/ 3 times. The listeners' orthographic transcriptions showed that the word *live* pronounced with /i/ was not written as *leave* in any of its occurrences.

A tentative explanation for the lack of the probable confusion in the sample "it's a good place to live" is the influence of the linguistic context². The word *live* is preceded by the words *a good place*, and the sequence of words *it's a good place to live* seems to make more sense than *it's a good place to leave*. A search in the Cobuild Corpus, the Bank of English³, specifically in the spoken language corpo-

² The term 'linguistic context' used here follows Catford (1950). According to him, the linguistic context of a given form consists of its surrounding words. It is distinguished from 'situational context' which involves extralinguistic features, such as speaker's gestures and other aspects of discourse. Catford's 'linguistic context' is similar to 'co-text' used by Jenkins (2000, p. 81).

³ In order to collect data with the British listeners, I spent one year as a Visitor student at the University of Birmingham, England. During this time, I was given access to the full Bank of English corpus. This is a general corpus including spoken and written language from Britain, US, Canada and Australia. At the time of my search, it comprised 450 million words.

ra such as US spoken, UK spoken, BBC radio and US public radio, support this argument. There are no instances of *place to leave* in the four corpora. Instances of *place to live* are found, preceded by *a normal, a lovely, a quiet, a good, a better*, and so on. Since occurrences of *leave* preceded by *place to* are likely to be rare, the listeners might have compensated for the learner's mispronunciation, the vowel /i / instead of /I /, and, on the basis of their knowledge of the language, wrote the correct word. An important aspect regarded as also contributing to this is, obviously, the listeners' correct recognition of the words surrounding *live*.

Unlike in the sample "it's a good place to live", the word *leave* instead of *live* in the remaining two samples makes sense. One could perfectly well say *my sister came to live with me, I had to learn how to leave with her, and they said that I'm very old to leave with my parents*. A search in the spoken language corpora of the Bank of English confirms this, since 4 instances of the verb *leave* followed by *with*, in the sense of *going out* are found in the four spoken language corpora. The occurrences include *leave with him tomorrow, with him later, with them and face the risks*, and so on. Though these expressions exist in the English spoken language, and are, thus, part of the listeners' lexicon, the listeners recognised *live* [liv] correctly. The occurrence of *live*, pronounced as [Iv], when uttered for the first time in the sample "my sister came to live with me I had to learn how to live with her" [maɪ'sɪstə kʰeɪmtu/Iv wɪtmɪaɪhɛdtulɜ nhautu/Iv wɪthɜ], might have given the listeners a clue.

Sit pronounced as [sit] occurred in the sample "just sit and talk with friends", [dʒʌstə sɪt ɛntʰɔkwɪfɹɛs]. None of the listeners wrote *seat* instead of *sit*. A tentative explanation for the lack of the probable confusion between *sit* and

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seat is also the influence of the linguistic context. The sequence of words *just seat and talk with friends* does not seem meaningful. Since no instances of *seat* preceded by *just*, and followed by *and talk* was found in the 4 spoken language corpora of the Cobuild Corpus, this sequence can be confirmed as likely to be meaningless. As with the occurrence of the word *live* previously discussed, the listeners might have compensated for the mispronunciation in *sit*, the vowel /i / instead of /ɪ /, and on the basis of their knowledge of the language, wrote the correct word. The listener's correct recognition of the words surrounding *sit* is also likely to have contributed.

[t] in three

Three, pronounced as [tʰi], occurred in the sample “I had three dogs and the first” [aɪhæd tʰi dɔgzəndəfəst]. None of the listeners wrote it as *tree*: twenty-three wrote *three*, 1 left the space blank, and 1 wrote “*I had a trade off in the first*”. The sequence of words “*I had tree dogs and the first*” is, obviously meaningless, and a search in the Cobuild Corpus, as an attempt to confirm this, was regarded as unnecessary. An interesting aspect was the unexpected recognition of *trade off*. This expression was certainly written to take the place of “*three dogs*” [tʰi dɔgz], and the pronunciation of the consonant /t / instead of / θ / is likely to have influenced this listener's perception. However, the words *trade off* do not form a minimal pair with *three*.

FINAL CONSIDERATIONS

This article was an attempt to answer the following question: are minimal pairs suitable to illustrate meaning

confusion derived from mispronunciation in Brazilian learners' English? It is now appropriate to provide an answer to this question, which actually focused the objective of this article.

The analysis of the British listeners' recognition of the 5 samples previously shown revealed that none of the words which form minimal pairs caused the predicting misunderstandings. Then, if this analysis alone were considered, the answer to the question previously posed would be negative. However, since the data analysed included 5 samples only, it is not possible to make generalisations and argue that minimal pairs are definitely not suitable to illustrate meaning confusion. On the basis of the results obtained, though, it can be argued that the linguistic context, or any other variable which influences listeners' understanding, need to be included when minimal pairs are used to illustrate possible meaning confusion. Learners should be made aware of the influence of such a context, as it may disambiguate pairs of words likely to be confused.

The authors' and the teacher's statements previously mentioned are, in my view, valuable in opening an investigation on the pronunciation intelligibility of Brazilian learners. However, they cannot be taken as definitive statements. Their generalisability can be called into question, since the minimal pairs used to exemplify possible misunderstandings are all focused on in isolation from a context. There is a glaring absence consideration of how far neighbouring words can facilitate the listeners' correct understanding of mispronounced words. Owing to this, there is no guarantee that Brazilian learners' mispronunciation of sounds in words which form minimal pairs lead to confusion in understanding. This lack of guarantee is supported by the analysis of the 5 samples previously presented.

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