Typological patterns and explanations
Typological patterns and explanations

Traditional typology courses usually start here…

*Patterns found by typologists*

*Explanations come up with by typologists*

In this course we decided to focus on some of the methodology and preparations necessary to yield patterns to be explained.

But of course it is still important to give at least an impression of the patterns and explanations that are common in linguistic typology.
Typological patterns and explanations

What is a nice pattern?

Typologists generally look for skewings in the data, i.e. uneven distributions. This can be over variable values, combinations of variable values, over geographical areas, over language families, etc. As soon as there is skewing, it usually requires an explanation.
Typological patterns and explanations

What is a nice pattern?

Different kinds of skewing:

1. Absolute (statistical) universals
2. Implicational (statistical) universals and hierarchies
3. Geographical biases
4. Genealogical biases
Typological patterns and explanations

Different explanations

Cognitive explanations

Economy, iconicity >> language learning, language processing, language production

Diachronic explanations

Language contact, language diversification >> physical geography, cultural anthropology
“A grammatical characteristic that can be reasonably hypothesized to be present in all or most human languages. A universal hypothesis is reasonable if it is based on a large, genetically and areally balanced sample; or if it is predicted by an independently motivated principle; or if both are the case. We will use the term 'universal' both for the characteristic itself and for the statement describing it.”
Patterns in typology I: Universals

1. **Absolute versus probabilistic universals**

2. **Implicational versus non-implicational universals**

<table>
<thead>
<tr>
<th>[+absolute][-implicational]</th>
<th>[-absolute][-implicational]</th>
</tr>
</thead>
<tbody>
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<td>[+absolute][+implicational]</td>
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Patterns in typology I: Absolute universals

Absolute, non-implicational universals are often not in the center of the debate

All languages have consonants
All languages have vowels
All languages have verbs (?)
All languages have ??
Typological patterns

Patterns in typology I: Implicational universals

<table>
<thead>
<tr>
<th>condition</th>
<th>tendency or absolute universal</th>
</tr>
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<tbody>
<tr>
<td>IF there are aspirated stops (especially voiceless labial and alveolar),</td>
<td>THEN there is /h/.</td>
</tr>
<tr>
<td>IF adpositions precede their NPs,</td>
<td>THEN head nouns almost always precede their attributive nouns</td>
</tr>
<tr>
<td>IF a phonotactic constraint holds for a syllable-edge,</td>
<td>THEN it also holds for a corresponding word edge, but not vice versa.</td>
</tr>
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The Universals Archive

http://typo.uni-konstanz.de/archive/intro/index.php
Patterns in typology I: Implicational patterns

**Typological Markedness:** cross-linguistic asymmetries in the expression of otherwise equivalent grammatical categories. E.g. number and gender

**Structural coding**

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SG less morphological material than PL

**Behavioral potential**

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SG is more differentiated in terms of gender than PL

Potential implicational universal ?
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SG is more differentiated in terms of gender than PL

Potential implicational universal
If a language distinguishes gender for plural referents, it will do so for singular ones.
Patterns in typology I: Implicational patterns

Implicational hierarchies can be regarded as chained implicational universals

Early example:

The Accessibility Hierarchy (Keenan and Comrie 1977)

SU > DO > IO > OBL > GEN > OCOMP

If a language can relativize an object of comparison (i.e. ??the man who I am smarter than), then it can relativize possessors (GEN - i.e. the man whose car I crashed); if a language can relativize possessors, it can relativize oblique objects; if a language can relativize oblique objects... etc.
Typological patterns

Patterns in typology I: Implicational patterns

A very frequently invoked hierarchy for these implicational hierarchies is the *animacy hierarchy* (often combined with topic or agent hierarchy)

**Generalized Animacy Hierarchy**

1\(^{st}\) > 2\(^{nd}\) > 3\(^{rd}\) > humans > non-human animate > inanimate

Variants of this hierarchy often seem to determine or help explain cross-linguistic patterns.
Patterns in typology I: Implicational patterns

E.g. number marking (Corbett 2000)

Animacy Hierarchy for number

speaker > addressee > 3rd person > kin > human > animate > inanimate

Implicational statement: if a language expresses number for a particular position on the hierarchy, it will express number for all positions to the left of that position.
Patterns in typology I: case

Some examples from the universals archive on case

IF there is a case which has only zero exponence, THEN it will be that case whose functions include that of encoding the subject of intransitive verbs.

IF basic order for nominal arguments is verb-final (i.e. SOV or OSV), THEN there is almost always a case system.

IF there is case marking for subject vs. object, THEN basic order is SOV.

IF there are case affixes on nouns, THEN they are almost always suffixed.

The morphological bulk of affixes for direct cases, measured in number of syllables, will not exceed that of affixes for oblique cases.
Patterns in typology I: case

Implicational hierarchies

IF there is a distinct case marker to express “direction from”, THEN there will be a distinct case marker to express “direction to”.
IF there is a distinct case marker to express “direction to”, THEN there will be a distinct case marker to express “location”.

IF one of the elements of the hierarchy takes ergative case-marking, THEN all units to its right also take ergative case-marking as well; and IF one of the units takes accusative case-marking, THEN all units to its left also take accusative case-marking.
Explanations in typology I: cognitive-communicative explanations

**Economy:** expressions should be minimized where possible (e.g. ‘zeros’ in paradigms, pro-drop)

**Iconicity:** expressions/structure should reflect structure of experience (e.g. order of cause-effect, temporal order, but also symmetry of expression)

>> ease of language learning, language processing, language production
Typological explanations

An example

If a language has overt genitive marking for inalienable nouns (kinship terms, body-part terms), then it also has overt genitive marking for other nouns (Nichols 1988).

explanation (Haspelmath 2012++):

– inalienable nouns are more frequently possessed, hence the possessive relation is more predictable with them

– speakers unconsciously tend to choose the shorter constructions where these are less necessary (economy)

Martin Haspelmath (2012)
http://www.academia.edu/3015769/Are_cognitive_universals_of_language_a_myth
Patterns in typology II: Geographical and genealogical skewing.

A relatively young movement in linguistic typology asks the question whether the patterns that we find cannot be explained better by cultural-historical scenarios.
Typological patterns

Locus of marking (whole language)
Typological patterns

Order of subject, object, and verb

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOV</td>
<td>565</td>
</tr>
<tr>
<td>SVO</td>
<td>488</td>
</tr>
<tr>
<td>VSO</td>
<td>95</td>
</tr>
<tr>
<td>VOS</td>
<td>25</td>
</tr>
<tr>
<td>OVS</td>
<td>11</td>
</tr>
<tr>
<td>OSV</td>
<td>4</td>
</tr>
<tr>
<td>No dominant order</td>
<td>189</td>
</tr>
</tbody>
</table>
Typological patterns

Case syncretism
Explanations in typology II: geographical skewing

1. What can geography explain?
2a. What can genealogy explain?
2b. What can anthropology explain?
3. What can cognition explain?
Explanations in typology II: geographical skewing

1. What can geography explain?

<table>
<thead>
<tr>
<th>low diversity</th>
<th>high diversity</th>
<th>Promote large-scale economies</th>
<th>Inhibit large-scale economies</th>
</tr>
</thead>
<tbody>
<tr>
<td>high latitude</td>
<td>low latitude</td>
<td></td>
<td></td>
</tr>
<tr>
<td>inland areas</td>
<td>coastal areas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dry</td>
<td>wet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>plains</td>
<td>mountains</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nichols (1990, 1992)
Explanations in typology II: geographical skewing

2a. What can genealogy explain?
2b. What can anthropology explain?

Can the homogeneity / diversity / deviating character of some areas be explained by genealogical retention within (distantly related) families or perhaps by diffusion through contact, or...
Explanations in typology II: geographical skewing

3. What can cognition explain?