Degree Constructions in Brazilian Portuguese and in Karitiana: a challenge to universal parameters

This paper focuses on degree constructions in two languages: Brazilian Portuguese (BP) and Karitiana (spoken in Brazil, Tupi-Arikén). Its main goal is to discuss some data from degree construction in both languages that pose a challenge to the generalizations proposed by Beck et al. 2009 on comparative constructions in 14 languages. More specifically, facts of Portuguese and Karitiana challenge the description of the degree phrase expression parameter ([± DegPP]). This parameter concerns the possibility of saturation of the degree variable presented in constructions that involve an predicate combining with a syntactic element that is characterized as a DegP. A language has a positive value for this parameter if it has: (i) measure phrases directed applied to adjectives – of type 5 cm tall; (ii) sub-comparatives – of type x is taller than y is wide; and (iii) degree questions – like how smart?. Those are all constructions that involve a saturation of adjectives degree variables. English for example has a positive value for this parameter. Languages like Japanese, Russian and Turkish that do not have these constructions have a negative value for the parameter. According to the discussion in the literature the [± DegPP] parameter has not been challenged before (Bochnak 2013).

Brazilian Portuguese, however, does not have a homogeneous distribution regarding these properties. Measure phrases cannot be directly applied to adjectives in BP (1a). If one wants to specify how tall is João s/he must use the property dimension altura 'height' (1b).

(1) a. *O João é 2m alto. b. O João tem 2m de altura.
the João is 2m tall.MASC the João has 2m of height
Intended: 'João is 2m tall.' 'João is 2m tall.'

Nevertheless, sub-comparatives are allowed in the language (2).

(2) Esta estante é mais alta do que aquela porta é larga.
This shelf is more tall than WH that door is large
'This shelf is taller than that door is large'

The third property associated to the [± DegPP] parameter has a variable behavior in BP. Degree questions of the kind how tall? can be uttered only in the formal variant of the language (3a). The colloquial version has the dimension altura 'height' (3b).

(3) a. Quão alto é o João? b. Qual é a altura do João?
wh tall is the João wh is the height of João
'How tall is João?' 'How tall is João?'

Karitiana also presents challenges for the proposal in Beck et al. 2009: it displays only one of the three characteristics associated with the [± DegPP] parameter: the use of sentences with measure phrases (4).

(4) João Ø-na-aka-t i-ty-t sypom-t metro-t.
João 3-DECL-COP-NFUT PART-tall-ABS two-OBL meter-OBL
'João is two meters tall'

Sentences with sub-comparatives (5) and degree questions (6a) are not possible in the language. Similarly to BP, if one wants to ask about how tall is João s/he needs to use the property dimension tybidn 'height' (6b).

(5) *Funai karama Ø-na-aka-t Associação karama ohynym i-aka-t pyodyt.
Funai door 3-DECL-COP-NFUT Associação door taller 3-COP-NFUT large
Intended: 'Funai’s door is taller than Associação’s door is large'.
   WH COP João tall         WH COP João altura
   Intended: 'How tall is João?'  'How tall is João?'

The properties presented are summarized below:

<table>
<thead>
<tr>
<th>Languages</th>
<th>Measure Phrase</th>
<th>Sub-comparative</th>
<th>Degree Question</th>
<th>Parameter [± DegPP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Japanese</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Brazilian Portuguese</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>?</td>
</tr>
<tr>
<td>Karitiana</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>?</td>
</tr>
</tbody>
</table>

The goal of this paper is to discuss one possible solution for this puzzle. As the table shows, the data from BP and Karitiana suggests that the measure phrase property can behave independently of the others in some languages. Therefore the [± DegPP] can be divided in two sub-parameter: one regarding the measure phrase and one associated with sub-comparatives and degree questions.

One way to account for this division is by considering that when measure phrases apply directly to adjectives they do not saturate the degree variable in the same way as when we have a sub-comparative and a degree question. Therefore with the changes proposed it is possible to accommodate BP and Karitiana facts in this parameter description.

References