Body, Objects, and Animals: Investigating the Factors Behind Naming Strategies

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Agenda

I Introduction

II Study I — The Human Body

III Study II — Human Bodies and Objects

IV Study III (Outlook) — Human and Animal Bodies

V Summary

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Introduction

About 6,500 languages are spoken worldwide.

Languages vary in how they divide the world into words.

Comparing vocabularies across languages reveals insights into human cognition and cultural variation.

Goal

Finding regularities in word meanings and causes for language variation.

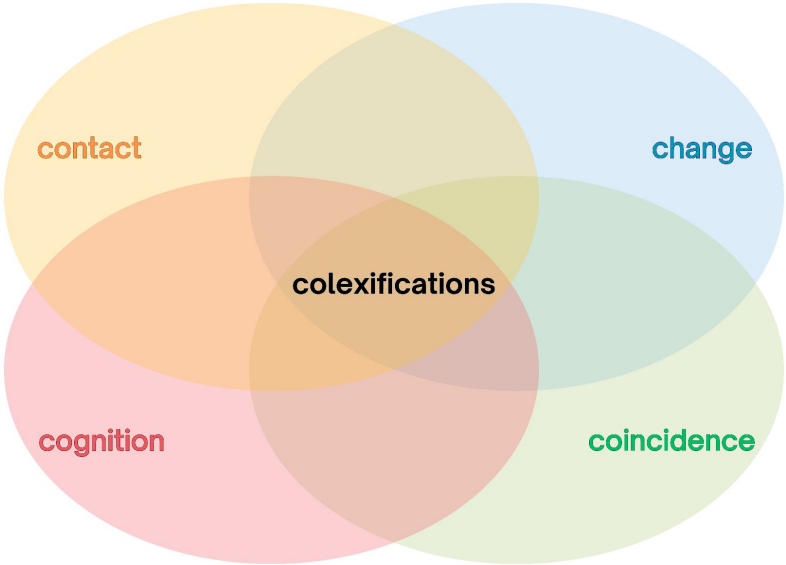
Question

Why do words have multiple meanings?

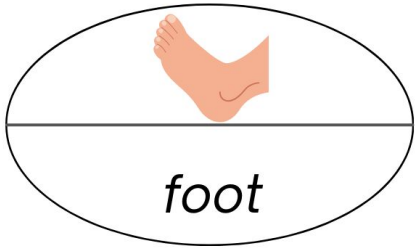
Colexifications

The same lexical form is used for two different concepts in at least two genealogically unrelated languages (François 2008).

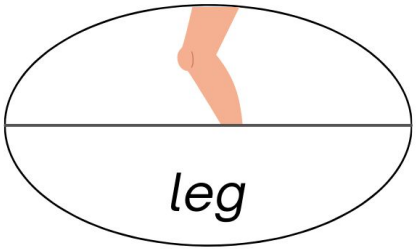
The analysis is based on cross-linguistic data.



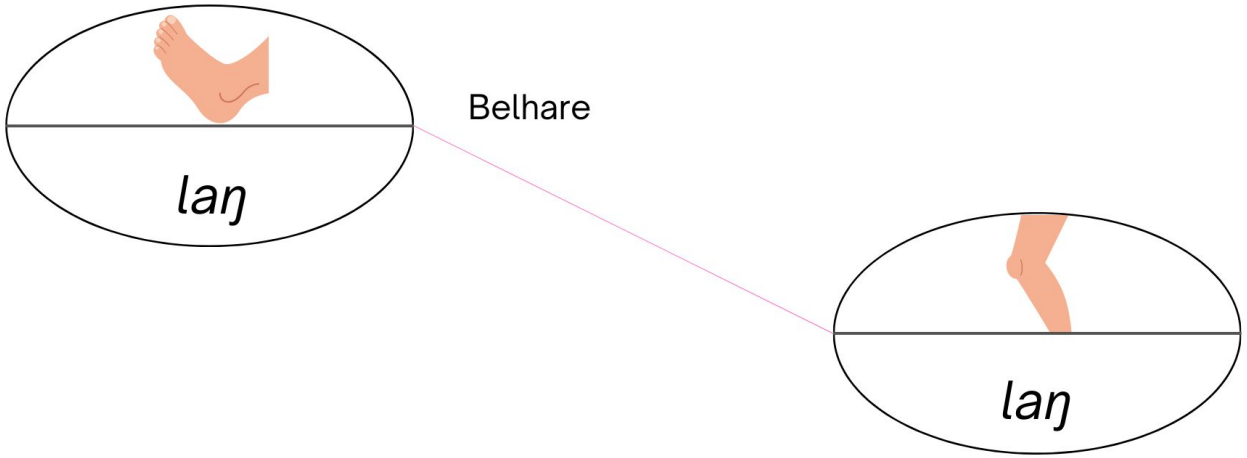
Colexifications



English



Colexifications



Colexifications

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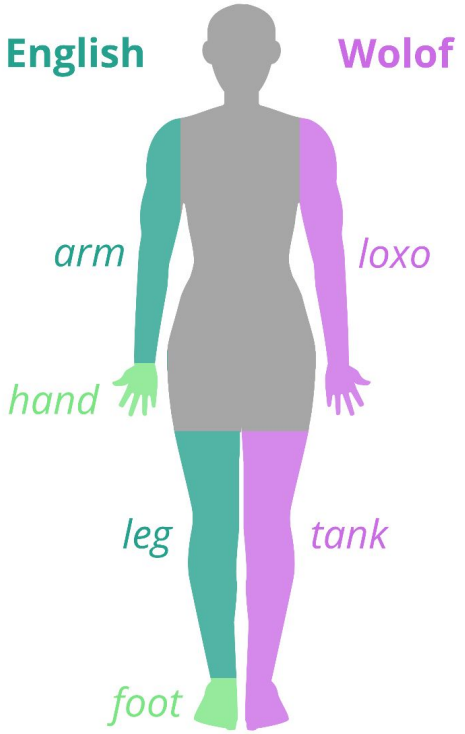
Body part vocabularies

Analysis of perceptual features: contiguity, function, shape

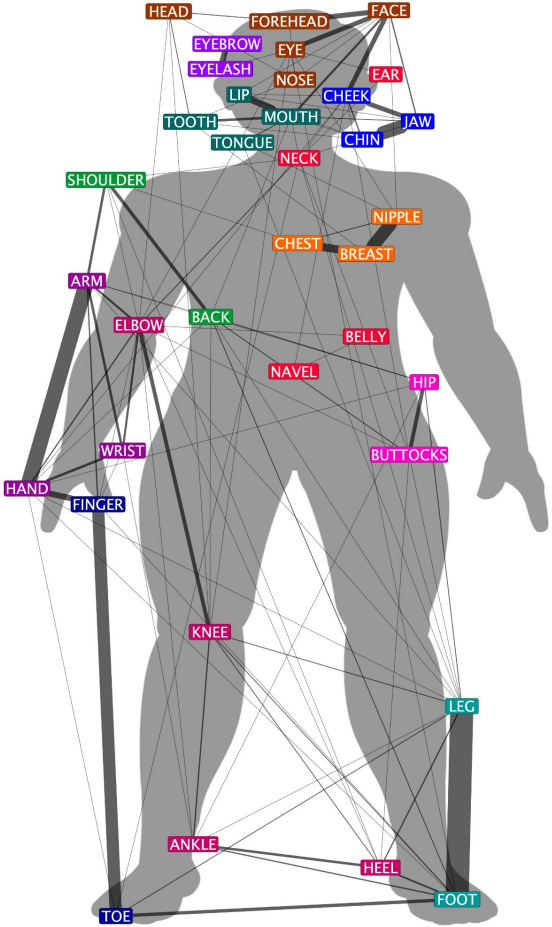


Tjuka et al. (2024): *Scientific Reports*

Materials & Methods

- 51 data sets from Lexibank (List et al. 2022) including phonetic transcriptions
- 36 human body part concepts from Concepticon v2.5
- Automated identification of full colexifications
- New, transparent workflow including cognate detection
- 110 body part colexifications across 1,028 **language varieties**

Tjuka (2021b; 2022b): Concept list description in
Computer-Assisted Language Comparison in Practice



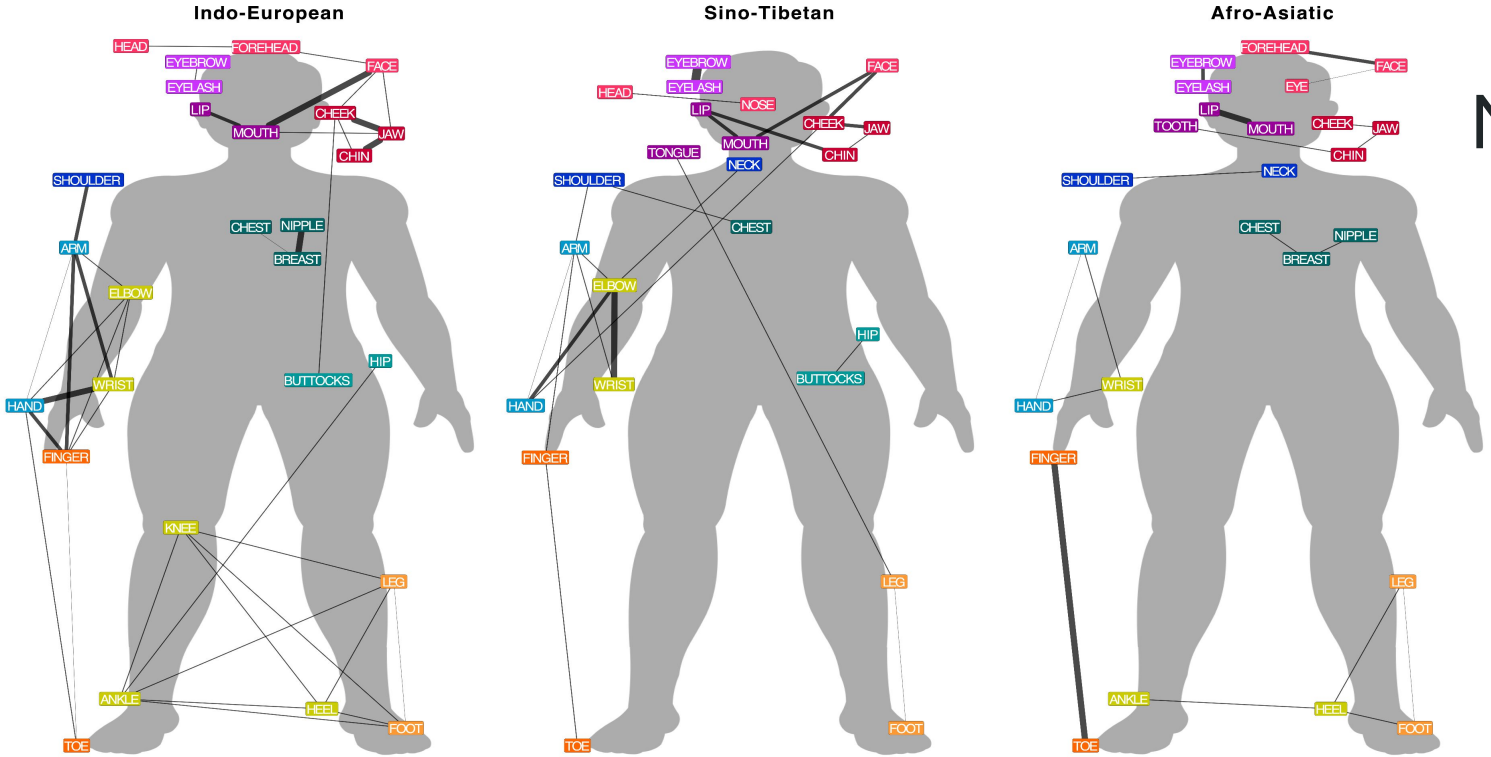
Body Part Network

Few widespread,

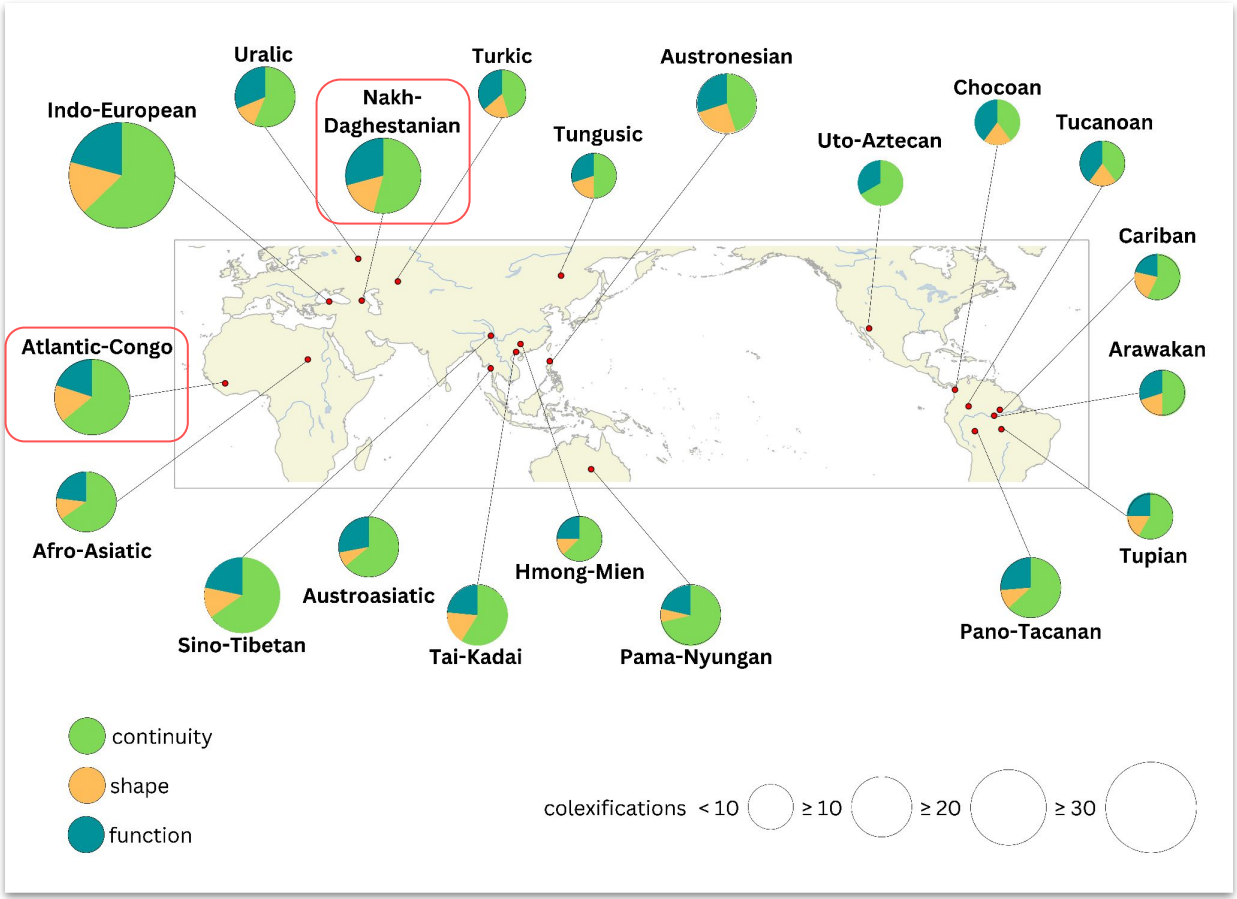
many language-specific colexifications.

Tjuka et al. (2024): *Scientific Reports*

Family Networks



Tjuka et al. (2024): *Scientific Reports*



Tjuka et al. (2024): *Scientific Reports*

Conclusions

Contiguity drives most colexifications between body parts.

Preferences for perceptual features differ across languages.

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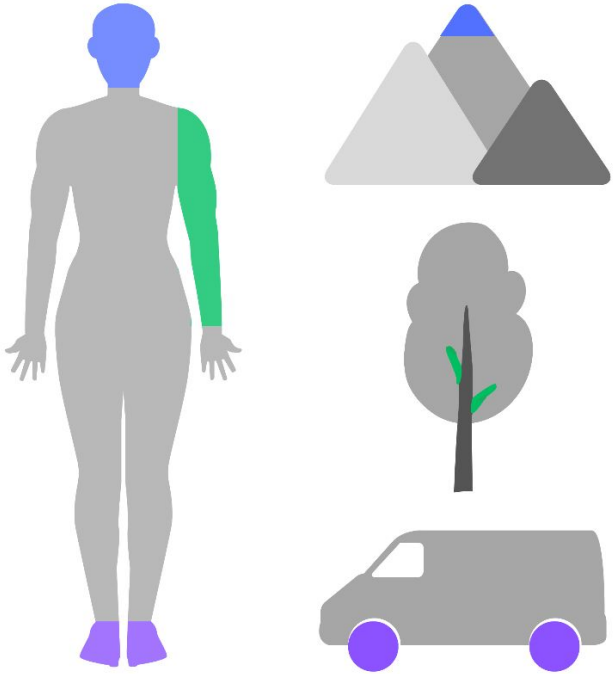
Aim

Exploration of the relation between the human body and objects across languages

Quantitative study on perceptual features (vision and touch)

Qualitative study on partial colexifications in Vietnamese

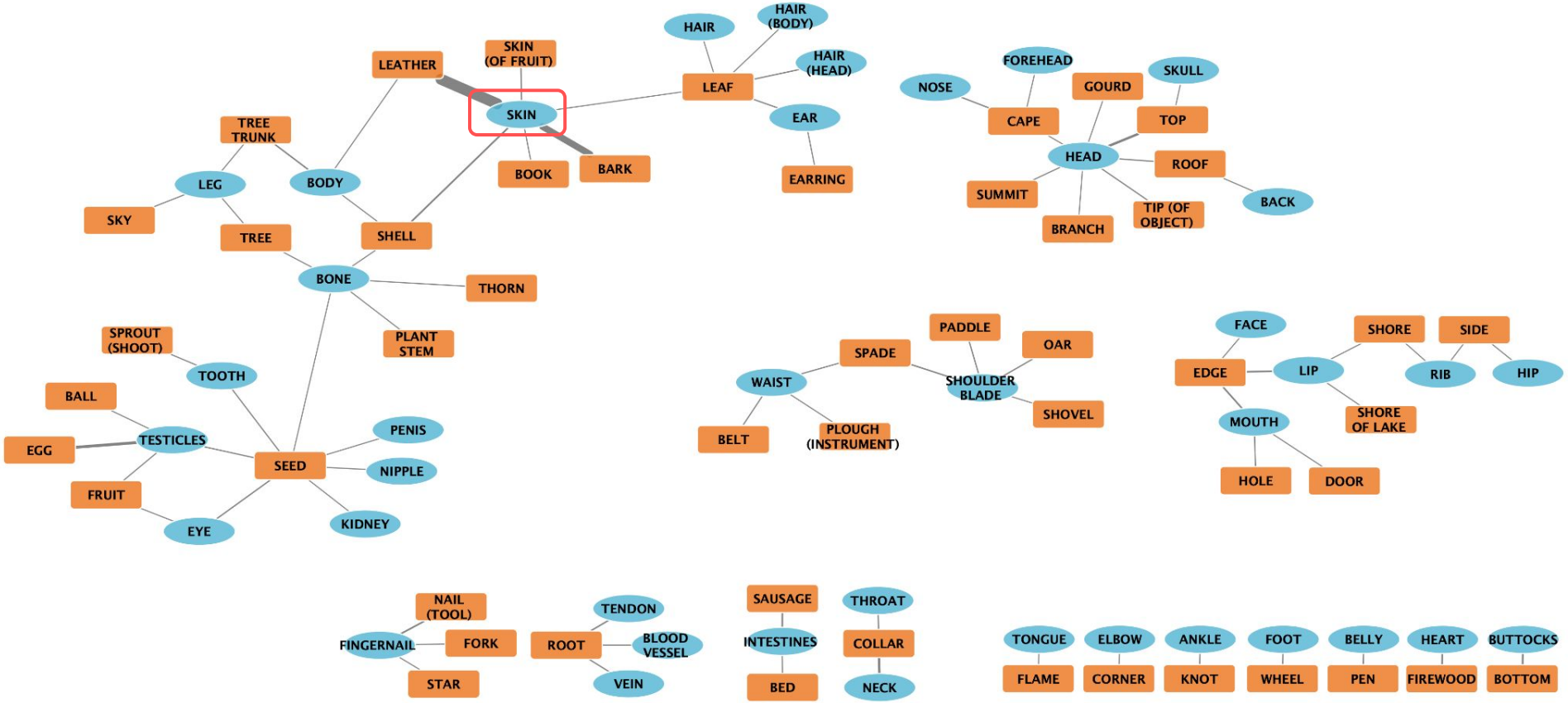


Tjuka (2024): *Linguistic Typology*

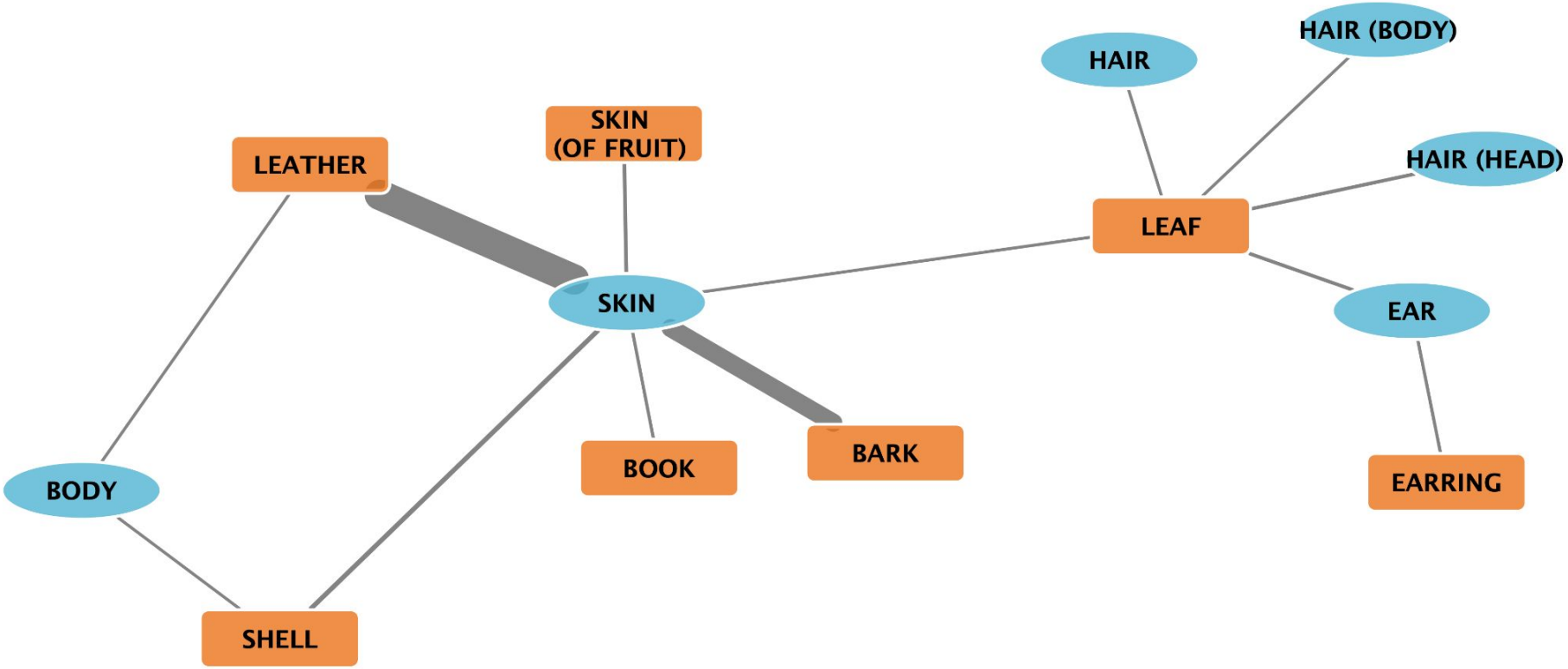
Materials & Methods

- 36 data sets from Lexibank (List et al. 2022)
- 134 human body part and 650 object concepts from Concepticon v2.5
- Automated identification of full colexifications
- 78 body-object colexifications occurring across 396 language varieties
- Analyses of frequency, distribution, cognitive relations, and coincidental cases

Tjuka (2020a; 2020b; 2022a): Concept list description in *Computer-Assisted Language Comparison in Practice*



Tjuka (2024): *Linguistic Typology*



Tjuka (2024): *Linguistic Typology*

Perceptual Features: Vision & Touch

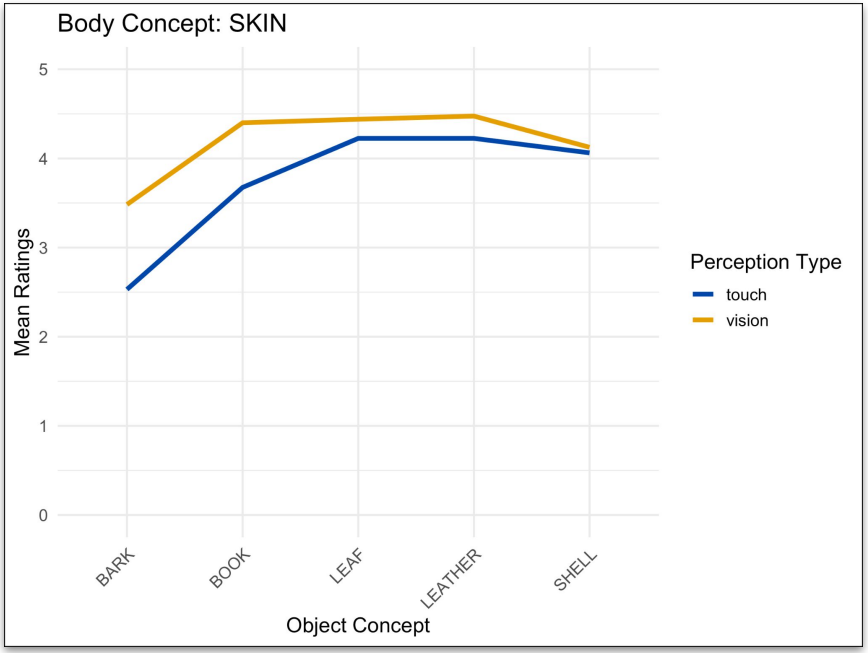
Material: English sensory modality ratings for visual and haptic perception (Lynott et al. 2020) for 72 body-object colexifications.

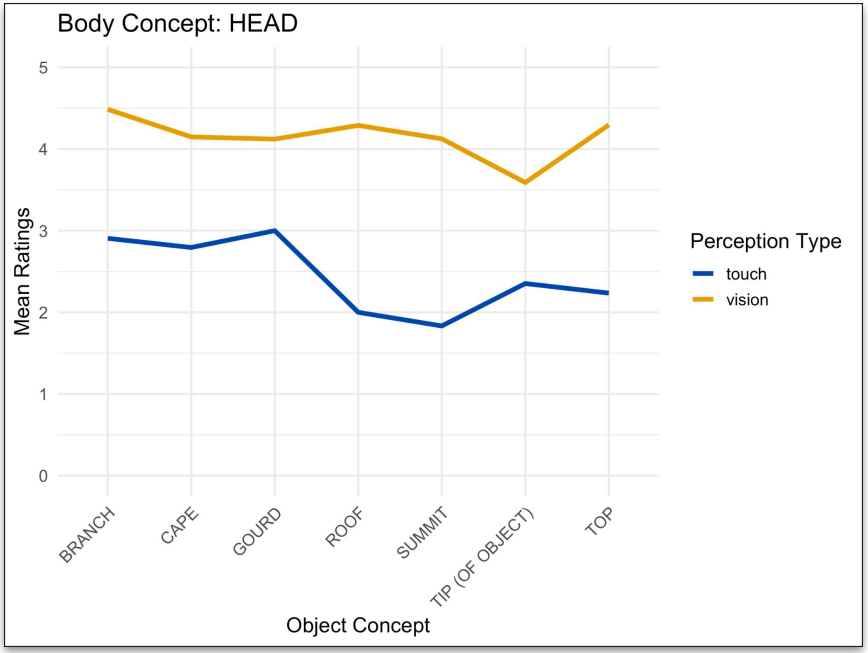
Method: Bayesian linear regression model with perception type as varying residuals.

Question: Are body and object concepts perceived similarly across speakers?

Result: Body and object concepts align more closely in their visual perception (*sd* = 1.81) compared to their haptic perception (*sd* = 2.06).

Perceptual Features: Vision & Touch





Conclusions

Some widespread body-object colexifications such as SKIN-BARK or TESTICLES-EGG exist.

However, most body-object colexifications occur in a small number of languages.

Alignment of ratings on vision and touch is related to literal similarity, while divergence is related to figurative similarity and low frequency.

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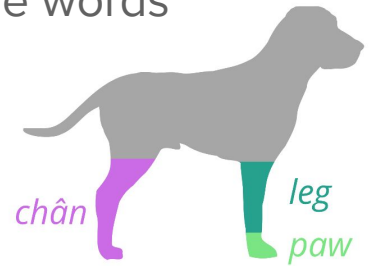
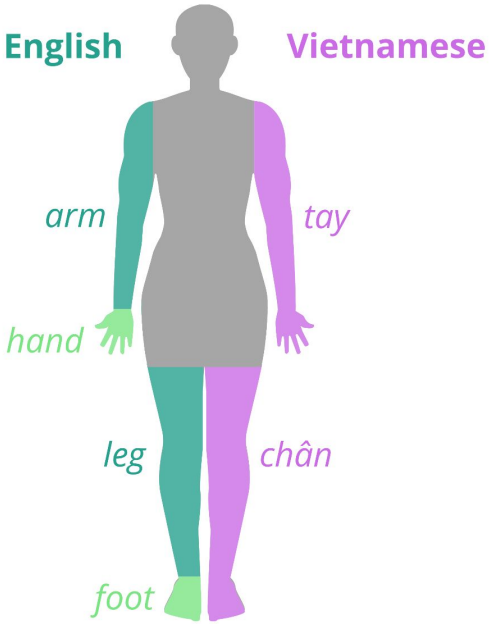
Background

The human body is a constant that is experienced by all cultures.

Some scholars therefore assume that the parts of the human are named consistently.

However, languages vary in how they divide the body into parts and how they use the same words for animal body parts.





Future Project

Empirical Study 1

Collecting the names of different animal limbs from speakers of 2-4 diverse languages.

Empirical Study 2

Rating of the animal body parts in terms of their typicality and cultural significance ratings of the animals.

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Summary

A great deal of linguistic diversity in naming strategies exists.

However, some general trends emerge.

Summary

Why do words have multiple meanings?

Summary

Why do words have multiple meanings?

Several pathways lead to words having multiple meanings, but a common cognitive principle is to use the same word to refer to objects with similar perceptual features, especially visual similarity.

Thank you

Publications

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