Information structure and the pragmatics of three verbal negation constructions in Brazilian Portuguese

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Introduction

- Verbal negation is a morphosyntactic operation in which a negative operator keeps a scope relation with the verb, reversing the truth value of the sentence.
- The verbal negation system in Brazilian Portuguese (BP) portrays three forms:
  - Preverbal:
    (1) bfamdl02
    *BAL: [116] lembre-se que você não pode ficar meneando hhh //  
      Remember that you cannot keep wagging
  - Double:
    (2) bfamdl16
    *CRI: [237] eu / até que o rosto / eu não esqueço não //  
      I / in what regards the face / I do not forget (it) //
  - Postverbal:
    (3) bfamcv05:
    *CAR: [410] parei não / ué //  
      I didn’t stop / see //
BP verbal negation construction characteristics

• Taking into account the previous examples, it is possible to identify three verbal negation constructions in Brazilian Portuguese:

  1. \([\text{Neg} \text{ V}]\)  2. \([\text{Neg} \text{ V} \text{ Neg}]\)  3. \([\text{V} \text{ Neg}]\)

• These constructions are **complex**, because they are formed by subparts, namely, the negative adverb, the verb and eventually the subject, objects, adjuncts, etc. They can occur in various kinds of clause types, such as main clause, subordinate clause, existential clause, etc.

• They are **schematic**, because they consist of an organized syntactic pattern in which there are slots to be fulfilled. In some theoretical approaches, these constructions can be represented as a phrase ‘NegP’ similarly to other schematic constructions consisting of phrases like VP, PP, etc.

• They are **procedural**, because they consist of an abstract grammatical operation that affects the meaning of its parts.
Principle of *No Synonymy* and the three BP verbal negation constructions

• According to Goldberg (1995), “two constructions must not be P(ragmatically)-synonymous; that is, the semantic synonymy between them implies a pragmatic difference” (GOLDBERG, 1995, p. 91).

• Taking into account the *No Synonymy Principle* as proposed by Goldberg (1995), the three verbal negation constructions must convey pragmatic differences in their usage, since they are absolutely synonymous in what regards their semantic properties.

• Our hypothesis is that the difference found in the three verbal negation constructions in Brazilian Portuguese can be accounted for by considering the information structure of the utterances in which they occur, as well as considering other pragmatic and textual factors that can intervene in their distribution.
Goals of this research

• Map the utterances which present verbal negation in C-ORAL-BRASIL corpus (RASO & MELLO, 2012).

• Test our hypothesis which connects the verbal negation constructions to the Principle of No Synonymy (GOLDBERG, 1995) considering the information status of these constructions.

• Characterize verbal negation in BP according to the data extracted from the corpus.
Construction Grammar and speech studies

• Although there is a tradition by Construction Grammarians to study constructions through introspective data, other methodological devices have been developed in order to test and refine Construction Grammar theories, and corpus-based approaches play a major role in this development. (cf. GRIES, 2013).

• The interest for spontaneous speech data by Construction Grammarians has increased over the years and studies carried on this kind of data are found in the literature, especially on pragmatic markers (cf. FRIED & ÖSTMAN, 2005; FISCHER, 2010).
Language into Act Theory

• The Language into Act Theory (LAcT) is a corpus-driven theory, stemming from the study of spontaneous speech corpora on the main Romance languages of Europe (CRESTI & MONEGLIA, 2005)

• This theory establishes the utterance as the reference unit of speech - it is considered as the smallest autonomous and pragmatically interpretable unit of speech.
Language into Act Theory

• For LAcT, in each utterance an illocution or a speech act is accomplished (AUSTIN, 1962).
• The utterance is simple if it has only one tonal unit:
  afamdl01:
  *FRE: [40] yeah \=COM=  
• When it has more than one tonal unit it is considered a complex utterance:
  afamdl01:
  *RIC: [75] once I get my experience \=TOP= I’ll be up there too \=COB= in the top four salesman \=COM=  

The Language into Act Theory

• Prosodic breaks delimit the utterance as well as its internal units which are tonal units in the prosodic level and informational units in the pragmatic level. Thus, there is a correlation between tonal unit and informational unit or between prosodic level and pragmatic level.

• The informational unit that carries the illocutionary force of the utterance is the Comment (COM) and all other informational units are distributed around it.
Language into Act Theory

- Textual informational units are units that build and compose the text, they are Comment (COM), Appendix of Comment (APC), Topic (TOP), Appendix of Topic (APT), Parenthetical (PAR), Locutive Introducer (INT) Multiple Comment (CMM) and Bound Comment (COB). Each information unit is identifiable through prosodic parameters.

- There are also dialogic units, traditionally known as Discourse Markers, that will not be explored in this presentation, because they do not affect verbal negation phenomena.

- The examples of these units we are going to show were extracted from The Santa Barbara Corpus of Spoken American English (DU BOIS et al. 2000-2005) prosodically segmented and informationally annotated by Ramos & Cavalcante (forthcoming).
Information units examples

- **Comment (COM)**: Accomplishes the illocutionary force of the utterance. It is necessary and sufficient for the performance of the utterance.
  - afamdl02: [182] learn //COM=

- **Topic (TOP)**: Identifies the domain of application for the illocutionary act expressed by the Comment, allowing a cognitive reference for the speech act.
  - afammn02: [115] this fellow LeRoy Neiman //TOP= over here //COM=

- **Appendix of Comment (APC)**: Integrates the text of the Comment and concludes the utterance.
  - afammn01: [3] dad //COM= you know //AUX= has done some of it //APC=


Information units examples

• **Appendix of Topic (APT):** Gives a delayed integration of the information given in the topic.

  afamdl02: [53] the thing I know most \(=\text{TOP}=\) about life and death \(=\text{APT}=\) come from \[1\] from my grandmother \(=\text{COM}=\)

• **Parenthesis (PAR):** Inserts information into the utterance with a metalinguistic value, having backward or forward scope.

  afamcv01: [17] \(<\text{this is a town}>\) \(=\text{EMP}=\) there is a town right around here \(=\text{COB}=\) that it still has a zocalo \(=\text{COB}=\) *it's built around a zocalo* \(=\text{PAR}=\) you were telling me \(<\text{about that}>\) \(=\text{COM}=\)

• **Locutive Introducer (INT):** Expresses the evidence status of the subsequent locutive space.

  afammn04: [147] \(=\text{INT}=\) get out of that relationship \(=\text{CMM}_r=\) before you have children \(=\text{CMM}_r=\)
Information units examples

• **Multiple Comment (CMM):** Constitutes a chain of Comments which form an illocutionary pattern.

  - afammn03: [140] *today you're gonna act like a human/=CMM_r= you got that /=CMM_r=

• **Bound Comment (COB):** A sequence of Comments, which are produced by progressive adjunctions that follow the flow of thought.

  - afammn01: [17] *<and> then /=AUX= so we had to know these tendons and ligaments /=COB= and then /=AUX= all the bones /=COB= and /=AUX= you know /=AUX= all the way up from the shoulder down /=COB= and then from the hip down /=COM=
C-ORAL-BRASIL corpus

- C-ORAL-BRASIL (RASO & MELLO, 2012) is a reference speech corpus of informal spoken BP built taking into account LAcT theory (CRESTI, 2000).
- The corpus consists of 139 texts divided between public and private/familiar contexts as well as among interactional types, such as conversations, dialogues and monologues.
- The C-ORAL-BRASIL corpus contains text-sound alignment which can be manipulated through Winpitch software (MARTIN, 2011).
C-ORAL-BRASIL corpus

• The corpus is segmented in tonal units. These units are bound by prosodic breaks perceived as terminal and non-terminal.

• Prosodic breaks perceived as terminal indicate the end of the utterance, whereas prosodic breaks perceived as non-terminal indicate the internal units of the utterance.

• The segmentation of the corpus was validated through Kappa statistical testing (FLEISS, 1971), reaching the value 0.86.
Methodology

• Using the DBCoM platform (MELLO, in preparation) the utterances that contain verbal negation were extracted.
• Each utterance audio was examined, having its information status perceptually evaluated, also taking into account the segmentation validated statistically by the Kappa test.
As previously pointed out in several sociolinguistic studies, the distribution of verbal negation in the C-ORAL-BRASIL corpus follows the expected pattern of having the pre-verbal type as dominant, followed by double negation and lastly by a small number of post-verbal negation.
Prosodic-informational constraint

- Neg V in TOP:
  bfamcv03
  *TON: [41] é /=EXP= se o meu pai também nũ tivesse morrido /=TOP= tava vivo /=COB= tava com noventa-e-seis ano /=COM= 

- Neg V in PAR:
  bfamcv03
  *TON: [243] <dí licença um> pouquinho /=COB= enquanto cê nũ tá jogando /=PAR= que cê [/1]=SCA= ninguém güenta esse cu seu não /=COM= 

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Prosodic-informational constraint

• Neg V in INT:
  bfamcv04
  *BRU: [175] <se for> /=SCA= um passarinho /=TOP= cê nũ pode fazer
  /=INT= hhh /=COM= 

• Neg V in APC:
  bfamdl04
  *SIL [16]: pode ser o creme /=COM= que nũ deu certo com ele
  //=APC=  

Prosodic-informational constraint

- Neg V in APT:
  bfamdl14
  *CAR: [213] ela dá aquela raspadinha de seis números / cinco número / ou seja se cê nũ / destacar /=TOP= e não conseguir ganhar o prêmio eles te dão /=APT= acho que cem reais / <uma coisa assim> //
- Neg V in COM:
  bfamcv01
  *LUI: [7] <com certeza es nũ vão participar /=COM= uai> //=PHA=
Prosodic-informational constraint

• Neg V in CMM:
  bfamcv01
  *EVN: [50] ô /=EXP= mas tem outros lugares /=CMM= o negócio é que a gente não procurou /=CMM=

• Neg V in COB:
  bfammn02
  *DFL: [57] e ele então nũ teve /=COB= uma escola // =COM=
Prosodic-informational constraint

- Neg V Neg in COM:
  bfamcv02
  *RUT: [91] eu nũ quero não //</COM>

- Neg V Neg in CMM:
  bfamcv02
  *RUT: [382] não //</CMM> nũ é encontro no seu Antônio de <Assis>
  não //</CMM>

- Neg V Neg in COB:
  bfammn01
  *MAI: [21] n’ é matinha igual essas capoeirinha aqui não //</COB> é
  mata mesmo //</COB> de //</SCA> madeira //</SCA> da grossura que
  //</SCA> quatro homem nũ abarca um pau //</COM>
Prosodic-informational constraint

- V Neg in COM:
  bfamcv01
  \*LUI: [5] <eu acho não> //COM=

- V Neg in CMM:
  bfammn03
  \*ALO: [42] aí ea falou //INT= não //CMM_r= vou lá não //CMM_r=

- V Neg in COB:
  bfamcv03
  \*CEL: [263] hhh mata não //COB= depois cê joga esse dois na frente dela //COM=
Prosodic-informational constraint

- There were three examples of double negation in PAR:

bfammn04

*REG: [113] eu tô aqui em casa / o Haroldo ainda nãuchegou não /=PAR_r= eu tô sentindo assim uma dorzinha na barriga / sior acha que já é algum sinal

bfammn33

*ADR: [85] aí ele pegou lá/ de repente tava a Madonna / ela nãutava na capa dessa revista não /=PAR= ele viu falou assim / oh

bpubmn02

*ANL: [51] e quando a gente tem implantado dentro da gente / o egoísmo / nãu quer dizer que eu nãusou egoísta não /=PAR= sou / &t [/1] ainda eu sou / infelizmente / mas / a gente tem que ter abertura / e &n [/1] quando aparecer uma situação / na mão da gente / a gente tar aberto pa saber o que que é isso


Prosodic-informational constraint

• The analysis of the 3,114 occurrences revealed that double and post-verbal negation only occur in illocutionary informational units, or units that carry the illocutionary force (COM, CMM and COB), whereas pre-verbal negation occurs in any textual informational unit.

• This indicates that non-canonical negation (double and postverbal) needs the illocutionary force to be performed.
Prosodic-informational constraint

<table>
<thead>
<tr>
<th>Information units</th>
<th>Neg V</th>
<th>Neg V Neg</th>
<th>V Neg</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM, APC, CMM, COB, TOP, APT, INT, PAR</td>
<td>COM, CMM, COB, PAR</td>
<td>COM, CMM, COB</td>
<td></td>
</tr>
</tbody>
</table>

- The fact that there are three cases of double negation in PAR does not affect the results; however, one must keep in mind that double negation may have functional features from both postverbal and preverbal negation.

- In addition, the three examples found occurred in monologues, which could indicate that this type of negation in PAR can only occur in this text type.
Through this analysis it is possible to individuate two blocks of verbal negation constructions in what concerns their information status. The first one is composed by [Neg V], which is distributed across all kinds of textual units, and the second one is composed by [Neg V Neg] and [V Neg], which is distributed only across illocutionary units.
Status of the negated referent hypothesis

<table>
<thead>
<tr>
<th>Form</th>
<th>Discourse-new</th>
<th>Inferrable</th>
<th>Directly activated</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEG1</td>
<td>OK</td>
<td>OK</td>
<td>OK</td>
</tr>
<tr>
<td>NEG2</td>
<td>#</td>
<td>OK</td>
<td>OK</td>
</tr>
<tr>
<td>NEG3</td>
<td>#</td>
<td>#</td>
<td>OK</td>
</tr>
</tbody>
</table>

(SCHWENTER, 2005, p. 1449)
A counterexample for the Schwenter’s hypothesis on double negation

bfamdl01: 

*FLA: [166] detergente oquei //
*REN: [167] ah / eu gosto desses eucalipto normal / mas //
*FLA: [168] cê <gosta> //
*REN: [169] <ai> / mas esse aí é mais gostoso hhh //
*FLA: [170] então leva // [171] pode ser //
*FLA: [175] só // [176] cê nũ quer comprar um trenzinho que espirra pro seu banheiro não //
*REN: [177] trenzim que espirra //
*FLA: [178] é / aquele que a gente tem no nosso //
*REN: [179] ah // [180] cês usam //
*FLA: [181] eu uso sempre //
//
A counterexample for the Schwenter’s hypothesis on postverbal negation

bfamcv05: 📣
*JOS: [184] uai / varão //
*JOS: [185] vão comigo //
*CEL: [186] de calcanha //
*CAR: [187] aqui //
*JOS: [188] ué / cadê //
*MAR: [189] tá //
*JOS: [190] hhh saiu não / hein //
Non-cannonical negation and implicature

• It seem that it is not the status of given/new information that licenses the use of double and postverbal negation. In both counterexamples an implicature appears to be denied. Therefore the scope of the non-cannonical forms of negation would be an implicature and not a proposition (as it is in the canonical construction).
Constraint on V Neg construction

• But what can differentiate [Neg V Neg] from [V Neg]?
• The data we investigated showed that the [V Neg] construction doesn’t occur in monologues. Therefore, this would constitute a constraint in the textual usage of this construction.
• Besides, most occurrences of [V Neg] show that this construction is less complex than the other ones, because it is composed mainly of just verbs and the negative adverb.; or verbs, the negative adverb and an object, building a simple clause.
Corpus-based pragmatic characterization

• Based on the empirical data investigation reported, it is possible to say that the No Synonymy Principle applies to the three verbal negation constructions in BP.

• Given the counterexamples to Schwenter’s hypothesis and based on corpus data, what can be said about verbal negation in BP is that (a) it obeys prosodic-informational constraints; (b) that, in principle, preverbal negation denies the proposition, whereas non-canonical constructions would deny an implicature; (c) post-verbal negation cannot occur in monologues, this implicates a constraint in the textual typology in which this construction occurs.

• Further studies are necessary in order to show a more refined correlation between [Neg V Neg] and [V Neg] constructions and implicatures.
Final remarks

• Our study evidentiates what Leino (2013) pointed out: “information structure depends on grammar and grammar depends on information structure” (LEINO, 2013, p. 343). CxG is a powerful model to analyze language also considering its information structure.

• Our hypothesis concerning the No Synonymy Principle related to the three verbal negation constructions in Brazilian Portuguese could be tested only because our research was based on a spontaneous speech corpus, prosodically segmented and informationally annotated. Therefore we emphasize the importance of taking spontaneous speech data into account in CxG-based studies.
References


MELLO, H. DBCoM platform. in preparation.

