12th International Symposium on Iconicity in Language and Literature (ILL-12) 3-5 May 2019 Lund University, Sweden

Max-Planck-Institut für Menschheitsgeschichte

Max Planck Institute for the Science of Human History



Lexical Phonosemantics: A Featural Analysis

Ian Joo

Introduction

Many phonosemantic biases in spoken language vocabulary found so far ...

Methodology

- •100 basic meanings (Leipzig-Jakarta List)
- -Least likely to be loanwords

Words meaning this ... tend to have ...

I, you	Nasals [1, 2]
This	High-F2 [3, 4, 5]
That	Low-F2 [3, 4, 5]
Lips	Bilabial stops [6]
Nose	Nasals [6, 7]
Small	/i/, /t∫/ [7]
Tongue	/e/, /ɛ/, /l/ [7]

... what about ...

• Phonosemantics in the Leipzig-Jakarta List? [8] •Association between meanings and **phonological** features?

- -Least analyzable
- -Most universal
- -Oldest age
- •66 genealogically distinct languages
- -The largest language of each of the largest 66 language families *Indo-European > Spanish *Sino-Tibetan > Mandarin

* ...

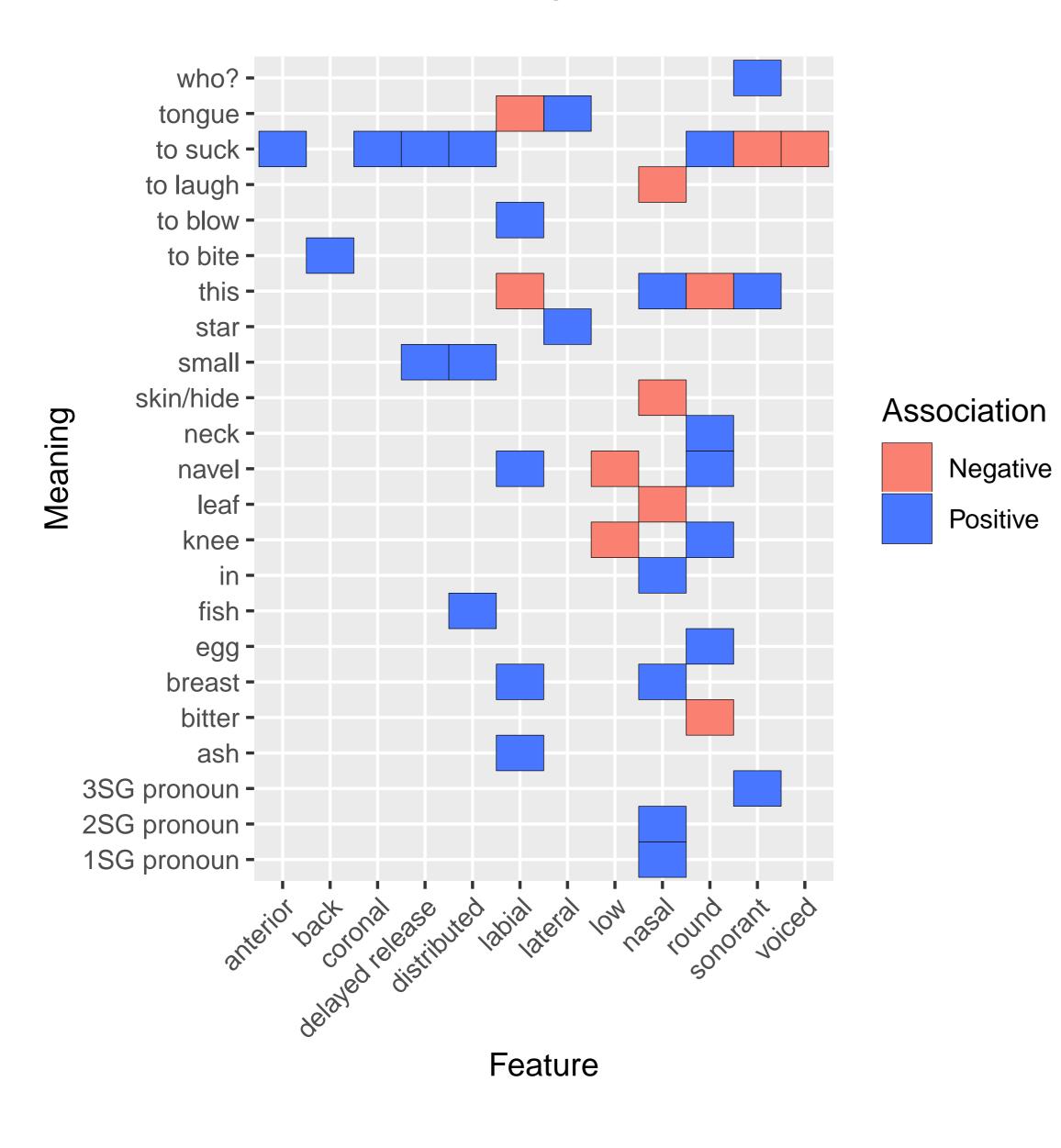
•Null hypothesis: The frequency of any [+feature] in the phonemes of morphemes for any given meaning is not significantly different from the mean frequency of the [+ feature] in the phonemes of morphemes for all 100 meanings.

-Binomial tests (FDR 10%) [9]

Results

Discussion

Feature-meaning associations



- Round shape
- -'egg', 'neck', 'knee', 'navel' [+round]
- –Bouba-Kiki Effect [10, 11]
- Buccal action
- -'to blow' [+labial]
- -'to suck' [+delayed release]
- -'to bite' [+back]
- Proximity
- -'this', 'in', 'I', 'thou' [+nasal]
- Brightness
- 'star' [+lateral]
- -/l sounds bright [12]
- Softness
- -'ash', 'breast' [+labial]
- -Labials sound soft [12, 13, 14]

Conclusion

• Featural analysis can be helpful in revealing lexical phonosemantic biases

References	[5] Niklas Johansson and Jordan Zlatev. Motivations for Sound Symbolism in Spatial Deixis: A Typological Study of 101 Languages. <i>The Public Journal of Semiotics</i> , 5(1):3–20, 2013.	(<i>Methodological</i>), pages 289–300, 1995. [10] Ozge Ozturk, Madelaine Krehm, and Athena Vouloumanos. Sound symbolism in infancy:
[1] Matthew J Gordon. The phonological composition of personal pronouns: implications for genetic hypotheses. In <i>Annual Meeting of the Berkeley Linguistics Society</i> , volume 21, pages	[6] Matthias Urban. Conventional sound symbolism in terms for organs of speech: A cross- linguistic study. <i>Folia Linguistica</i> , 45(1), 2011.	Evidence for sound-shape cross-modal correspondences in 4-month-olds. <i>Journal of Exper-</i> <i>imental Child Psychology</i> , 2012.
117–128, 1995. [2] Johanna Nichols and David A Peterson. The Amerind personal pronouns. <i>Language</i> , pages	Christiansen. Sound-meaning association biases evidenced across thousands of lan-	[11] M Fort, A Martin, and S Peperkamp. Consonants are More Important than Vowels in the Bouba-kiki Effect. Language and Speech, 58(2):247–266, 2015.
336–371, 1996.	 guages. Proceedings of the National Academy of Sciences of the United States of America, 113(39):10818–23, 2016. [8] Uri Tadmor. Loanwords in the world's languages: Findings and results. In Martin Haspel- 	[12] Joseph H Greenberg and James J Jenkins. Studies in the psychological correlates of the sound system of American English. Word, 22(1-3):207–242, 1966.
[3] Christine Tanz. Sound symbolism in words relating to proximity and distance. <i>Language and speech</i> , 14(3):266–276, 1971.	math and Uri Tadmor, editors, <i>Loanwords in the world's languages: A comparative handbook</i> , pages 55–75. The Hague: De Gruyter Mouton, 2009.	[13] Julie Bruch. Expressive phonemes in Japanese. Kansas Working Papers in Linguistics, 11, 1986.
[4] Nancy L Woodworth. Sound symbolism in proximal and distal forms. <i>Linguistics</i>, 29(2):273– 300, 1991.	[9] Yoav Benjamini and Yosef Hochberg. Controlling the False Discovery Rate: A Practical and Powerful Approach to Multiple Testing. <i>Journal of the royal statistical society. Series B</i>	[14] Maki Sakamoto and Junji Watanabe. Bouba/Kiki in Touch: Associations Between Tactile Perceptual Qualities and Japanese Phonemes, 2018.

Contact: ian.joo@outlook.com