

Limits and possibilities of modality on language: phonology through the lens of sign languages

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There have been numerous discussions about what communication modality bring to the task of building units in signed and spoken languages. In this talk I discuss three kinds of phonological phenomena, and ask to what extent they function identically in both types of language, and to what extent their realization is tailored to the communication modality. None of these examples are individual constraints or rules, but rather abstract mechanisms that describe how phonology coheres as a system.

The first example concerns the organization of features in the phonological space, employing the principles of Dispersion and Feature Economy. Evidence from emerging sign languages shows that using this set of self-organizing principles is one of the first indices of a system becoming phonological. I will argue that these principles are virtually identical in signed and spoken languages, *modulo* feature content. The second example comes from the idea of morphophonological packaging. It is quite commonly assumed there is more simultaneous morphology in sign than in speech, and more abundant sequential morphology in speech than in sign; however, I will argue that there are limits on simultaneous morphology in sign languages, and despite the articulatory possibilities, the concept of cognitive load limits their use. The third and final example is that of sonority. This is a clear case that exhibits a specific effect of modality effect. While both signed and spoken languages employ sonority in building syllables, I will argue that sign languages have no sonority sequencing principle for reasons of modality.

Examining how phonology functions in signed and spoken languages provides a better way to articulate phonological universals. After 50 years of research on sign language we find that the general question of which mechanisms in phonology are universal can be addressed with more specificity.