How quickly does phonology emerge in a “village” vs. “community” sign language?
Diane Brentari\textsuperscript{1}, Rabia Ergin\textsuperscript{2}, Ann Senghas\textsuperscript{3}, Pyeong-Whan Cho\textsuperscript{4}, Eli Owens\textsuperscript{1} Marie Coppola\textsuperscript{5}

\textsuperscript{1}University of Chicago; \textsuperscript{2}Max Planck Institute for Psycholinguistics; \textsuperscript{3}Barnard College, Columbia University; \textsuperscript{4}University of Michigan; \textsuperscript{5}University of Connecticut

\textbf{RESEARCH QUESTION:}
How does the language ecology affect the speed of the emergence of phonology?

\textbf{BACKGROUND:}\textsuperscript{[1,2]}

\textbf{METHODS:}
\textbf{Participants:} 25 signers
--12 signers of Central Taurus Sign Language (CTSL): CTSL-cohorts 1,2,3 (4 signers each)

\textbf{Types of interaction/input:}
\begin{tabular}{|c|c|c|}
\hline
 & \textbf{+horizontal} & \textbf{-horizontal} \\
\hline
\textbf{-vertical} & Homesigners (Nic.) & NSL1, CTSL1 \\
\textbf{+vertical} & NSL2, CTSL2, CTSL3 & \\
\hline
\end{tabular}

\begin{itemize}
\item \textbf{Horizontal contact:} does the person sign with other signers
\item \textbf{Vertical contact:} does the person sign have a language model from the previous cohort
\end{itemize}

\textbf{Esogenic:} homogeneous community membership
\textbf{Exogenic:} heterogeneous community membership

\textbf{Data:} 1992 vignette descriptions; 6452 handshapes

\textbf{ANALYSIS:}

\begin{itemize}
\item \textbf{Joint complexity model predictions}
\item \textbf{Selected finger complexity model predictions}
\end{itemize}

\textbf{CONCLUSIONS:}

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

--Language ecology matters too: CTSL (esogenic) has \textbf{lower} complexity than NSL (exogenic)

--The kind of interactions with others is also important: horizontal and vertical contact among signers \textbf{decreases} complexity

--Phonologization involves \textbf{pruning} (more evident in joint complexity) and \textbf{building} (more evident in selected finger complexity).

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

\textbf{REFERENCES:}
