

# Economy principle in signed narratives: Is it age-sensitive?

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### **FOCUS OF THE STUDY**

#### **Referential Accessibility:**

In narratives, speakers and signers vary the quantity of marking on referring forms and anaphoric tools (REATs) based on the accessibility of the referent in the addressee's mind [1-2]:

Accessible  $\rightarrow$  less marking <u>Inaccessible</u> → more marking

#### **Discourse Status:**

A referent can also be:

Introduced  $\rightarrow$  mentioned for the first time

Maintained → continued across at least two clauses Re-introduced → old referent brought back to discourse

The Present Study: -- investigated the reference tracking strategies of native and late deaf adult signers in Turkish Sign Language (TİD) narratives by using a 7-point scale of referent accessibility.

### Referent Tracking in Sign Languages

Sign Languages are natural languages of the Deaf communities all around the world. REs for sign languages include the following main tools:

#### Nominal (NOM)



Pronominal (PRO)



Classifiers (CL)











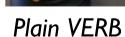


Referent accessibility

Taken from [11]

**ExtCL** 







Agreement VERB

# **Age of Acquisition Effects**

### Two groups of signers

- 1) Native deaf signers: have deaf parents, AoA: 0-3 years
- 2) Late deaf signers: have hearing parents, AoA: >3 years

Native language deprivation among late signers known to influence morphosyntactic

[5] and narrative abilities [3].

## References & Acknowledgements

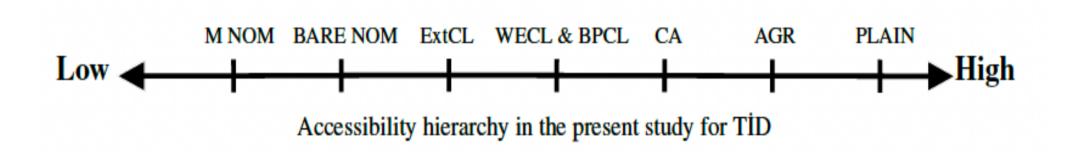
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### **HIGHLIGHTS**

- Deaf native and late signers' reference tracking examined with a story-telling paradigm in Turkish Sign Language.
- Nominals and SASS mainly used for referents with low accessibility (most to introduce)



- Null markers and classifiers favored for highly accessible referents (most to maintain)
- Plain verbs found to be the most implicit marker of reference.

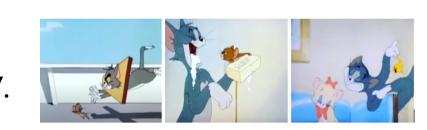


- Both groups of signers used the same REATs but late signers had slightly lower accessibility ratings (i.e., used more overt markers of reference)
- Limited evidence of over-redundancy in late signers' reference tracking compared to native signers

### **METHODS**

#### **Participants:**

8 native and 8 late deaf adult signers. Late signers' exposure to TİD between ages 3-17



#### **Procedure:**

Participants shown 10 short wordless clips from a cartoon and asked to retell them.

### **Accessibility Scoring (following [14])**

5 for most accessible and -2 for least accessible) based on:

- (i) the number of propositions back to previous mention of the current referent
- (ii) topicality/saliency of the current referent
- (iii) number of matched competitors between the referent and its previous mention

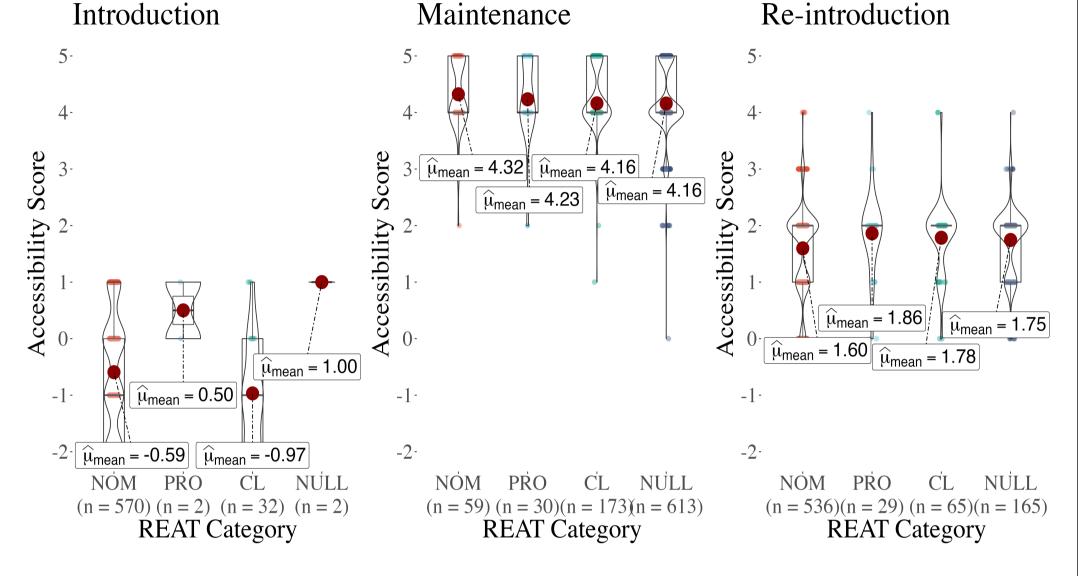
### **Annotation**

Using ELAN [12], we annotated the accessibility score, discourse status, and REAT.

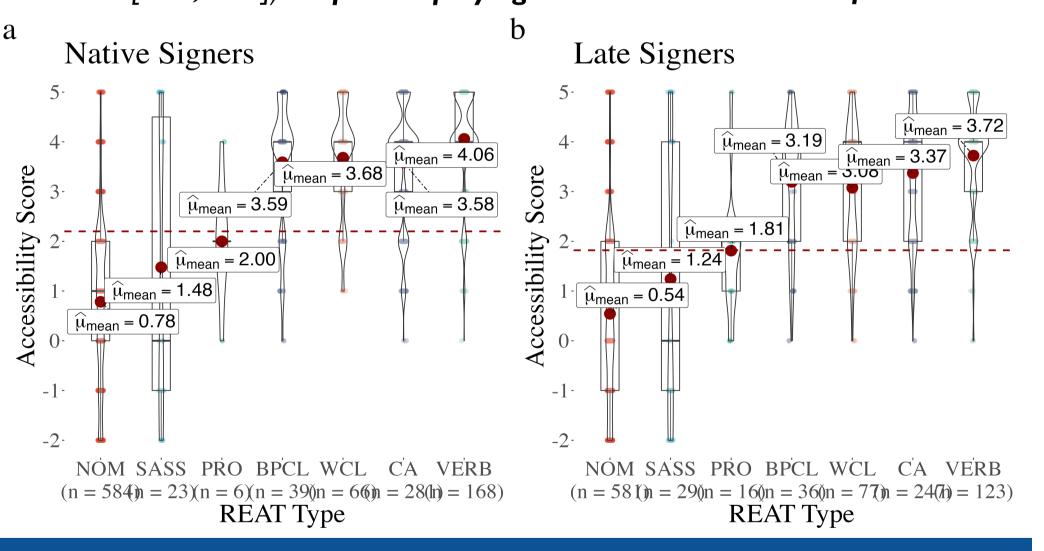
### **RESULTS**

We fit a Bayesian linear regression model using the brms package [6] in R to accessibility score (dependent variable) with discourse status and acquisition group as fixed effects and subject as random

Maintenance condition greatly increased accessibility ratings ( $\beta = 4.86, 95\%$  Cl [4.76, 4.95]) whereas introduction greatly decreased accessibility ( $\beta = -4.68$ , 95% CI [-4.78, -4.58]). NULL was used to maintain highly accessible referents but signers overall preferred NOM for lowly accessible referent introduction and re-introduction.



Native signers had slightly higher mean accessibility ratings ( $\theta = 0.14$ , 95% Cl [0.01, 0.28]) despite employing similar mean numbers of REAT.



### DISCUSSION

- -- The observed distribution of REAT types was in line with previous observations [7-8, 12].
- -- Limited over-explicitness by late signers in reference tracking is akin to findings from hearing L2 acquirers of a sign language [4, 8] and spoken language [15].

#### **Conclusion:**

- -- Native and late signers share the same linguistic inventory to track referents but differ in pragmatic competence.
- -- Delayed first language exposure might negatively affect late deaf signers' pragmatic competence, and this might be reflected in their sensitivity to economy of form.