# Gestural Foundations of an Emerging Language: How Signers Adopt and Adapt Gestures

Lynn Hou (University of California, San Diego) Kate Mesh (University of Haifa) Panel for AAAS 2018 Friday, February 16, 2018

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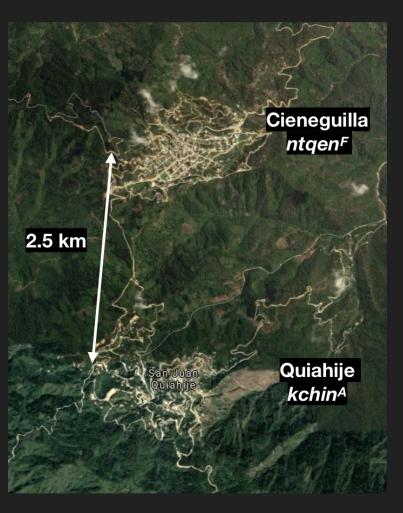


Gestures as a source for emerging sign languages

How do deaf people create sign languages with gestures from hearing people in the surrounding community?



### San Juan Quiahije Chatino Sign Language



- Two neighboring villages under one municipality, San Juan Quiahije
  - Combined pop. ~3600 Chatinos (INEGI, 2015)
- Spoken languages
  - SJQ Chatino (E. Cruz, 2011; H. Cruz, 2014)
  - Mexican Spanish
- 11 deaf people 0.3% of the population
  - A constellation of emerging family signed languages in six families (Hou, 2016)

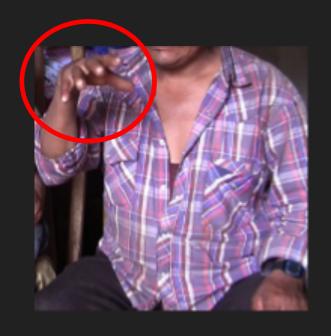




How are animals represented in gestures and signers?

Measure the height of animals by:

- delimiting the distance between the human hand and the realworld ground
- delimiting the distance between the two human hands





A common Mesoamerican strategy!

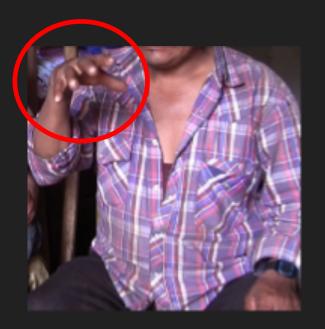
**TURKEY** 

DOG

Birds and mammals are distinguished by the positioning of palm orientation of the dominant hand

For birds, the palm represents the tip of the head

For mammals, the ulnar side of the hand represents the back of the neck



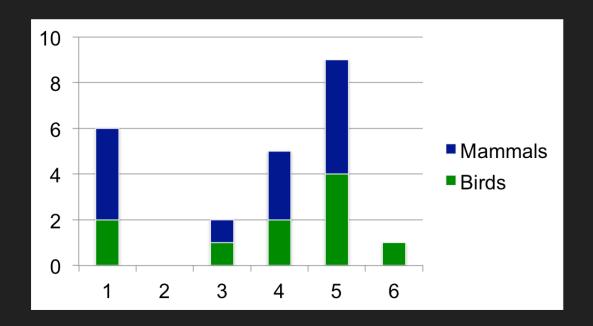


TURKEY DOG

A vocabulary elicitation of 20 animals from 6 deaf people of different families

25% of the responses (n = 90) are borrowed from gestures

The borrowing varies across the signing families



(Hou, forthcoming)











Nearby target

Distant target



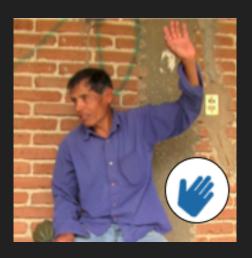




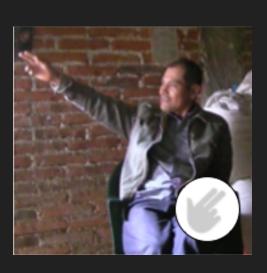


• For hearing gesturers, how systematically does elbow height convey information about target distance?





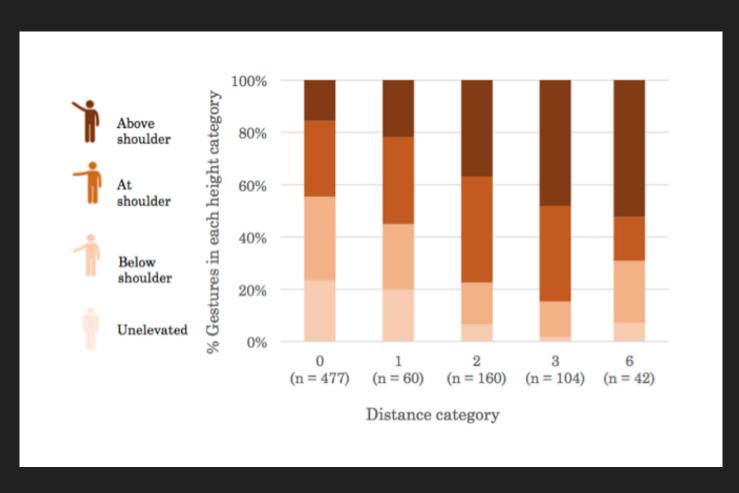


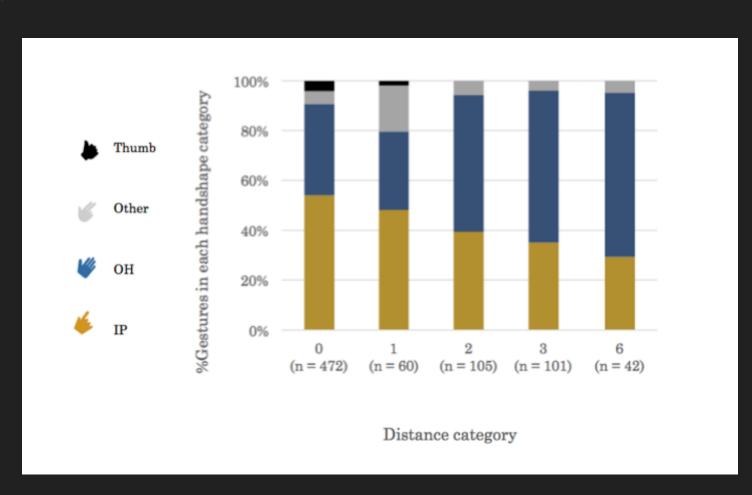


• For hearing gesturers, does handshape convey information about target distance?













Do deaf signers share the elbow height conventions of hearing gesturers?





Do deaf signers share the handshape conventions of hearing gesturers?





Nearby target

Distant target







#### WAG

For hearing gesturers, this form means 'no' or 'don't.

These meanings are retained by signers.





#### **TWIST**

For hearing gesturers, this form means 'there isn't any [of X]".

This meaning is retained by signers.

But signers ALSO use the form to mean, 'not', 'no'





#### PALM-DOWN

For hearing gesturers, this form means 'nothing more' or 'not at all'.

These meanings are retained by signers.

But signers ALSO use the form to mean, 'this is completed'





#### PALM-UP

For hearing gesturers, this form means 'I don't know'.

This meaning is retained by signers.





#### DEAD

For hearing gesturers, this form means 'dead', 'no', or 'stop it'.

These meanings are retained by signers.

But signers ALSO use the form as an emphatic version of 'not at all'



Gestures as a source for emerging sign languages

The case study of Chatino Sign Language allows us to better understand the process of adopting and adapting gestures for new sign languages.

#### Thank you!

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