Linguistic variables: introduction

Typology in practice
Class 3, 05-03-2013
Roadmap for today

The typological enterprise, with special reference to cross-linguistic comparability
Typology

• a typology = simply a categorization of some range of phenomena into various types

• to “typologize” something = to group its parts into types.

• typological linguists are people who like to group languages into well-defined and useful types

• a typology is useful when it makes “predictions” about multiple characteristics of the items being typologized, that is, if we know that a language is of type X, we also know that it has Y
Typology

Why bother?

• Typology helps linguists understand the range and limits of possible variation among human languages.

• If logically possible types are found to be very rare or nonexistent, that may provide some insight into how the human mind works.

• If patterns are geographically skewed, typology may shed light on human population history.

• Thus language typology can give us a “window” on the mind and communication as well as on our history as cultural beings.
Typology

Some pioneers of typology

H.G. Von der Gabelentz
E. Sapir
R. Jakobson
J. Greenberg
Typology

Some pioneers of typology

H.G. Von der Gabelentz  
E. Sapir  
R. Jakobson  
J. Greenberg

“but what an achievement it would be were we able to confront a language and say to it: ‘you have such and such a specific property and hence, also such and such further properties and such and such an overall character’ – were we able, as daring botanists have indeed tried, to construct the entire lime tree from its leaf.’

Typology

Some pioneers of typology

- H.G. Von der Gabelentz
- E. Sapir
- R. Jakobson
- J. Greenberg

What is linguistic typology?

A categorization of languages into different types.
Typology

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“[We need a] very extended study of all the various existing stocks of languages, in order to determine the most fundamental properties of language“ (1905, MA thesis)
Typology

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What is linguistic typology?

The study of patterns that might occur across languages to be tested against empirical fact.
Typology

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“Typology discloses laws of implication which underlie the phonological and apparently the morphological structure of languages” (1958)

“Typological confrontation of diverse languages reveals universal invariants” (1963)
Some pioneers of typology

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What is linguistic typology?

The study of patterns that occur across languages, with the aim of formulating typological generalizations about patterns.
Typology

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Universals, universals, universals
What is linguistic typology?

Linguistic typology is an approach to linguistic theory that uncovers and attempts to determine the limits of human language by looking for (near-) universal patterns in language structure and to explain them in terms of linguistic function.
Typology

Some pioneers of typology

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What is linguistic typology?

A population science that studies the distribution of cross-linguistic patterns, with the aim of uncovering the principles determining this distribution.
What is linguistic typology?

**Methodology**
- Sampling
- Data collection
- Variable selection
- Comparability principles
- Inferential statistics

**Outcomes**
- Language universals
- Dependencies
- Patterns and their distributions

**Explanations**
- Cognition
- Culture
- Geography
- History
- Genealogy
Typology

The problem of cross-linguistic comparability
Fieldwork and typology

Linguistic fieldwork

Passive in Language 1
Passive in Language 2
Passive in Language 3
Passive in Language n

Linguistic typology

The passive
Fieldwork and typology

• ‘Impossible’ consonant clusters in Georgian and Ahta Athabaskan
• Nominal tense in Movima
• Future tense to express habitual past and present in a French variety
• Past tense to express immediate future in the same French variety
• Person agreement on complementizers in Dutch varieties
• Plural marking by segment deletion in Sinhala
Typology

The problem of cross-linguistic comparability

(Greenberg 1966: 74)

“I fully realize that in identifying such phenomena [e.g. word classes] in languages of differing structures, one is basically employing semantic criteria (…). If, for example, a formal definition of “noun” resulted in equating a class containing such glosses as “boy”, “nose”, and “house” in one language with a class containing such items as “eat”, “drink”, and “give” in a second language, such a definition would fortwith be rejected and that on semantic grounds.”
Typology

The problem of cross-linguistic comparability (Chomskyan approach)
- taken from Newmeyer (2007)

There exists a set of universal formal categories, FC1, FC2, FC3,... FCn, that appear in the grammars of every language in the world, even though in some languages they may not be manifested overtly (that is, they might manifest themselves only at some abstract grammatical level).
Haspelmath

Formal categories are language-particular, and can never be equated across languages.

‘Substance’ (meaning) is universal, every language has ways to express a certain semantic intent.

TWO RECENT EXTREMES

Newmeyer

Formal categories can be equated across languages (there is a universal set).

Substance (meaning)-based entities pose equally difficult problems for cross-linguistic comparison.
By shedding the assumption of a priori categories, descriptive linguists can avoid getting into category-assignment controversies and can concentrate on refining their descriptions. Typologists must realize that they cannot base their comparisons on formal categories, and need to resort to semantic-pragmatic or phonetic sub-stance as a foundation of their classifications and generalizations.
Several prominent typologists have claimed recently that there are no cross-linguistic formal grammatical categories. As a consequence, it follows that linguistic typology would have to be wholly “substance-based”. I have argued that cross-linguistic formal categories are, indeed, necessary to typology and that substance-based entities themselves are in no sense problem-free.
The subject-matter of a typological investigation cannot be defined either on an exclusively formal basis or on an exclusively functional basis. Purely formal definitions are impractical because these are extremely few, if any structural (or formal) properties that can be identified and compared across languages.

[...]

On the other hand, purely functional definitions have the disadvantage that they tend to pick out quite heterogeneous expressions. For example, a typological study of temporal expressions that is not formally delimited would have to consider such diverse phenomena as verbal tense inflections, tense iconicity in coordinate structures (I came, I saw, I conquered), and temporal adverbs and nouns like tomorrow and hour.
Comparative concepts

“Comparative concepts are concepts created by comparative linguists for the specific purpose of crosslinguistic comparison. Unlike descriptive categories, they are not part of particular language systems and are not needed by descriptive linguists or by speakers. They are not psychologically real, and they cannot be right or wrong. They can only be more or less well suited to the task of permitting crosslinguistic comparison.”

Haspelmath 2010
In all languages with a dative and an accusative case, the dative case marker is at least as long as the accusative case marker.
In all languages with a dative and an accusative case, the dative case marker is at least as long as the accusative case marker.

A dative case is a morphological marker 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.
Typology

Comparative concepts

“Unlike descriptive categories, they are not part of particular language systems and are not needed by descriptive linguists or by speakers. They are not psychologically real, and they cannot be right or wrong. They can only be more or less well suited to the task of permitting crosslinguistic comparison.”

It allows for the inclusion of all languages
It allows for unambiguous determination of the
“The basic idea is to analyze individual structures not in terms of broad categories that hide cross-linguistic diversity (such as “affix”) but in terms of large systems of fine-grained typological variables (e.g. separating many different phonological and grammatical dimensions that matter for the degree to which a morpheme is bound to its host).”

Typology

Multivariate typology

“While such variables determine only very specific details of structure, the values of these variables stand a greater chance of being cross-linguistically uniform and therefore rigorously applicable and testable (e.g. ‘undergoing at least one phonological alternation’ is more likely to be an unambiguous, cross-linguistically recurrent property of certain morphemes than a diffuse property like ‘being an affix’).”

Typology

Multivariate typology

«AFFIX»

Morpheme 1
- C1: Y
- C2: N
- C3: N
- C4: Y

Morpheme 2
- C1: Y
- C2: Y
- C3: N
- C4: Y

Morpheme 3
- C1: N
- C2: N
- C3: N
- C4: Y

Cross-linguistic comparison
Basic workflow for typologists (Croft 2003: 14)

(i) Determine the particular semantic(-pragmatic) structure of situation type that one is interested in studying. **DOMAIN - FUNCTIONAL**

(ii) Examine the morphosyntactic construction(s) or strategies used to encode that situation type. **DOMAIN – FORMAL**

   -- alternatively one can also use formal criteria to delimit the domain

(iii) Search for dependencies between the construction(s) used for that situation and other linguistic factors: other structural features, other external functions expressed by the construction in question, or both. **INDEPENDENT – DEPENDENT VARIABLES**
Typology

Domain

Semantico-pragmatic aspects

Formal-realizational aspects

Linguistic variables

independent

dependent

And don’t forget the external variables