

The surprising grammar of touch

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A new study demonstrates that grammar is evident and widespread in a system of communication based on reciprocal, tactile interaction, thus reinforcing the notion that if one linguistic channel, such as hearing, or vision, is unavailable, structures will find another way to create formal categories. There are thousands of people across the US and all over the



world who are deafblind. Very little is known about the diverse ways they use and acquire language, and what effects those processes have on the structure of language itself. This research suggests a way forward in analyzing those articulatory and perceptual patterns—a project that will broaden scientific understanding of what is possible in human language.

This research focuses on language usage that has become conventional across a group of deafblind signers in the United States and shows that those who communicate via reciprocal, tactile channels—a practice known as "Protactile," —make regular use of tactile grammatical structures. The study, "Feeling Phonology: The Conventionalization of Phonology in Protactile Communities in the United States" by Terra Edwards (Saint Louis University) and Diane Brentari (University of Chicago), will be published in the December, 2020 issue of the scholarly journal *Language*.

The article focuses on the basic units used to produce and perceive protactile expressions as well as patterns in how those units are, and are not, combined. Over the past 60 years, there has been a slow, steady paradigm shift in the field of linguistics toward understanding this level of linguistic structure, or "phonology" as the abstract component of a grammar, which organizes basic units without specific reference to communication modality. This article contributes to that shift, calling into question the very definition of phonology. The authors ask: Can the tactile modality sustain phonological structure? The results of the study suggest that it can.

In order to uncover the emergence of new grammatical <u>structure</u> in protactile <u>language</u>, pairs of deafblind research participants were asked to describe three objects to one another: a lollipop, a jack (the kind children use to play the game 'jacks') and a complex wooden toy with movable arms, magnets, and magnetized pieces. The research team videorecorded their descriptions and then transcribed and annotated the



videos, looking for patterns.

They found that the early stages of the conventionalization of protactile phonology involve assigning specific grammatical roles to the hands (and arms) of Signer 1 (the conveyer of information) and Signer 2 (the receiver of information). It is the clear and consistent articulatory forms used by each of the four hands that launches the grammar in this case and allows for the rapid exchange of information. Analyzing these patterns offers new insights into how the conventionalization of a phonological system can play out in the tactile modality.

More information: <u>www.linguisticsociety.org/site ...</u> s/04_96.4Edwards.pdf

A discussion about the research and its implications for deafblind communities with Protactile experts John Lee Clark and Jelica B. Nuccio can be accessed here (free registration required): <u>dbinterpreting.wou.edu/login/index.php</u>

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