



# Linguistic typology - an introduction

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2021

Doorway  
to Human History

# Linguistic typology - an introduction

- linguistic typology
  - the aims
  - the methods
  - history and community
  - some examples
- Discussion and conclusions



# Linguistic typology

## - the aims



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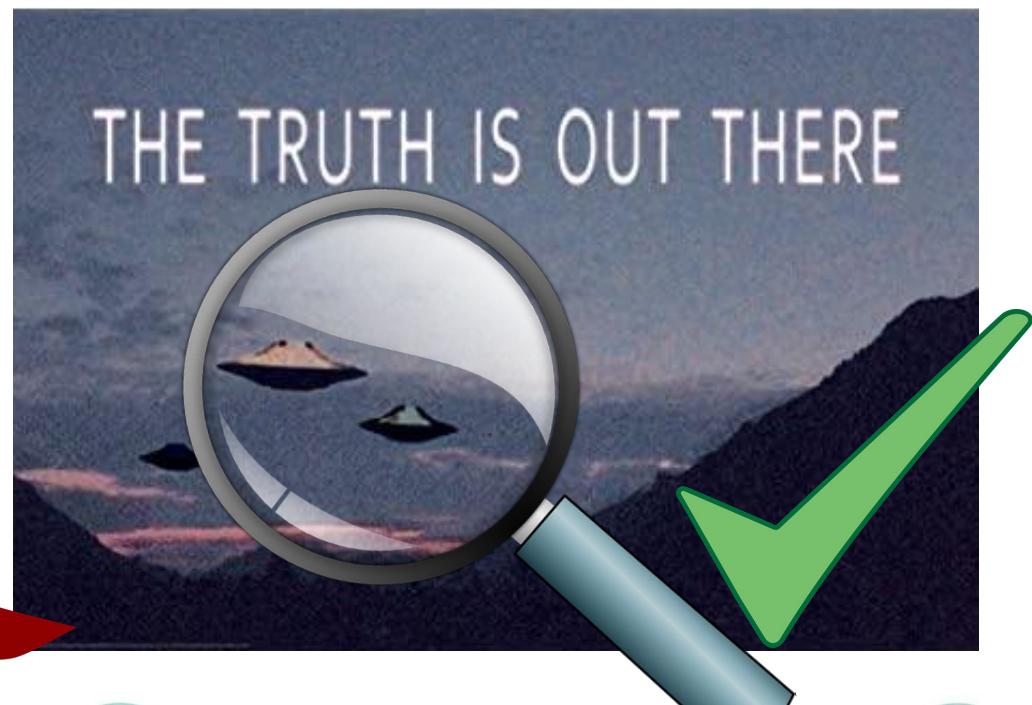


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# Linguistic typology - basics

- assumption that some questions about language can only be answered by systematic cross-linguistic comparison
- i.e., not by in-depth investigation into one language



*[the aim of linguistics] must be to show which structures are possible, in general, and why it is just those structures, and not others, that are possible*

(Hjelmslev 1970 [1963]: 96)



Linguistic typology, unlike for example generative theory or language-specific investigations, believes that the answer to this question lies in **systematic cross-linguistic comparison**



# Central questions

- what is out there?
  - the non-theory driven discovery of the many different ways language can appear
- are there patterns to the distribution of phenomena among languages?
  - do certain traits cluster anywhere? i.e. tone in Southeast Asia.
- are there patterns to the linguistic phenomena discovered?
  - i.e. for example only languages with plural numbers have dual
- why is it where it is?
  - contact? cognitive bias? shared inheritance? communicative ease? dependencies with other traits?

also put

- "what is where and why?" (Bickel)



# Typology = grammar survey?

Linguistic typology is dominated by the comparison of morphological and syntactical traits

However, typological studies can also be carried out within other domains of language such as lexicon/semantics



# Important note on grammar

**Semantics/morphosyntax “axiom”**

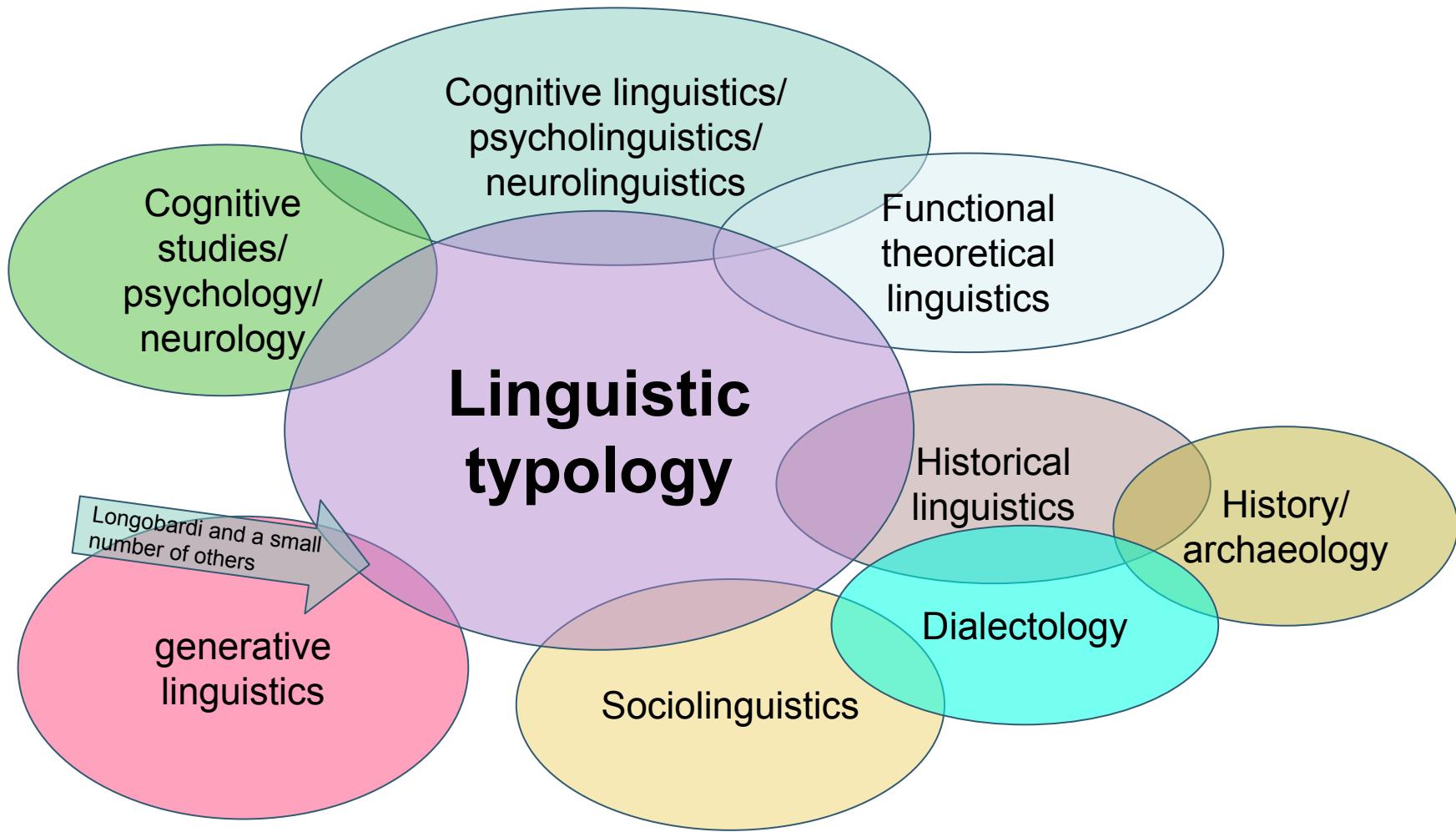
All languages can express all concepts

*grammar [...] determines those aspects of each experience that must be expressed*

(Boas 1938:132)



# Overlap with other fields



# Defining linguistic typology bottom up?



# Association for Linguistic Typology (conference)

The Association for Linguistic Typology organises a conference every two years

some examples of talks

- Dan Dediu Plenary Lecture: *Variation is not noise: From genetics to language change and diversity*  
Ksenia Shagal: *(Non)finiteness in clause combining: a typological survey*
- Neige Rochant: *Causatives which do not cause: Refining the typology with the case of Andi (Nakh-Daghestanian)*
- Annika Tjuka: *Revealing cognitive patterns: A cross-linguistic study of body-part metaphors*



# Linguistic Typology (journal)

recent papers

- A typological portrait of Mano, Southern Mande - M Khachaturyan
- On nominal tense - Pier Marco Bertinetto
- Topicality and the typology of predicative possession - Hilary Chappell and Denis Creissels



# LINGTYP - ALT's mailing list

recent topics:

- definition of personal pronoun
- Search for Participants in Study on Sneezing Responses
- Typology of Small-Scale Multilingualism 2: registration open



# In summary

Linguistic typology seeks to explain patterns of language phenomena and uses systematic cross-linguistic comparison to do so.



# Linguistic typology

## - the method



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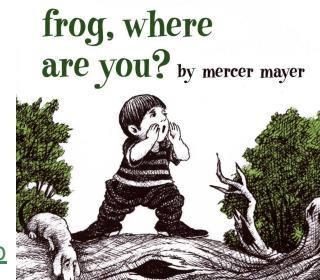
# The linguistic typology method

- systematic comparison (usually through questionnaires but not necessarily)
- sampling
- interpreting the results while controlling for history, contact etc.



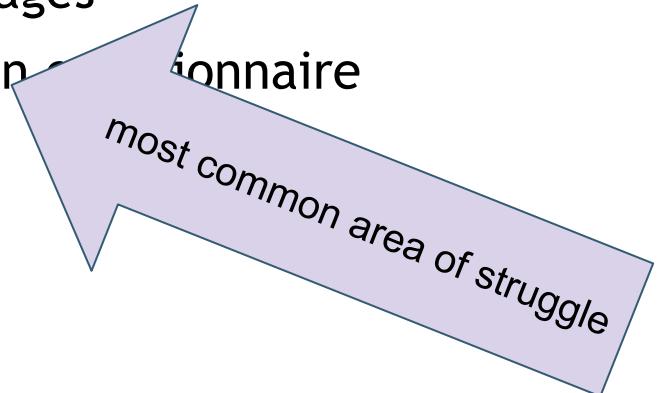
# Data types

- most common: questionnaires answered by secondary sources (grammars and other types of descriptions)
  - phenomena are broken down into types. for example, predicative possession: locational, genitive, topic, conjunctional or have (Stassen 2013)
- other kinds of systematic comparison
  - derive information from parallel-corpus data
    - The Bible, Alice in Wonderland, Declaration of Human Rights, Pinocchio etc
    - can test both presence and absence of categories and nuances of phenomena
  - informant-based
    - stimuli (pictures/videos/games)
      - <http://fieldmanuals.mpi.nl>
    - questionnaires for fieldworkers/informants
      - <https://www.eva.mpg.de/linqua/tools-at-lingboard/tools.php>



# A typical typological project

- define area of interest (relative clauses, metaphors involving eating etc)
- create initial questionnaire for the phenomena you are interested in with types
- define sample (see next slides)
- apply questionnaire to small set of languages
- find problems, establish new categories in questionnaire
- repeat until issues seem to saturate
- apply to full sample
- derive summary statistics
- interpret

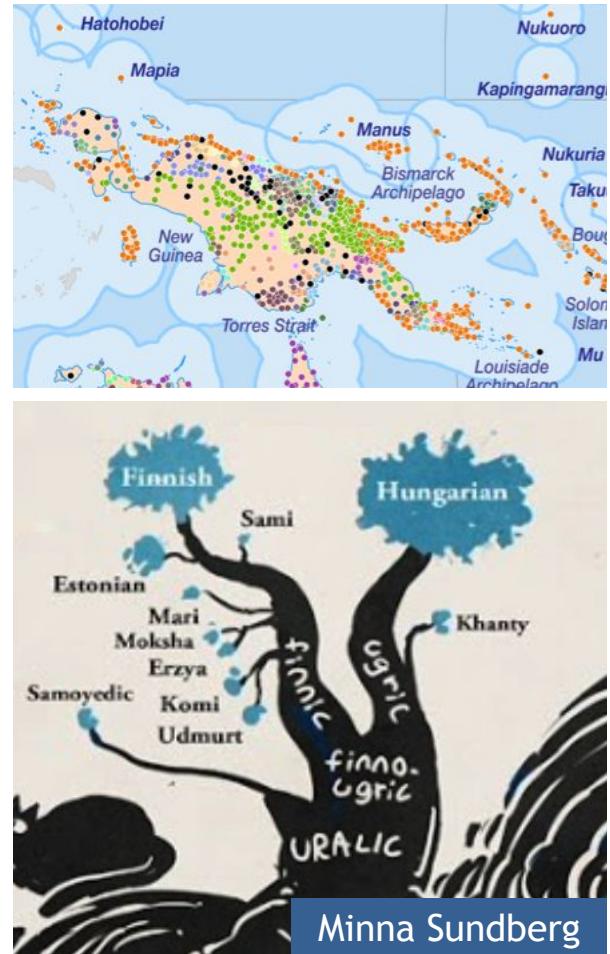


# Sampling

- a way of doing phylogenetic and spatial control
  - Galton's problem and spatial autocorrelation
  - can be combined with further finer control such as involving trees or geographic distances directly in your analysis
  - generally: try and sample evenly over major genealogical subgroups of language families and areas
- potential problems
  - there are A LOT of languages in the world
  - secondary sources vary in significant ways such as describing different registers or having more or less detail

## well known samples

- WALS 100 and 200 samples
- Standard Cross-Cultural Sample (SCCS)



# How many languages in the world? (living, now)

Clues:

- there are 193 member states of UN
- 203 states in the world are recognized by at least one UN member state
- Current world population: 7.2 billion people
  - however, there were about as many languages in 1800 when the world population was 1 billion



**Glottolog: 6,864**  
**Ethnologue: 7,111**

Very short break



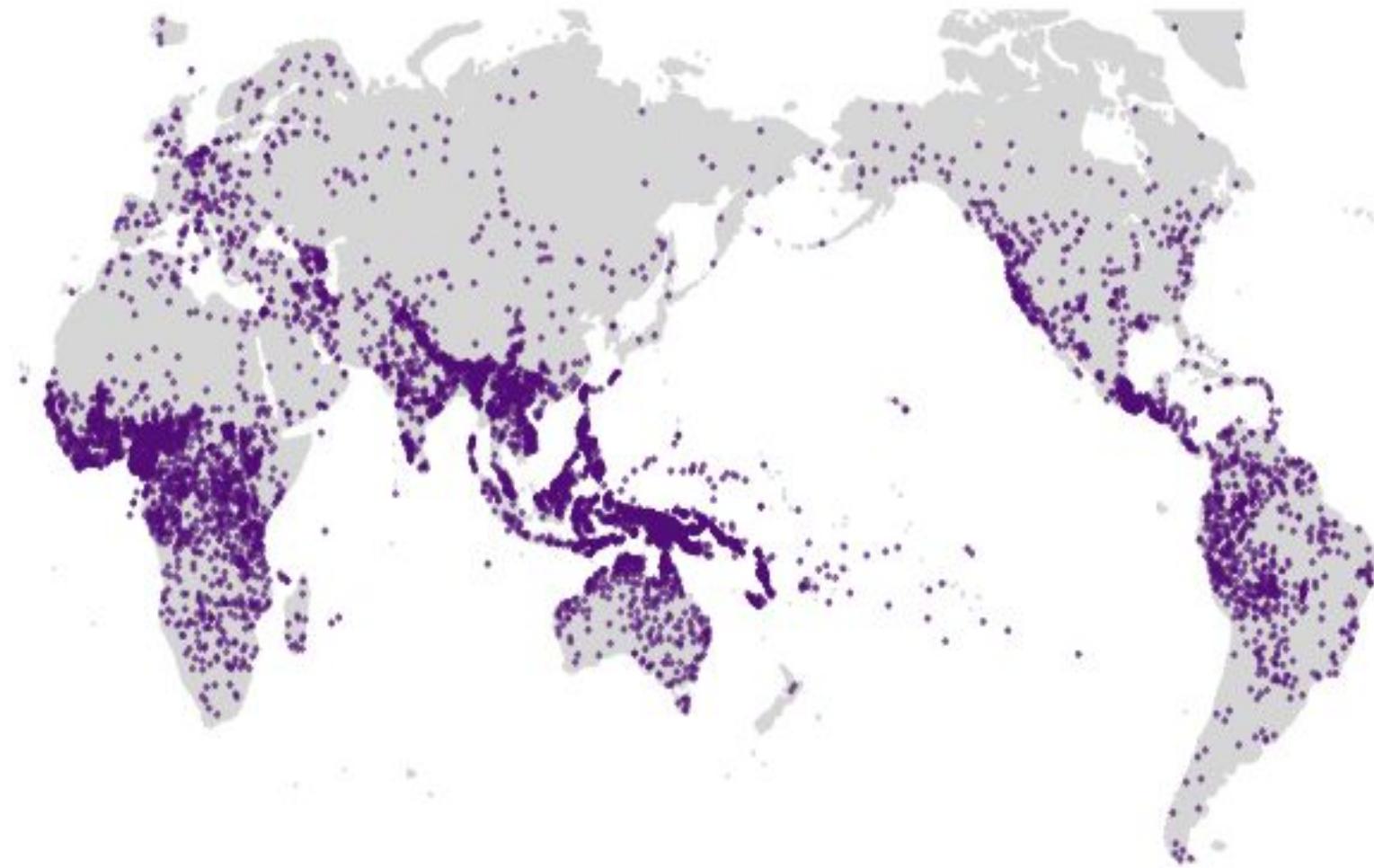
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# Distribution of languages



# Distribution of languages across countries

Worldmapper.com

## Languages per country

Mean 45,6

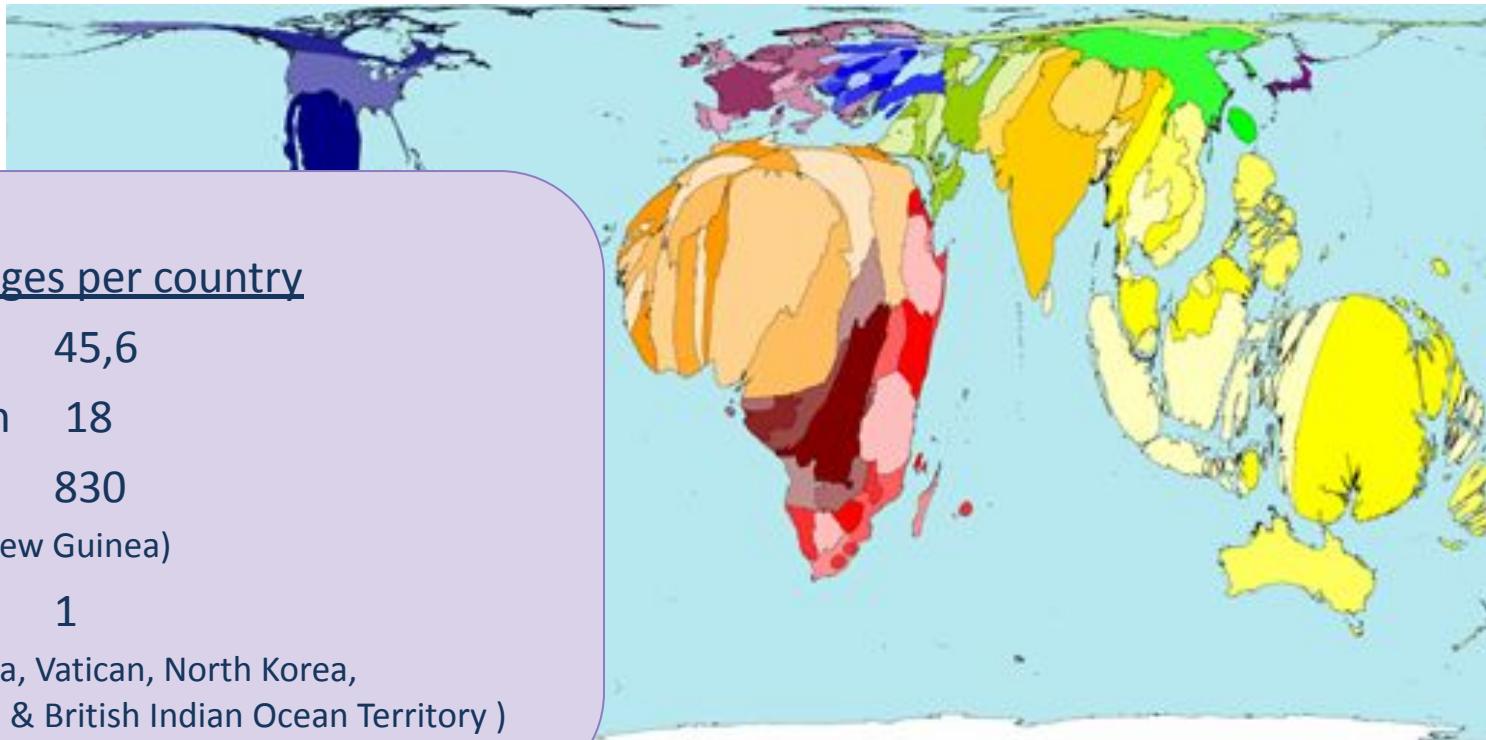
Median 18

Max 830

(Papua New Guinea)

Min 1

(St Helena, Vatican, North Korea,  
Falklands & British Indian Ocean Territory )



# Areas of special interest

## Australia and Oceania

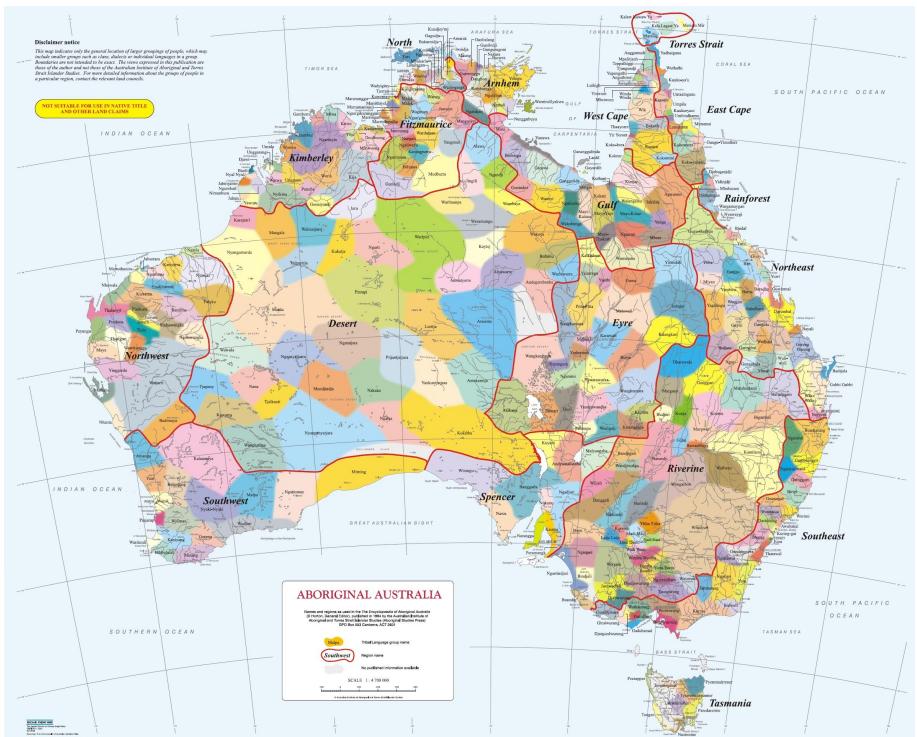


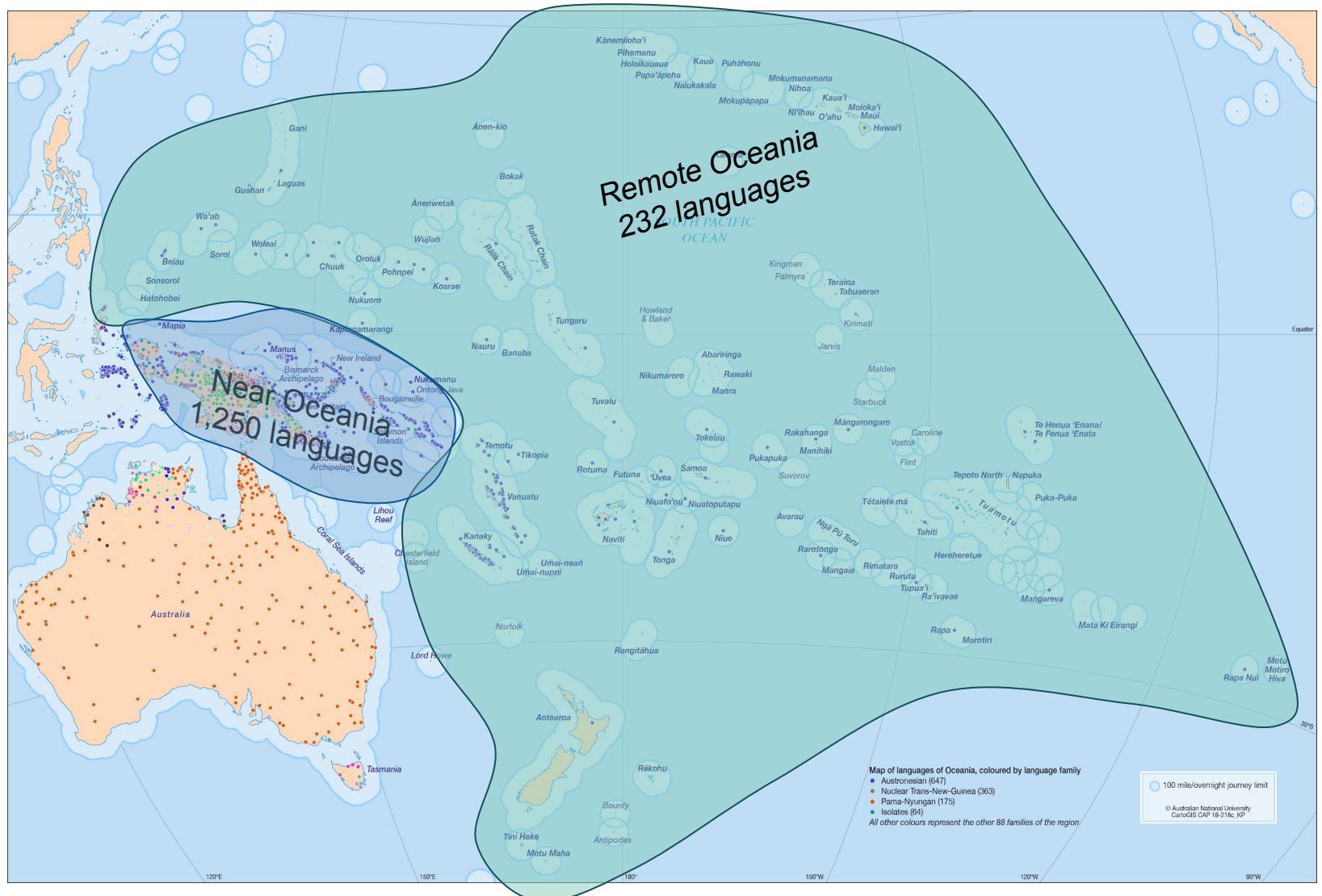
# Australia

Horton (1996)

Approximately 250

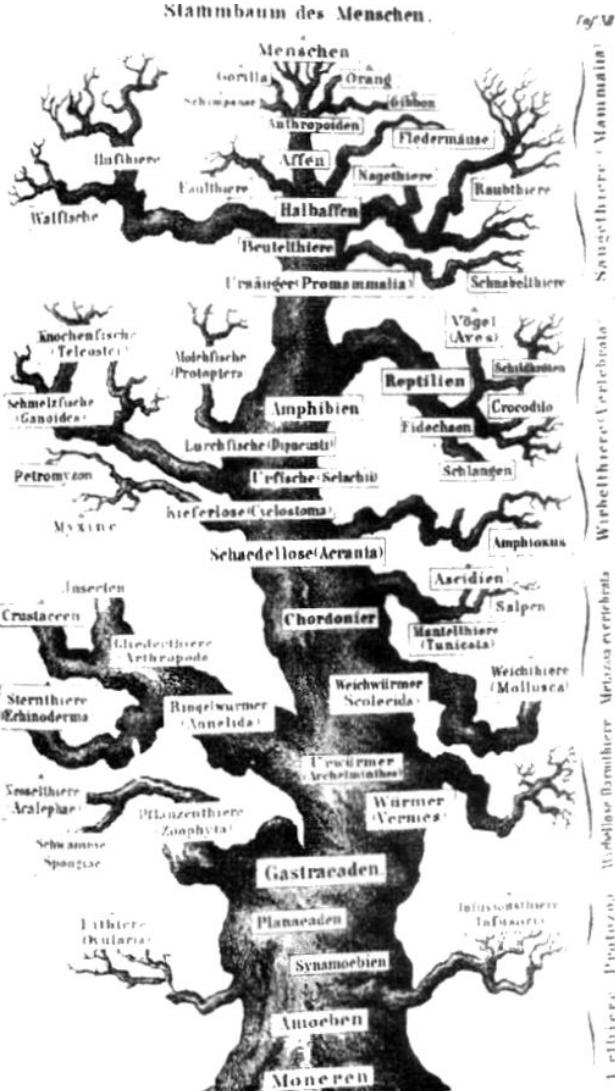
- Horton's map online
- Gambay map of Australia languages (with audio)





Skirgård & ANU CartoGIS

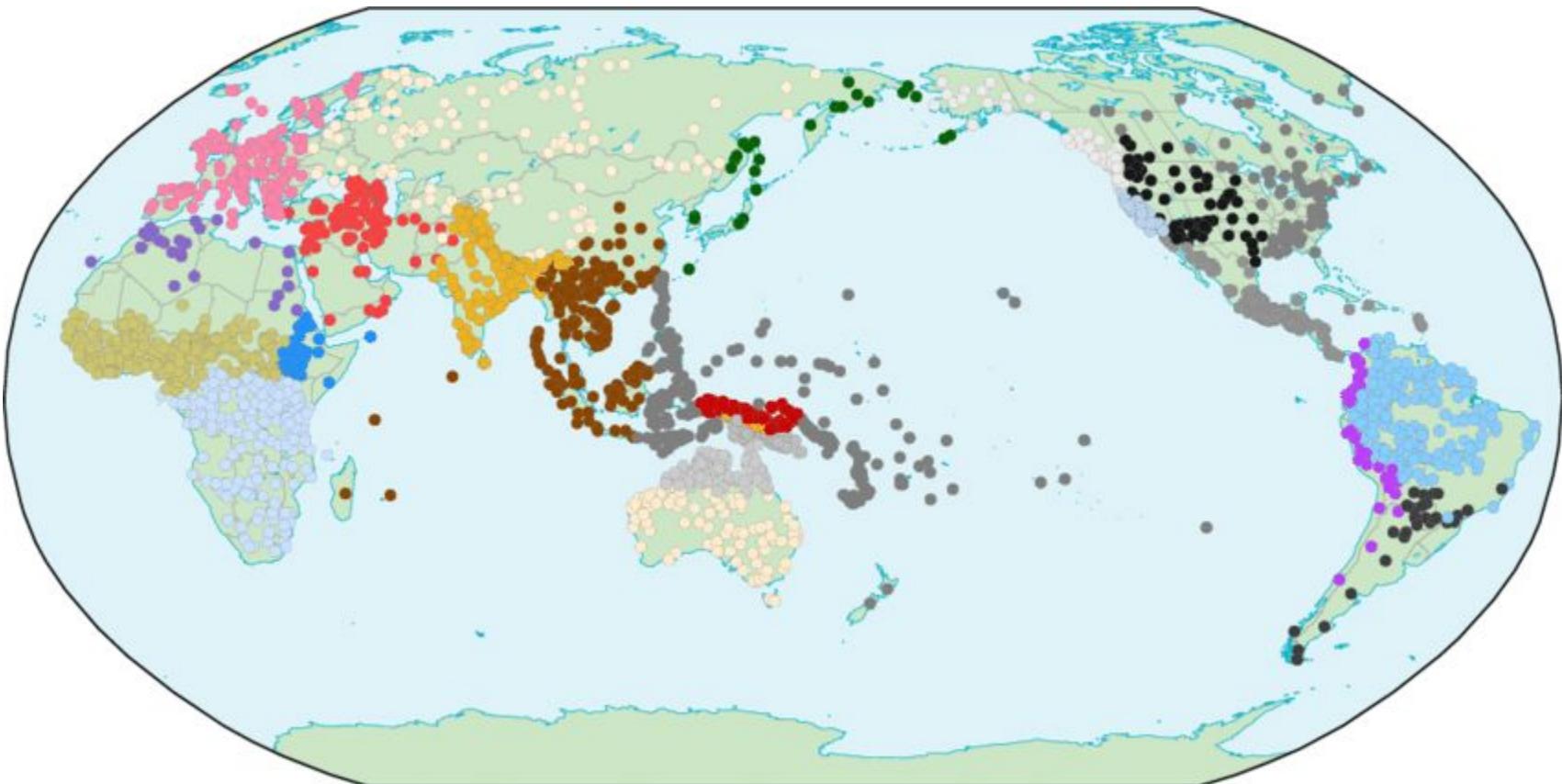
# Language families



Source	Number of language families
Nichols (1992)	≈300
Campbell (2009)	250-300
Ethnologue	141 (135)
Glottolog (2013)	432 (239)



# AUTOTYP-areas



# History and community



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# History and community

- scientists are social beings
- linguistic typology emerged in the 60's and 70's, with many of the major works published in the 80's and 90's
- cross-linguistic comparison wasn't done much before then, other than historical linguistics
- Joseph Greenberg (1915- 2001)
- the EUROTYP-project (1990-1994)
- the WALS-project (2005-2013)
- the Association for Linguistic Typology and their journal *Linguistic typology*
- the field has moved from universals more to areal phenomena  
(Koptjevskaia-Tamm p.c.)
- What's possible? -> What is where and why?



# Joseph Greenberg

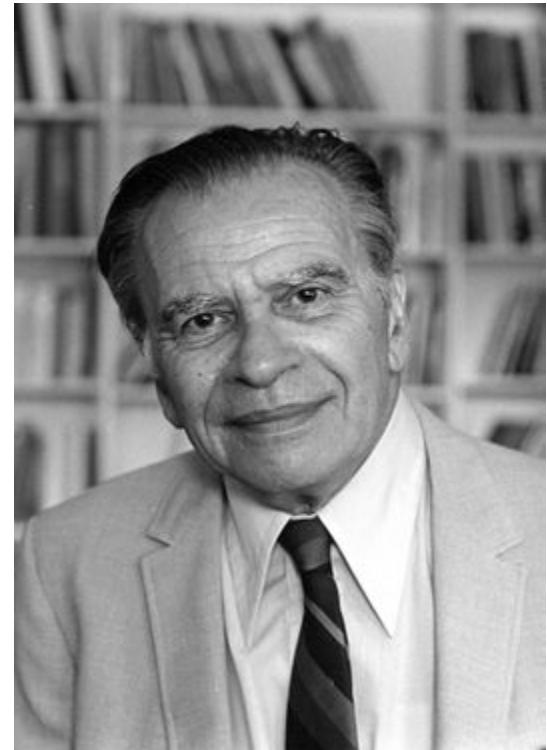
by many considered the father of  
linguistic typology

1915-2001

formulated many famous linguistic  
universals, such as

*With overwhelmingly greater than chance  
frequency, languages with normal SOV order are  
postpositional*

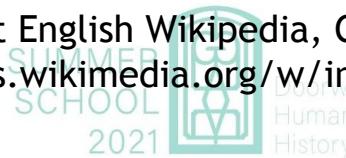
also known for (controversial)  
classification of languages into  
genealogical units



# EUROTYPO project



By Andrei nacu at English Wikipedia, CC BY-SA 3.0,  
<https://commons.wikimedia.org/w/index.php?curid=5224337>



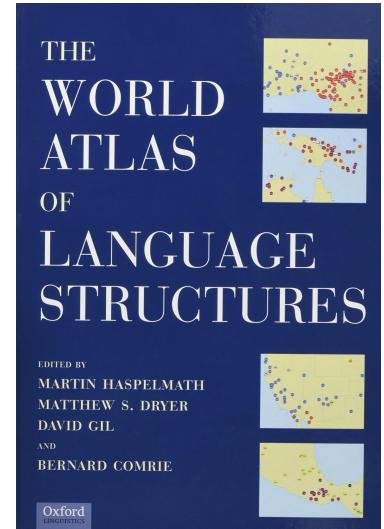
# EUROTYP-project

- 1990-1994
- funded by the European Science Foundation
- sought to establish the nature and possible cohesion of languages of Europe
- "Standard Average European" (Whorf 1939)
- 9 different teams
- laid the groundwork for the Association for Linguistic Typology
- many of the volumes that came out of EUROTYP later grew into yet further papers and books investigating the same phenomena globally
- which leads us to...



# The WALS-project

- The World Atlas of Language Structures
- First edition 2005, last edition 2013
- not just grammar, also phonology, lexicon and some other features
- includes some sign languages
  - speaking of, for those interested in sign languages: look up Ulrike Zeshan and sign language typology
- used also outside of linguistic typology by computational linguists, economists, journalists etc



next generation: Grambank!



# Grambank

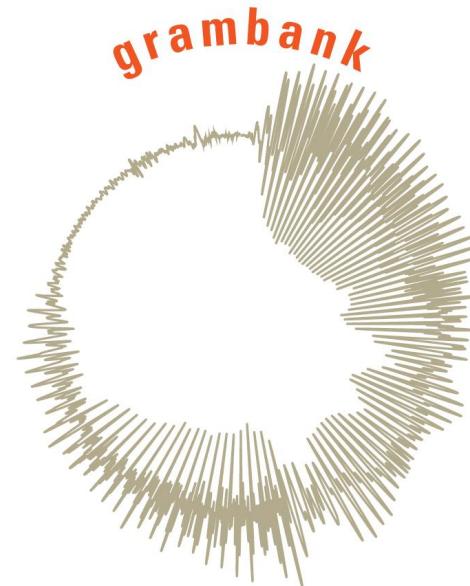
large-scale typological database

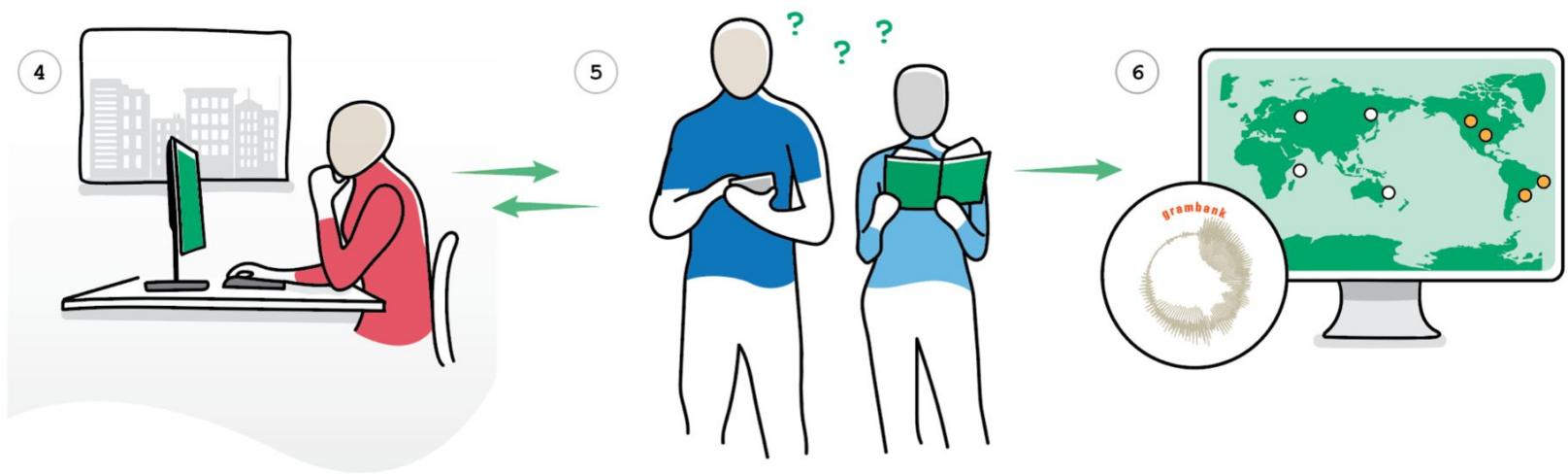
over 2,000 languages

questionnaire per language rather than  
chapter per language-model

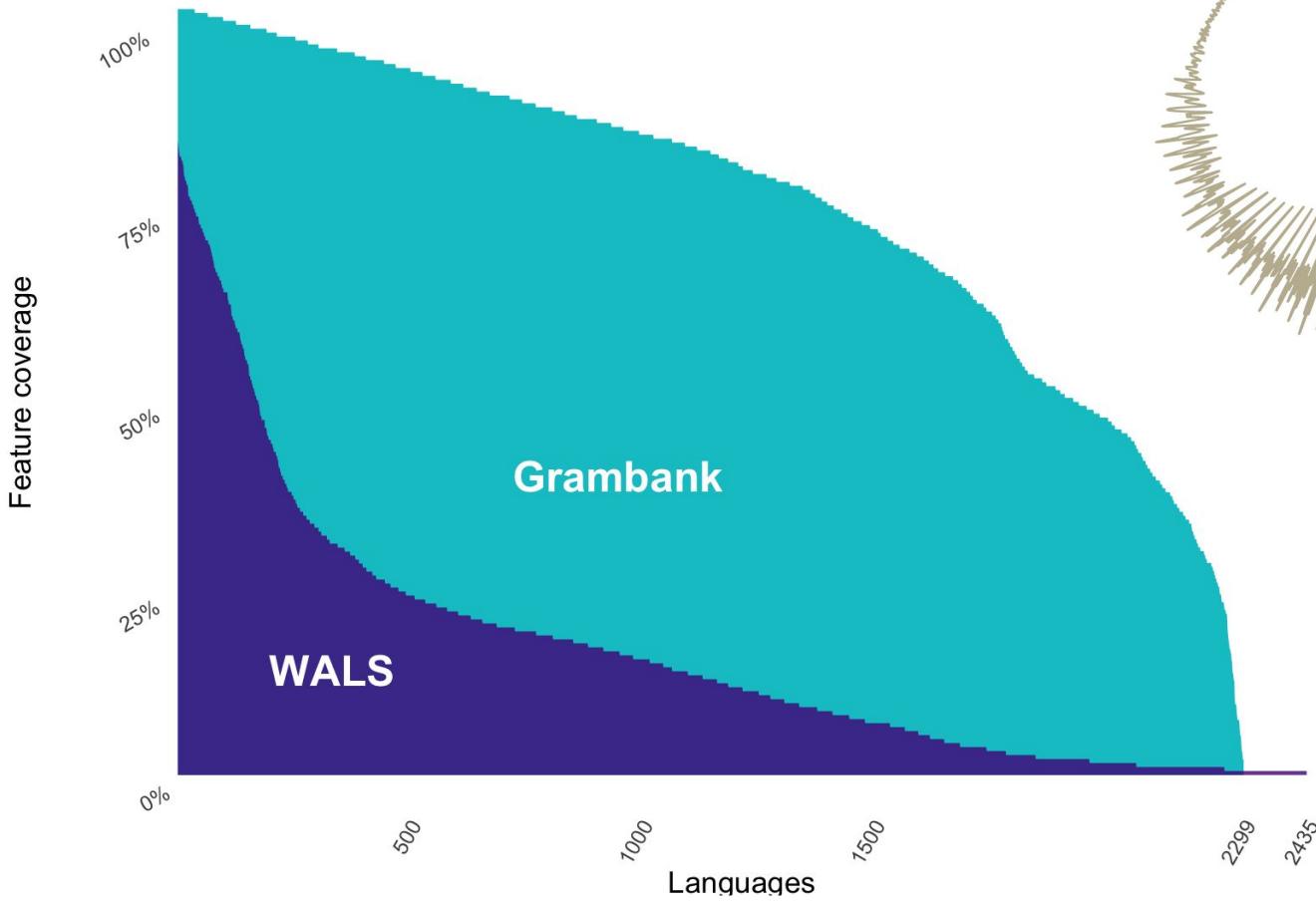
student assistance and guidelines rather  
than few people filling in few features for  
many languages

to be released soon...





# Grambank



# Some examples



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# Universals

- The Konstanz Universals Archive

Absolute universals (297/2029)

*"all languages have X"*

Implicational universals (1476/2029)

*"if a language has X, it also has Y"*

Hierarchies

*singular>plural>dual>trial*

(Greenberg 1963, universalie 511)



# Implicational universal

“Languages with normal SOV order  
are postpositional”



Man  
subject

Dog  
object

Put  
verb

Canoe in  
noun

Greenberg 1963



# WALS

This is being re-tested as we speak using Bayesian phylogenetic methods by Verkerk et al.

Postpositions (577)

Prepositions (512)

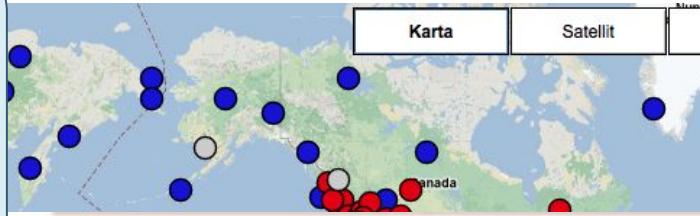


● OV	713
● VO	705
○ No dominant order	101



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OV (713)

472

14

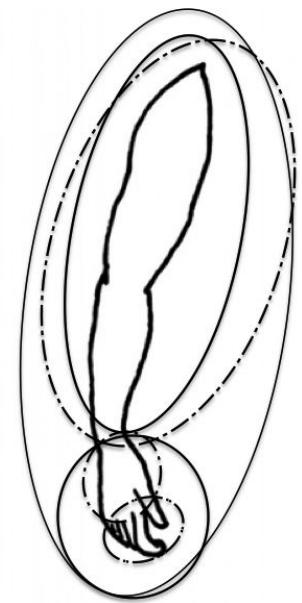
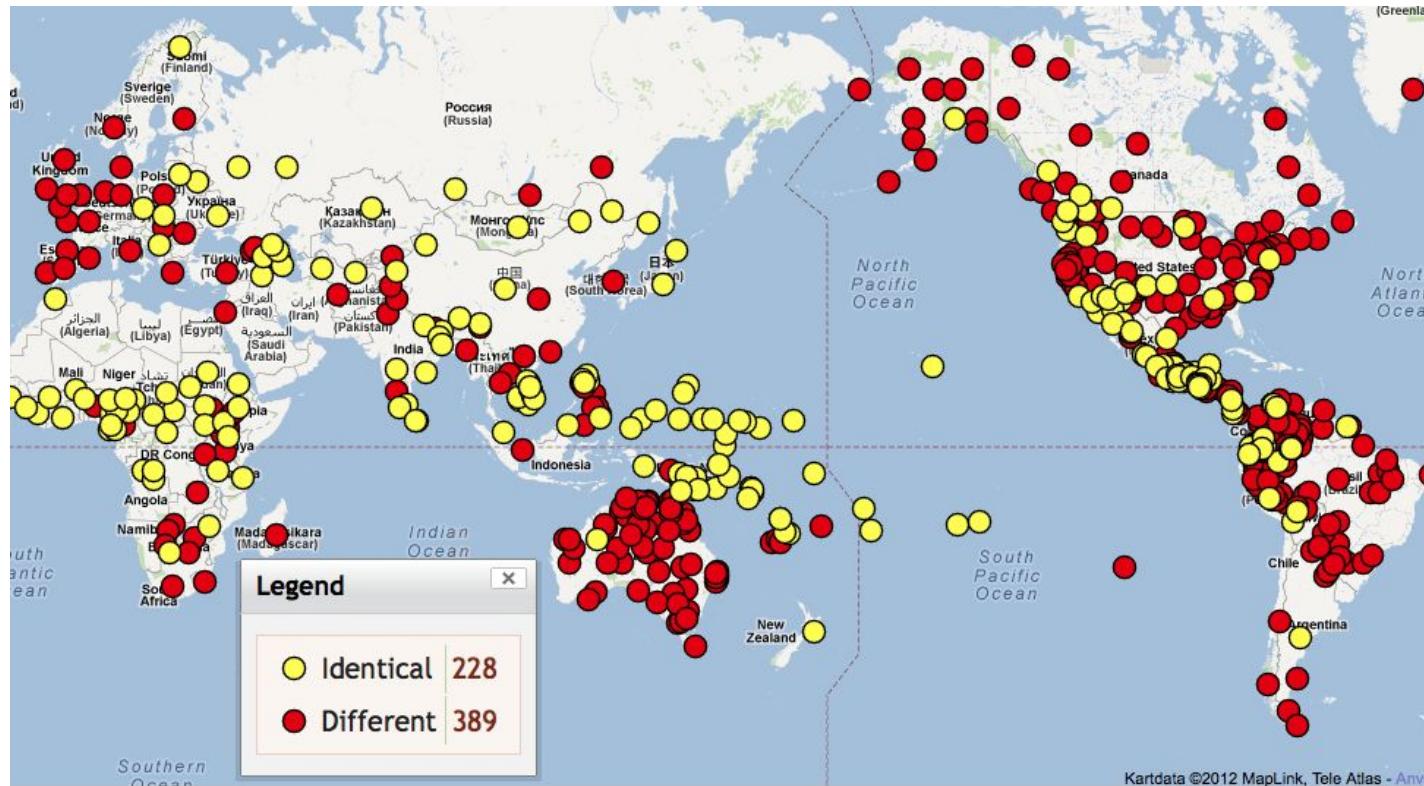
VO (705)

42

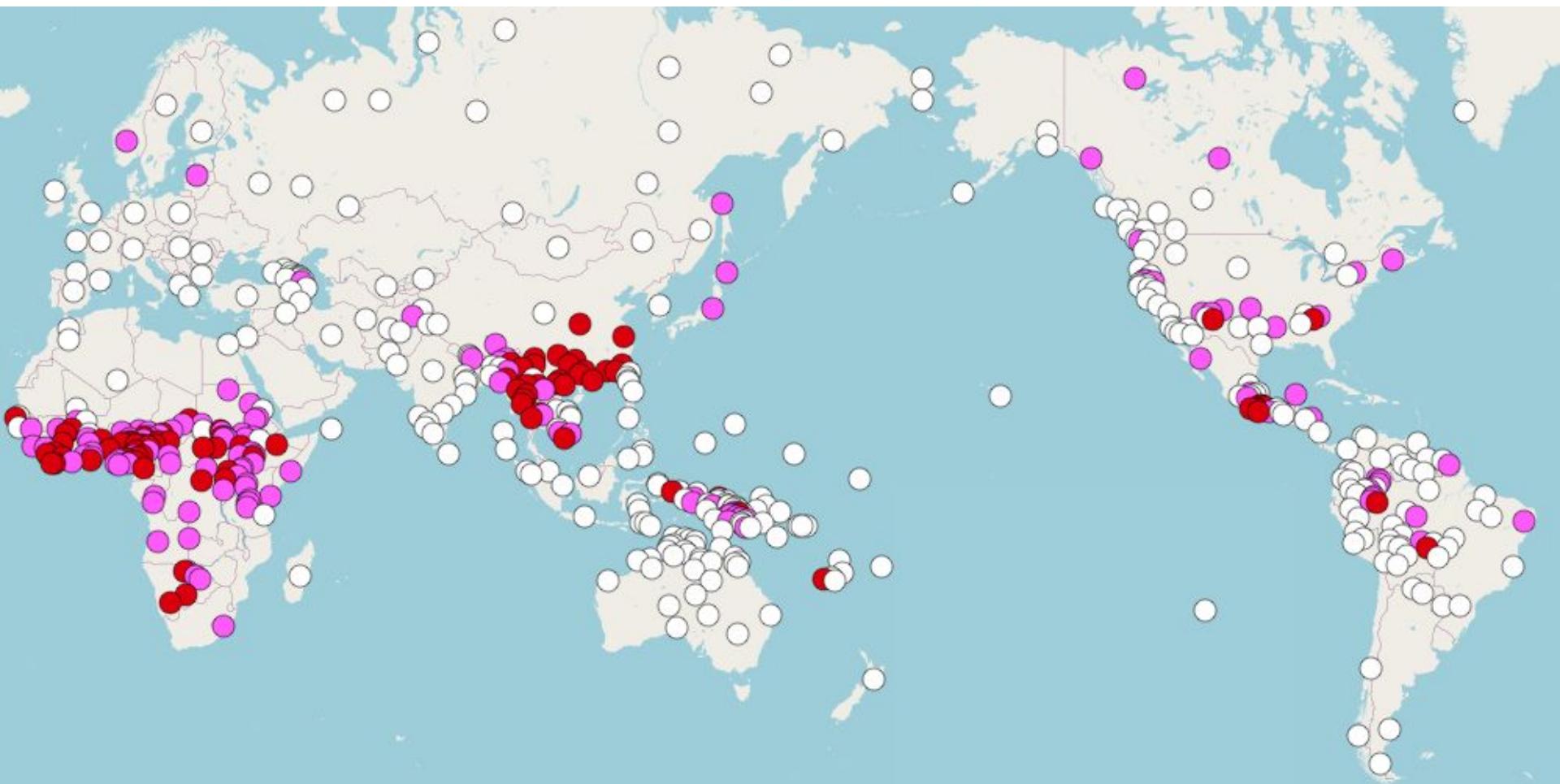
456



# Co-lexification: WALS, Chapter 129: Hand & Arm by Cecil H. Brown 2011



# WALS chapter 13: tone (Maddieson)



# Standard Average European as exotic

- Dahl 1990, Beckman 1934
  - inversion of word order to express polar interrogation
  - dummy subjects ("it's raining")
  - *habeo*-possessive
  - have-perfect



# Ergative case - more difficult?

I dream  
I like him

intransitive  
transitive

Nominative-  
accusative

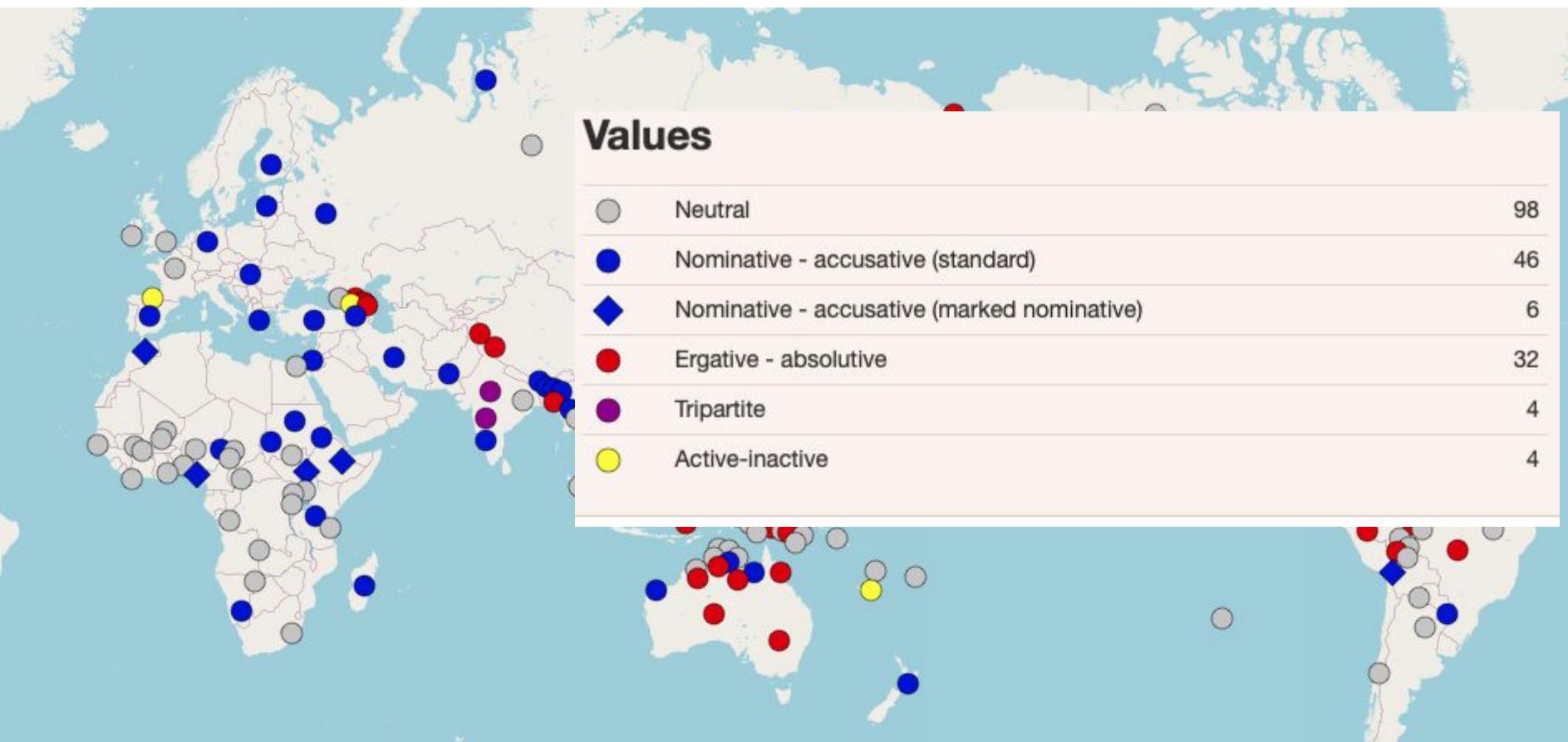
Me dream  
I like him

intransitive  
transitive

Ergative-  
absolutive



# Ergative case - more difficult?



WALS chapter 98, Comrie



# Ergative case - more difficult?

## The Neurophysiology of Language Processing Shapes the Evolution of Grammar: Evidence from Case Marking

Balthasar Bickel , Alena Witzlack-Makarevich, Kamal K. Choudhary, Matthias Schlesewsky, Ina Bornkessel-Schlesewsky

Published: August 12, 2015 • <https://doi.org/10.1371/journal.pone.0132819>

paraphrasing Bickel et al:

even speakers of languages that have ergative case (in some instances) find ergative alignment more tricky to process (N400 spike).



# Other phenomena not present in (most) european languages

- evidentiality
  - It rained (I see the wet ground)
- logophoricity
  - **David** crashed his car
- lack of certain word classes (or word classes altogether)



# Asking what lingtyp's greatest achievements are on twitter



Martin Haspelmath

@haspelmath

...

Svarar @Laserhedvig



Ian Joo 주이안 朱易安

@ian\_joo\_korea

...

s „exotic“  
t they are

Svarar @Laserhedvig

I think one of the raison d'être of typology is alarming other subfields of linguistics, which mainly focus on large national languages that we happen to speak, that what we observe from these languages doesn't really tell the whole story.



Dr. A.  
@Woif

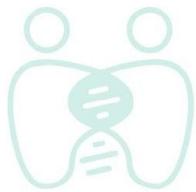
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That we sh

and possible language types but for diversity, its emergence, and distribution.



# pro-tips



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# When people say...

"typologically uncommon" = uncommon in the world's languages  
(controlled for family and space)

"typological feature" = probably a grammatical abstract feature  
(i.e. not the particular form a grammatical marker takes)

"typological study" = cross-linguistic and very unlikely to be heavily influenced by one theoretical school

"diversity linguistics" = essentially linguistic typology

"systematic cross-linguistic survey" = essentially a linguistic typology study

"a typology" = an overview over the major types given a particular phenomena



# Discussion



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# Discussion points

- is linguistic typology similar to something in your fields?
- what are questions you are exploring that could be enhanced by knowing more about the diversity of languages?

If you want to know more, check out the recommended reading by Koptjevskaia-Tamm in the Literature channel



# Thank you and goodbye

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podcast: Because Language

Blog: <http://humans-who-read-grammars.blogspot.com/>

website: <https://sites.google.com/site/hedvigskirgard>



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