

Can typological studies show us how the brain processes language?

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Agenda

Working as a student research assistant (SHK)

The search for a topic

My Master's thesis

Conclusion

Working as a SHK



The FAHMRRR project

The FAHMRRR project

- Focus Alternatives in the Human Mind: Retrieval, Representation, and Recall = FAHMRRR
- Investigation of how humans process meaning that goes beyond the individual words in an utterance, concentrating on the processing of focus alternatives

The FAHMRRR project

- Subproject 'Representation'
- Which part of the brain encodes the information that a given word is (or is not) a focus alternative?

The FAHMRRR project

- (1) Holger hat MANgos in den Obstsalat geschnitten.
name has mango-PL into the fruit.salad cut
'Holger has cut MANgos into the fruit salad.'

The FAHMRRR project

Apfel



The MelaTAMP project

The MelaTAMP project

- Languages from Melanesia behave very differently when expressing tense, aspect, modality and polarity categories
- Exploration of corpus data for Melanesian languages, both individually and comparatively, to gain a better understanding of their TAMP systems

The MelaTAMP project

- Tagging each of the 7 languages
- The tagset includes: clause, time, mood, event, polarity
- This work enables targeted search for linguistic forms

The MelaTAMP project

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365 \ref 06020.008
366 \tx Koanan monav.
367 \mb ko- anan mo- inav
368 \ge 2sg- eat 3sg- enough
369 \ps agr- vi agr- pred
370 \ft you ate enough!
371
372 \clause assertion
373 \time past
374 \mood factual
375 \event bounded
376 \polarity positive
377
```

Figure: Mavea toolbox corpus 06020.



The question

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- How can I combine my knowledge of Typology and Cognitive Linguistics in my Master's thesis?

The two oppositional views on language

- The cognitivist view: all languages are English-like but with different sound systems and vocabularies
- The typologists view: languages differ fundamentally from one another at every level of description (sound, grammar, lexicon, meaning)

The myth of language universals: Language diversity and its importance for cognitive science (Evans and Levinson 2009)

The search for a topic

Finding a topic which is discussed in both fields

Result

Body part metaphors

Studies in Cognitive Linguistics

- The functioning of our bodies is crucial for the structure of our conceptual system
- Mapping of body parts onto abstract concepts: HEART IS THE CENTER

(2) That cuts right to *the heart of the matter*.

Metaphors we live by (Lakoff and Johnson 1980)

Studies in Typology

- Cross-linguistic studies comparing body part metaphors in different languages (McElhanon 1977)
 - (3) *to have one heart* (Fasu, New Guinea) 'to be in agreement'
 - (4) *heart has an itchy burn* (Yareba, Papua New Guinea) 'bitterness'

My Master's thesis

The topic of my Master's thesis

A typological study of body part metaphors

- Can we make predictions for the expression of body part metaphors in different languages under consideration of Cognitive Linguistics?

Method

- Screening dictionary entries and putting up a crowdsourcing questionnaire
- Analysing and categorizing the different body part metaphors

(5) *Stecknadelkopf* ('pinhead'), *the foot of the mountain*

Conclusion

Conclusion

Metaphorical extensions of body part terms can give us insights into conceptualization processes in our brain.

References

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- McElhanon, K. A. (1977). Body image idioms in Irianese and Papua New Guinean languages. *Irian*, 6(3), 3.