

## ? Do motion verbs contribute to the aspectual value of a VP?

### Theoretical Background

**Coercion** contextually driven resolution of a combinatory conflict  
→ processing costs! (Asher, 2011; Bott, 2010)  
Max began the book.

**Underspecification** contextually driven specification of an underspecified, compositionally well-formed semantic representation → no processing costs!  
Max liked the book. (Bierwisch, 1982; Egg, 2005)

**Motion verbs** (MVs) can head atelic as well as telic VPs, as they can combine with different types of **directional complements**.

telic to the North Sea  
ambiguous over the North Sea  
atelic along the coast

**Temporal adverbials** are sensitive to a VP's aspectuality and can coerce their argument to an appropriate type: *durative* requires an atelic VP, *completive* a telic one.

**Coercion Account** (Moens and Steedman, 1988; Rothstein, 2004)

MVs are lexically specified as *atelic*; can be coerced to a telic interpretation in combination with telic PPs.

**Alternative Coercion Account**

Some MVs are lexically specified as *atelic*, while others as *telic*. The former can be coerced to a telic interpretation, when combined with a telic PP. The latter can be coerced to an atelic interpretation, when combined with an atelic PP.

**Underspecification Account** (Maienborn, 1990)

MVs are lexically *underspecified* wrt telicity and a specification arises only at VP-level.

Lukassek, J. et al. (2017) "The Semantic Processing of Motion Verbs: Coercion or Underspecification?", *Journal of Psycholinguistic Research*, 46(4), 805-825.

### Eye-Tracking Study

#### Design

Eye-tracking during reading,  $2 \times 2 \times 2$  design with factors potential **verb type** (*telic*, *atelic*, IA 2), **directional phrase** (*telic*, *ambiguous*, IA 3-4), **temporal adverbial** (*completive*, *durative*, IA 6), 8 conditions, 16 MVs, 32 items, 7 interest areas (IAs, Fig. 1), 8 pseudo-randomized lists, 48 participants, 2 pretests, mixed effect models analysis.

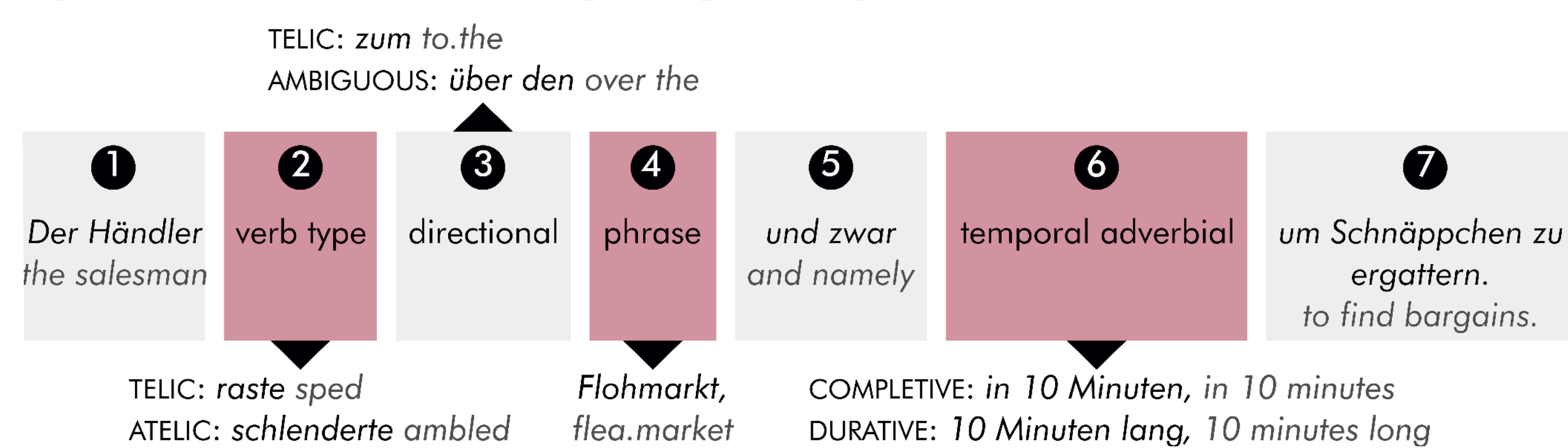


Fig. 1. Item structure and IAs. Verb telicity factor marked as assumed by ACA.

#### Effect Predictions

**Coercion Account (CA)**

*telic* directional phrase + *durative* temporal adverbial  
*verb* + *ambiguous* directional phrase + *completive* temporal adverbial  
*verb* + *telic* directional phrase

**Alternative Coercion Account (ACA)**

*telic* directional phrase + *durative* temporal adverbial  
*telic* verb + *ambiguous* directional phrase + *durative* temporal adverbial  
*atelic* verb + *ambiguous* directional phrase + *completive* temporal adverbial  
*atelic* verb + *telic* directional phrase

**Underspecification Account (UA)**

*telic* directional phrase + *durative* temporal adverbial

### Results

#### Regression Path Duration

**6 Directional phrase × temporal adverbial**  
Est.=-75.3, SE=35.2,  $t=-2.1$ ,  $p \leq 0.05$   
 $\text{telic} + \text{durative} >_{\text{time}} \text{telic} + \text{completive} \rightarrow \text{all theories (Fig. 2)}$

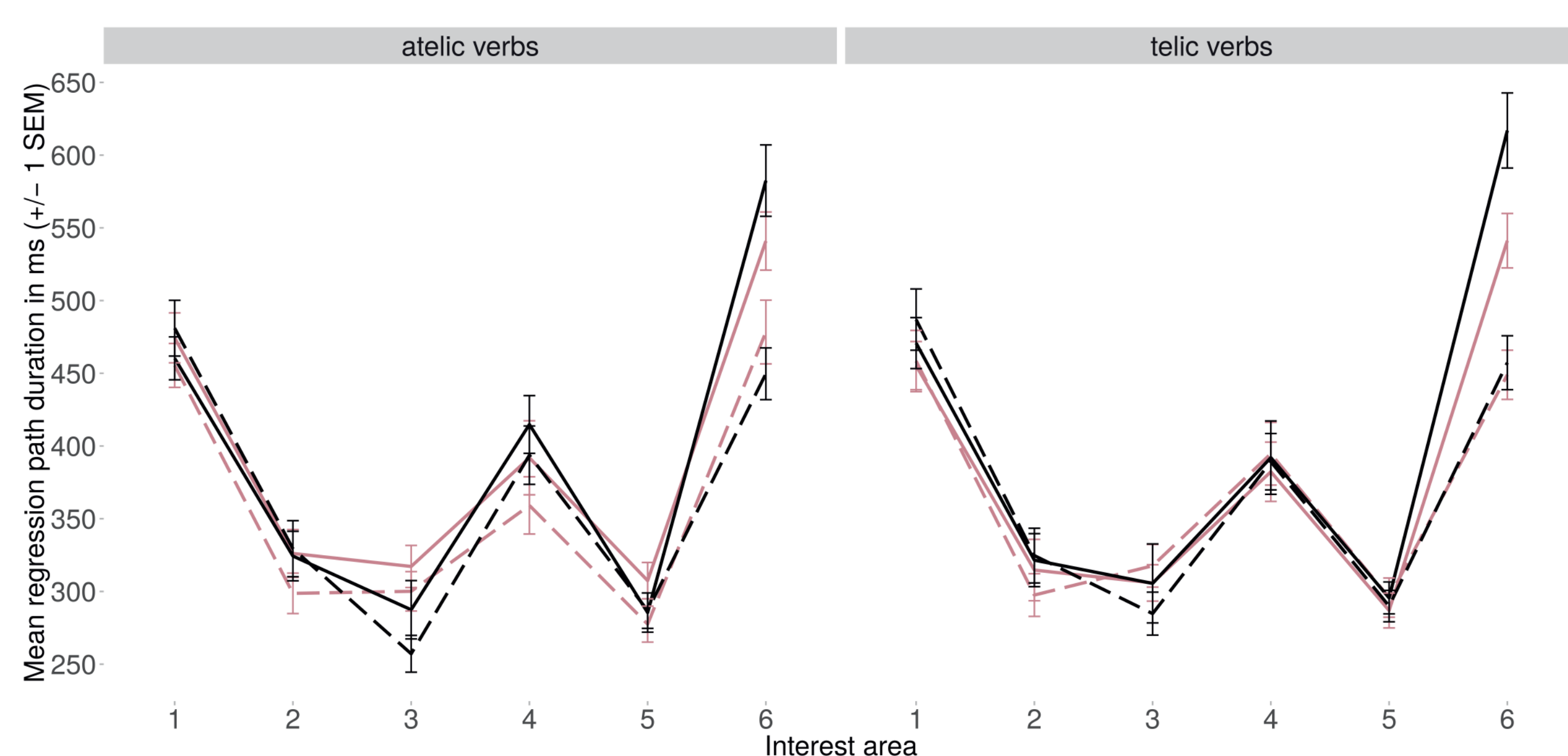


Fig. 2. Mean regression path duration in ms for IAs 1-6 (no sentence final spillover IA).

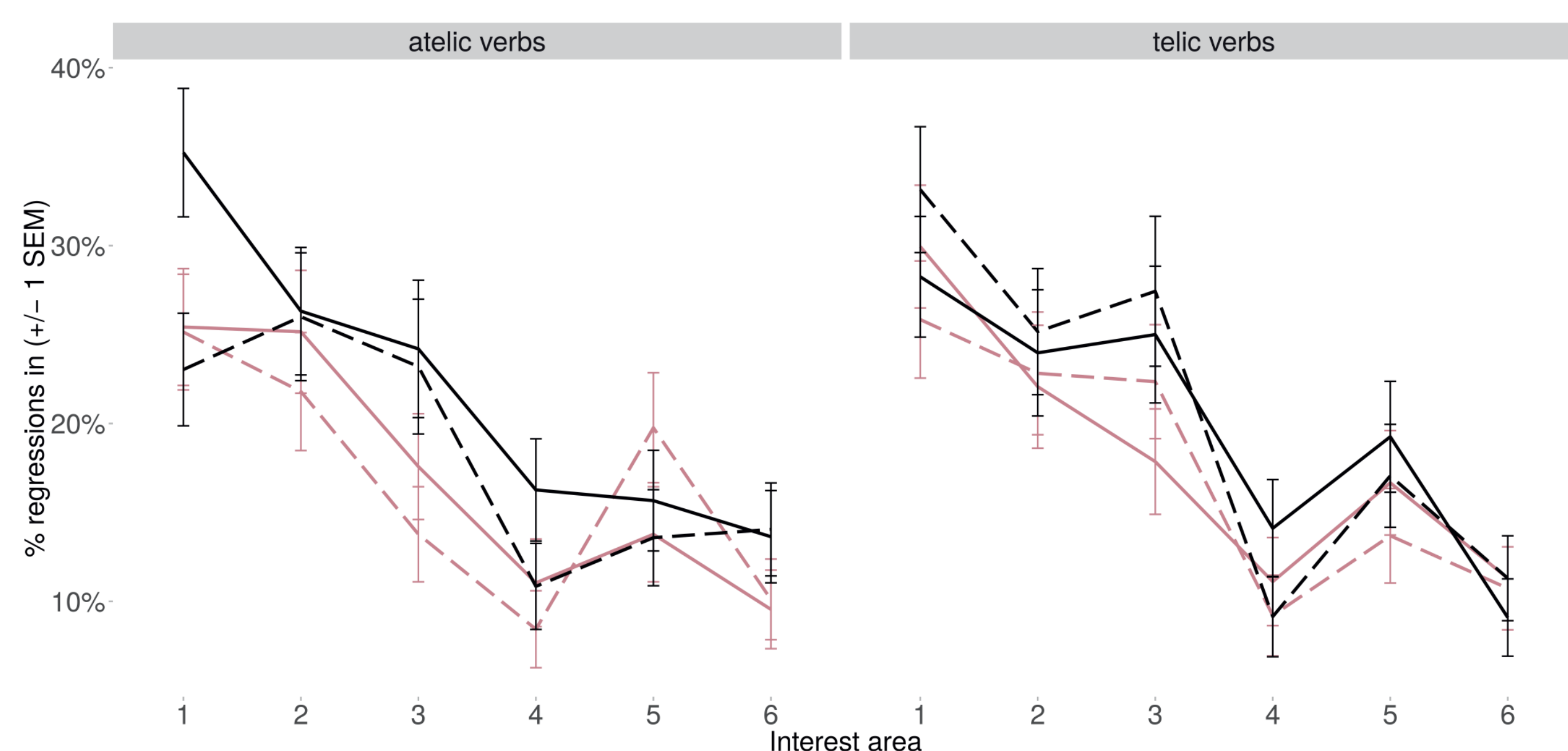


Fig. 3. Mean percentages of regressions into IAs 1-6 (no sentence final spillover IA).

Directional phrase & temporal adverbial: — ambiguous durative — telic durative - - - ambiguous completive - - - telic completive

#### Regressions In

**5 Verb telicity × temporal adverbial** Est.=-0.9, SE=0.5,  $z=-2$ ,  $p \leq 0.05$   
 $\text{telic} + \text{durative} >_{\text{reg}} \text{telic} + \text{completive} \rightarrow \text{ACA, HOWEVER: context frequency, different coercion type (Fig. 3)}$

#### Regressions Out

**6 Directional phrase × temporal adverbial** Est.=-0.9, SE=0.5,  $z=-1.9$ ,  $p=0.06$   
 $\text{telic} + \text{durative} >_{\text{reg}} \text{telic} + \text{completive} \rightarrow \text{all theories (Fig. 4)}$

**Verb telicity × temporal adverbial** Est.=-1.3, SE=0.5,  $z=-2.5$ ,  $p < 0.05$   
 $\text{telic} + \text{durative} >_{\text{reg}} \text{telic} + \text{completive} \rightarrow \text{ACA, HOWEVER: context frequency, different coercion type (Fig. 4)}$

#### Post-Hoc Study

**Question:** Are the ambiguous directional phrases really ambiguous?  
**Design:** Forced choice of atelic/telic continuation to 32 items with ambiguous directional phrases with a context sentence, 40 participants  
**Result:** telic continuations were more frequently chosen than atelic ones, above chance Est.=-0.80, SE=0.22,  $z=-3.6$ ,  $p < 0.001$

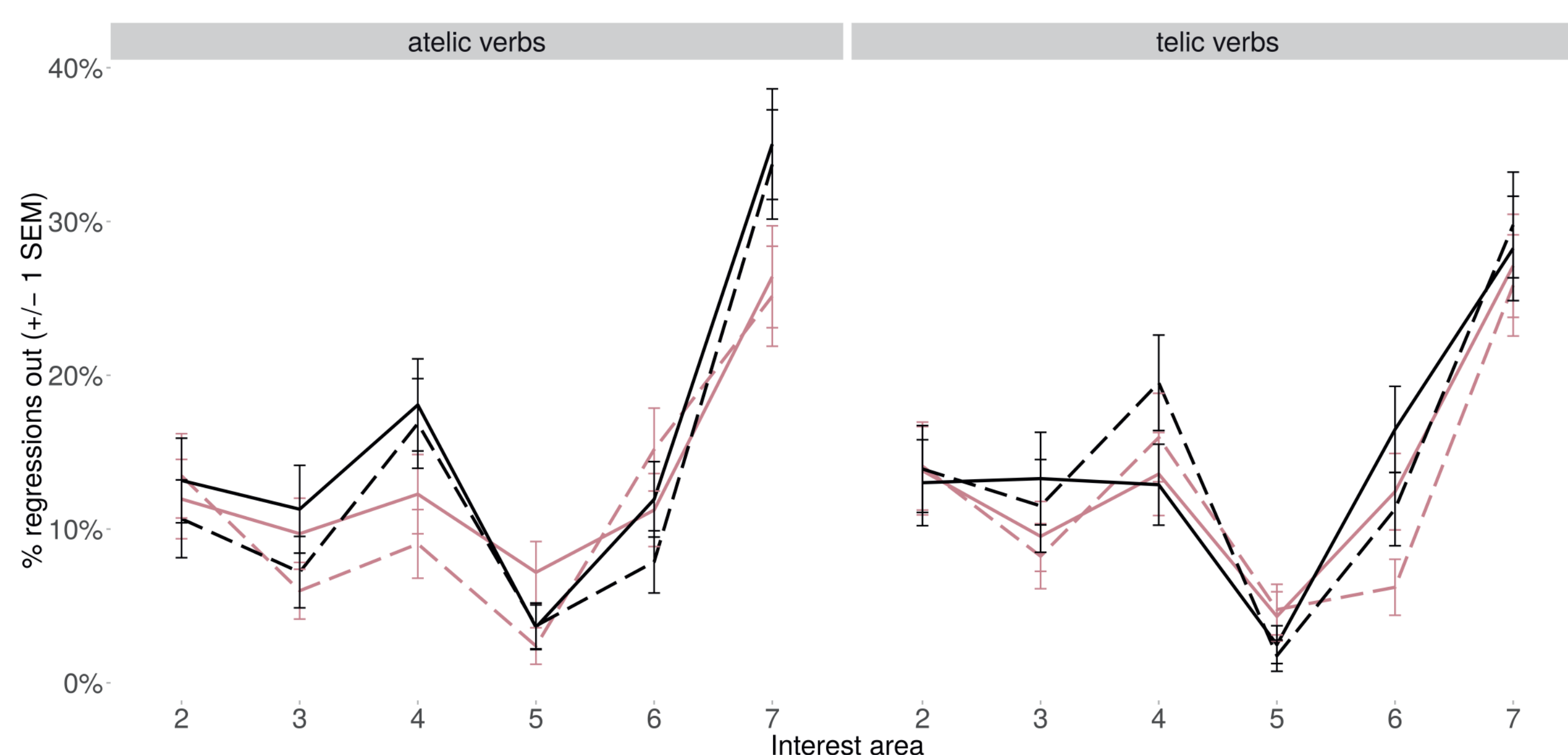


Fig. 4. Mean percentages of regressions out of IAs 2-7 (no initial subject IA).

## ! Motion verbs are underspecified and do not contribute to the telicity value of a VP.