# Processing Non-Culminating Accomplishments across Languages

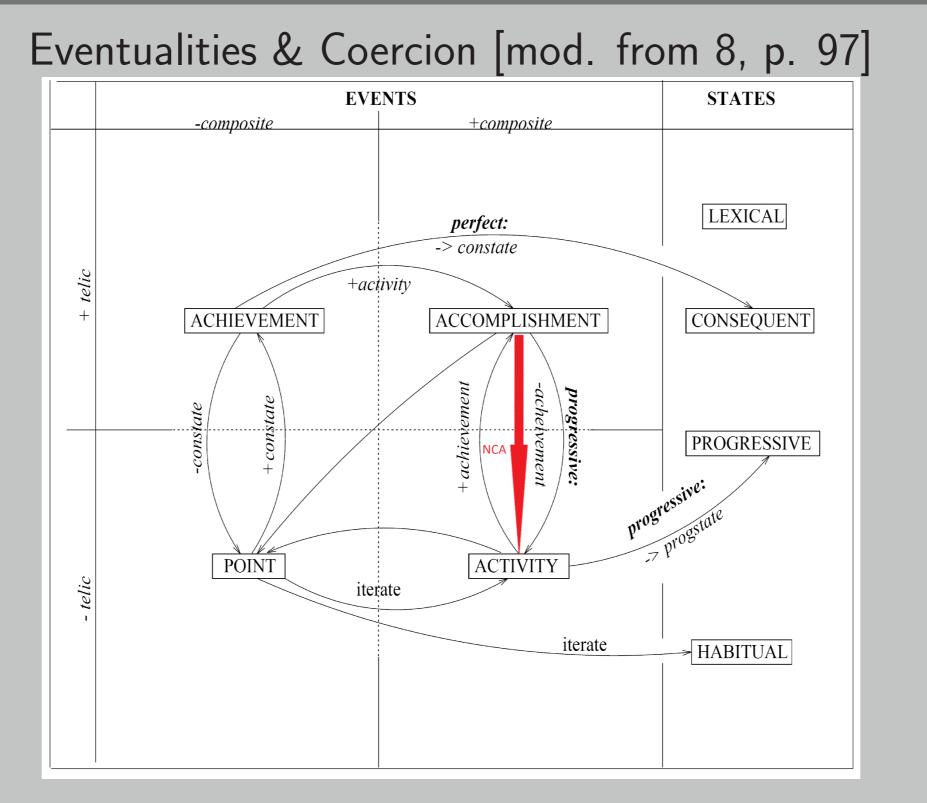
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## Non-Culminating Accomplishments (NCAs) and Grammatical Aspect – Linguistics and Processing

- Accomplishments express composite, telic events
  - Der Junge verspeiste die Pizza. The boy ate the pizza.
- ► They are therefore generally odd in combination with *for*-adverbials [1]
- However, non-culminating accomplishments (NCAs) have been observed even in languages marking the perfective [2,3,i.a.]
  - The boy ate (#up) the pizza for five minutes.
- Cross-linguistic differences between aspect and non-aspect languages? [4,5,6,7,i.a.]



Summary NCAs aren't taxing, pro underspecification

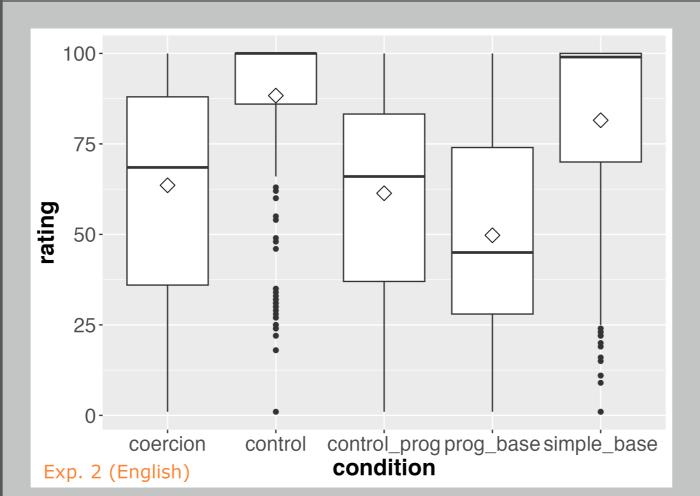
- Coercion induces processing cost [9,10, among many others
- ► Within sentences but also in discourse [11]
- Cross-linguistic self-paced reading study on English and German NCAs [4]
- Perfective NCAs cause difficulty in English but not in German
- ► Explanation in [4]: Competition with imperfective form leads to pragmatic strengthening, hence telic interpretations, in English. Geman lacks grammatical aspect marking resulting in underspecification
- However, conclusions based on different verbs/items
- > Present study: Conceptual replication (attempt) in a preregistered study employing [4]'s English items

## Study Design

#### German English Exp. 2: Offline Int. Exp. 1: Offline Int. Exp. 3: SPR sentence Exp. 4: SPR sentence Exp. 5: SPR discourse Exp. 6: SPR discourse Exp. 7: Stops-making-sense task (English)

- Same linguistic materials, direct translations
- Offline interpretation and self-paced reading
- Coercion within and across sentences
- Manipulation of task demands (SPR vs. SMS)

## The Interpretation of German and English Accomplishments – Telicity Ratings on a Slider

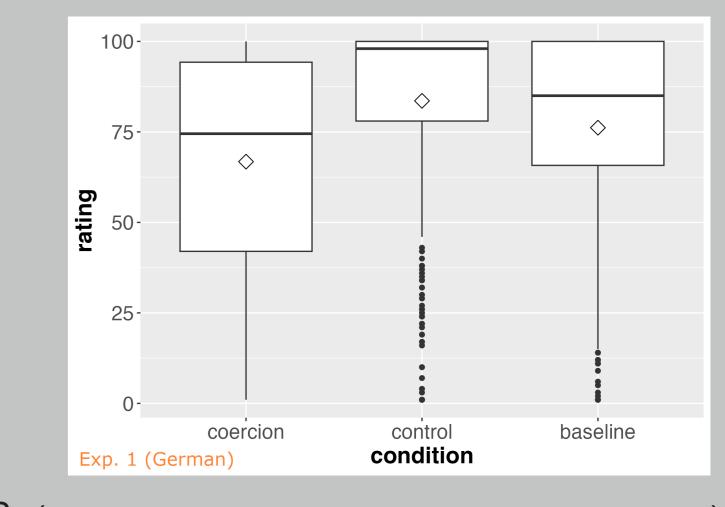


Coerc) Bo ate up the pizza for 5 min. Ctrl) Bo ate up the pizza in 5 min. P-Ctrl) Bo was eating up the pizza for 5 min. Base) Bo ate/was eating up the pizza

English conditions (48 items N=31)

German conditions (48 items; N=30) Coerc) Bo verspeiste die Pizza 5 Min. lang

Ctrl) Bo verspeiste die Pizza in 5 Min. Base) Bo verspeiste die Pizza



Does it follow from the sentence that the pizza has been eaten up completely? (0 = no, definitely not, 100 = yes, definitely)

## Interim Summary – Aspectual Interpretation in German and English

#### **Baseline & Control conditions:**

- ► In both languages, the (perfective) baseline conditions interpreted as telic
- No difference in English between (perfective) baseline and telic controls

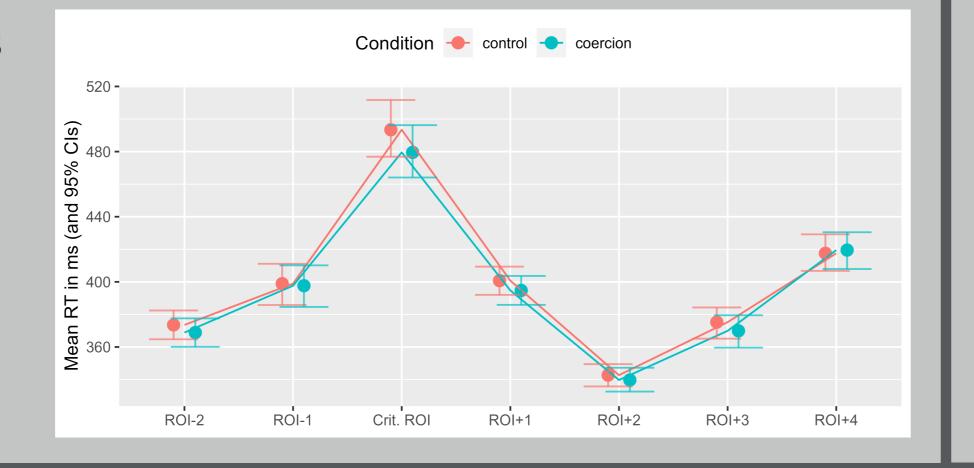
### **Coercion conditions:**

- $\triangleright$  For-adverbials significantly weaken this inference ( $\triangleright$  coercion effect)
- ► Resulting interpretation on a par with English imperfectives modified by for

### Self-Paced Reading of German Coercion Sentences (Exp. 3)

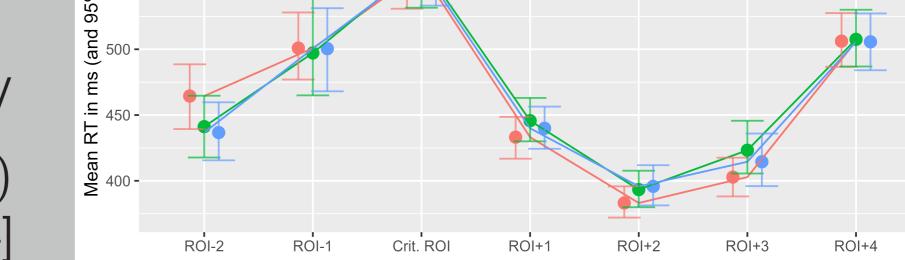
- ► 60 participants read 48 items (+ 45 filler sentences)
- Self-paced reading of ACCs: ▶ Coercion: for-ADV
  - ▶ Control: *in*-ADV
- RT (Coercion) = RT (Ctrl)
- No semantic reanalysis [4]





# Self-Paced Reading of English Coercion Sentences (Exp. 4)

- 60 participants read the same sentence materials
  - ▶ Coercion: for-ADV
  - ▶ Perfective Ctrl: in-ADV
- Progressive Ctrl: for-ADV
- RT (Coercion) = RT (Ctrls) No coercion effect [contra 4]



## Non-Culminating Accomplishments are easy to interpret when Coercion occurs within the Sentence – What about NCAs in Discourse?

#### **Introductory Context Conditions:**

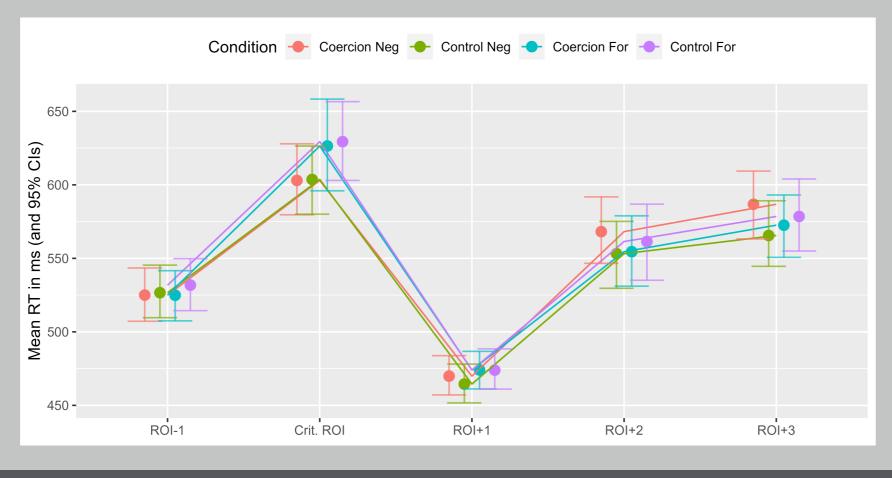
- ► Telic context: Bo ate up the pizza after it had been delivered to his place.
- ► NCA context with aspectual verb: Bo began eating up the pizza after [...].

#### **Target Sentence Conditions:**

- Explicit cancelation: He could | not finish it, however, | as | he received a call.
- Cancelation due to for: He did this | for about five minutes, | until | he ...

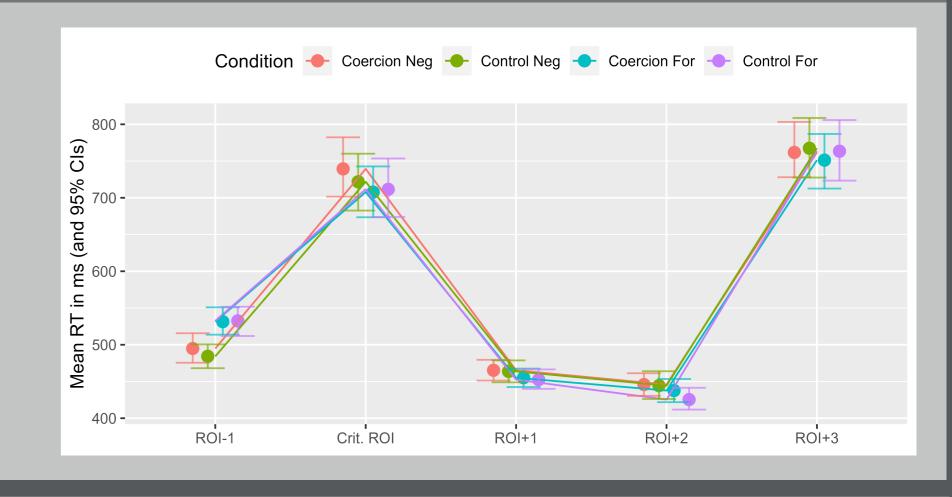
#### Self-Paced Reading of German Discourses with NCAs (Exp. 5)

- ▶ 90 participants read discourses in a  $2 \times 2$  design
- Contexts with begin may give rise to non-actuality implicatures [12]
- No CONTEXT effects
- Telic inference easy to cancel

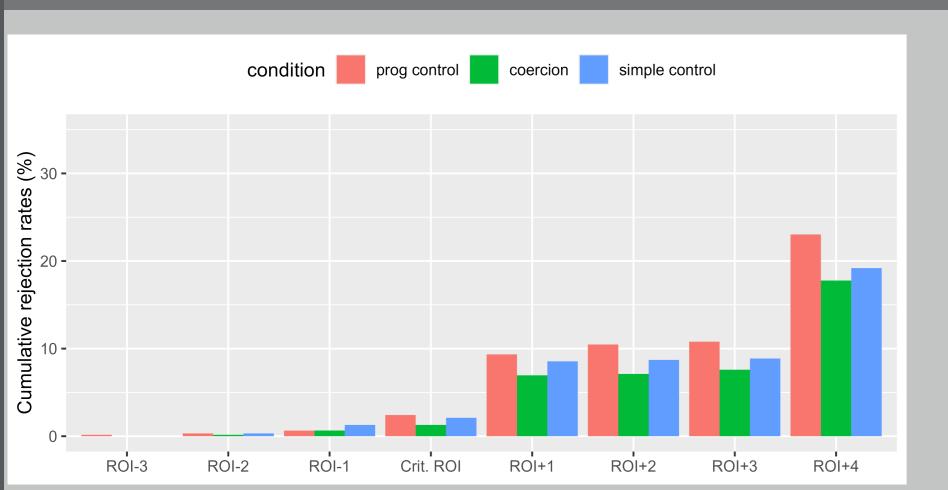


#### Self-Paced Reading of English Discourses with NCAs (Exp. 6)

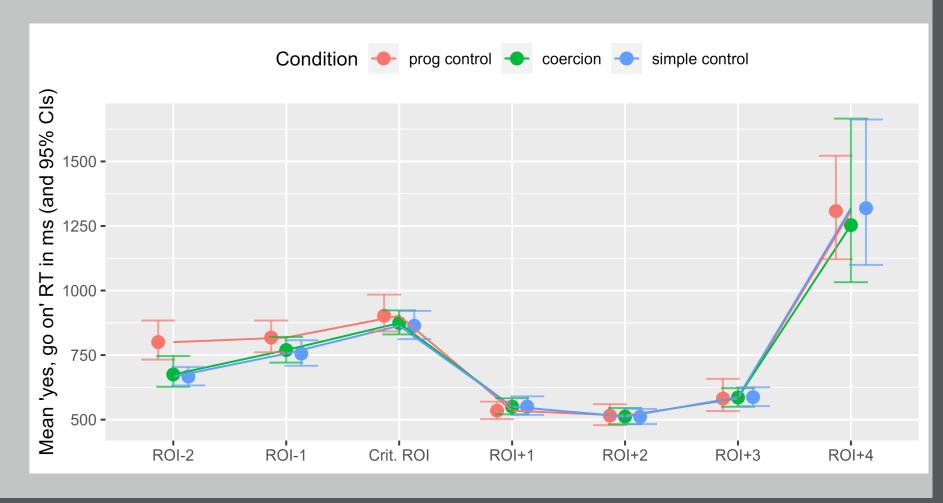
- ▶ 90 participants read discourses in the same  $2 \times 2$  design
- Again, no CONTEXT effects
- Culmination inference easy to cancel even for perfective accomplishments



## Stops-Making Sense Task on English NCAs (Exp. 7)



- Lack of coercion effect due to shallow processing [13,14,i.a.]?
- Stops-making sense task [15,16] in English, 39 participants
- Materials from Exp. 4 plus 39 non-sensical and 38 sensible fillers
- Analysis of cumulative rejection rates and RTs of yes, go on Coercion as acceptable as Ctrls, no difference in rejections
- Again, no coercion effect in RTs, computation of NCAs w/o any cost even when continuously checking/evaluating sensicality



References: [1] Vendler (1957). PR 66(2). [2] Martin (2019). L&LC 13. [3] Martin & Demirdache (2020). Linguistics 58(5). [4] Bott & Gattnar (2015). LCN 30(7). [6] Minor et al. (2022). PLOS ONE. [7] Minor et al. (2023). FiLS 1. [8] Moens & Steedman (1988). CL 14(2). [9] Brennan & Pylkkänen (2008). B&L 106(2). [10] Paczynski et al. (2014). JoCN 26(9). [11] Baggio et al. (2010). JML 59(1). [13] Ferreira (2007). L&LC 1(1-2). [14] Sanford & Sturt (2002). TiCS 6. [15] Todorova et al. (2000). CogSci 22. [16] Bott (2010). John Benjamins.