

# The meaning of inchoative *se* in Brazilian Portuguese: a reapplication of Lundquist et al.'s (2016) experiment

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# Outline of the talk

- The causative alternation;
- Theoretical explanations for the causative alternation;
- Lundquist et. al's (2016) experiment;
- The case of Brazilian Portuguese;
- Our experiment;
- Results and conclusions.

# The causative alternation

(English, Alexiadou, 2015, p. 6)

John opened the window. / The window opened.

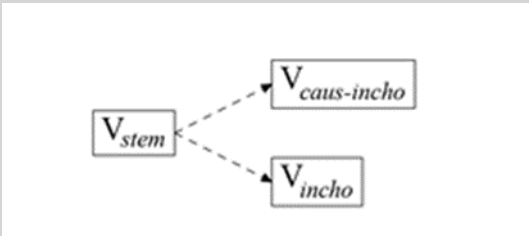
(Norwegian, Lundquist et al., 2016, p. 8)

Peter åpnet vinduet./ Vinduet åpnet **seg**.  
‘Peter opened the window.’/‘The window opened.’

(Brazilian Portuguese, Cançado et al., 2017)

O moço abriu a porta do carro. /A porta do carro (**se**) abriu.  
‘The guy opened the car door.’/‘The car door opened.’

# Theoretical explanations for the causative alternation

Decausativization	Reflexivization	Non-derivational
<p>(Levin and Rappaport Hovav, 1995, Reinhart, 2002, and Horvath and Siloni, 2011a, 2011b, 2013)</p> <p><i>change of state verb<sub>causative</sub></i>: [[X ACT] CAUSE [BECOME [Y &lt;STATE&gt;]]]</p> <p><i>change of state verb<sub>anticausative</sub></i>: [BECOME [Y &lt;STATE&gt;]]</p>	<p>(Chierchia, 2004 and Koontz-Garboden, 2009)</p> <p>Transitive sentence: <math>\lambda x \lambda y</math> [transitive verb (x) (y)]</p> <p>Reflexive sentence: <math>\lambda x</math> [transitive verb (x) (x)]</p>	<p>(constructionist and neoconstructionist approaches) (Goldberg, 1995; Piñón, 2001; Alexiadou et al., 2006; Ruiz de Mendoza and Miró, 2019)</p> 

# Lundquist et. al's (2016) experiment

## - Truth condition judgement task based on visualized scenarios

Speakers of English and Norwegian were shown scenes of causative events and answered a yes-no question (in their native language) built with the anticausative form of the target verbs for each scene. For each verb there were *theme-focus* and *agent-focus* scenes.

Person in kitchen melting butter in a pan. The butter becomes liquid and bubbly.

Did the butter  
melt?



Smeltet  
smøret?

# Lundquist et. al's (2016) experiment

## **Hypothesis 1:**

The anticausative form is a subpart of the causative form, thus speakers should answer “Yes” to all questions, as the causative scene can be described by the anticausative form of the corresponding verb. (or decausativization Hypothesis)

## **Hypothesis 2:**

The anticausative form describes an event in which the theme's properties have important roles, thus speakers would not answer “Yes” to all questions, as the causative scene may not be described by the anticausative form of the corresponding verb. (or reflexivization Hypothesis)

# Lundquist et. al's (2016) experiment

Analyzed verbs:

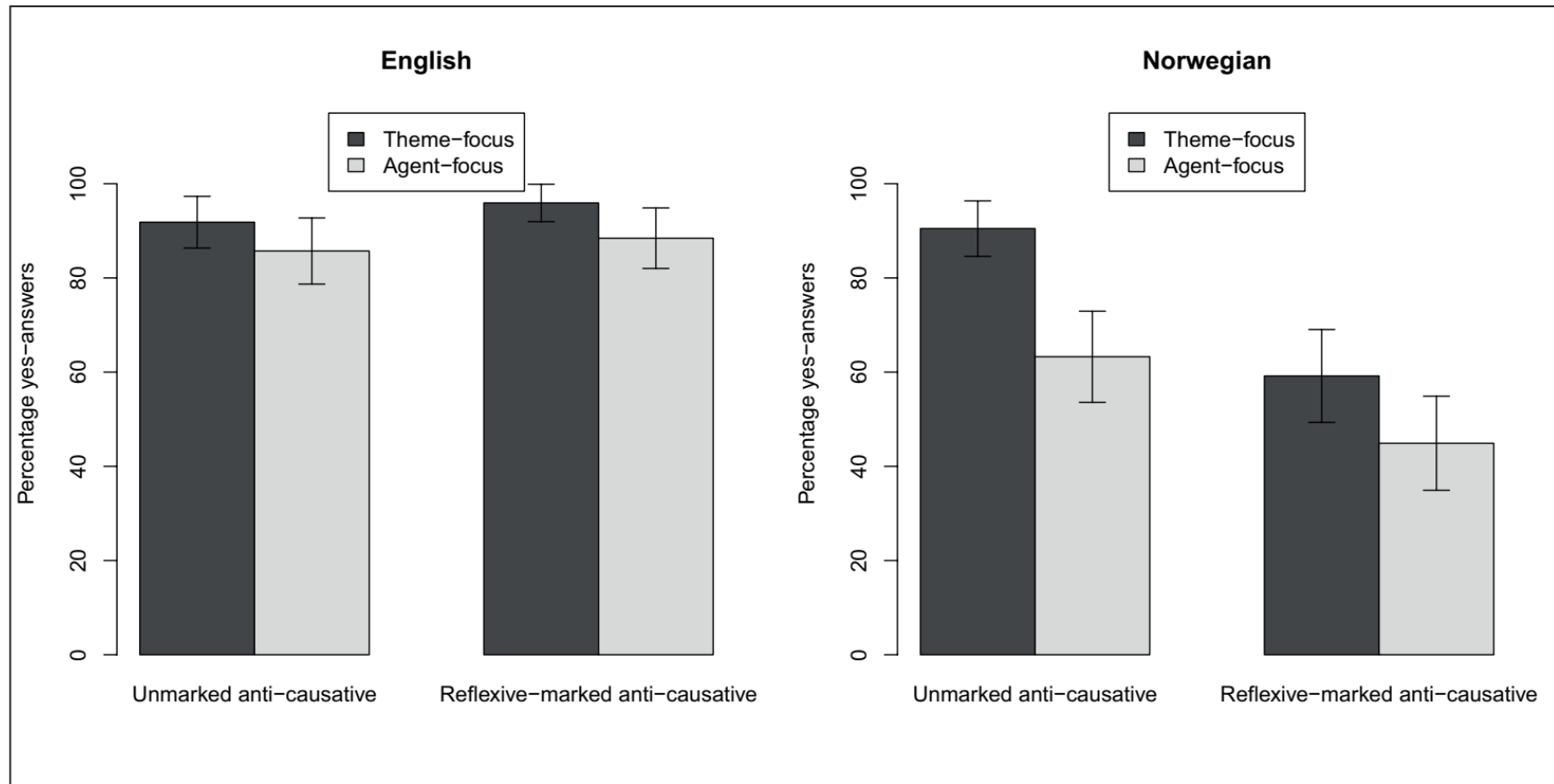
*roll, overturn, melt, spin, detach, splash, balance, open, split, spread, move, bend, lock, turn*

*rulle* 'roll', *velte* 'overturn', *smelte* 'melt', *snurre* 'spin', *løsne* 'detach', *skvette* 'splash', *balansere* 'balance'

*åpne seg* 'open', *dele seg* 'split', *spre seg* 'spread', *flytte seg* 'move', *bøye seg* 'bend', *låse seg* 'lock', *snu seg* 'turn'

(The experiment also included 3 practice items and 19 filler items. Each participant only saw one version of the video (either *Agent-focus* or *Theme-focus*) for each verb. The whole experiment had 36 videos. 46 speakers of English and 42 speakers of Norwegian participated in the experiment.)

# Lundquist et. al's (2016) results





# Lundquist et. al's (2016) conclusions

## **For English:**

In English there was no effect of context or verb. Thus, “anticausative descriptions of caused events are licit, even when the focus is on the Agent” (p. 23). The analysis for this case is the decausativization hypothesis.

## **For Norwegian:**

The number of “No” answers was significantly higher. Also, context had an important effect: “No” answers were significantly higher with Agent-focus videos. The anticausative form of the verb has implications in relation to the cause element, which is related to the Theme participant, so it might or might not be used to describe a causative scene. Their conclusion is that the reflexive account for the causative alternation is the correct approach for this language.

# The case of Brazilian Portuguese

O moço abriu a porta do carro. / A porta do carro **(se)** abriu.

- Optionality of the reflexive clitic;
- Linguistic variation;

Are there meaning distinctions?

Which strategy is more adequate to explain BP data?

# Our experiment

- A reapplication of Lundquist et. al's (2016) experiment: truth condition judgement task based on visualized scenarios.

Person lights fire and melts a candle/ a lit candle melts .

A vela se derreteu?



A vela derreteu?



# Our experiment

- Four testing conditions (four groups of participants):

*Unmarked theme-focus*

*Unmarked agent-focus*

*Marked theme-focus*

*Marked agent-focus*

- Target verbs: *Abrir, Fechar, Inclinar, Espalhar, Derreter, Quebrar*

Target sentences: *A porta (se) abriu?, A porta (se) fechou?, O quadro (se) inclinou?, Os objetos/brinquedos (se) espalharam na mesa?, A vela (se) derreteu?, A ponta do lápis (se) quebrou?*

# Our experiment

Participants: 74 Brazilian students from the Faculty of Languages, Literature, and Linguistics of the Federal University of Minas Gerais (UFMG), in Brazil.



Image from: <http://www.letras.ufmg.br>

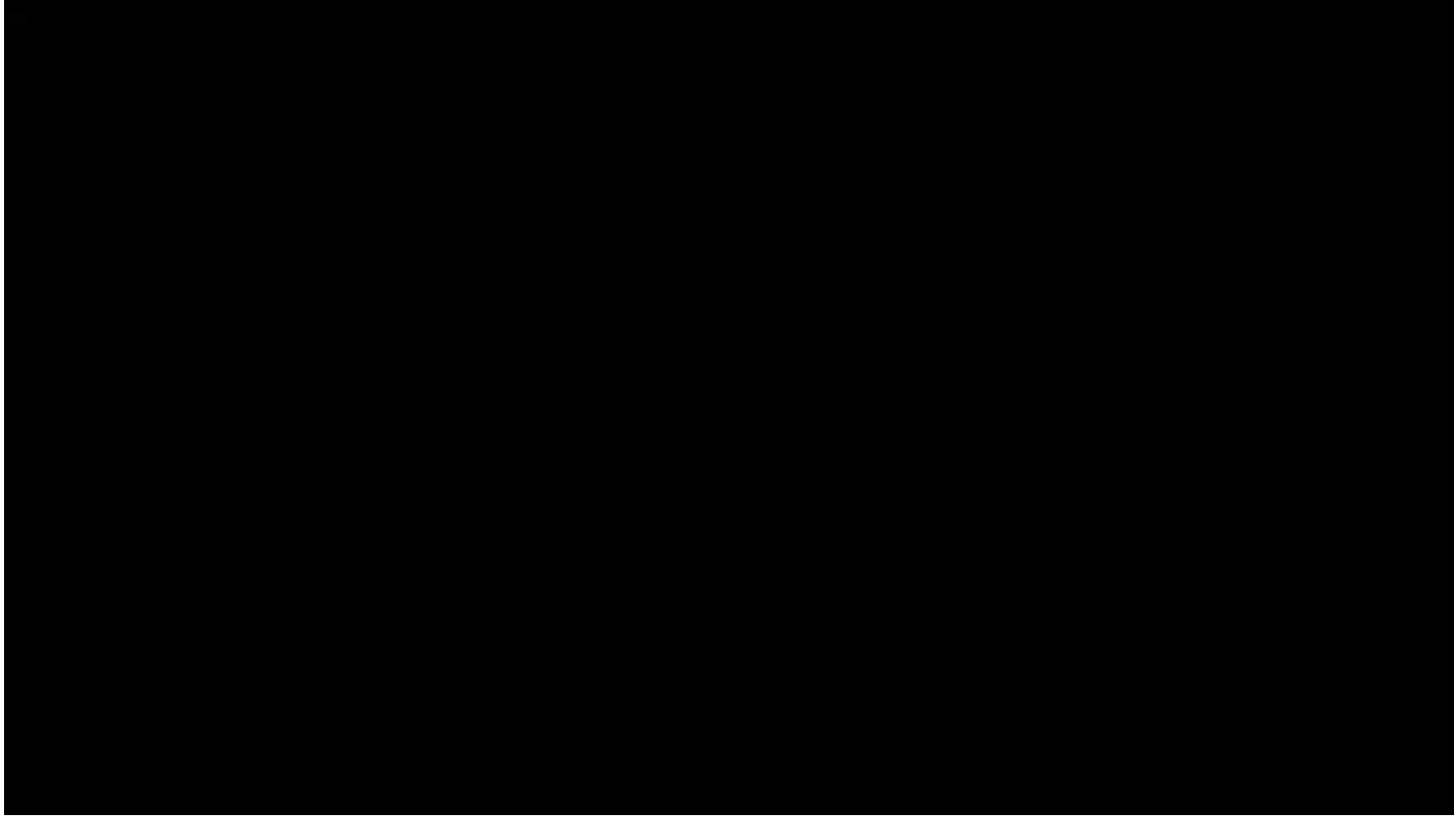


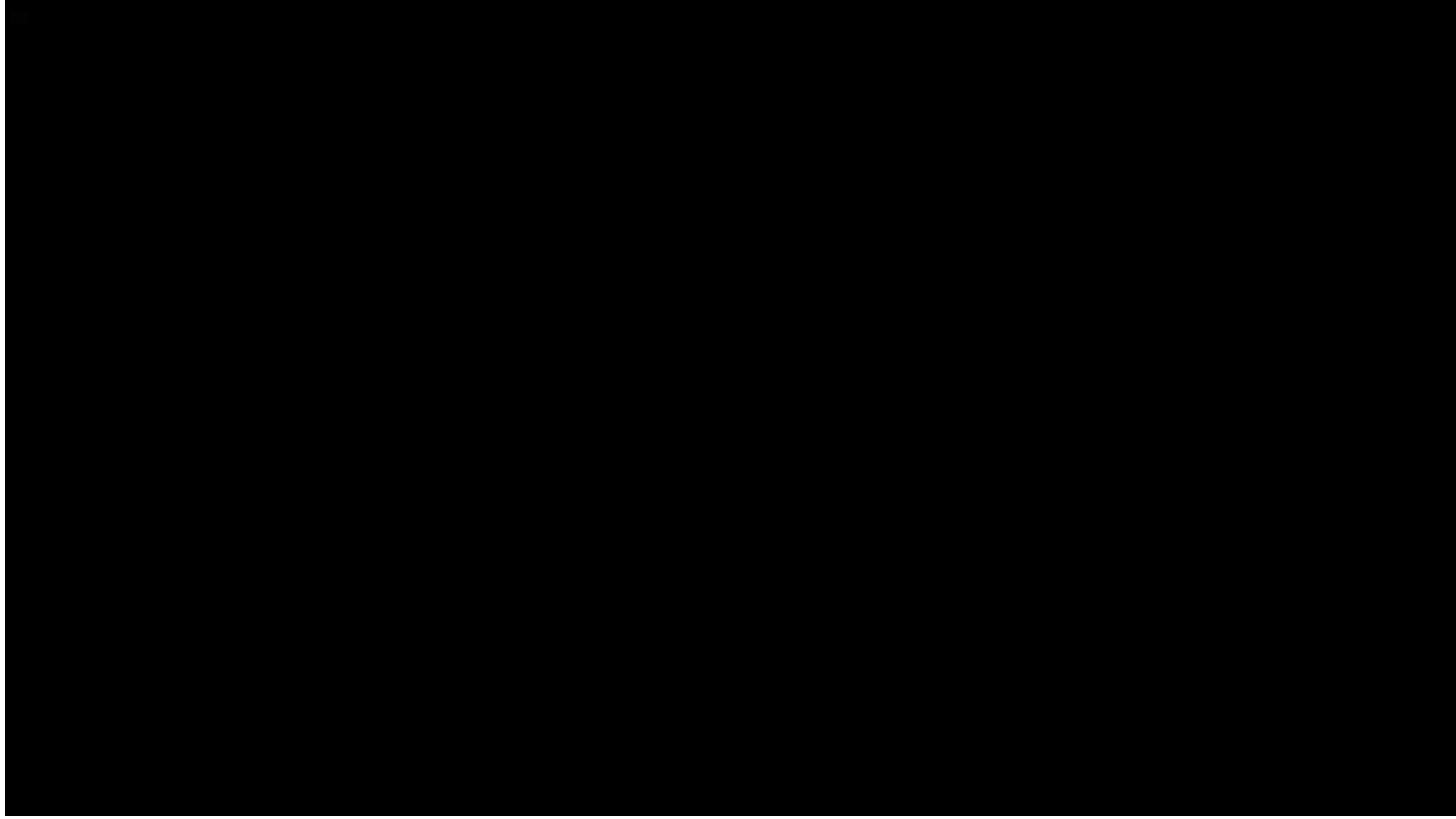
Image from Google Maps

# Our experiment

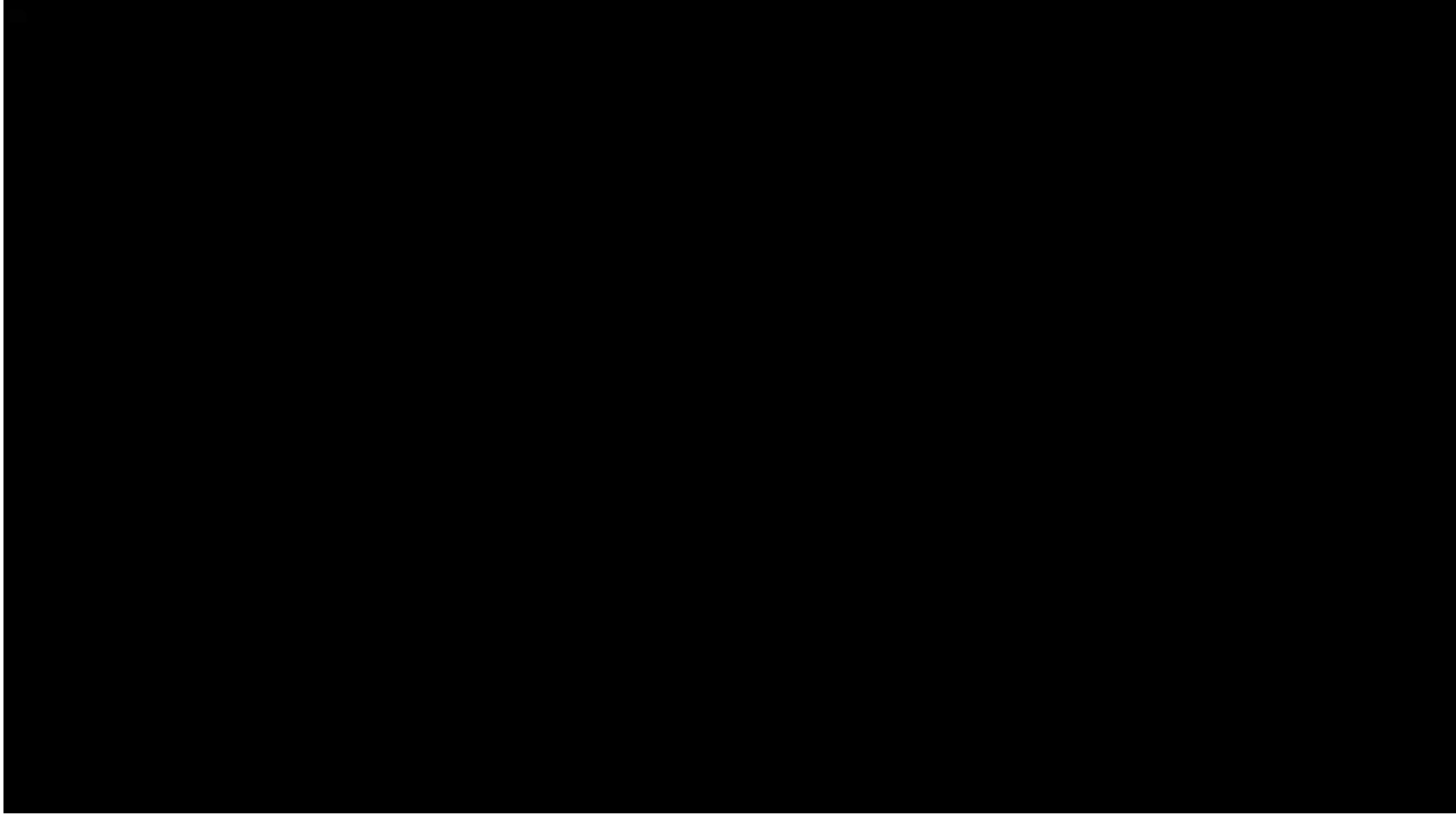
- The experiment was conducted in 4 groups in classrooms (in 2018 and 2019) (S1 = 17, S2 = 21, S3 = 18, S4 = 23 ) and the tasks were performed individually.
- Participants watched 39 scenes (organized in a single video), each followed by a yes-no question with anticausative structure (3 practice scenes; 6 target scenes; 30 fillers).
- Each scene lasted from 10 to 15 seconds; each question was exhibited for 7 seconds; a flat black screen appeared for 5 seconds. The answers were recorded using the students' own cellphones.
- Each video (with 39 scenes) lasted about 14 minutes; the entire experimental session lasted approximately 30 minutes.

\*The next four slides contain samples of the experimental scenes (to be presented during the talk).







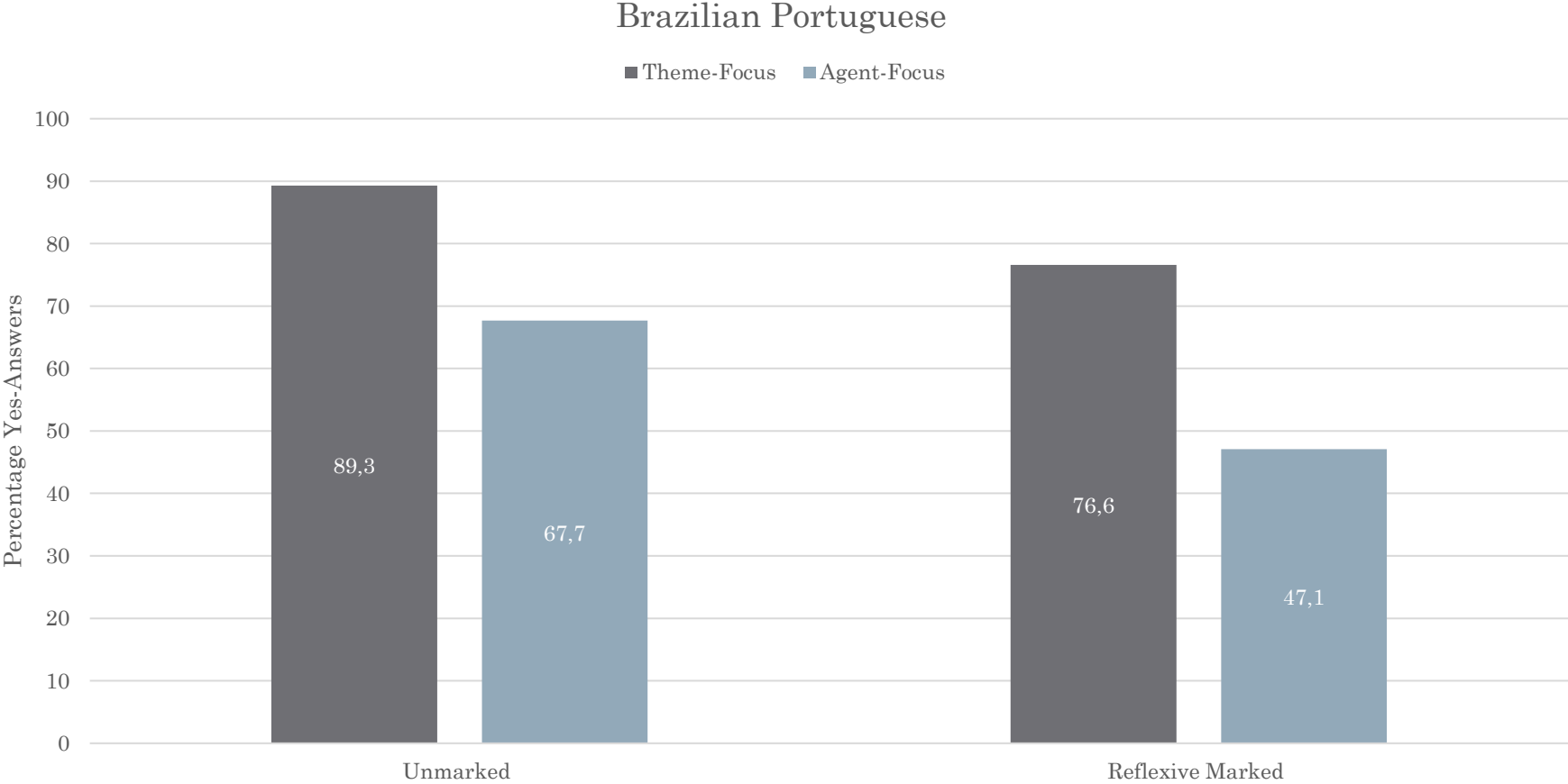




# Results

- Significant effect of context ( $\beta = 0.23716$ ,  $SE(\beta) = 0.05132$ ,  $p < 0.001$ ).
- Significant effect of marking ( $\beta = -2.4730$ ,  $SE(\beta) = 0.7873$ ,  $p < 0.001$ ).
- Unmarked anticausatives and Theme-focus contexts yielded a higher percentage of Yes-responses.
- Even though the effect of context was numerically smaller for the unmarked verbs and the effect of marking was numerically smaller for Theme-focus context, the interaction between context and marking was not significant ( $\beta = 0.697$ ,  $SE(\beta) = 0.07296$ ,  $p = 0.694$ ).

# Results



# Conclusions

The meaning of *se* in anticausatives: Kemmer (1993); Maldonado (2006); Alexiadou (2011); Cuervo (2014); Negrão and Viotti (2015); Lundquist et. al (2016); Haspelmath (2017).

- Our results were very similar to those from Norwegian speakers: context and marking are significant, but not the interaction between them;
- It is not a case of linguistic variation (in the sense that both structures are not semantically equivalent);
- Evidence for a non-derivational account: the **same verb** in different structures has distinct meanings (the core of the non-derivational account);
- The marked form has a causer (but non-agentive) meaning;
- The unmarked form, however, is not like the English anticausative, because it does not describe properly an agentive event – at least not one in which the agent is focused.

# Thanks!

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