Introduction to linguistic typology

Lecture 1

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Overview of this class

- Defining linguistic typology.
- Typology as a theory and a method of linguistic research.
- Research questions in typology and how they have changed through time.

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Defining typology (Croft 2003: 1)

- **Comparing** languages with each other with respect to a given linguistic phenomenon and based on representative **samples**.
- **Classifying** observed crosslinguistic variation into **types** (phonological, morphological, syntactic, semantic, lexical, pragmatic etc.).
- **Formulating generalizations** over the **distribution** (what is attested/how frequently) of linguistic patterns across the languages of the world and their relationship to other patterns.

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Typology: theory and method

- The study of linguistic diversity based on: **comparative**, **empirical**, and **functional** approaches.

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A bit of history: Morphological typology

- XIX century typology: F. and A. Schlegel, A. von Humboldt, A. von Schleicher

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  - isolating languages, Chinese
  - agglutinative languages, Turkish
  - inflectional languages: synthetic, Latin; analytic, French
  - incorporating languages

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  Holistic classifications: One parameter of variation, having predictive scope on overall languages.

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A bit of history: Morphological typology II

Sapir (1922)

- Two parameters of variation: number of morphemes per words and degree of alteration of morphemes in combination.

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  - **Number of morphemes per word**
    - analytic (one morpheme per word)
    - synthetic (a small number of morphemes per words)
    - polisynthetic (a large number of morphemes and multiple roots per word)

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  - **Degree of alteration between combined morphemes**
    - isolating: no affixation
    - agglutinative: simple affixation (no alteration)
    - fusional: considerable alteration between combined morphemes
    - symbolic: suppletion

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From holistic classifications to classifications of specific features of language and the study of their mutual relationships across languages.

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The Greenbergian revolution and the quest for universals

Questions, generalizations, methods

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The Greenbergian revolution and the quest for universals

Greenberg (1963) on word order universals

- what is possible/impossible in human language?
- why?

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The Greenbergian revolution and the quest for universals

Greenberg (1963) on word order universals

- what is possible/impossible in human language?
- why?
- Data collection based on reference grammars and corpora.

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The Greenbergian revolution and the quest for universals

Greenberg (1963) on word order universals

- what is possible/impossible in human language?
- why?
- Data collection based on reference grammars and corpora.
- Two types of universals: unrestricted universals and implicational universals.

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Unrestricted universals

"All languages have oral vowels" (Croft 2003: 52)

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- Unrestricted universals state that there is a limit to linguistic variation along a given parameter. Given this parameter all languages are the same.

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Unrestricted universals

"All languages have oral vowels" (Croft 2003: 52)

- Unrestricted universals state that there is a limit to linguistic variation along a given parameter. Given this parameter all languages are the same.
- They are very few.

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Implicational universals

- If X then Y.

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- They do not state that languages must belong to one type.

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- They however impose constraints on possible types. These constraints lie on the relationship between two logically independent parameters.

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> U27 If a language is exclusively suffixing, it is postpositional: if it is exclusively prefixing, it is prepositional.
> (Greenberg 1963: 57)

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Implicational hierarchies

- Chains of implicational universals having scope over the same domain.

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$$\begin{array}{lllllll} a & > & b & > & c & > & d \\ a & < & b & < & c & < & d \end{array}$$

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Implicational hierarchies

- Chains of implicational universals having scope over the same domain.

$$a > b > c > d$$
$$a < b < c < d$$

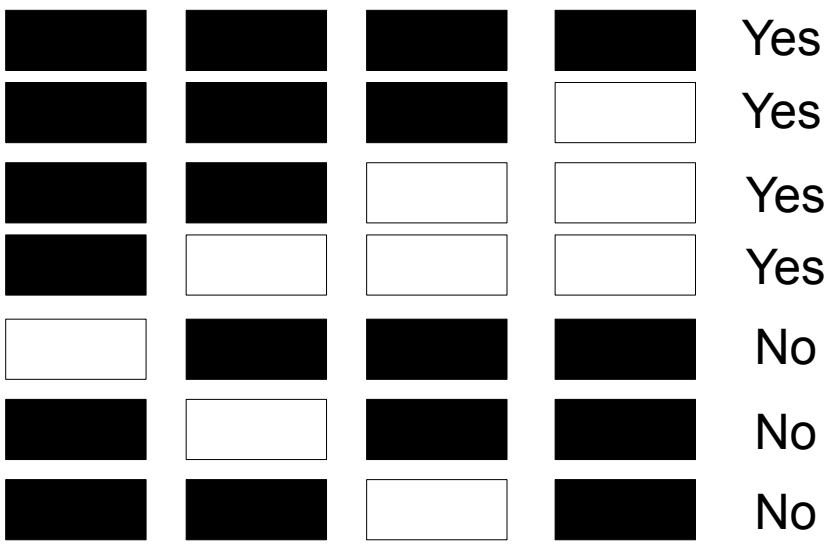

Figure 1: IHs and monotonic increase

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Implicational hierarchies

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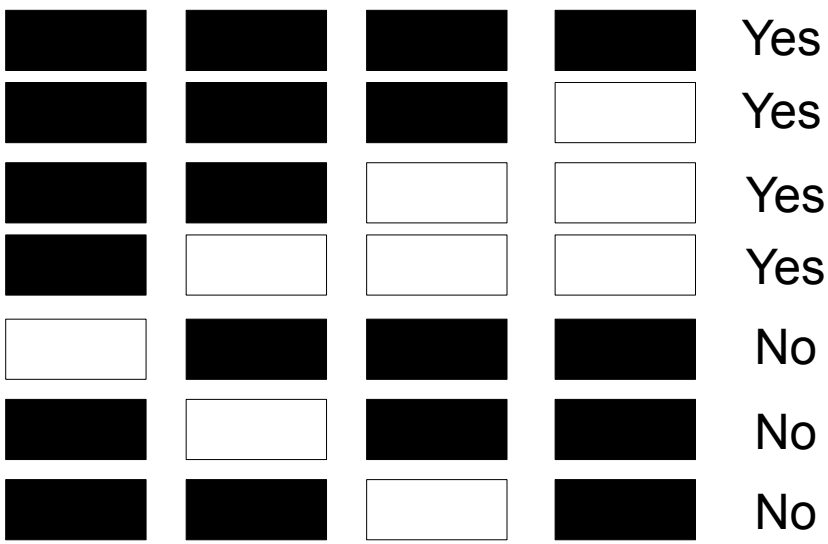

Figure 1: IHs and monotonic increase

- IH are used "to make specific and restrictive claims about possible human languages" (Corbett 2013: 190).
- Very few IHs "have stood the test of time" (Corbett 2013: 190).

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The Number Hierarchy

$\Rightarrow$ Number values and their likelihood

$$\text{singular} < \text{plural} < \text{dual} < \text{trial}$$

U34 "No language has a trial number unless it has a dual. No language has a dual unless it has plural".
(Greenberg 1963: 58)

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Animacy Hierarchy (Haspelmath 2013; Smith-Stark 1974)

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Animacy Hierarchy (Haspelmath 2013; Smith-Stark 1974)

speaker $<$ addressee $<$ 3rd person $<$ kin $<$ human $<$ animate $<$ inanimate (Corbett 2000; Smith-Stark 1974)

or

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speaker $<$ addressee $<$ 3rd person $<$ kin $<$ human $<$ animate $<$ inanimate (Corbett 2000; Smith-Stark 1974)

or

kin $<$ other humans $<$ 'higher animals' $<$ 'lower animals' $<$ discrete inanimates $<$ nondiscrete inanimates (Haspelmath 2013)

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$\Rightarrow$ The marking of nominal plurality

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Animacy-based marking of nominal plurality

(1) Nominal number marking in Bila (Atlantic-Congo, Bantu; adapted from Kutsch Lojenga 2003: 462)

a. Animate nouns (singular)

míkí
child

'child'

b. Animate nouns (plural)

ɓa-míkí
PL-child

'children'

c. Inanimate nouns (invariant)

endú
house

'house(s)'

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IHs and frequency

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- IHs reflect the frequency of linguistic patterns across languages.

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- Corpus frequencies within individual languages reflect the same distributional preferences (Corbett 2013; Greenberg 1966).

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(2) Relative frequencies of number inflections on nouns in Sanskrit based on Greenberg (1966)

Singular = 70.3%; Plural = 25.3 %; Dual = 04.6%

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IHs and diachrony

- IHs define possible language types
- IHs describe diachronic transitions between possible language types

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  $\Rightarrow$ The grammaticalization of nominal number within individual languages is likely to reflect the Animacy Hierarchy (Haspelmath 2013).

  kin $<$ other humans $<$ 'higher animals' $<$ 'lower animals' $<$ discrete inanimates $<$ nondiscrete inanimates (Haspelmath 2013)

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Sampling for diversity (Bakker 2011; Veselinova forthcoming)

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Sampling for diversity (Bakker 2011; Veselinova forthcoming)

- **Probability sample:** testing the probability of a language to be of a specific type.
- **Variety sample:** exploring linguistic diversity with respect to a linguistic variable about which not much is known.
- **Convenience sample:** taking any relevant and reliable available data with respect to the variable under study.
- **Random sample:** no stratification, no exhaustiveness, all members of a population have had a change to be chosen = very rare in typology.

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Present-day typology

Questions, generalizations, methods

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Comparing and classifying: descriptive categories and comparative concepts

Haspelmath (2010); discussion in V 20, 2 of *Linguistic Typology* (Oct 2016)

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Comparing and classifying: descriptive categories and comparative concepts

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Descriptive categories: language-particular categories used in the description of a language

Comparative concepts: concepts created by comparative linguists for the purpose of language comparison.

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Comparing and classifying: descriptive categories and comparative concepts

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Descriptive categories: language-particular categories used in the description of a language

Comparative concepts: concepts created by comparative linguists for the purpose of language comparison.

- A distinction that is both theoretical and methodological

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Descriptive categories vs. comparative concepts

Descriptive categories:

- language-particular
- psychologically real

Comparative concepts:

- universally applicable
- methodological tools
- no psychological reality
- no direct relevance to the description of a particular language
- can't be right or wrong, rather better or worse suited for the task
- defined in terms of other universally applicable concepts (conceptual-semantic concepts, general formal concepts, other comparative concepts).

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Example of a comparative concept: the dative

A dative case is a morphological category that has among its functions the coding of the recipient argument of a physical transfer verb (such as 'give', 'lend', 'sell', 'hand'), when this is coded differently from the theme argument. (Haspelmath 2010: 666)

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Generalizing: the myth of universals

Evans & Levinson (2009)

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- From a biological point of view, diversity is the most remarkable property of human language as compared to other animals' communication systems.

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- Linguistic diversity is the result of historical and cultural evolution. It must be studied by taking into account genealogical and geographical biases.

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- There are no sharp boundaries between possible and impossible languages, variables and types. Linguistic diversity is instead *statistical, probabilistic.*

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Generalizing: non-linguistic causes of linguistic diversity

- **Linguistic diversity in space and time (Nichols 1992)**
  - Identifying stable features in language(s); disentangling genealogical, geographical and universal determinants of linguistic diversity; turning typology into a population science.

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  - Identifying stable features in language(s); disentangling genealogical, geographical and universal determinants of linguistic diversity; turning typology into a population science.
- **Distributional typology: What? Where? Why? (Bickel 2007, 2015)**
  - Processing preferences, historical contingencies concerning population movements and language contact are all factors at play in explaining the distribution and development of language structures.

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Generalizing: non-linguistic causes of linguistic diversity

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- **Distributional typology: What? Where? Why? (Bickel 2007, 2015)**
  - Processing preferences, historical contingencies concerning population movements and language contact are all factors at play in explaining the distribution and development of language structures.
- **Languages as complex adaptive systems (Beckner et al. 2009)**
  - Language structures emerge from the interaction between human cognitive abilities and the socio-cultural dynamics of inter-speaker communication

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Sampling

- Sampling for diversity, but controlling for language families and areas (Dryer 1989)

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Sampling

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- Family-based sampling (Bickel 2013; Dunn et al. 2011)

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- Family-based sampling (Bickel 2013; Dunn et al. 2011)
- More about it on Thursday.

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Example of a family-based typological study

(Dunn et al. 2011)

- The study uses phylogenetic comparative methods to explore the co-evolution of word order features within language families.

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Example of a family-based typological study

(Dunn et al. 2011)

- The study uses phylogenetic comparative methods to explore the co-evolution of word order features within language families.
- The study suggests that Greenbergian word order correlations are family-specific rather than universal.

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New methods and resources

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New methods and resources

- New methods of data collection

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New methods and resources

- New methods of data collection
  - Parallel corpora
    - Parallel Bible Corpus

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New methods and resources

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- New methods of hypothesis testing

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  - Experiments with miniature artifical languages
    - Jennifer Culbertson

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  - The WALS revolution

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- New methods of data management
  - The WALS revolution
  - Cross-linguistic linked data
    - CLLD

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To be continued...

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Thank you for today!

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