

Cross-linguistic regularities in perception verb lexicons

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Languages vary considerably in the distinctions they encode in words, even in their expression of the most basic and universal of human phenomena—sensory experiences. Although it seems obvious to distinguish what appear to be conceptually basic notions such as ‘hear’ and ‘smell’, or ‘taste’ and ‘touch’, some languages colexify two or more sense modalities with a single perception verb. Previous research suggests there might be underlying regularities in colexification patterns, despite surface crosslinguistic variation, pointing to our shared biology and cognition as possible constraints on the lexical expression of perceptual meanings (Viberg 1984; Evans and Wilkins 2000).

Drawing on a genealogically and geographically stratified sample of basic perception verb lexicons in 100 languages, we investigated whether colexification patterns in the perceptual domain exhibit the predicted cross-linguistic regularities. We examined the relative frequencies of perception verbs that colexify two or more sense modality meanings using a weighted semantic network. The network revealed strong cross-linguistic regularities for some combinations of sense modalities that tended to colexify. The pairings {hear-touch}, {touch-taste} and {hear-smell} were the most frequent cross-modal combinations encoded by perception verbs; meanwhile {taste-smell}—although predicted to be common—was rarely colexified. Vision stood apart among the senses in showing a strong cross-linguistic bias to be lexicalized as a distinct concept. We suggest two independent constraints interact to give rise to these patterns: conceptual similarity, i.e., the tendency for similar concepts to share a common label more than dissimilar concepts (Xu et al., 2020; Youn et al., 2016) and communicative need, i.e., the constraint against the colexification of meanings that need to be distinguished in communication (Piantadosi et al., 2012). Overall, our results challenge simplistic notions that presume semantic categories can be simply read-off shared biology and cognition.

References

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