

VIEIRA, Renato Caruso. Brazilian Portuguese 'mesmo' in 'ele mesmo' as a scalar focus particle: evidence from acquisitional data. *ReVEL*, edição especial n. 9, 2015. [www.revel.inf.br].

BRAZILIAN PORTUGUESE 'MESMO' IN 'ELE MESMO' AS A SCALAR FOCUS PARTICLE: EVIDENCE FROM ACQUISITIONAL DATA

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ABSTRACT: We defend that 'mesmo' in 'ele mesmo' is a scalar focus particle, as much as the English particle *even*. Both particles share semantic characteristics such as focalizing phrases with low probability of being related to the event expressed by the sentence and provoking an effect of surprise or unexpectedness. Many are the applications of 'ele mesmo' that can be identified as scalar, and there are reasons to believe that the relevant scales are of two different kinds: "probability of reflexivity" (for reflexive 'ele mesmo') and "coreferential possibilities" (for 'ele mesmo' in subject position, 'ele mesmo' as DP reduplicator and 'ele mesmo' in predicates exercising a non-reflexive function). In every case, the expression will be related to items in a low position in the scales. In order to investigate the scalarity of 'ele mesmo' in acquisition, we run two experiments — a production and a comprehension experiment — on children between 3;6 and 6;6 acquiring Brazilian Portuguese as their native language. The results indicate that the acquisition of the linguistic properties of the expression doesn't take place before the age of 5, just like the mastery of 'even' by children acquiring English (cf. Kim, 2011). Such parallelism reinforces our hypothesis about the status of 'mesmo' in 'ele mesmo' as a scalar particle.

Keywords: *ele mesmo*; reflexivity; emphatic pronouns; scalar focus; semantics; language acquisition; Brazilian Portuguese.

1. SCALAR FOCUS PARTICLES

1.1 'EVEN'

The English particle *even* (1a) is used to be taken as a scalar focus particle, as opposed to other focus particles that do not refer to scales in their semantics, as the contrastive focus particle *only* (1b). Thus, an understanding of *even's* particularities may help delineating the semantic properties of scalar focus particles in general.

(1a) *Even George will go to that party*².

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² Example from König & Siemund (1999: 105). For relevant context of use see below.

b) *Only George will go to that party.*

In 1b), '*Only George*' simply indicates 'George' is being opposed to a contrastive set composed by contextually established alternative referents that lack the property assigned to 'George'.³ However, such contrastive effect isn't enough to describe *even*'s semantics.

According to Filik, Liversedge & Paterson (2009: 682), "*even* indicates that the focused set is less likely than some contextually defined alternatives to have the property ascribed to it. In this way, *even* conveys that information may be unexpected or surprising."

Also, König & Siemund state (1999: 105):

In a wide variety of languages intensifiers, or related expressions, are also used in the sense of English *even*, i.e. as scalar focus particles, which characterize their focus as an extreme, or maximally unlikely value for the open sentence which constitutes their scope. In a sentence like the following George is characterized as a highly unlikely candidate for the predication 'x will go to that party':

Even George will go to that party.

As for the differences between *only* and *even*, Filik, Paterson & Liversedge (2009: 682) claim that

Both particles share the function of splitting sets and highlighting that the focused set should be contrasted with a set of alternatives. In addition to this, *even* indicates that the focused set is less likely than some contextually defined alternatives to have the property ascribed to it.

Assuming this line of analysis is correct, we are now ready to highlight the two main distinctive semantic components of a scalar focus particle like *even*: i) it focalizes phrases with low probability of being related to the event expressed by the sentences, which means that the scalar focus particle refers to a scale of probabilities and points to low-positioned items in such a scale; and ii) it contributes to the meaning of the sentence by provoking an effect of surprise or unexpectedness.

³ For discussion on contrastive focus particles, see Notley, Zhou, Crain & Thornton (2009) and Kim (2011).

Returning to sentences (1), we can observe that inferences such as "the probability of George going to the party was low" and "it is surprising that George will go the party" are only true when the subject is under the scope of a scalar focus particle, as in (1a).

1.2 'MESMO' IN 'ELE MESMO'

1.2.1 NON-REFLEXIVE 'ELE MESMO'

Non-reflexive 'ele mesmo' can be found occupying subject position with (3) or without (2) inclusive meaning, object position (5), or performing a role as a DP-reduplicator (4).

2) *Quando o jogador_i chutou a bola, ele_i mesmo correu para recebê-la.*

'When the player kicked the ball, he himself ran to receive it.'

3) *O João_i sempre evita as irmãs, mas a festa que elas organizaram atraiu tanta gente que ele_i mesmo foi pra lá.*

'John always avoids his sisters, but the party they organized attracted so many people that even he went there.'

4) *Apesar de considerado incapaz, o João_i, ele_i mesmo, assinou o acordo.*

'Although considered incapable, John, himself, signed the agreement.'

5) – *A Maria ofendeu logo o irmão_i?*

– *Sim, a Maria ofendeu ele_i mesmo!*

'– Has Mary offended her very brother?

– Yes, Mary has offended him!'

As we can see in all the examples, 'mesmo' provides to 'ele' (and, by consequence, to the phrase co-indexed to it) the semantic charge of surprise or unexpectedness, as if the focalization process had the function of endorsing that 'ele' ('he') is 'mesmo' (*really*) the one to whom the property is being assigned⁴.

⁴ According to Klein (2001: 189), inclusive 'mesmo' counts with some further peculiarities: it can precede or succeed the proform ('mesmo ele' or 'ele mesmo'); it lacks gender agreement with the proform ('mesmo ela' or 'ela mesmo') and it can focalize non-pronominal DPs as well (e.g. 'mesmo a professora' or 'a professora mesmo').

Since the effect of surprise is one of the two criteria pointed above as necessary for a focus particle to be considered scalar, the fulfillment of the other one by 'mesmo' must be inspected.

In order to check if there is a direct relation between 'mesmo' and items with low position in a scale of "coreferential possibilities", we can resort to a simple test inspired by the already quoted excerpt of König & Siemund (1999: 105) to quickly realize that, if "George is characterized as a highly unlikely candidate for the predication 'x will go to that party'" in "Even George will go to that party", then

- In 2), 'the player' is a highly unlikely candidate for x in 'x ran to receive it' or 'he_x ran to receive it';
- In 3), 'John' is a highly unlikely candidate for x in 'x went there' or 'he_x went there';
- In 4), 'John' is a highly unlikely candidate for x in 'x signed the agreement' or 'he_x signed the agreement';
- In 5), 'Mary's brother' is a highly unlikely candidate for x in 'Mary has offended x' or 'Mary has offended him_x'.

As we can see, once the potential antecedents of 'ele' are fixed in a virtual scale of "coreferential possibilities", the particle 'mesmo' will require the proform to select a low-positioned antecedent in the scale and, therefore, an item with low probability of being related to the event indicated by the sentence.

Considering that no NP can be lexically marked as an expected or unexpected bearer of attributed properties, we must assume that the ranking of the phrases in the scale of "coreferential possibilities" depends of the context/pragmatics of each particular sentence. Being so, evidence for the scalarity of 'mesmo' in (2)-(5) can be provided by manipulating their contexts in such a way that the antecedents of 'ele mesmo' are positioned higher in the scale of "coreferential possibilities". It is expected that this results in less acceptable sentences, since 'mesmo' in 'ele mesmo' cannot be co-indexed to high-positioned items of a scale.

2') *?Quando o jogador_i chutou a bola, ele_i mesmo fez o gol.*

'When the player kicked the ball, he himself scored the goal.'

3') ?*O João_i sempre está junto com as irmãs. A festa que elas organizaram atraiu tanta gente que ele_i mesmo foi pra lá.*

'John is always with her sisters. The party they organized attracted so many people that even he went there.'

4') ?*Tendo concordado com todos os termos, o João_i, ele_i mesmo, assinou o acordo.*

'Being agreeable with all the terms, John, himself, signed the agreement.'

5') – *A Maria detesta o irmão_i. Ela o_i ofendeu de novo?*

– ?*Sim, a Maria ofendeu ele_i mesmo!*

' – Mary hates her brother. Has she offended him again?

– Yes, Mary has offended him!'

Now, we have

- In 2'), 'the player' is a highly likely candidate for x in 'x scored the goal' or 'he_x scored the goal';
- In 3'), 'John' is a highly likely candidate for x in 'x went there' or 'he_x went there';
- In 4'), 'John' is a highly likely candidate for x in 'x signed the agreement' or 'he_x signed the agreement';
- In 5'), 'Mary's brother' is a highly likely candidate for x in 'Mary has offended x' or 'Mary has offended him_x'.

Therefore, given the necessity of non-reflexive 'ele mesmo' to corefer with antecedents fixed on a particular zone of the scale (its bottom), the fluctuation in the scale provoked by contextual manipulations affects the acceptability of the sentences.

1.2.2 REFLEXIVE 'ELE MESMO'

Inspired by Zribi-Hertz (1990), Jakubowicz (1994) and Menuzzi (1999) we defend that the distribution of anaphoric 'ele' (him) and of the reflexive 'ele mesmo' is defined by semantic-pragmatic features of probability of reflexivity and not by the syntactic Principles of Chomsky's Binding Theory, in such a way that predicates with high "probability of reflexivity" can have their reflexivity indicated by the simple form 'ele' (although they also allow 'ele mesmo') whereas predicates with low "probability of

reflexivity” can only express their reflexivity through the focalized expression 'ele mesmo'.

6a) *O João_i pensou nele_i/ nele_i mesmo.*

'John thought on him/himself.'

b) *O que a Ana mais admira é que o Pedro_i ri dele_i/ dele_i mesmo o tempo todo.*

'What Ana admires the most is that Peter laughs at him/himself all the time.'

7a) *João_i mordeu ele*_i/ ele_i mesmo.*

'John bit him/himself.'

b) *A Ana notou que o Pedro se despediu dele*_i/ dele_i mesmo antes de sair.*

'Ana noticed that Peter said goodbye to him/himself before leaving.'

In the examples above, we can observe that co-reference between the subject and the object of predicates like 'pensar' ('to think') and 'rir' ('to laugh') is well-accepted, so the simple form 'ele' is enough to indicate such reflexivity, whereas the co-reference between the arguments of verbs like 'morder' ('to bite') and 'despedir-se' ('to say goodbye') isn't, so the focalized expression 'ele mesmo' is required for the licensing of the reflexive meaning.⁵

Thus, we argue that if we organize predicates of BP (Brazilian Portuguese) in a semantic scale according to their reflexive potential — a scale of "probability of reflexivity" —, the fundamental function of the reflexive 'ele mesmo' will be that of selecting antecedents with a low position in such scale (as in (7)).

The surprise effect can also be found in (7) and once more the particle 'mesmo' seems to emphasize that, the reflexivity is 'mesmo' (*really*) being communicated, although improbable or unexpected.

Applying it to (6) and (7), we may argue that the predicates “to think on x_i ” and “to laugh at x_i ” are easily acceptable as having as their subjects “ y_i ”, because these predicates are high-positioned in the scale of “probability of reflexivity” and that's why 'ele' is enough to express their reflexivity, although 'ele mesmo' is also accepted. On the other hand, the predicates “to bite x_i ” and “to say goodbye to x_i ” are unexpected to have

⁵ See Zribi-Hertz (1990) for an analysis for the French analog form 'lui-même'.

“y_i” as their subjects because these predicates are low-positioned in the scale of “probability of reflexivity” and that’s why the focus particle ‘mesmo’ is required to express their reflexivity.

Therefore, we have a focus particle whose reflexive action is related to low-positioned items of a scale and, also, we have the production of a surprising effect. Being so, we have reasons to believe that ‘mesmo’ in reflexive ‘ele mesmo’ is a scalar focus particle as well.

It must be noted that the range of variation for the items in the scale of “probability of reflexivity” is much more restricted than for the ones in the scale of “coreferential possibilities”, since in the former scale are fixed predicated and not NPs, and the full meaning of predicates (and therefore their “reflexive potential”) is mainly determined by their intrinsic semantic features.

So context manipulations as the ones accomplished in (2’) - (5’) wouldn’t result in less acceptable sentences when ‘ele mesmo’ is used as reflexive, and the consulted scale is that of “probabilities of reflexivity” (less susceptible to the pragmatic influences of the whole sentence), as already suggested by our examples in (6), in which the high position of the predicates on the scale makes the option for the focalized form ‘ele mesmo’ admissible but not necessary in order to express the reflexive meaning.

2. EVIDENCE FROM EXPERIMENTAL ACQUISITIONAL DATA

2.1 ELICITED PRODUCTION

In order to investigate the consequences of the scalarity of reflexive ‘ele mesmo’ on acquisition, we run two experiments.

The first one was an experiment of elicited production applied on 67 children between 3;6 and 6;6 acquiring BP as their native language and on 34 adult BP native speakers.

The short Pixar movie ‘Geri’s Game’ was exhibited to the subjects. The plot of the movie revolves around a highly improbable reflexive action: a character playing chess against himself (pretending to be two different people). At the end of the movie, subjects had to tell the researcher what happened in the story.

The results produced by the control group (the adult speakers) serve as evidence in favor of the strong association between the particle 'mesmo' in the reflexive 'ele mesmo' and predicates low-positioned in a scale of "probability of reflexivity": 31 subjects (91,2%) used 'ele mesmo' in order to express with whom the character was playing. Other 2 subjects preferred different expressions also containing the focus particle 'mesmo': 'consigo mesmo' (*'with himself'*) and 'contra si mesmo' (*'against himself'*).

Children were divided into 3 groups: G1 (3;6 - 4;6), G2 (4;7 - 5;6) and G3 (5;7 - 6;6). 'Ele mesmo' was produced only by 4 children in G2 (19% of its age group) and 4 children in G3 (22,2% of its age group).

2.2 SENTENCE-PICTURE MATCHING

In order to test the comprehension of the reflexive 'ele mesmo', a sentence-picture matching task was proposed to 54 children between 3;6 and 6;6 acquiring BP and 30 BP adult speakers.

The subjects had to match sentences containing the following predicates to one picture among three: one representing the action being performed reflexively by the subject of the clause, one representing the action being performed non-reflexively by the subject of the clause and one representing the action being performed reflexively by the character that isn't even mentioned in the reflexive clause (only in an introductory clause).

The sentences followed the pattern "escolha a figura em que há um velho e um jovem e o velho está pensando nele/ nele mesmo" (*"pick the picture in which there is an old man and a young man and the old man is thinking on him/ himself"*). All the subjects listened to sentences ended by 'ele' and by 'ele mesmo'. The predicates were divided into

- Predicates of high probability of reflexivity: "pensando nele (mesmo)" (*"thinking on him(self)"*); "desenhando ele (mesmo)" (*"drawing him(self)"*); "tirando foto dele (mesmo)" (*"taking photo of him(self)"*).

- Predicates of low probability of reflexivity: "beijando ele (mesmo)" ("*kissing him(self)*"); "mordendo ele (mesmo)" ("*biting him(self)*"); "jogando a bola pra ele (mesmo)" ("*throwing the ball to him(self)*").

While 100% of the adult subjects picked the expected picture for sentences with 'ele mesmo' (the one in which the subject of the action is practicing the action reflexively), the rates of correct responses among the children was: 28% for G1, 67% for G2 and 81% for G3. No significant difference in the number of correct responses was exhibited relatively to the type of the predicate in any group.

For sentences ended by 'ele', children's behavior was similar to the adult's: a significantly higher rate of reflexive responses was given to predicates of high probability of reflexivity.

2.3 DISCUSSION OF THE DATA

The results showed that the acquisition of reflexive 'ele mesmo' is late (6 years olds still don't demonstrate adult behavior). Let's now consider three possible reasons of children's difficulties with the expression: i) the sensibility of reflexive 'ele mesmo' to the variation of predicate's probability of reflexivity; ii) the morphological complexity of the expression and iii) the scalar character of the focus particle 'mesmo'.

The first hypothesis can be quickly dismissed once we remember that subjects presented adult-like sensibility to the variation of predicate's probability of reflexivity both for sentences with 'ele' and 'ele mesmo' in our sentence-picture matching task, which means that such variation had no influence on children's comprehension ability of the expression.

The second hypothesis can be also discarded if we betake ourselves to Grolla (2011), who demonstrated that children acquiring BP present an adult-like behavior with other morphological complex form, 'um ao outro' ('each other'), which asides from being composed by more than one lexical item, also agrees in gender and number with its antecedent, just like 'ele mesmo' do.

As for the third hypothesis, we not only have no reasons to discredit it but also we have a strong reason to keep it: according to Kim (2011), the scalar focus particle

even is mastered by children around 5, our G2, in which both production and comprehension of 'ele mesmo' were sharply enhanced (from 0 to 19% in the first experiment, suggesting that G2 is where the production of the expression begins, and from 28% to 67% in our second experiment).

Kim (2001) also tested the acquisition of 'only' by children acquiring English and perceived that even the youngest subjects tested by him (4 years old) had no difficulties with the particle, while *even* was only mastered by children around 5, suggesting that the distinctive semantic features of a scalar focus particle — the ones already analyzed by us in the first section of this paper — emerges in the age group corresponding to our G2.

In this way, we now have an experimental evidence of the already theorized proximity between the particles *even* and 'mesmo' in 'ele mesmo', reinforcing our claim for the last to be also considered a scalar focus particle. However, the limitations of a conclusion based on exclusion of inadequate hypothesis must be admitted and further studies are needed to confirm the claimed implications of scalarity on the acquisition of 'ele mesmo'.

It must also be noted that if the linguistic properties of the reflexive 'ele mesmo' are already acquired by children in our G2, the non-adult behavior of some of the subjects in G2 and even G3 must be originated from cognitive processes other than the strictly linguistic ones.

We believe that the remaining errors showed by G2 and G3 must be due to processing difficulties derived from children's limited working memory, which is incapable to properly compare and assimilate the multiple senses that the combination [ele + mesmo] can assume and that go far beyond the scalar focalization of 'ele': 'mesmo' can be reflexive scalar, non-reflexive scalar, but also intensive and confirmative, at least.⁶

3. CONCLUSION

⁶ For a more detailed explanation of this proposal, as well as for more information about our experimental methodology and results, see Vieira (2014).

Despite the particularities they present, ‘mesmo’ in reflexive and non-reflexive ‘ele mesmo’ works as a scalar focus particle at least in a large variety of uses of the expression, since it shares with the English particle *even* characteristics like: i) being related to low-positioned items of scales of probabilities and, therefore, focalizing phrases with low probability of being related to the event expressed by the sentences (either due to pragmatics improbabilities or to the intrinsically low reflexive potential of the predicates); and ii) contributing to the meaning of the sentences by provoking an effect of surprise or unexpectedness (when this effect is not meant, either the sentence with ‘ele mesmo’ is not acceptable, in the non-reflexive cases, or the ‘mesmo’ is not required, in the reflexive cases).

Reflexive and non-reflexive ‘ele mesmo’ present different behavior concerning their scalarity. Whereas reflexive ‘ele mesmo’ elicits a scale of “probability of reflexivity”, non-reflexive ‘ele mesmo’ must be associated to a strongly pragmatics-oriented scale of “coreferential possibilities”.

The experiments we run in order to investigate the acquisition of reflexive ‘ele mesmo’ produced results that reinforce our classification of ‘mesmo’ in ‘ele mesmo’ as a scalar focus particle, since it corroborates the results of Kim (2011) about the paradigmatic scalar focus particle *even*: the English particle is mastered by children around 5 years old, and the second age groups tested by us (4;7 - 5;6) showed such an improvement in their performance that we were lead to believe that the linguistic properties of ‘ele mesmo’ were also acquired then.

REFERENCES

1. KÖNIG, Ekkehard; SIEMUND, Peter. *Intensifiers as Targets and Sources of Semantic Change*. In: ECKARDT, Regine; HEUSINGER, Klaus von (eds.) *Meaning Change–Meaning Variation*. Workshop held at Konstanz, Feb. 1999.
2. FILIK, Ruth; PATERSON, Kevin; LIVERSEDGE, Simon. *The influence of only and even on online semantic interpretation*. *Psychonomic Bulletin & Review* 16, 2009.
3. GROLLA, Elaine. *Proeminence and Unexpectedness Restrictions: the Acquisition of Intensified Proforms in Brazilian Portuguese*. Presentation on Generative Approaches to Language Acquisition, in Thessaloniki, Greece. 2011.

4. JAKUBOWICZ, Celia. *Reflexives in French and Danish: Morphology, Syntax, and Acquisition*. In LUST, Barbara; HERMON, Gabriela; KOENFILT, Jaklin (eds.) *Binding, Dependencies, and Learnability*. Hillsdale: Lawrence Erlbaum Associates, pp. 115-144, 1994
5. KIM, Soyoun. *Focus particles at syntactic, semantic and pragmatic interfaces: the acquisition of only and even in English*. Dissertation. University of Hawaii. 2011.
6. KLEIN, Susan. *A Relação entre Anáfora e Foco: Evidências do Português Brasileiro*. Dissertation. Universidade de São Paulo. 2001
7. MENUZZI, Sérgio. *Binding Theory and pronominal anaphora in Brazilian Portuguese*. Thesis. Faculty of Letters of the University of Leiden. 1999.
8. NOTLEY, Anna; ZHOU, Peng; CRAIN, Stephen, THORNTON, Rosalind. *Children's Interpretation of Focus Expressions in English and Mandarin*. *Language Acquisition*, 16:4, 240-282. 2009.
9. VIEIRA, Renato. *Aquisição da proforma 'ele mesmo' no Português Brasileiro*. Dissertation. Universidade de São Paulo. 2014.
10. ZRIBI-HERTZ, Anne. *Lui-même argument et le concept de pronom A*. *Langages* 97: 100-127. 1990.

RESUMO: Defendemos que o 'mesmo' em 'ele mesmo' é uma partícula de foco escalar, assim como a partícula *even* do inglês. Ambas as partículas compartilham características semânticas como a focalização de sintagmas com baixa probabilidade de serem relacionados ao evento expresso pela sentença e efeitos de surpresa ou contra-expectativa. Muitas são as aplicações de 'ele mesmo' que podem ser identificadas como escalares e há razões para acreditarmos que as escalas relevantes são de dois tipos diferentes: "probabilidade de reflexividade" (para o 'ele mesmo' reflexivo) e "probabilidades correferenciais" (para o 'ele mesmo' em posição de sujeito, o 'ele mesmo' como reduplicador de DP e o 'ele mesmo' em predicados exercendo função não-reflexiva). Em todos os casos, a expressão se relaciona com itens em baixas posições nas escalas. Com a finalidade de investigar a influência da escalaridade do 'ele mesmo' na sua aquisição, conduzimos dois experimentos — um experimento de produção e um de compreensão — tendo como sujeitos crianças entre 3;6 e 6;6 adquirindo Português Brasileiro como sua língua nativa. Os resultados indicam que a aquisição das propriedades linguísticas da expressão não acontecem antes da faixa dos 5 anos, a mesma em que se dá o domínio do *even* por crianças adquirindo inglês (cf. Kim, 2011). Tal paralelismo reforça nossa hipótese sobre o status do 'mesmo' em 'ele mesmo' como uma partícula escalar.

Palavras-chave: ele mesmo; reflexividade; pronomes enfáticos; foco escalar; semântica; aquisição de linguagem; Português Brasileiro.