

Frequency effects in -ão plural formation in Brazilian Portuguese

This paper addresses the role of frequency effects in plural formation in nouns ending in -ão in Brazilian Portuguese (henceforth BP). It intends to address the role of frequency effects as suggested by Exemplar Models. Nouns that end in (ão) in the singular may have three different plural formation: (mão+s) > (mãos) 'hands'; (pão+s) > (pães) 'bread (pl)' and (leão+s) > (leões) 'lions'. The plural form (mão+s) > (mãos) would fall into the regular plural formation which adds (-s) to the nouns in the plural: (kaza+s) > (kazas) 'house'. The other two alternatives (ão) > (ães) and (ão+s) > (ões) are considered irregular plural formation. There are etymological reasons for the plural choices in ão-words, however in current language use speakers have no indication as to which form should be chosen for the plural. There is evidence that plural formation for -ão words is lexical (HUBACK 2011). As some words are more recurrent than others one expects that speakers will know the plural form for frequently used words. However, in rarely used words speakers have no clue to rely on and will have to make a choice between the three possible plural formation for -ão words. A question to be posited is which pattern is favoured in the plural formation in -ão words in BP: the general regular pattern which adds (s) to a noun or the most frequent pattern for plural formation amongst -ão words which is (ão+s) > (ões)? In order to address this question, we considered cross-sectional data from 40 children aged 3-7 years old. We designed an experiment that comprised BP nouns and nonce words. Nouns were grouped as low and high frequency ones. We posited the hypothesis that frequency effect is crucial for speakers' choice in the plural of ão-words in BP. Results showed that the expected plural and the realized plural were realized with 76.5% for (ão+s) > (ões); 50.9% for (ão+s) > (ães) and 39.1% for (ão+s) > (ães). This shows that the most frequent pattern for plural formation amongst -ão words which is (ão+s) > (ões) presented the expected result at higher rates (76.5%) when compared with the other two options for plural formation (cf. Figure 1). We suggest that this result reflects the preference of speakers for the higher frequency count words amongst all the three options for plural formation. When plural formation is grouped by low and high frequency count one observes that low frequency words tend to receive (ão+s) > (ões) as the choice for plural (58.2%) (cf. Figure 2). We suggest that this result indicates that children prefer the pattern of plural for -ão words which is the most frequent one, i.e., which has the higher frequency: (-ões). Finally, when the plural formation is considered for nonce words results show that the pattern (ão+s) > (ões) is the most favoured choice for plural (70.8%) (cf. Figure 3). Our results indicate that the highest frequency count for plural formation in -ão words in BP, i.e. (ão+s) > (ões), is favoured amongst the three possible options. It is also observed that children presented the same behavior observed for adults (HUBACK 2011). When speakers know the plural form, usually for high frequency words, they tend to use the expected one. Our results show that for low frequency words and nonce words speakers tend to favour the most frequent pattern for plural formation amongst -ão words which is (ão+s) > (ões) rather than the general regular pattern which adds (s) to a noun. Our results are in accordance with Exemplar Models proposal that assume the role of frequency effects in shapping representations (BYBEE 2001, 2010; JOHNSON 1997, PIERREHUMBERT 2001). Besides providing evidence for frequency effects in plural formation in BP our results contribute to the debate on how irregular morphology is processed (MARCUS 2000; STEMBERG, MACWHINNEY 1986).

Figure 1. Plural forms per expected plural

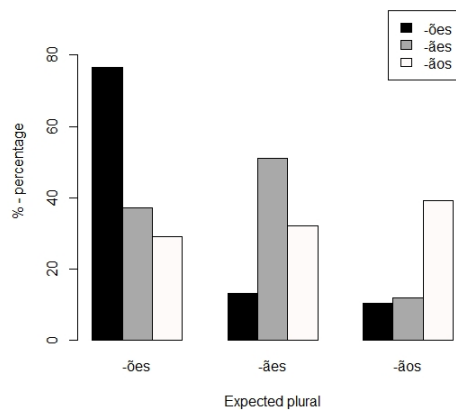


Figure 2. Plural forms per word frequency

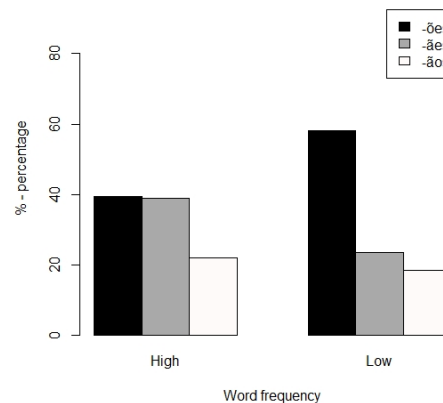
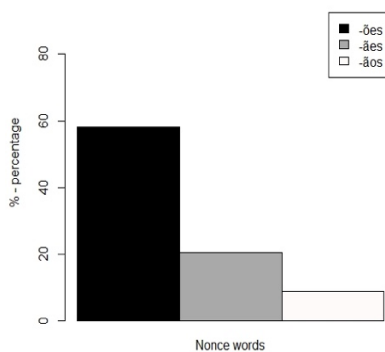


Figure 3. Plural forms in Nonce word test



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