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# **1 The diachronic nature of typological universals**

- (1) Typological universals: skewed cross-linguistic distributional patterns whereby languages recurrently display certain grammatical configurations as opposed to others (which, however, are also attested with variable, albeit with lower frequency). For example (Comrie 1989, Croft 2003, among many others):
- Overt marking is usually used for both singular and plural or just plural, but not just singular.
  - Ergative case marking alignment is usually used for both nouns and pronouns or just nouns, but not just pronouns.

- Preposed relative clauses (RelN) and preposed possessors (GN) are more common in OV languages than in VO languages.

(2) So why do we get skewed distributional patterns?

- Chance (Dryer 1992, Nichols 2003, among others), in the sense of
  - accidental historical survival of languages displaying certain grammatical configurations and passing these configurations on to their descendants;
  - accidental historical circumstances leading to languages displaying certain configurations passing on these configurations to other languages through contact.

- Alternatively, skewed distributional patterns may be due to general principles that shape language organization, and lead to particular grammatical configurations being more frequent than others. These may be
  - principles that lead speakers to create particular constructions as opposed to others;
  - principles that lead to particular constructions being more easily inherited or transmitted.

(3) Typologists are generally interested in identifying general principles of language organization, so they usually try to control for chance when investigating cross-linguistic distributional patterns (various types of sampling methods: Dryer 1992, among many others).

- Once a distribution is identified that is assumedly free from chance biases (though for many phenomena, due to lack in historical documentation, we cannot be really sure), then hypotheses are made about what general organizational principles could be manifested in the distribution.
- These hypotheses usually refer to principles that lead speakers to create particular constructions as opposed to others (rather than principles guiding the transmission or acquisition of these constructions).
- Formally oriented approaches (e.g. Baker 2001, Aissen 2003, Baker and McCloskey 2007, or Kiparsky 2008): A speaker's mental grammar includes constraints that allow particular constructions (leading speakers to create those constructions) and disallow other constructions (blocking the creation of those constructions). This is a synchronically oriented approach, in that the principles are assumed to operate synchronically in a speaker's mental grammar.

- The functional-typological approach that originated from the work of Greenberg (Comrie 1989, Bybee, Perkins, and Pagliuca 1994, Givón 2001, Bybee 2006 and 2009, Cristofaro 2011, among many others):
  - There is no constraint in a speaker’s mental grammar that allows or disallows particular constructions.
  - There are, however, general principles that are relevant to all speakers, and will lead speakers to recurrently create the same constructions from one language to another (though they need not always do so).
  - Individual constructions become conventionalized and are maintained in the language as a result of their being frequently used.

- This is an essentially diachronic view, in that skewed distributions are assumed to originate from two types of historical processes:
  - processes leading particular speakers to create particular constructions at some point in the evolution of the language;
  - processes leading these constructions to be propagated and maintained within a speech community.

- (4) ‘... languages conventionalize frequently used structures, so that use directly shapes structure. If language is used in similar ways in different cultures, similar grammars will arise.’ (Bybee 2009: 18)
- (5) ‘Grammatical structures are ... conventionalized ... They arise by the repetition of patterns or sequences of items that have proved useful within the context of conversational exchange.’ (Bybee 2009: 26)

(6) Universals in diachronic perspective: Nasal vowels (Greenberg 1978, Bybee 2006):

- All languages have oral vowels, while not all languages have nasal vowels.
- In principle, this could be explained by assuming that a speaker's mental grammar includes some rule stating that nasal vowels have a special status vis-a-vis oral vowels (**markedness**): the default situation is for vowels to be oral ('Vowels [-nasal]), so all languages will have oral vowels, and only some languages will have nasal vowels.
- But this misses a **diachronic** relationship between oral and nasal vowels: nasal vowels originate from oral vowels in the context of a nasal consonant, which is subsequently lost (the nasal vowel may also be eventually lost):

$VN > \tilde{V}N > V (> V)$

- The diachronic relationship provides an alternative explanation for the synchronic pattern: nasal vowels are less common than oral vowels because they can only develop from oral vowels in a restricted context. This means that the synchronic pattern provides no evidence for a marked status of nasal vowels in a speaker's mental representation.

(7) In spite of the fundamentally diachronic orientation of Greenberg's work, explanations of typological universals within the functional-typological approach are mainly based on the synchronic properties of these patterns, not how these patterns actually originate cross-linguistically:

- In particular, individual patterns are generally assumed to arise because they comply with principles of **optimization of grammatical structure**.



- For example, the distribution of overt marking for particular meanings is assumed to reflect a tendency to only use overt marking when it is really necessary (economy/typological markedness: Greenberg 1966, Comrie 1989, Croft 2003, Haspelmath 2008, among others).
  - Overt marking will be restricted to plural as opposed to singular because plural is less frequent and therefore more in need of disambiguation;
  - Ergative case marking alignment usually involves overt case marking for A arguments and zero case marking for P and S arguments. This alignment type is sometimes restricted to nouns as opposed to pronouns because nouns are less likely to occur as A arguments, hence, when they do, the A role is more in need to be disambiguated through overt case marking.

This is based on what meanings are encoded by zero vs. overt marking synchronically, not how the relevant patterns actually originate in individual languages.

- A number of word order correlations are explained by assuming that they lead to syntactic configurations that are easier to process (Dryer 1992, Hawkins 1994 and 2004). This is based on the synchronic syntactic configurations produced by particular word orders, not how these word orders originated in individual languages.
- This is a **goal-oriented** view, in that it assumes that the development of particular patterns is related to whether these patterns comply with particular principles (e.g. economy or processing ease).

(8) But, if the patterns described by typological universals originate from specific diachronic processes, then explanations for individual patterns should refer to these processes, not just the synchronic properties of the pattern.

- (9) ‘Most of the attempts at explaining grammatical phenomena that are frequent cross-linguistically proceed by identifying certain factors that show the phenomenon in question to be beneficial from the language user’s point of view. These might be called synchronic explanations; they are explanations based on processing ease, on iconicity ... In order for these factors to qualify as explanations, a causal connection between the factor and the grammatical phenomenon must be demonstrated: that is, it must be shown that the factor appealed to as explanation actually contributes to the creation of the particular grammatical convention.’ (Bybee 1988: 357)
- (10) Evidence about the development of grammatical constructions (including those involved in typological universals) mainly comes from grammaticalization studies and historical linguistics in general.
- In these research traditions, grammatical constructions are assumed to evolve from pre-existing ones through processes triggered by particular properties of the source constructions and the contexts in which they are

used (Bybee, Perkins, and Pagliuca 1994, Traugott and Dasher 2005, among many others).

- For example:
  - Motion verb constructions become associated with the notion of future as the motion meaning is bleached in contexts where a future event that represents the goal of the motion is particularly relevant as opposed to motion in itself ('X is going to do Y' > 'X will do Y').
  - Locative expressions become associated with the notion of progressive action in contexts where an entity is at a location where they are involved in an ongoing activity, and the activity is more relevant than the location in itself ('X is at doing Y' > 'X is doing Y').
  - Conjunctions expressing simultaneity between events ('while') develop concessive meanings in contexts where two simultaneous events are in contrast.

- ‘Take’ verbs evolve into direct object markers in constructions of the type ‘take X and Verb (X): the taking event is peripheral vis-a-vis the other event, so that the ‘take’ verb is eventually reinterpreted as signaling the role of the co-occurring direct object ((11)).

- This is a **source-oriented** view of the development of grammatical constructions: this development , which contrasts with the goal-oriented view, is related to **local properties of particular source constructions and contexts** (for example, particular source constructions being prone to particular types of context-induced reinterpretation), rather than general properties of the resulting constructions, as assumed in the goal-oriented view ((12), (13)).

Twi (Niger-Congo)

(11) (a) *ɔkɔm de me*

hunger take me

‘Hunger takes me’ (Lord 1993: 70) [from an earlier description of the language]

(b) *o-de afoa ce boha-m*

he-OBJ sword put scabbard-inside

‘He put the sword into the scabbard’ (Lord 1993: 66)

(c) *wɔ-de no yee osafohéne*

they-OBJ him make captain

‘they made him captain’ (Lord 1993: 79)

- (12) ‘...our view of grammaticization is much more mechanistic than functional ... grammaticization is not goal-directed ... The push for grammaticization comes from below ... in the tendency to infer as much as possible from the input, and in the necessity of interpreting items in context.’ (Bybee, Perkins, and Pagliuca 1994: 298-300)
- (13) ‘Lexical items begin on the path towards grammatical elements in the process of conversational inferences carried out by mature speakers.’ (Slobin 2002: 381)



(14) Goal-oriented vs. source oriented explanations of typological universals: The correlation between the order of adposition and noun and that of possessor and possessed item (Bybee 1988, Aristar 1991):

- If a language has prepositions, it has preposed possessors, and vice versa (Prep  $\equiv$  NPoss, or PossN  $\equiv$  Postp).
- In the typological literature, this universal has been accounted for in terms of various principles related to processing ease:
  - Cross-Categorial Harmony (Hawkins 1983): languages will tend to consistently place dependent elements (nouns in combinations of adpositions and nouns, possessors in possessive constructions) on the same side of the head.
  - The Branching Direction Theory (Dryer 1992, 2006): languages will tend to consistently order phrasal (branching) categories (e.g. nouns in adpositional constructions, genitives in possessive constructions)

on the same side of non-phrasal (non-branching, lexical) categories (e.g. adpositions in adpositional constructions, nouns in possessive constructions).

- Adpositions, however, often originate from nouns referring to the possessed item in a possessive construction, and maintain the order of these nouns within the construction: when the possessed item precedes the possessor, this will yield prepositions ((15)), while when the possessed item follows the possessor this will yield postpositions ((16)).
- In such cases, then, the correlation between the order of adposition and noun and that of possessor and possessed item is motivated by the fact that the two constructions were originally one and the same, rather than any more general processing preference.

Neo-Aramaic (Semitic)

- (15) **qaama di** *beetha* > **qaamid** *beetha*  
front GEN house in.front.of house  
'in front of the house' (Aristar 1991: 6)

Finnish (Uralic)

- (16) *poja-n* **kansa-ssa** > *poja-n* **kanssa**  
boy-GEN company-IN boy-GEN with  
'with the boy' (Aristar 1991: 6)

(17) ‘Universal mechanisms of change  $\Rightarrow$  Universal Paths of change  $\Rightarrow$  Synchronic cross-linguistic generalizations

[...] the mechanisms of change [...] are operative as language users produce many local and specific actions in the process of communicating. The repetition of communicative acts leads to automatization and reduction of form, habituation and generalization of meaning, as well as the conventionalization of pragmatic inference. These mechanisms create paths of change which are often universal cross-linguistically. As a by-product of these paths, synchronic states may also bear some resemblance to one another.’

(Bybee 2006: 191)

- (18) The goal-oriented view and the source oriented view are not usually contrasted, and we don't have systematic evidence about the actual diachronic development of the cross-linguistic patterns described by typological universals. However,
- Progress in grammaticalization studies and historical linguistics in general means we now have relatively detailed evidence about at least *some* of the possible origins of these patterns.
  - Does this evidence support classical explanations for individual patterns?
  - What does this evidence tell us about the nature of typological universals in general?

## Abbreviations

	IN	inessive
GEN	genitive	
	OBJ	object

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