

Background

- ❑ We learn about events in different ways:
 - **Directly** through visual experience (seeing someone break the glass)
 - **Indirectly** through inference based on visual clues (seeing pieces of broken glass)
- ❑ **Evidentiality**: grammatical encoding of a speaker's access to information¹
 - Marking only visual experience is rare across languages
 - Marking inference from visual evidence is more frequently encountered **BUT** its status (indirect vs. direct source) is debated²
- ❑ A previous learnability study from our lab³ compared different evidential systems:
 - ❑ Marking visual experience was the hardest to learn
 - ❑ Marking inference yielded mixed results – learning accuracy was either comparable to or slightly better than that of visual systems

Current Study

- ❑ **Question**: Why is learning to mark visual experience and visual inference as sources so hard?
 - Hypothesis: the nature of visual clues makes Visual Experience harder to distinguish from Visual Inference⁴
 - **Current Aim**: Explore this hypothesis with adult learners by using inferential clues of varying degree of indirectness
- ❑ **Study setup - Artificial Language Learning (ALL)**
 - **Experiment 1**: compared learnability of a system that grammatically marked either Visual access or Visual Inference access
 - **Experiment 2**: similar design with **more indirect** visual clues for Inference access

Materials

- ❑ **Created vignettes** each showing a different event
 - One puppet learned about the event either by observing the action (Visual access) or by inference based on visual clues (Inferential access)
- ❑ **The puppet used artificial language to describe the event** (English lexicon with a different syntactic order, no function words : e.g. *she pans flipped*)
 - **Marker *ga*** = verb affix to **mark one access type**

Stimuli example

Visual Access System Exp1 and 2 –marker *ga* ONLY used when the puppet had **complete visual access** to the event



Inferential Access System Exp 1 –marker *ga* ONLY used when the puppet used **visual clues to infer** what happened



Frog square drewga.

Minnie's description of the event

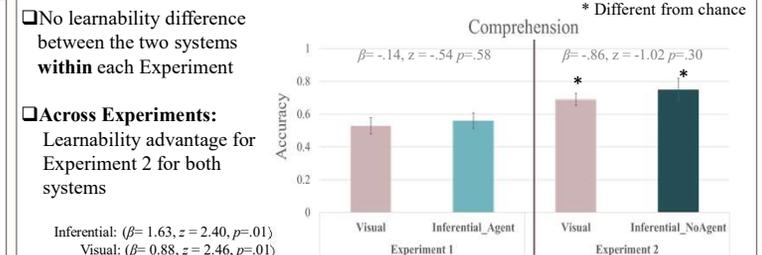
Inferential Access System Exp 2 –marker *ga* ONLY used when the puppet used **indirect visual clues to infer** what happened (agent missing in the end)



Procedure

- ❑ **Participants**: 47 adults (native English speakers) per Experiment
- ❑ **Training Phase**: watch 14 videos – figure out when the marker was used
- ❑ **Test Phase**: *Comprehension task*: 12 new videos in total (6 per access type)
 - half correct uses of 'ga', half errors
 - Determine whether 'ga' was used correctly

Results



Discussion

- ❑ Our results confirm that Visual and Inferential evidentials are hard to learn (even by mature – i.e., adult – learners).
- ❑ Nevertheless, increasing the indirectness of the visual evidence increased learning accuracy for both Visual and Inferential evidential systems.
- ❑ Our data suggest that part of the learnability difficulty for evidentials arises because of the difficulty of drawing the boundary between visual perception and visual inference and/or mapping this distinction onto language.
- ❑ Similar factors may explain the variable status of inferentials across evidential systems cross-linguistically.

References

1. Aikhenvald, A. (2018). Evidentiality: The Framework. In A.Y. Aikhenvald (Ed.), *The Oxford Handbook of Evidentiality* (pp.1-43). Oxford: OUP.
2. de Haan, F. (2001). The place of inference within the evidential system. *International Journal of American Linguistics*, 67, 193-219.
3. Saratsli, D., Bartell, S. & Papafragou (2020). Cross-linguistic frequency and the learnability of semantics: artificial language learning studies of evidentiality. *Cognition*, 197.
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