

Quantified Phrases in Brazilian Portuguese: Preliminary Experimental Results

In this paper, we report the results of a Self-Paced Reading (SPR) task followed by a Quantity Judgment task (QJT) for quantifiers phrases in Brazilian Portuguese (BrP). Pires de Oliveira (2019, 2020) argues that there is a mismatching between the quantifiers in English and in BrP; they do not show the same distribution nor the same interpretation. In English ‘many’, the plural quantifier, only combines with plural count nouns, and ‘much’, the singular quantifier, only combines with mass nouns (Chierchia 1998). In BrP, ‘muito’, the singular quantifier, combines both with mass and count nouns, and ‘muitos’ only combines with plural count nouns. This asymmetry in the grammars parallels a difference in the interpretation of the count singular quantifier. In English, it is massified, and it takes longer to be processed (Frisson & Frazier, 2005). Experimental results on ‘muito’ and count nouns (Bevilaqua, 2015) show that they engender volume and cardinal readings. Moreover, we do not predict processing cost with this noun phrase.

In our study, the independent variables are noun (mass/count) and quantifier (singular/plural). The dependent variables are: the interpretation of the target nouns, the response time, and the time to process the critical area (the quantifier, the noun, and the following up segment):

1. a) A motorista tomou muita multa em Praga. S+C
the.F driver.F took much/many fine in Praga
'The driver got many fines in Praga.' or 'The driver got a huge fine in Praga.'
- b) A motorista tomou muitas multas em Praga. P+C
the.F driver.F took many fines in Praga.
'The driver got many fines in Praga.'
- c) A motorista tomou muita chuva em Praga. S+M
the.F driver.F took much/many rain in Praga.
'The driver got a lot of rain.'
- d) A motorista tomou muitas chuvas em Praga. P+M
the.F driver.F took many rains in Praga.
'The driver got several rain events.'

Our hypotheses are: (i) the count singular quantifier, in (1a), is interpreted by volume or by cardinal (Bevilaqua, 2015) and does not involve additional processing time; (ii) the combination of plural quantifier and mass noun will be penalized, showing a case of coercion, and the answer will be the cardinal interpretation. Our preliminary results with native speakers of BrP align with the underspecification hypothesis (Pires de Oliveira, 2019, 2020). The only SPR results that reveal a statistically significant interaction in reading times is the comparison between plural quantifier and mass noun being significantly slower when compared to singular quantifier and mass noun. The results for the other conditions were not statistically significant. Regarding the QJT, the count singular quantifier did not exhibit a statistically significant preference for interpretation in terms of volume or cardinality. Thus, we interpret the data as supporting the underspecification hypothesis.

The data also reveals a significant contribution to the discussion on bare nouns. It demonstrates a distinct interpretation and processing of bare nouns when compared to English bare nouns. It gives support to Lima's (2019) finding for BrP that contrast with Frisson and Frazier's (2005) data on English, where bare singular nouns undergo additional processing cost and are coerced to mass.

References

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