Is Telicity in Sign Languages Visible to Children?

Laura Wagner[1], Carlo Geraci[2], Jeremy Kuhn[2], Kathryn Davidson[3], Brent Strickland[2]
[1]The Ohio State University, [2]EHSS/CNRS/ENS, [3]Harvard University

Theoretical Background: Telicity Marking In Sign Languages

Wilbur (2008) proposes:

- Most (maybe all) sign languages have morphological markers of telicity
- Moreover, these markers are ICONIC

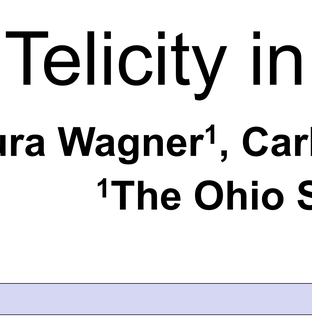
Telic

- Describe events with inherent boundaries
- Signs involve distinctive change of state

Atelic

- Describe events with no inherent boundaries
- Signs involve repetitive motion (no inherent end pt)

Signs in NGT (Netherlands)



Experimental Approach

Strickland et al. (2015):

- Non-signing, hearing adults successfully match unknown signs to known verbs based on telicity, suggesting adults are using some iconic information in the signs

Our study asks if children, who lack the same level of cognitive resources of adults, are also able to make use of this "iconic telicity" in signs

Participants

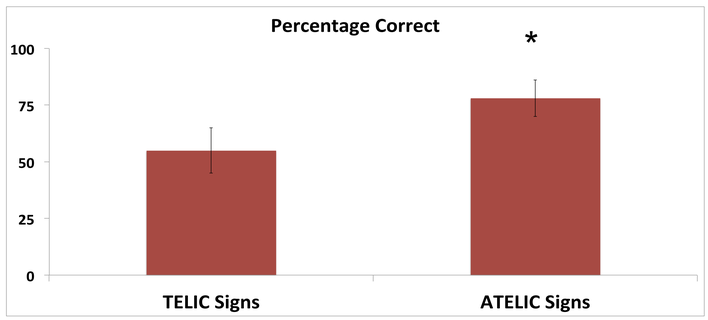
- N = 96 (24 per experiment)
- Mean age = 5;5 half girls
- All run at the Language Sciences Research Lab

Task: Experiments 1 - 3

- Stimuli adapted from Stickland et al. (2015)
- Children saw 12 signs in NGT, half telic & half atelic
- Each sign was paired with two verbs in English; only one verb matched in telicity
- Children were asked which verb matched the sign's meaning

Experiment 1: *Correct Verb Present*

- One verb was a direct translation of the sign (it also matched on telicity)
- Children successfully match atelic signs to atelic verbs, but are at chance with telic signs



- Concern: Are children using superficial iconicity about the specific verb meanings to solve this task?

Experiments 2 & 3: *No Correct Verb Present*

- Neither verb choice was a correct translation, so choices could only use telicity information → **Adults succeed on this**
- In E2, verbs were drawn from the original set of Strickland et al.; in E3, verbs were all known by over 85% of 36 m.o., per MBCDI
- Children were at chance with both telic and atelic verbs, regardless of child-friendliness of verbs used

	% Correct	
	Telic	**Atelic**
Adult Verbs	52%	46%
Child-Friendly Verbs	57%	46%

Experiment 4: *Translation Study*

- Children watched each sign and were asked to provide their own translation
- Translations were rated for telicity (by experts blind to the specific sign)
- Children DO use significantly more telic-rated verbs and predicates to describe telic signs (5.3) than atelic-signs (2.8): $t(23) = 6.5$, $p < .001$
- This telicity effect remained even after partialling out similarity of children's translations to exact meaning of the sign

Discussion

Children are sensitive to iconic information present in sign languages, both when it superficially encodes a verb's meaning, AND when it encodes an abstract property such as telicity