



Successful communication
does not drive language development:
Evidence from adult homesign

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AttLis 2022

Who am I?



Gallaudet 50th
Reunion, 2016

My Deaf
parents Richie
& Amy (Eibel)
Coppola



Background in Cognitive
Science, Linguistics, and
Developmental
Psychology



24 years of fieldwork in
Nicaragua

Passionate
promotor of access
to language and
education for DHH
around the world



Most deaf people in the world do not have access to language or education (70%)

World Federation of the Deaf 2016



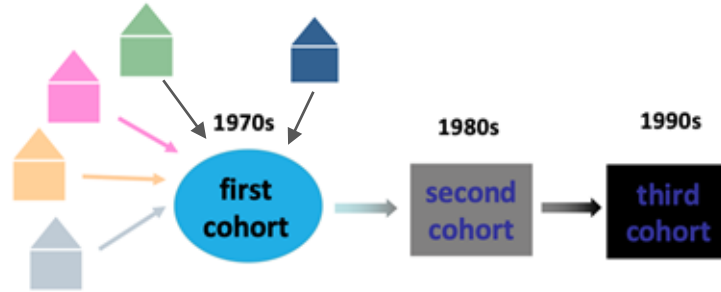
INTERNATIONAL WEEK
OF DEAF PEOPLE



WORLD FEDERATION OF THE DEAF

In Nicaragua it's more like 95%.....

Homesigners: Deaf people who do not have access to language or education

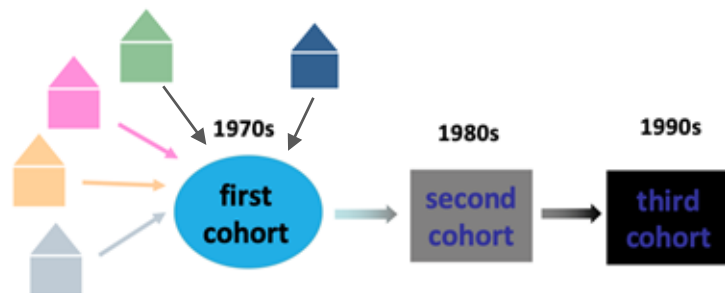


**Lengua de Señas Nicaragüense
(LSN)**

(Nicaraguan Sign Language)

In Nicaragua it's more like 95%.....

Homesigners: Deaf people who do not have access to language or education



Lengua de Señas Nicaragüense (LSN)
(Nicaraguan Sign Language)

Homesigners....

- Are deaf & do not acquire a spoken language
- Do not acquire sign language
- Do not have access to education/literacy
- Innovate linguistic structures
- Are socially integrated into their communities
- Use their homesigns as their primary and only language throughout their lives

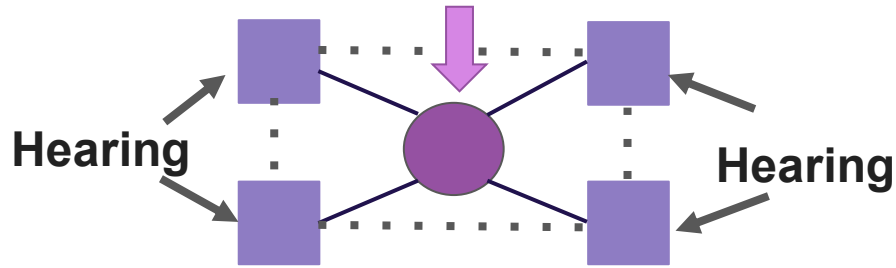


Communication Partners....

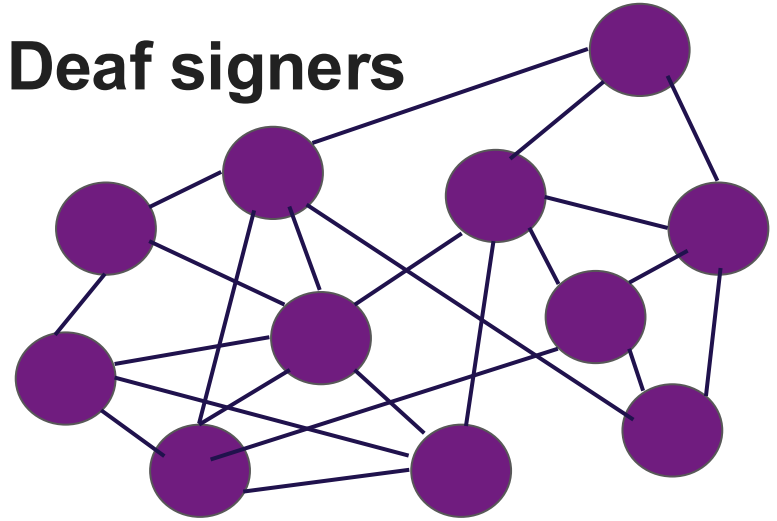
- Are hearing & do not know a sign language
- Live & communicate daily with the homesigner
- Use gestures with the deaf homesigner
- Use spoken Spanish with each other



Deaf homesigner



Deaf signers

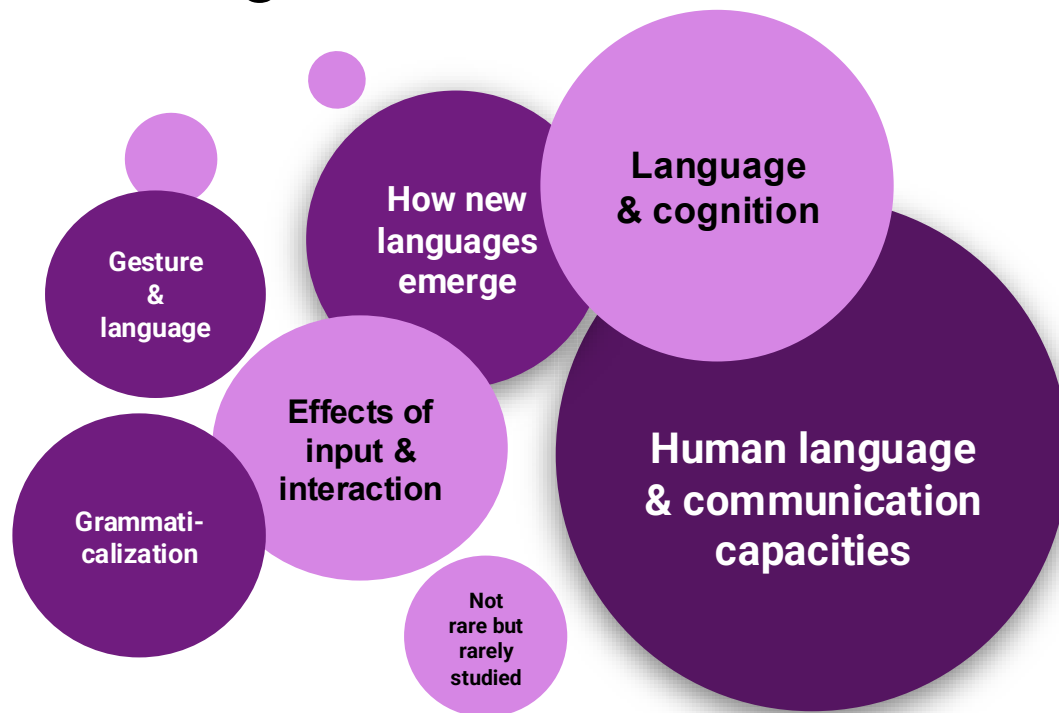


**Spoken
Spanish**

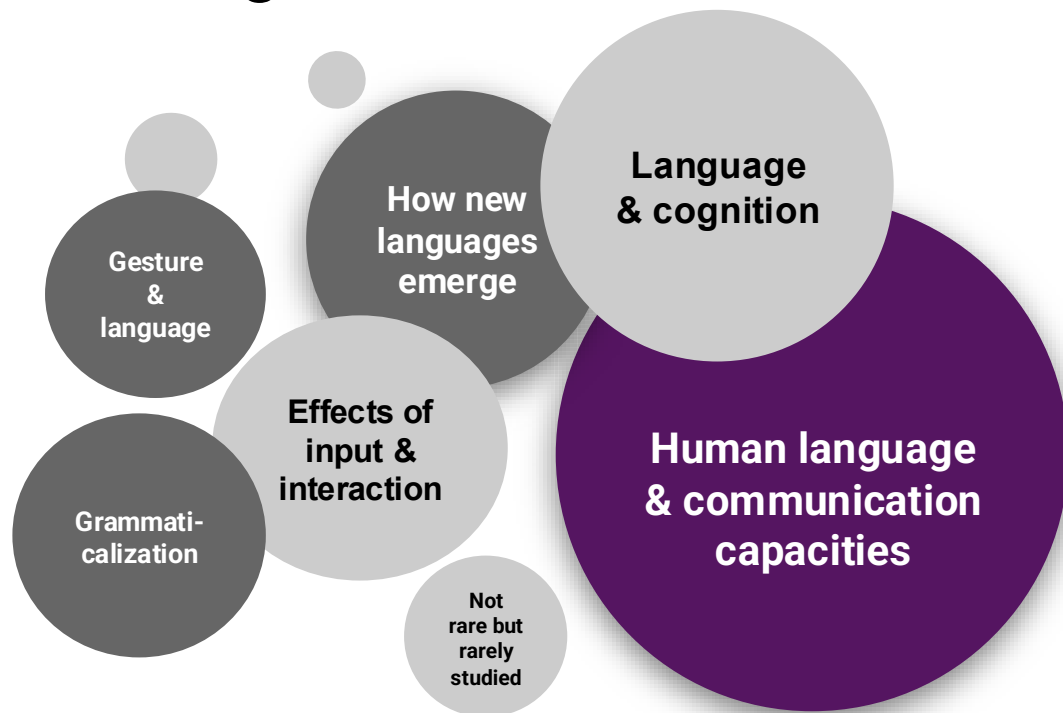
**Primary language
used by linguistic
community**

**Lengua de
Señas
Nicaragüense
(LSN)**

Why study homesign?



Why study homesign?





Handshapes mark
linguistic contrasts
(Morphosyntax)



Arguments vs.
Predicates

Grammatical Subject

Homesigners can
create linguistic
structure without
linguistic input

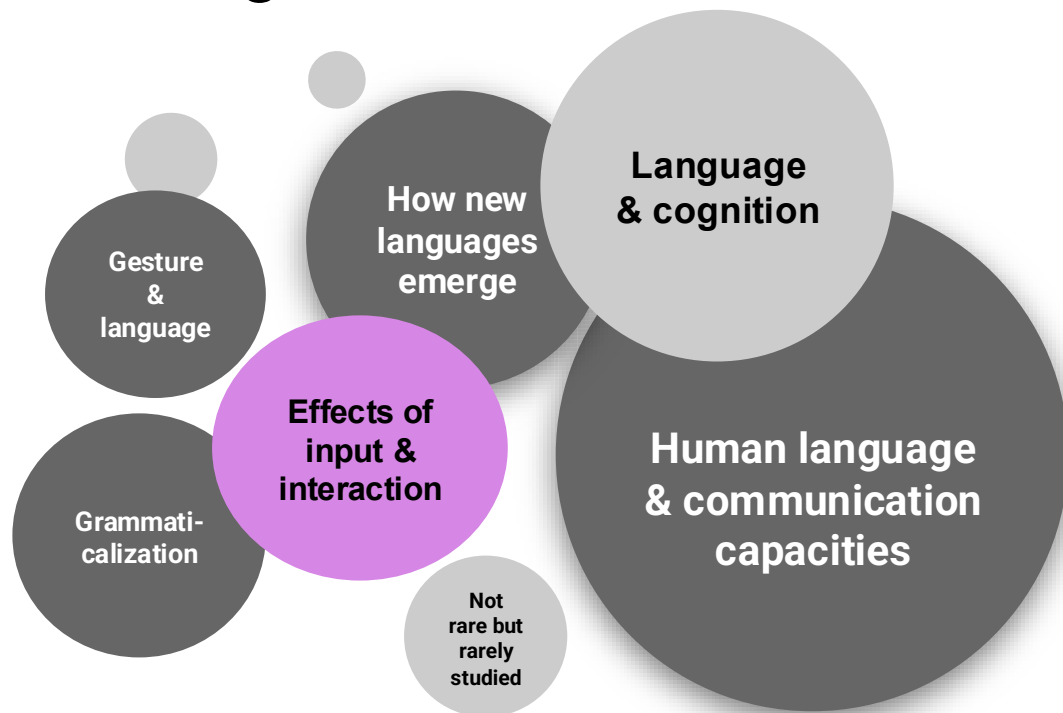


Morphophonology



Plural Morphology

Why study homesign?



**Experimenter
(Hearing)**

**Mother
(Hearing)**

**Homesigner
(Deaf)**



**April
2002**

Mother (in Spanish): “*The Nicaraguan civil war was really devastating.*”



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Cognition

journal homepage: www.elsevier.com/locate/COGNIT



Original Articles

Successful communication does not drive language development: Evidence from adult homesign

Emily M. Carrigan*, Marie Coppola

University of Connecticut, United States



How do children acquire language?

- **Constructivist accounts:** learners build linguistic representations on the basis of their input (e.g., Ambridge & Lieven, 2015; Tomasello, 2000, 2009)
- **Functionalist/Usage-based accounts:** linguistic forms results from children's attempts to solve communicative problems (the need to understand what people around them are saying (e.g., Goldberg, 2006))
- **Mechanisms:**
 - Communicative problem solving in the context of social interaction
 - Matching a linguistic target or model



**Can constructivist/functionalist
mechanisms account for the
development of language structure in
which a language model, or target,
is absent?**

On the Constructivist view:

- We should observe **successful communication** between homesigners and communication partners in the communicative problem solving process.
- Hearing communication partners (relatives) of the homesigner should **comprehend** the homesigner's productions

**Does communicative problem-solving play a role
in the development of structure in homesign?**

Research Questions

1. How well do homesigners' mothers comprehend homesign utterances based on the structure of the utterances?

(i.e., without benefit of context)

1. Can homesigners' mothers succeed on this task in spoken Spanish?
2. Which factors are associated with family members' comprehension of homesign sentences?

Corpus of Nicaraguan Homesign data



4 families over 26 years

- Focus on 4 adult homesigners today
- Ages 9-18 at beginning; now 35-44 years old

1,000+ hours of video

- Targeted elicitations
- Spontaneous & semi-spontaneous conversations

Participants

Deaf homesigners n=4 (ages 15-24y)

Homesigners' mothers n=4 (ages 45-62y)

Other hearing family members n=7 (ages 17-63y)

Deaf signers of American Sign Language (ASL) n=4
(ages 23-62y)

Homesign Comprehension: Method



Homesign
Descriptions



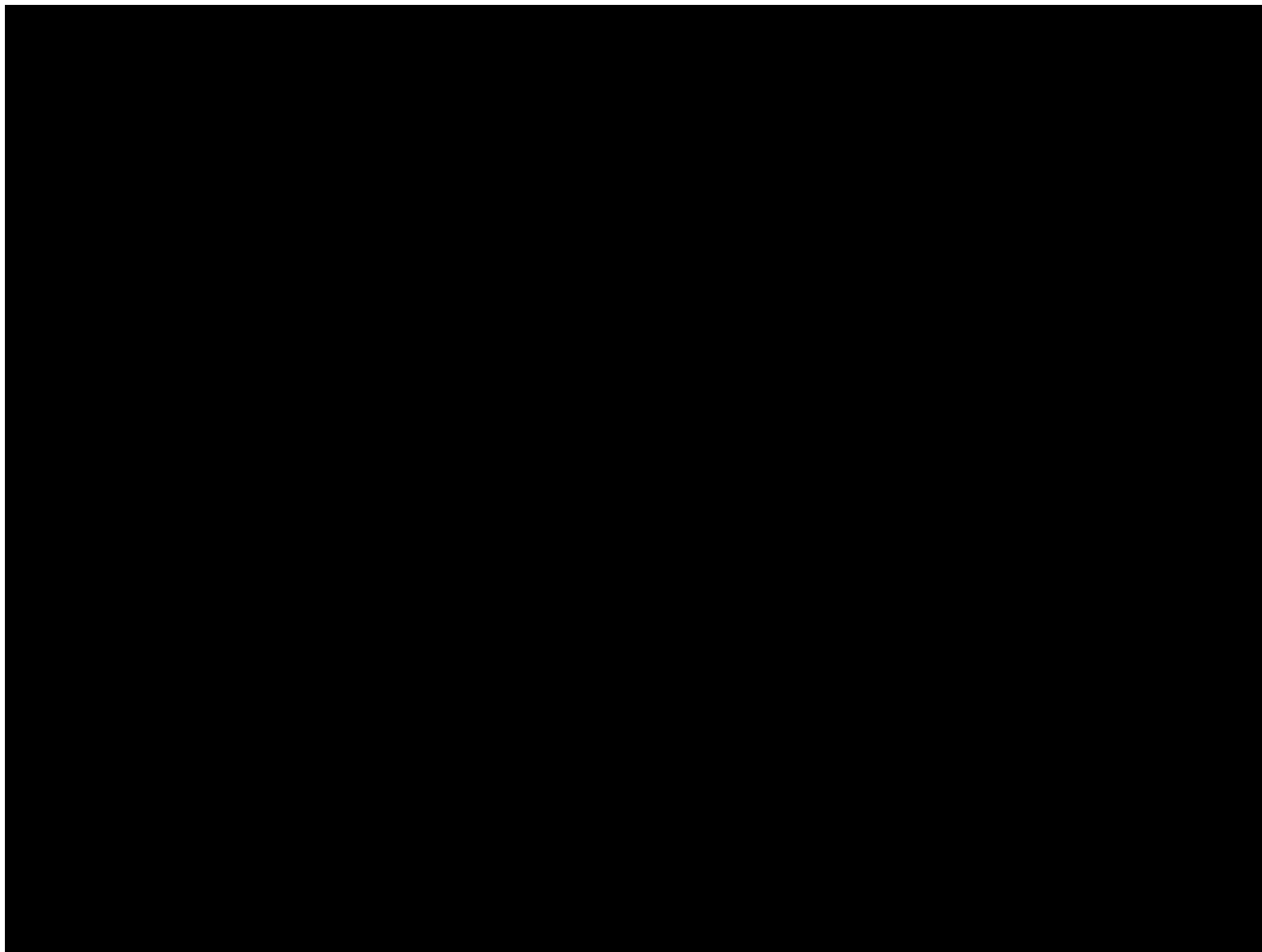
Events

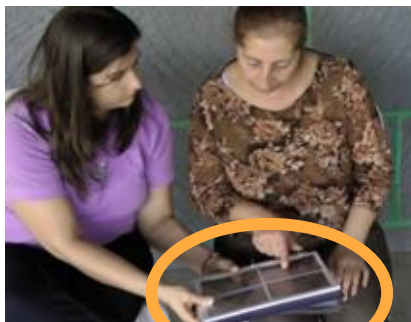


Mothers'
Comprehension



Man pushes a chair





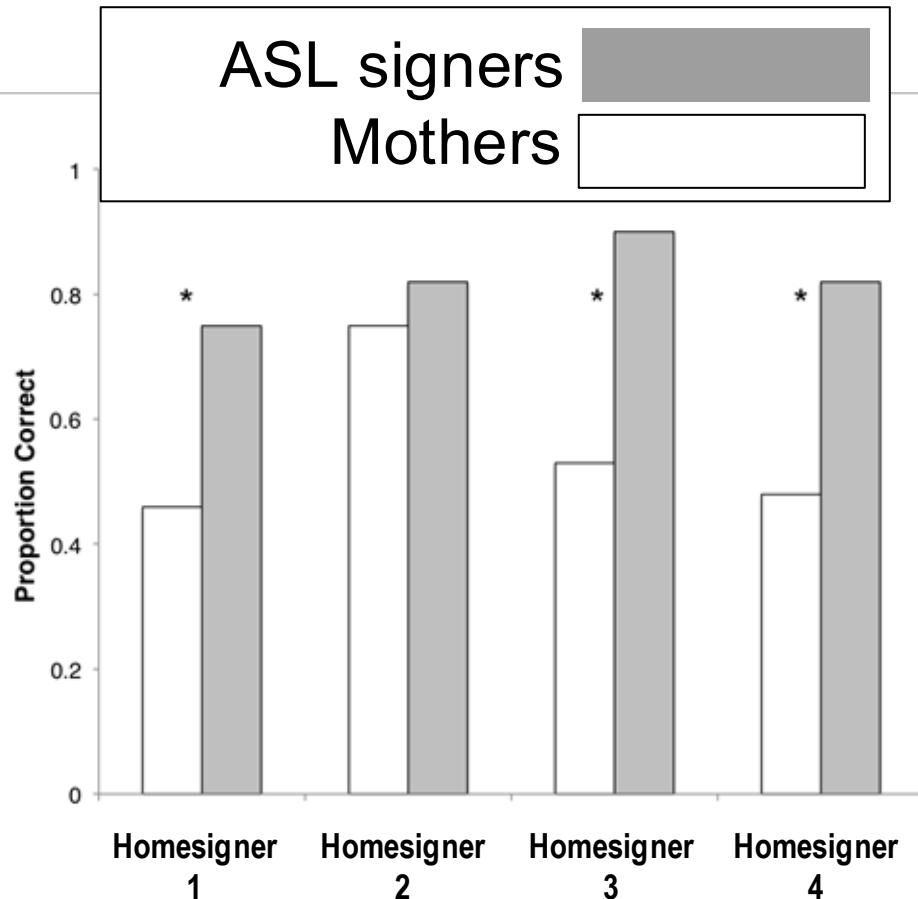
Carrigan & Coppola (2017, Cognition)



Research Questions

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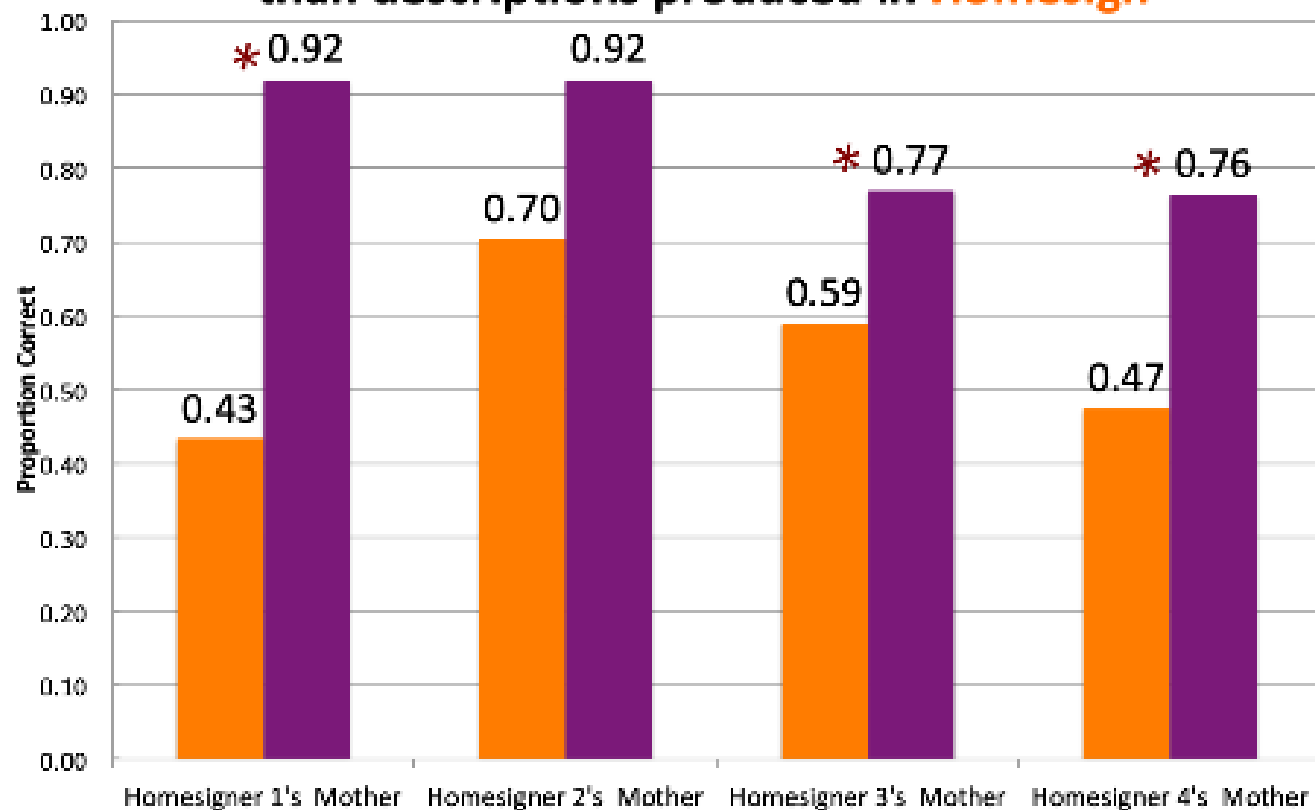


**ASL signers
understood
homesigners'
descriptions
better than
the homesigners'
mothers**

Research Questions

- 1. Can homesigners' mothers succeed on this task in spoken Spanish?**

**Homesigners' mothers comprehend
descriptions produced in **Spoken Spanish** better
than descriptions produced in **Homesign****



* $p < 0.05$, McNemar's Test for Correlated Proportions; HS 2's Mother's $p = 0.057$

**Can constructivist/functionalist
mechanisms account for the
development of language structure in
which a language model, or target,
is absent?**

No.

***Communicative engagement
is necessary for
linguistic structure to emerge,
but does not create it.***

We thank the homesigners and their family members and friends for allowing us to learn from them.



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