



University of
Zurich^{UZH}

English Department

Regional variation in the lexical profiles of the English dative alternation

Melanie Röthlisberger

melanie.roethlisberger@es.uzh.ch



Theoretical background

Two research paradigms:

Probabilistic grammar
(e.g. Bresnan 2007)

- grammatical knowledge is partially probabilistic
- multiple probabilistic constraints influence the outcome of grammatical variation



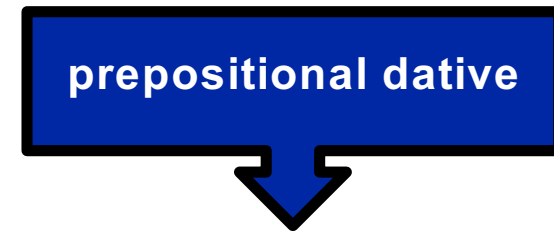
World Englishes
(e.g. Schneider 2007)

- structural characteristics and sociohistorical background of varieties of English



Previous research

- regional variation in the probabilistic constraints that influence grammatical variation, i.e. the choice between two variants (e.g. Bresnan & Hay 2008, Röthlisberger et al. 2017)



Mary gave [John] [the apple]
recipient theme

Mary gave [the apple] to [John]
theme recipient

Mary gave [him] [the apple]
recipient theme

Mary gave [the apple] to [him]
theme recipient



Research aim

1. Is regional variation in probabilistic constraints reflected in regional variation in lexical profiles?



Lexical profiles

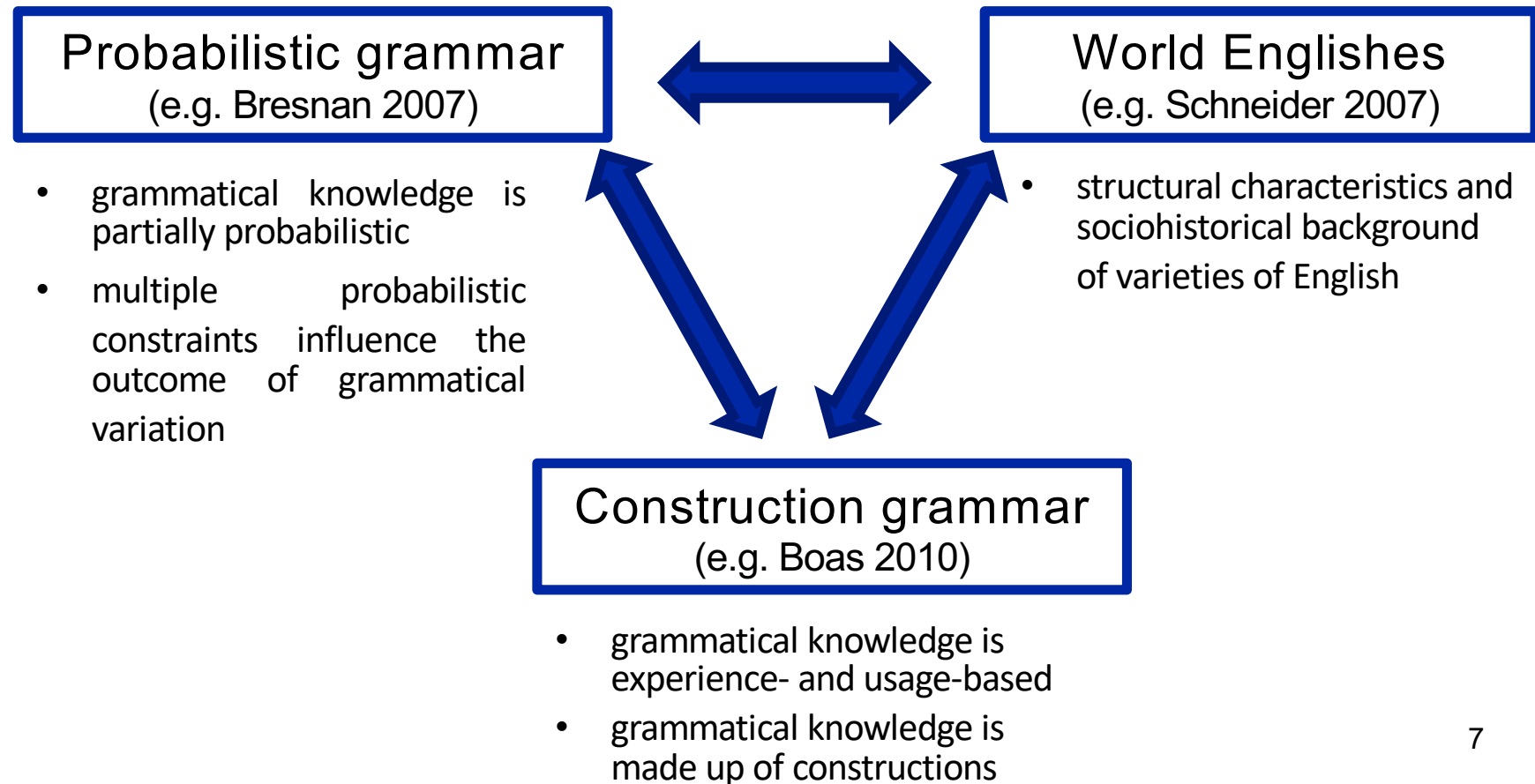
- defined as the system of lexical items (e.g. verbs, recipients, themes) that are mutually attracted to a syntactic variant.
- Measuring the strength of association between between lexical items and the constructions they occur in (*collostructions*)



Theoretical background

Three

~~Two~~ research paradigms:





Taxonomic networks

Macro-Cx
schematic
level



Meso-Cx
subschematic
level

[*give* NP_{rec} NP_{theme}]

[*send* NP_{rec} NP_{theme}]

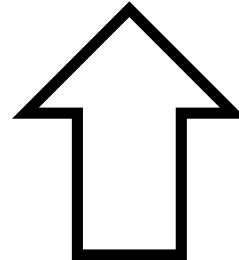
Micro-Cx
substantive
level

give Mary a book *give them the answer* *send me a copy* ...



Entrenchment and abstraction

[V NP_{rec} NP_{theme}]



generalize to macro level

[bring NP_{rec} NP_{theme}]

[offer NP_{rec} NP_{theme}]

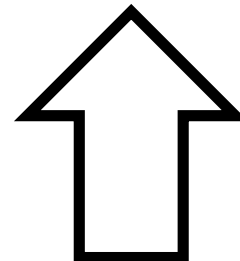
[send NP_{rec} NP_{theme}]

[tell NP_{rec} NP_{theme}]

[give NP_{rec} NP_{theme}]

[show NP_{rec} NP_{theme}]

[hand NP_{rec} NP_{theme}]



generalize to meso level

The teacher gave us the answer

I gave Mary the book

You've given them too much already

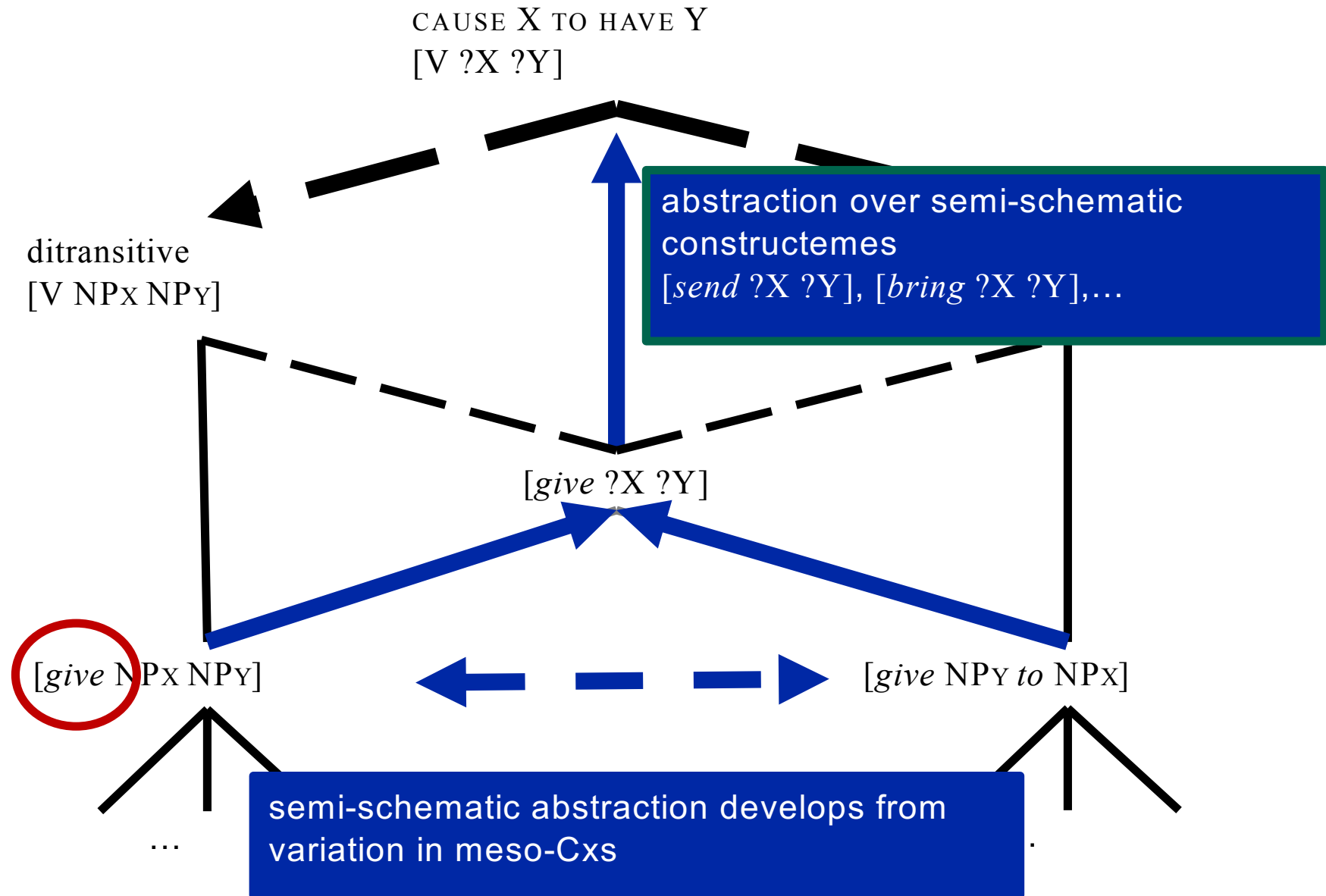
Bill gave the kids a hand

It gave the people hope

We gave them a warning

He will give me my dues

The noise is giving some of us a headache





Research aims

1. Is regional variation in probabilistic constraints reflected in regional variation in lexical profiles?
 2. To what extent can we observe regional variation in other lexical items besides the verb?
- An analysis of lexical profiles provides new insights into
 - ⇒ the link between structural patterns that speakers are exposed to and variation in probabilistic constraints
 - ⇒ the level of schematicity/lexicality needed in a constructional grammatical account of syntactic alternations



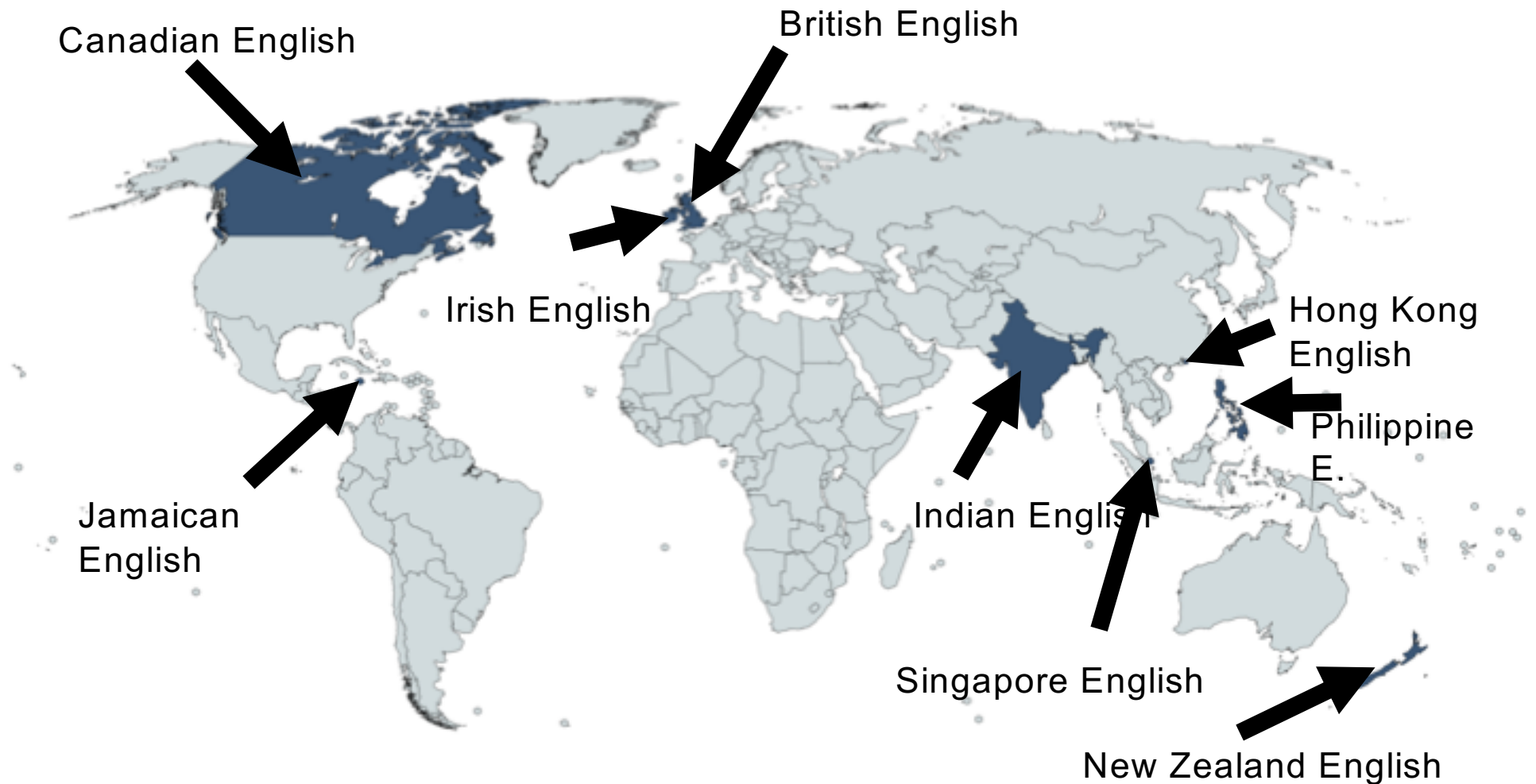
**University of
Zurich** ^{UZH}

English Department

Methodology & data



Corpus data





Corpus data

- International Corpus of English (ICE) - series
 - 60% spoken (transcriptions), 40% written texts = 1m words per subcorpus
 - 500 texts, 2,000 words per text
 - 12 different registers, same corpus structure
- Corpus of Global web-based English (GloWbE)
 - general websites and blogs
 - data sampled in 2012-13 – <https://corpus.byu.edu/glowbe/>



Data extraction and annotation

(e.g. Bresnan et al. 2007)

- retrieval of dative variants using verb list and perl script
- restrict to choice context (incl. pronouns)
- code for numerous (language-internal) factors: length (weight ratio), complexity, pronominality, givenness, definiteness, person, animacy, concreteness of theme, verb sense
- code for language-external factors: Mode (spoken vs written)

$N = 13,171$



Distinctive collexeme analysis

= Measure the strength of association between lexical items (verb, recipient heads, theme heads) with the ditransitive vs. prepositional variant

- observed vs. expected frequency of lexical item **in one variant opposed to the other**
- measure strength of association using the base-ten logarithm of the p -value from the Fisher-Yates Exact test (Stefanowitsch & Gries 2005: 9)
- values range from minus infinity (strong repulsion) to 0 (no relation) to plus infinity (strong attraction)



Distinctive collexeme analysis

The distribution of *me* in the ditransitive vs prepositional dative in Indian English

	ditransitive	prepositional	row totals
<i>me</i>	139	16	155
other recipients	773	622	1395
column totals	912	638	1550



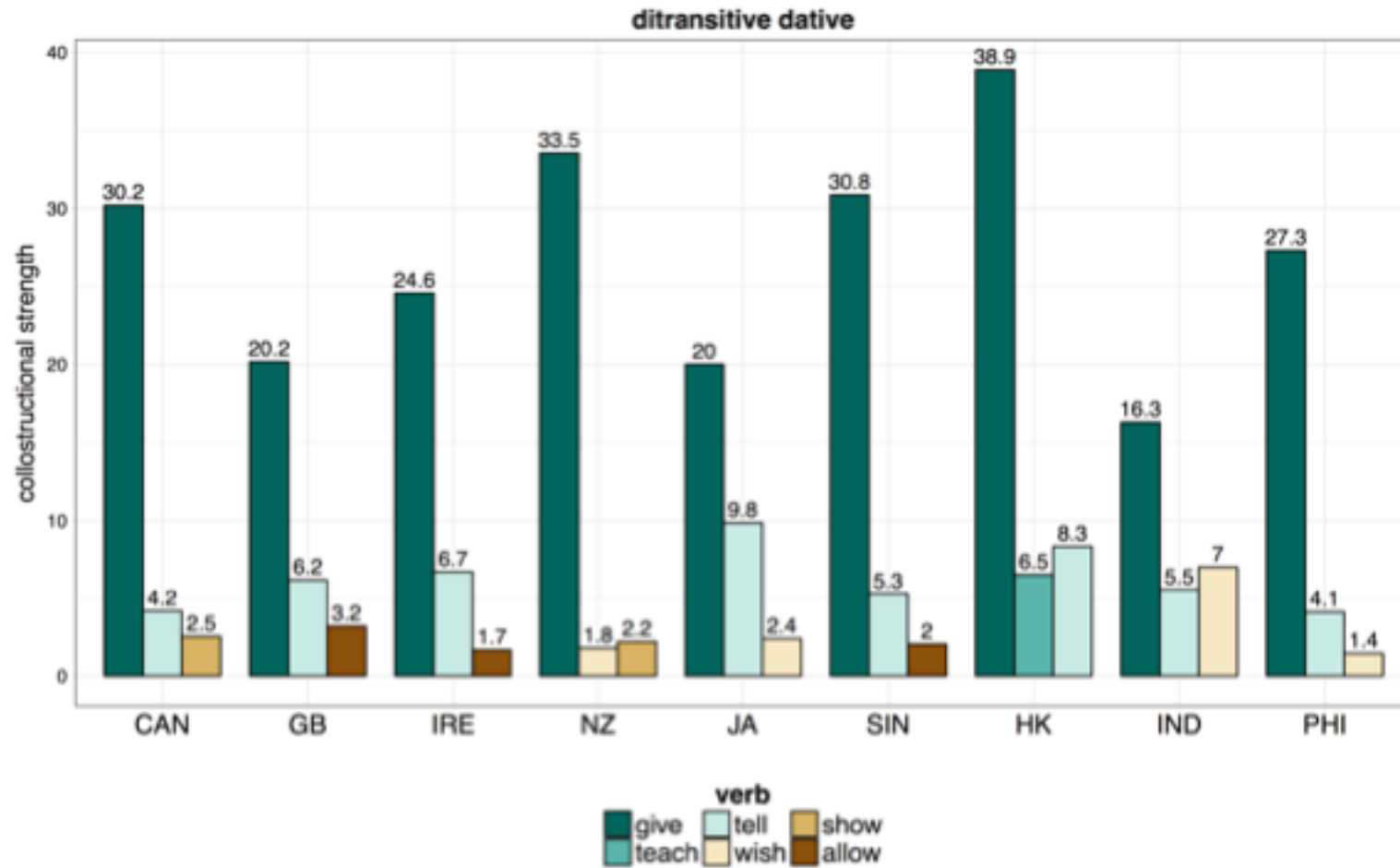
**University of
Zurich** ^{UZH}

English Department

Results

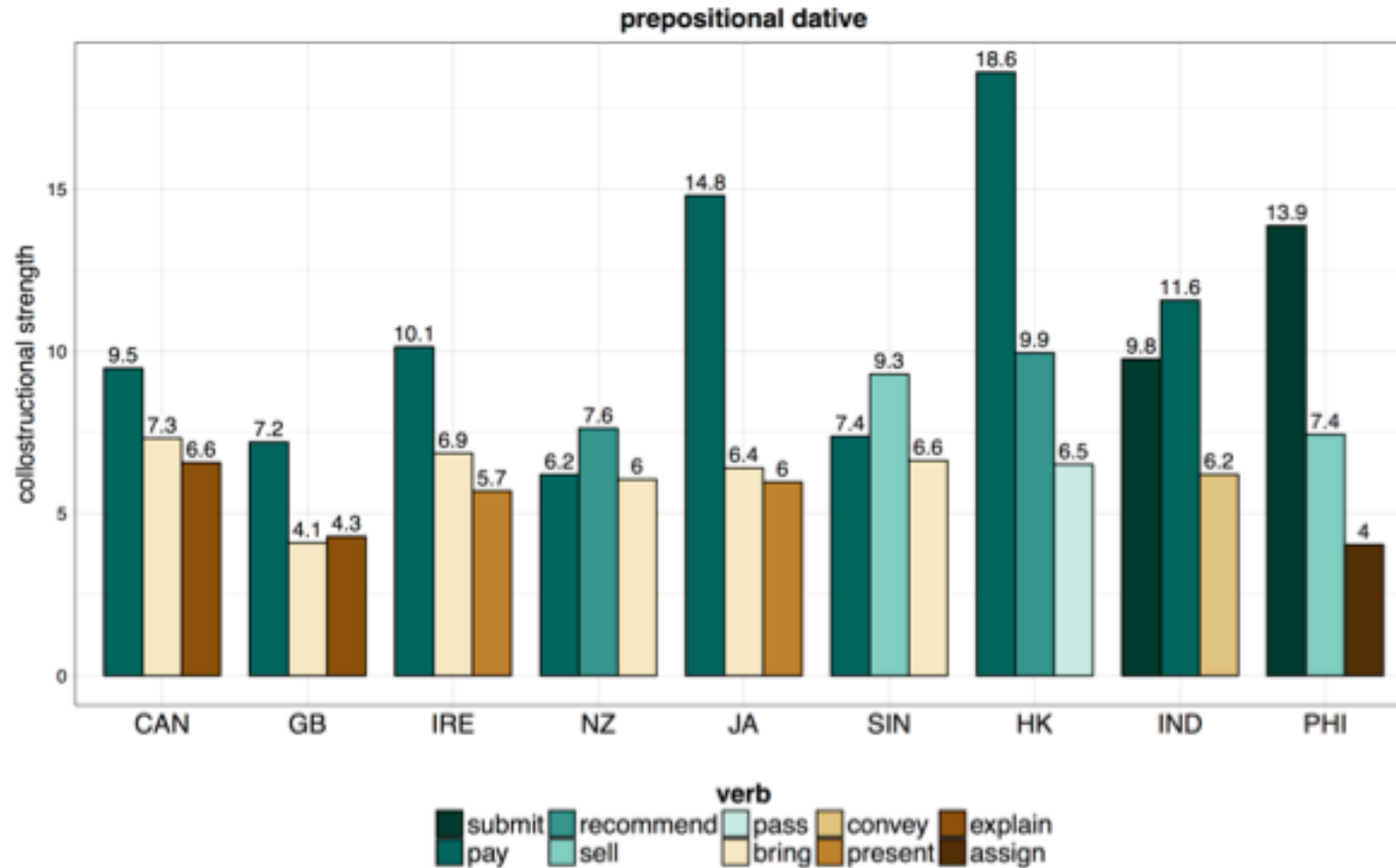


Collostructional strength of the verb



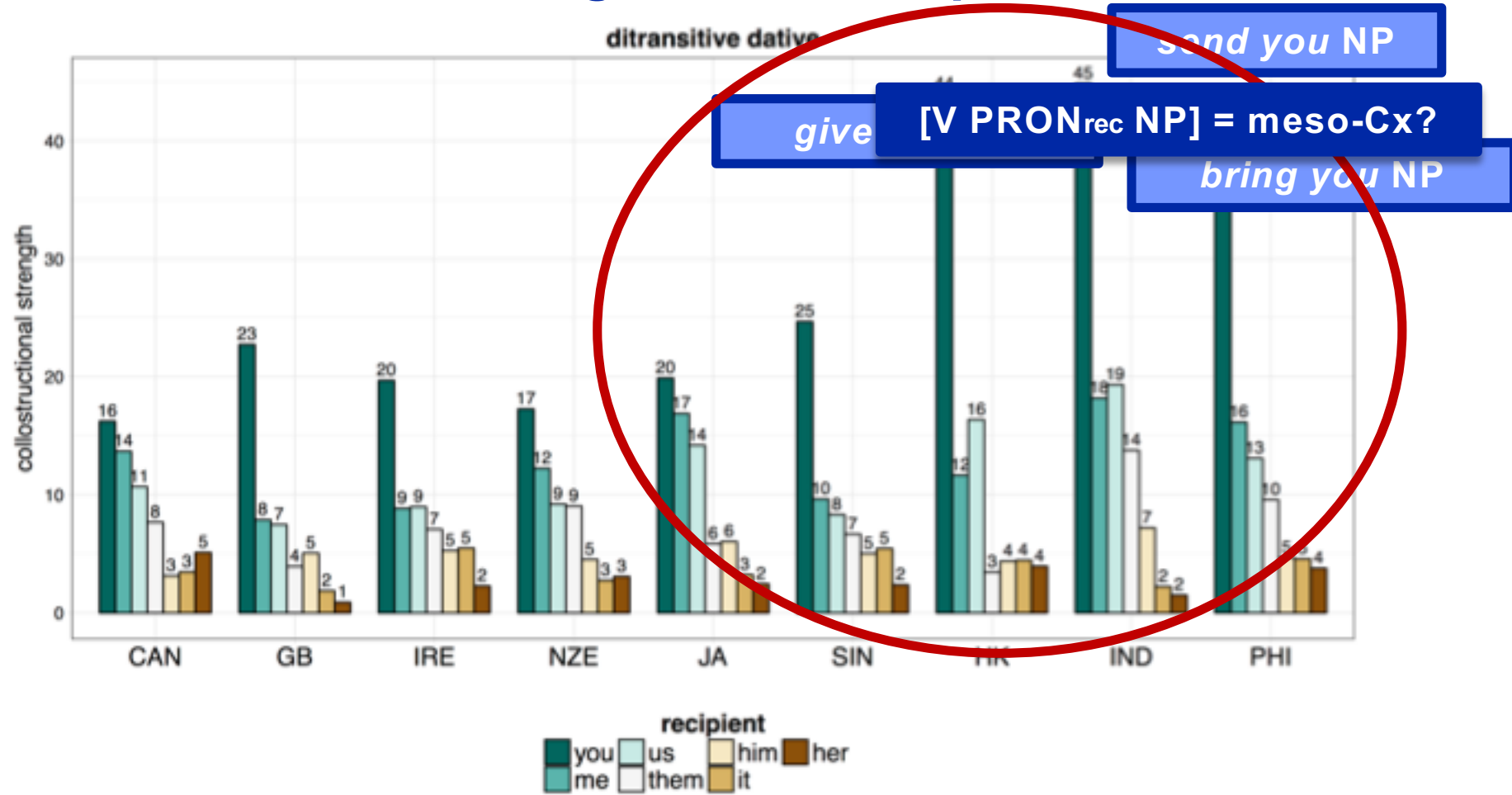


Collostructional strength of the verb



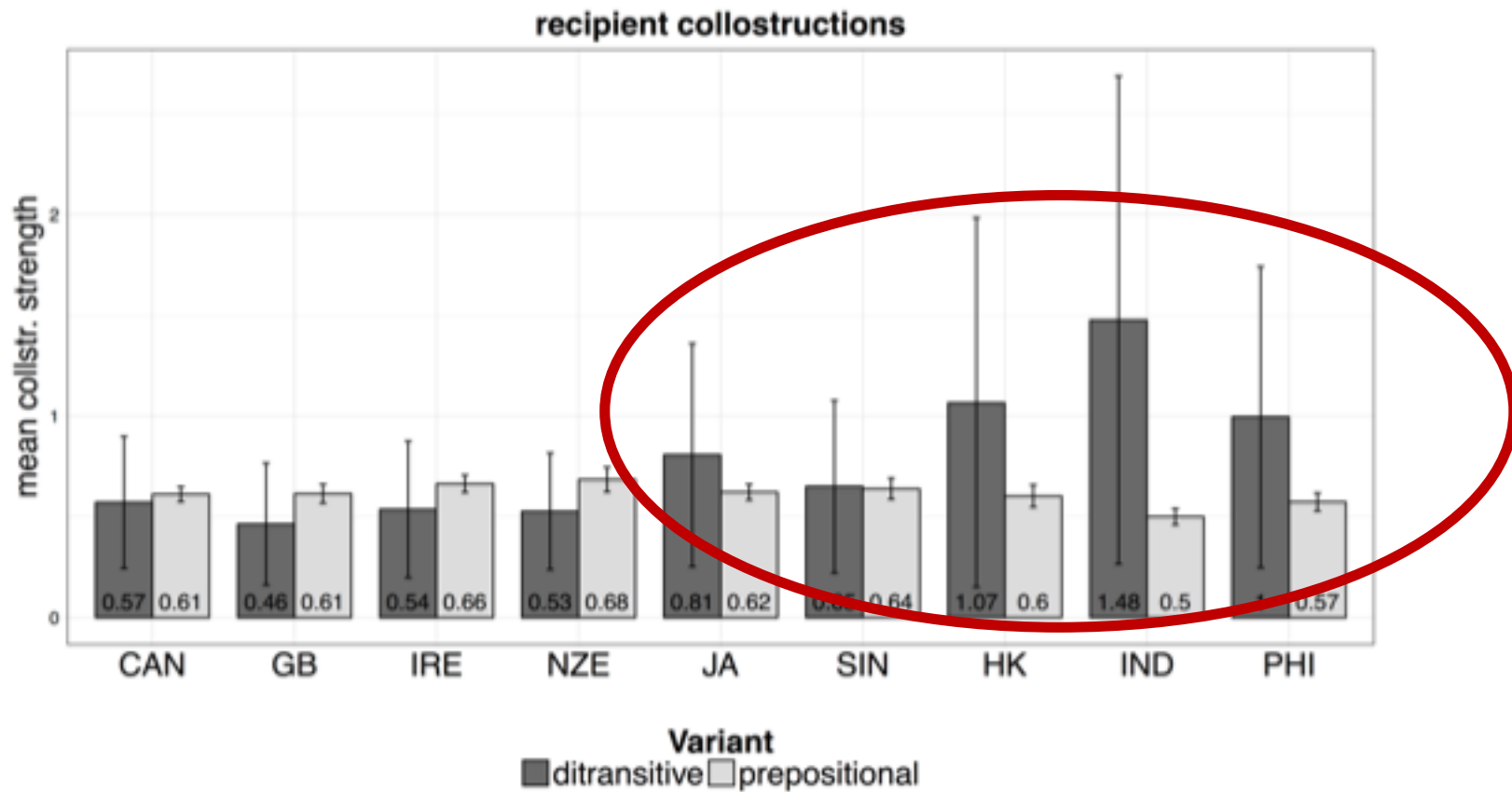


Collostructional strength of the recipient



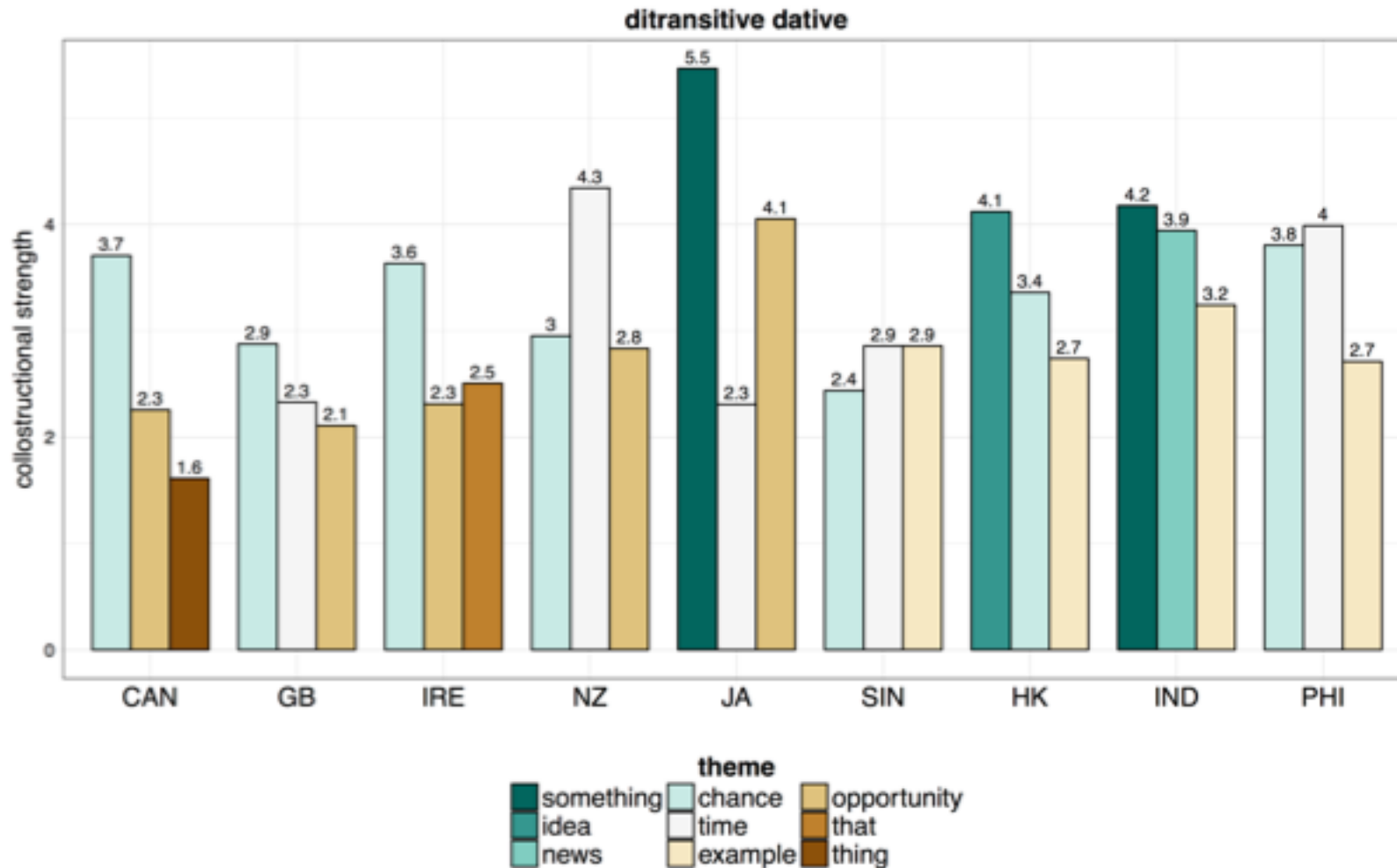


Collostructional strength of the recipient



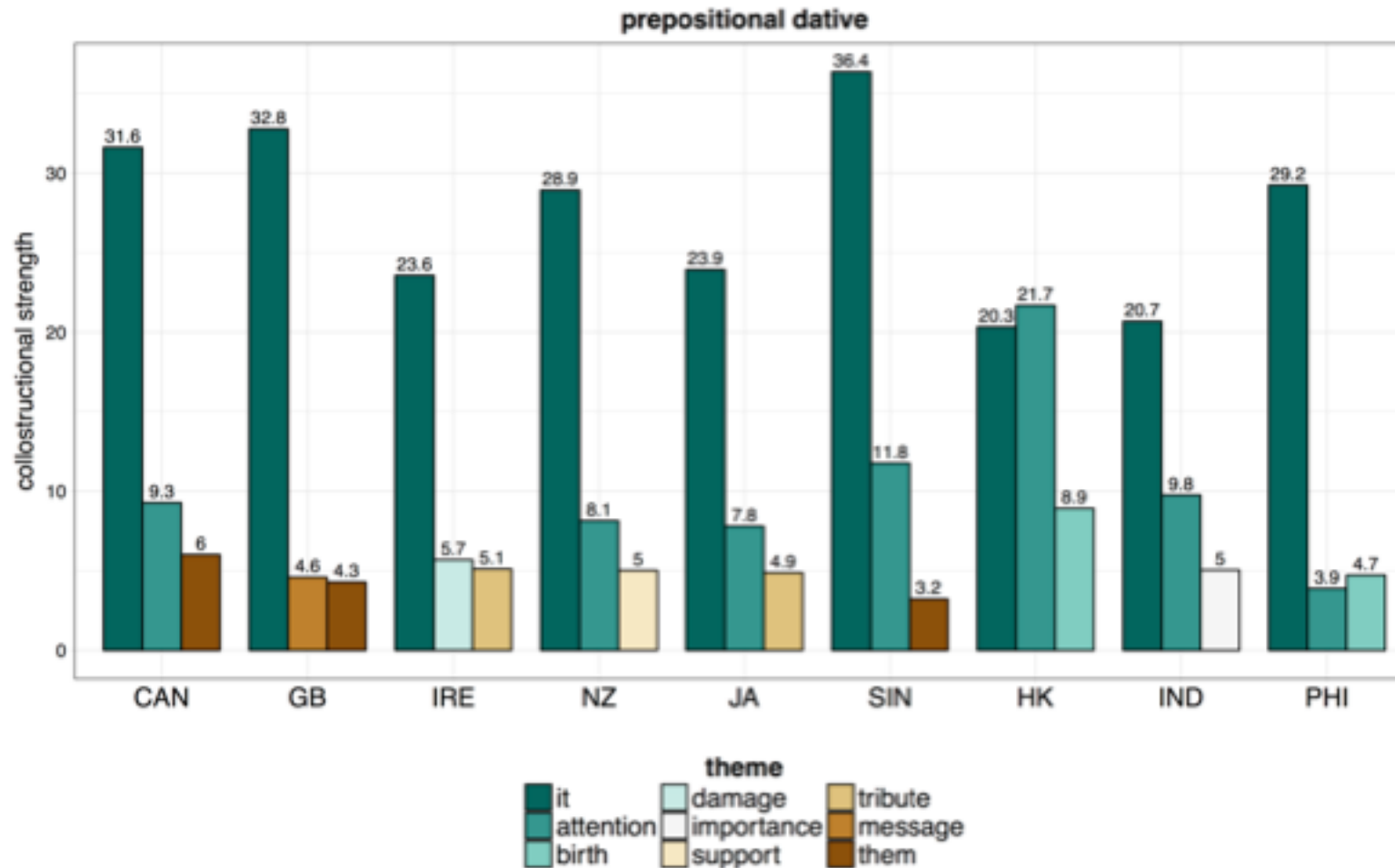


Collostructional strength of the theme



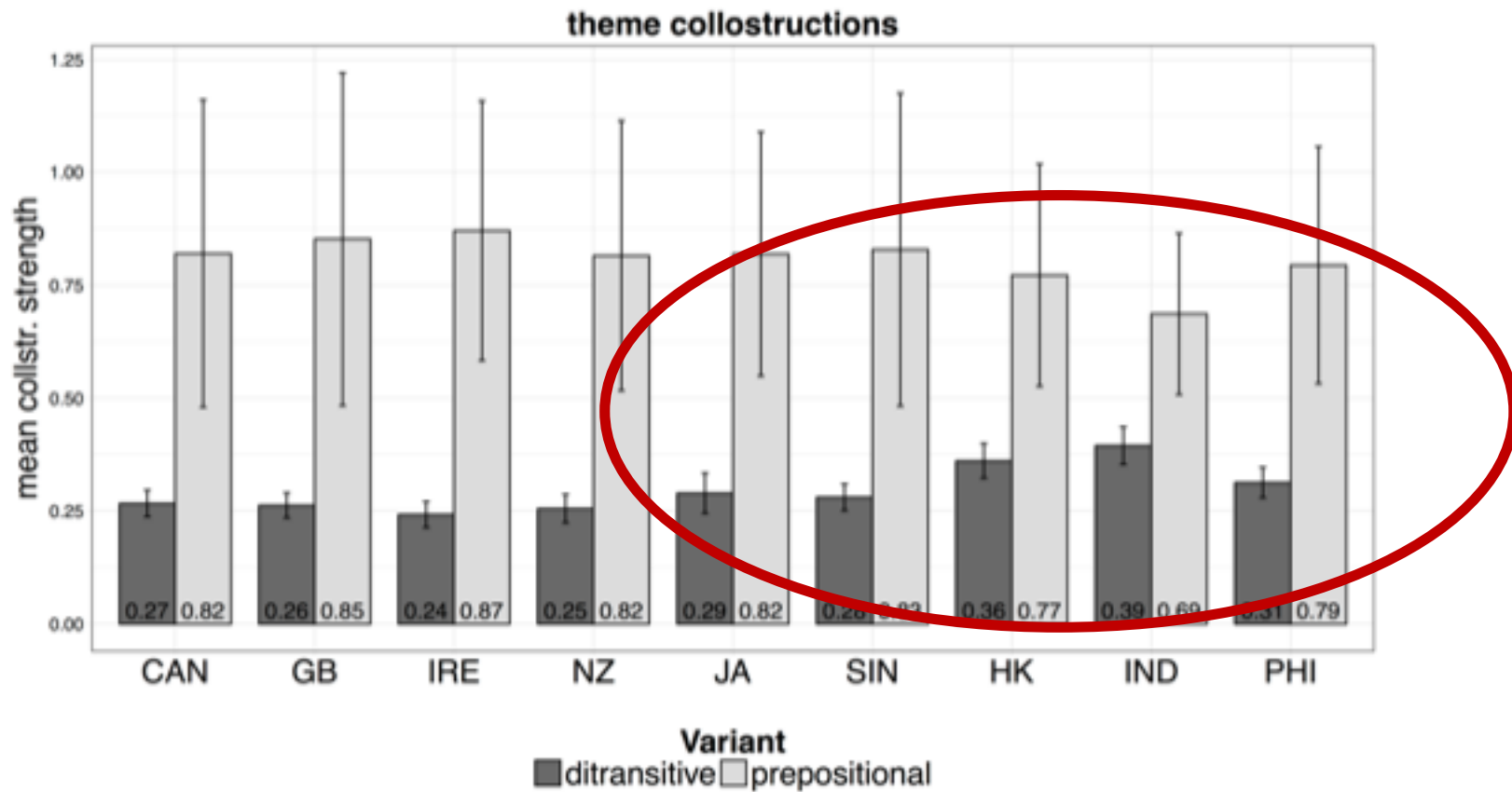


Collostructional strength of the theme





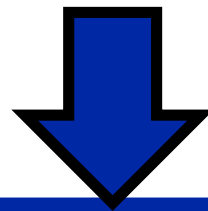
Collostructional strength of the theme





Interim summary

- **verb** is more strongly associated with ditransitive than prepositional dative across all varieties
- difference in association of **recipient**: stronger association with prepositional dative (L1) vs ditransitive dative (L2) & higher association strength of recipient with ditransitive dative in L2 vs L1
- largely stability in association strength of **theme** with ditransitive and prepositional dative & most strongly associated with prepositional dative



**ditransitives seems to be lexically more
specific in non-native varieties**



Discussion & Conclusion



Research aims

1. Is regional variation in probabilistic constraints reflected in regional variation in lexical profiles?

⇒ Especially regional variation in the influence of recipient pronominality seems to be reflected in regional variation in the strength of association between pronominal recipients and the ditransitive dative in non-native compared to native varieties

2. To what extent can we observe regional variation in other lexical items besides the verb?

⇒ not only verbs but also recipients and themes add to the regional variability of probabilistic constraints, i.e. a constructional grammatical account of argument structure constructions needs to take all lexical items into account and not just the verb



Take home

Reconsider the existing approach of argument structure constructions by

- also focusing on other elements of the argument structure, and thus
- considering the whole cline of the taxonomic network, from most schematic to most lexically specific constructions and, particularly, meso-constructions

[V PRON_{rec} NP] = meso-Cx?



University of
Zurich^{UZH}

English Department

Thank you!

melanie.roethlisberger@es.uzh.ch

www.melanie-roethlisberger.ch



References

- Boas, H. (2010). The syntax-lexicon continuum in Construction Grammar: A case study of English communicative verbs. *Belgian Journal of Linguistics* 24, 54-82.
- Bresnan, J., A. Cueni, T. Nikitina, and R. H. Baayen (2007). Predicting the dative alternation. In G. Boume, I. Kraemer, and J. Zwarts (Eds.), *Cognitive foundations of interpretation*, pp. 69–94. Amsterdam: Royal Netherlands Academy of Science.
- Bresnan, J. and J. Hay. (2008). Gradient grammar: An effect of animacy on the syntax of *give* in New Zealand and American English. *Lingua* 118, 245-259.
- Röthlisberger, M., Grafmiller J. and B. Szmrecsanyi. (2017). Cognitive indigenization effects in the English dative alternation. *Cognitive Linguistics* 28(4), 673-710.
- Schneider, E. W. (2007). *Postcolonial English: Varieties around the world*. Cambridge: Cambridge University Press.
- Stefanowitsch, A. and S. Gries. (2005). Covarying collexemes. *Corpus Linguistics and Linguistic Theory* 1, 1-43.