## Cyclic changes in verbal person-number indexes are unlikely

**Intro:** There is a long-standing tradition of assuming that languages develop in spirals or cycles, from synthetic into more analytic and then again to synthetic language – a phenomenon that Hodge (1970: 1) has dubbed the *Linguistic Cycle*. In this vein, Givón (1976) discusses grammatical subject-verb agreement, henceforth bound verbal person-number *indexes* (Haspelmath 2013; Lazard 1998). In this seminal paper, he claims that indexes, once they have been grammaticalized, "[...] meet their predictable demise via phonological attrition [...]" (Givón 1976: 172). At some point, new indexes would emerge again. Thus the full cycle of emergence and demise can be schematically illustrated as in (1) (Givón 1976: 172; Siewierska 2004: 262). I take the liberty of calling this cycle *Givón's Cycle* after Givón's important paper (1976) in parallel to *Jespersen's Cycle* of negation markers:

(1) Givón's Cycle
(a) Anaphoric independent pronouns > (b) Verbal bound subject indexes > (c) Demise of the bound subject indexes > (a) Anaphoric independent pronouns > (b) ...

Instead of bound pronouns or agreement markers and following Lazard (1998) and Haspelmath (2013) and refer to these as to bound person-number indexes. The precise morphophonological realization of indexes is subject to cross-linguistic variation, which, however, has no bearing on the claims to be made here (cf. Haspelmath 2013). For example, I gloss over the morphological differences between affixes and clitics. Given the diachronic perspective of the paper it does make sense to treat these as variants of the same phenomenon. In order to identify universal trends I adopt the dynamic approach to universals (since Greenberg 1969) which is in contrast to the more traditional, static approach. The dynamic approach relies on the comparison of two subsequent historical stages, i.e. a proto-stage and its modern descendant, in order to investigate the transition between these two. The crucial question here is whether the relevant mechanisms of change provide evidence for the alleged universal (Bybee 2006) or whether the changes bring about a higher degree of adherence to the alleged universal pattern than before these changes (Bickel et al. 2014).

Methods and the data: I rely on a database with obligatory intransitive subject indexes from (a) 310 modern languages from 14 unrelated (sub)families covering all macroareas and (b) their proto-forms as reconstructed by the Historical-Comparative Method in the authoritative literature: Indo-European, Uralic, Mayan, Dravidian, Semitic, Oceanic (a subfamily of Austronesian), Bantu (Niger-Congo), Sogeram (Trans-New-Guinea stock), Awyu-Dumut (Trans-New-Guinea stock), Rgyalrongic-Kiranti (Tibeto-Burman), Worrorran, Muskogean, Athabaskan and Turkic. The transition is revealed by comparing the lengths of the proto-forms and the respective averaged lengths in the modern languages (approx.. 10-50 modern languages per (sub)family).

Claims and discussion: I will provide quantitative evidence against the claim that indexes tend to demise via phonological attrition in the course of time. A considerable degree of demise is not a universally likely process, but rather a major restructuring process that requires additional – areal – triggers in order to come about. Thus, 92% of the languages of my sample do not show any strong tendency toward losing their indexes, and the degree of demise of the indexes is persistently low when compared to the proto-forms. This is despite the fact that indexes constantly change over time, and the phonetic shape found in the proto-languages is never faithfully preserved in the modern languages. Finally, those few languages that exhibit a relatively high degree of demise are not randomly distributed across the world, but are clustered in the following areas: Northwestern Europe, Eastern South East Asia with Oceania and, possibly, Mid Africa as well Northern South America.

## **References:**

- Bickel, Balthasar, Alena Witzlack-Makarevich & Taras Zakharko 2014: Typological evidence against universal effects of referential scales on case alignment. In: Bornkessel-Schlesewsky, Ina, Andrej Malchukov, Marc Richards (eds.), *Scales and Hierarchies: a cross-disciplinary perspective on referential hierarchies*. Berlin: De Gruyter Mouton, 7-44.
- Bybee, Joan. 2006. From usage to grammar: The mind's response to repetition. *Language* 82(4). 711–733.
- Givón, Talmy. 1976. Topic, pronoun, and grammatical agreement. In Charles N. Li (ed.), *Subject and topic*, 149–188. New York: Academic Press.
- Greenberg, Joseph H. 1966: Language universals, with special reference to feature hierarchies. The Hague: Mouton.
- Haspelmath, Martin. 2013. Argument indexing: A conceptual framework for the syntax of bound person forms. In Bakker, Dik & Haspelmath, Martin (eds.), *Languages across boundaries: Studies in memory of Anna Siewierska*, 197–226. Berlin: De Gruyter Mouton.
- Hodge, Carleton. 1970. The linguistic cycle. *Language Sciences* 13. 1–7.
- Lazard, Gilbert. 1998. Actancy. Berlin & New York: De Gruyter Mouton.
- Siewierska, Anna. 2004. *Person* Cambridge Textbooks in Linguistics. Cambridge: Cambridge University Press.