What’s in a verb

• Aktionsart (predicate (dur) + object)
  (1a) Mike peels the apple → TELIC
  (1b) Mike peels apples → ATELIC

• Aspect
  (1c) Mike is peeling the apple → ONGOING
  (1d) Mike has peeled the apple → COMPLETED

Final interpretation:
The telos has been reached

Experimental Questions

1. Is the culmination inference derived incrementally?
2. If yes, when is it derived?
**Italian: Experiment 1**

Tell where Valery has colored the…

Dimmi dove Valeria ha colorato la…

- Same event
- Different objects
- Different degrees

**Italian: Experiment 2**

Tell where Valery has colored the…

Dimmi dove Valeria ha colorato la…

- Same event
- Same object
- Different degrees

---

**Early controls (EC)**

- Different event
- Same object
- \(\Rightarrow\) Early Disambiguation the Predicate is (lexically) compatible only with one of the events

Tell where Michael has lifted the…

Dimmi dove Michele ha sollevato la…

---

**Late controls (LC)**

- Same event
- Different objects
- \(\Rightarrow\) Late Disambiguation the Predicate is (lexically) compatible with both events

Tell where Michael has (in hand) the…

Dimmi dove Michele ha in mano un…
1. Is the culmination inference derived incrementally?
   - in Experiment 1 participants in the Critical Condition (PF) converged on the target EARLIER than Late Controls (LC) and crucially BEFORE the end of the complement.  
     **YES**

2. When do we start to compute the culmination inference? As soon as we process the aspectual information on the verb?
   - in Experiment 2 participants in the Critical Condition (PF) converged on the target AS EARLY AS Early Controls (EC) and crucially AT THE VERB region.  
     **YES**
Results Italian (Exp. 2)

Tell me where Valery…

ITALIAN
has colored the star
ha colorato la stella

DUTCH
heeft de ster gekleurd

RUSSIAN
zakrasila zvezdu

SPANISH
ha coloreado la estrella

Language & Incrementality

Perfectivity in Dutch

- SOV (Italian Russian Spanish = SVO)
- Perfectivity: aux + verb (past participle)
- (optional) Prefix on the verb that marks completion (as in Russian)
- Auxiliary verb “heeft” is ambiguous, i.e. it can also work as main verb (as in Italian)

Perfectivity in Russian

- SOV (like Italian & Spanish)
- Perfectivity is marked on VERB (no aux) by a prefix: imperfective forms are morphologically simple, so that perfective forms derive from it by prefixation, infixation, or even stress shift.
- Perfectivity is always marked morphologically, but there is no uniform morphological marker.
Perfectivity in Spanish

- SVO (like Italian & Russian)
- Perfectivity: aux + verb (past participle)
- Auxiliary verb “ha” is unambiguous, i.e. it cannot work as main verb (differently from Italian)

Participants
- 23 Dutch speakers
- 24 Spanish speakers
- 25 Russian speakers

Same task used for Italian
Adapted material depending on language

Methods

**DUTCH**

<table>
<thead>
<tr>
<th>Prop of fixations to the target</th>
<th>Contrast</th>
<th>PF - LC</th>
<th>df</th>
<th>p</th>
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**RUSSIAN**

<table>
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</table>
The culmination inference is derived incrementally in all the languages tested, participants in the Critical Condition (PF) converged on the target EARLIER than Late Controls (LC) and (Spanish aside) BEFORE the end of the complement.

Conclusions

The point of incremental derivation (also) depends on the linguistic properties of the language and how aspect is realized in that language.

BUT

- “unambiguous” cues for perfective aspect (like Spanish “ha” or Russian prefix) seem NOT to trigger an earlier culmination inference.
- AUX alone does not suffice for the culmination inference to be derived (as Dutch and Spanish results suggest)

Conclusions

Thank you!