

Prosodic Cues in Brazilian Portuguese Second Language Learners

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Introduction

We investigate the role of prosody in L2 processing. Our focus is on the influence of phonological phrase boundary cues on syntactic parsing by BP L2 learners in lexical ambiguity tasks.

Dekydtspotter et al. (2008) and Liljestr nd Fultz (2008) argue that L2 learners are able to use prosody successfully, at least on certain ambiguity types (e.g., in lexical and PP structural ambiguities).

As French speakers (Millotte et al., 2007), BP native speakers produced different prosodic patterns when reading ambiguous words (adjective or verb) in different syntactic structures (Experiment 1). We compare BP native speakers' and BP L2 learners' responses when asked to complete the auditory ambiguous sentences that were cut just after the ambiguous words (Experiment 2).

Experiment 1

Participants: 10 adult BP native speakers (undergraduates)

Material: 8 pairs of sentences adjective/verb homophones:

ADJ:

[Eu acho]ϕ [que a **menina LIMPA**]ϕ [toma banhos]ϕ [muito longos]

[I think]ϕ [that the girl clean]ϕ [takes showers]ϕ [too long]

(I think the clean girl takes showers that are too long)

V:

[Eu acho]ϕ [que a **menina**]ϕ [**LIMPA** todos os c modos]ϕ [da casa].

[I think]ϕ [that the girl]ϕ [cleans all the rooms]ϕ [of the house]

(I think the girl cleans all the rooms of the house)

Procedure: Production (reading) task

Results

BP native speakers produced different prosodic patterns. When the target word was an adjective, in the left edge of the phonological phrase boundary ([a menina limpa]ϕ), its rhyme was longer than on the V-condition ([a menina]ϕ [limpa...]) (486ms vs. 357ms; $t(39)= 8.97$, $p<.001$).

In this condition, the noun was in the left edge of the boundary and its rhyme was longer than in the A-condition (404ms vs. 357ms; $t(39)=2.86$, $p<.01$).

Experiment 2

Participants:

- 36 adult BP native speakers
- 14 adult BP L2 learners (intermediate level; native languages: English, Japanese, German, Spanish, French)

Material: The same sentences, cut just after the ambiguous word:

ADJ: [Eu acho]φ [que a **menina LIMPA**]φ
 [I think]φ [that the girl clean]φ
 (*I think the clean girl*)

V: [Eu acho]φ [que a **menina**]φ [**LIMPA**]φ
 [I think]φ [that the girl]φ [cleans]φ
 (*I think the girl cleans*)

Procedure: Completion task

Results

BP native speakers gave more verb responses ($t(35)= 9.97, p<.0001$) in the V-condition and more adjective responses in the A-condition ($t(35)= 10.97, p<.0001$). **BP L2 learners** considered the ambiguous word as a verb in almost all the sentences in both V- ($t(13)= 9.14, p<.0001$) and A-conditions ($t(13)= 4.01, p=.001$).

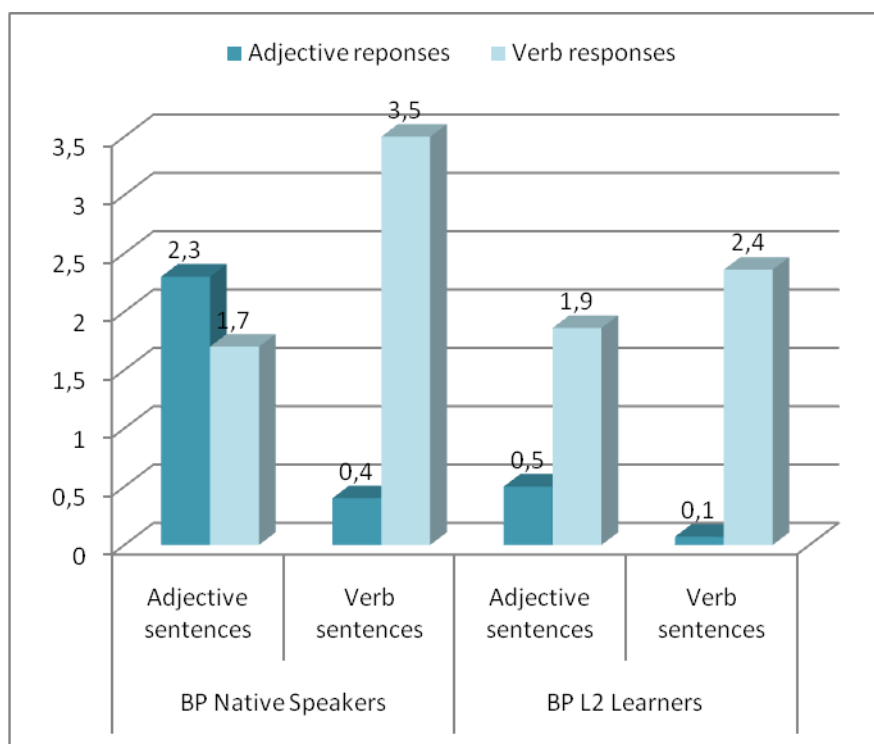


Figure 1 - Mean number of adjective and verb responses given to adjective and verb sentences – BP native speakers vs. BP L2 learners (out of 4 possible responses for each sentence type)

Conclusion

BP native listeners were able to use phonological phrase boundary cues to decide if an ambiguous word is a verb or an adjective, but BP L2 listeners were not. They were unable to use prosodic cues to disambiguate the sentences.

Vocabulary tests checked whether the ambiguous words were known both as verbs and adjectives for all the subjects. We also certificated that foreign participants knew the N-ADJ BP order. It seems that they used an order strategy (SVO) to complete the sentences.

Our results suggest that a weaker grasp of BP prosodic cues perception may make it difficult for foreign speakers to parse ambiguous sentences. Thus, our results support that prosodic knowledge seems to be as crucial as lexicon and syntactic knowledge in second language learning.

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