

How quickly does phonology emerge in a “village” vs. “community” sign language?

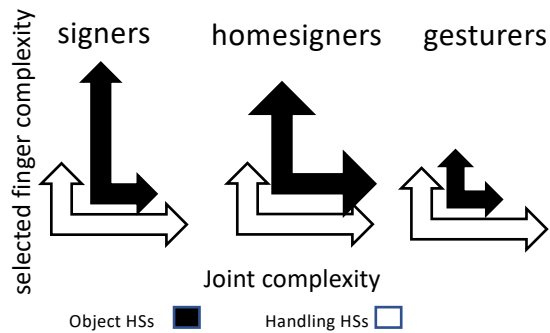
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RESEARCH QUESTION:

How does the language ecology affect the speed of the emergence of phonology?

BACKGROUND:[1,2]



METHODS:

Participants: 25 signers

--12 signers of Central Taurus Sign Language (CTSL):
CTSL-cohorts 1,2,3 (4 signers each)

--13 signers of from Nicaragua: homesigners (4), &
Nicaraguan Sign Language (NSL): NSL-cohort1 (4),
NSL-cohort2 (5)

Types of interaction/input:

	-horizontal	+horizontal
-vertical	Homesigners (Nic.)	NSL1, CTSL1
+vertical		NSL2,CTSL2, CTSL3

±Horizontal contact: does the person sign with other signers

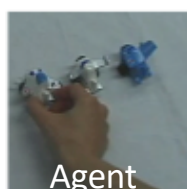
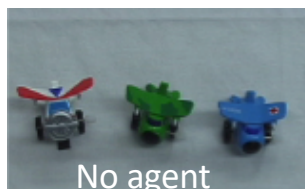
±vertical contact: does the person sign have a language model from the previous cohort

Esogenic: homogeneous community membership

Exogenic: heterogeneous community membership

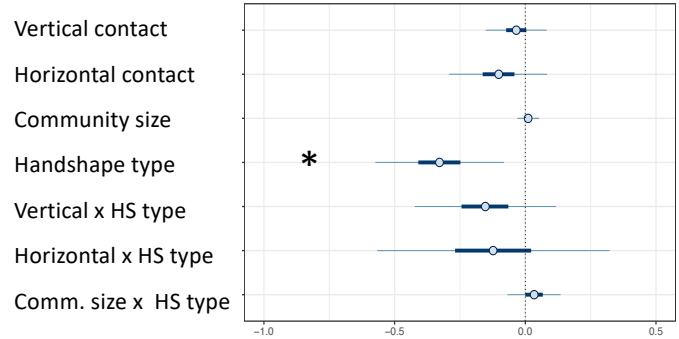
Data: 1992 vignette descriptions; 6452 handshapes

Stimuli:

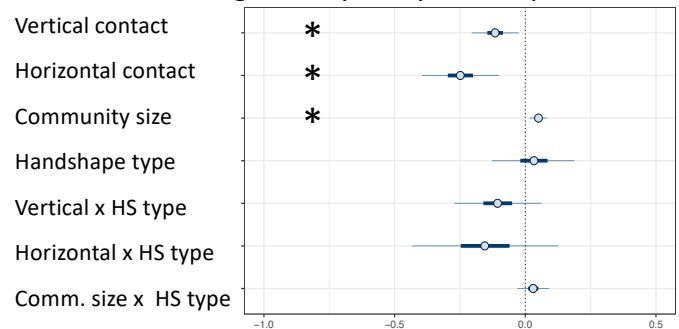


ANALYSIS:

Joint complexity model predictions



Selected finger complexity model predictions



CONCLUSIONS:

--Community size is important: a larger community (NSL) has **higher** complexity than a smaller one (CTSL),

--Language ecology matters too: CTSL (esogenic) has **lower** complexity than NSL (exogenic)

--The kind of interactions with others is also important: horizontal and vertical contact among signers **decreases** complexity

--Phonologization involves **pruning** (more evident in joint complexity) and **building** (more evident in selected finger complexity).

---Pruning is associated with joint complexity; building is associated with selected finger complexity.

REFERENCES:

- [1] Brentari, D., M. Coppola, P.W. Cho, and A. Senghas. 2017. Handshape complexity as a pre-cursor to phonology: Variation, emergence, and acquisition. *Language Acquisition* 24(4): 283-306.
- [2] Brentari, D., M. Coppola, L. Mazzone, and S. Goldin-Meadow. When does a system become phonological? Handshape production in gesturers, signers, and homesigners. *Natural Language and Linguistic Theory*, 30(1), 1-31.