Universität Konstanz



Generative historical syntax

George Walkden

Universität Konstanz

Panel: Linguistic models for morphosyntactic change

ICHL 26, Heidelberg, September 2023

Generative historical syntax?



- Generative: using tools adapted from formal logic (Tomalin 2006) to characterize the set of sentences of a language and their structural descriptions (Chomsky 1986)
 - Usually, but not necessarily, adopting a mentalist perspective
 - Broadly construed like this, includes related formal(ly-inspired) approaches to (morpho)syntax such as LFG, HPSG
- Historical: includes both diachronic change, and the synchronic description of historically-attested language states
- Syntax: how form and meaning relate, above the level of the lexicon
 - Under the Single Engine Hypothesis as assumed within Distributed Morphology (Marantz 2001), morphology and syntax are governed by the same operations (see e.g. Grestenberger 2020)

Key features



Diachronic Generative Syntax (DiGS): an annual conference on generative historical syntax (see http://walkden.space/digs)

Next year: Mannheim (25th-28th July 2024)!

The "basic methodology of generative work on syntactic change" (Jonas, Whitman & Garrett 2012)

- Careful formal description of synchronic language stages
- Emphasis on reliable and well-understood data (and languages)
- Scepticism towards independent diachronic principles

"Languages" as the Ship of Theseus



Select all squares with the ship of Theseus SKIP

"Writers seem to regard grammars as historically transmittable, as objects floating smoothly through time and space ... this is essentially a mystical view; grammars are discontinuous—created afresh by each language learner, who is influenced only by the data to be mastered and the theory of grammar restricting available hypotheses" (Lightfoot 1979: 388)

"the Ship of Theseus is simply a case where our concepts just don't give an answer ... the objects that we talk about are really objects of thought which are constructed by mental operations"

(Chomsky 2009)

https://knowyourmeme.com/photos/2160540-captcha

Generative historical syntax today: strengths



- Since the 1980s: an in-house model of variation and change, "competing grammars" (Kroch 1989, 1994)
- Since the 1990s: parsed historical corpora (see Taylor 2020)
- Since the 1990s: formal models of learning and learnability (e.g. Niyogi & Berwick 1995, Yang 2002, Kodner 2020)
- Since circa 2000: formal approaches to grammaticalization (Roberts & Roussou 2003; van Gelderen 2004, 2011, 2021)
- Since the 2010s: direct engagement with work on child language acquisition (see esp. Cournane 2014, 2017)

Overview works:

van Kemenade (2007), Biberauer & Walkden (2015), Roberts (2021)

Generative historical syntax today: the third factor



Chomsky (2005: 6): "three factors that enter into the growth of language in the individual:

- Genetic endowment, apparently nearly uniform for the species ...
- 2. Experience, which leads to variation ...
- 3. Principles not specific to the faculty of language. ...
 - a) principles of data analysis that might be used in language acquisition and other domains;
 - b) principles of structural architecture ... including principles of efficient computation"

The third factor has not been extensively explored with regard to diachrony, but see Biberauer (2019) and van Gelderen (2021) for exceptions.

Generative historical syntax and reconstruction



Lightfoot (2002), notoriously:

- "one can no more reconstruct the syntax of a proto-language than one can reconstruct last week's weather" (2002: 135)
- there is "no basis for reconstructing proto-languages where the most archaic languages do not agree" (2002: 134).

This is not the consensus view in generative historical syntax today (see Pires & Thomason 2008; Walkden 2009, 2013, 2014; Willis 2011; Roberts 2021: §4.4).

Syntactic theories developed within the Minimalist Program are perfectly compatible with syntactic reconstruction, provided that you know what to compare.

Generative historical syntax today: weaknesses



Little attention has been paid to sources of change other than child language acquisition.

- The possibility of lifespan change (e.g. Anthonissen & Petré 2019) has largely been denied or otherwise neglected
- Any role for adult language acquisition has also generally been minimized (important exceptions: Weerman 1993, Meisel 2011)
- How social factors interact with acquisition situation has also largely been left aside (largely intentionally)
- Theorizing of language contact is all over the place

"Languages in contact" is not a useful idea





"what we mean by 'languages in contact' is 'users of language

in contact' and to insist upon this is much more than a mere terminological quibble and has far from trivial consequences" (McIntosh 1994: 137)

Generative historical syntax and adult language acquisition



Walkden & Breitbarth (2019) outline an approach that links diachronic generative syntax with Trudgill's (2011) sociolinguistic typology.

SOCIOLINGUISTIC TYPOLOGY AND RESPONSIVE FEATURES IN SYNTACTIC HISTORY

Core idea: certain types of syntactic feature are "responsive" to the difference between child and adult language acquisition. We therefore expect different outcomes in different sociohistorical situations.

The project STARFISH (2020–2025) is an attempt to put this to the test using historical corpus evidence.

Ending on an optimistic note



Framing question: "Do you think there is sufficient interaction and cross-referencing between different sub-communities working in the field of morphosyntactic change?"

There clearly isn't! But perhaps there is progress in this direction.

The last DiGS conference (Paris, July 2023) featured explanatory roles for:

- Pragmatic inferencing (Sanfelici 2023)
- Distributional learning (Trips & Yang 2023)
- Information-theoretic motivations (Simonenko 2023)
- Adult language acquisition (Walkden 2023)

Hopefully the future holds potential for cross-pollination in all directions!

Journal of Historical Syntax

12





http://historicalsyntax.org

References (1)



- Anthonissen, Lynn & Peter Petré. 2019. Grammaticalization and the linguistic individual: new avenues in lifespan research. *Linguistics Vanguard* 5 (s2), 20180037.
- Biberauer, Theresa. 2019. Factors 2 and 3: toward a principled approach. *Catalan Journal of Linguistics* special issue, 45–88.
- Biberauer, Theresa & George Walkden. 2015. Introduction: changing views of syntactic change. In Theresa Biberauer & George Walkden (eds.), *Syntax over time: lexical, morphological, and information-structural interactions*, 1–13. Oxford: Oxford University Press.
- Chomsky, Noam. 1986. *Knowledge of language: its nature, origin and use*. New York, NY: Praeger.
- Chomsky, Noam. 2005. Three factors in language design. Linguistic Inquiry 36 (1), 1–22.
- Chomsky, Noam. 2009. Conclusion. In Massimo Piattelli-Palmarini, Juan Uriagereka, & Pello Salaburu (Eds.), *Of minds and language: a dialogue with Noam Chomsky in the Basque country*, 379–409. Oxford: OUP.

References (2)



- Cournane, Ailís. 2014. In search of L1 evidence for diachronic reanalysis: mapping modal verbs. *Language Acquisition* 21 (1), 103–117.
- Cournane, Ailís. 2017. In defense of the child innovator. In Eric Mathieu & Rob Truswell (Eds.), *Micro-change & macro-change in diachronic syntax*, 10–24.
- Grestenberger, Laura. 2020. The diachrony of participles in the (pre)history of Greek and Hittite: losing and gaining functional structure. *Diachronica* 37 (2), 215–263.
- Kodner, Jordan. 2020. Language acquisition in the past. PhD dissertation, University of Pennsylvania.
- Kroch, Anthony S. 1989. Reflexes of grammar in patterns of language change. *Language Variation & Change* 1, 199–244.
- Kroch, Anthony S. 1994. Morphosyntactic variation. In Katherine Beals (ed.), *Proceedings of the 30th annual meeting of the Chicago Linguistic Society*, 180–201. Chicago: Chicago Linguistic Society.
- Lightfoot, David W. 2002. Myths and the prehistory of grammars. *Journal of Linguistics* 38, 113–136.

References (3)



Marantz, Alec. 2001. Words. West Coast Conference on Formal Linguistics, Santa Barbara.

McIntosh, Angus. 1994. Codes and Cultures. In Margaret Laing and Keith Williamson (Eds.), Speaking in our Tongues: Proceedings of a Colloquium on Medieval Dialectology and Related Disciplines, 137–137. Cambridge: D. S. Brewer.

Meisel, Jürgen M. 2011. Bilingual language acquisition and theories of diachronic change: Bilingualism as cause and effect of grammatical change. *Bilingualism: Language and Cognition* 14 (2), 121–145.

Niyogi, Partha & Robert C. Berwick. 1995. The logical problem of language change. MIT Al Memo no. 1516.

Pires, Acrisio & Sarah G. Thomason. 2008. How much syntactic reconstruction is possible? In Gisella Ferraresi & Maria Goldbach (eds.), *Principles of syntactic reconstruction*, 27–72. Amsterdam: John Benjamins.

Roberts, Ian G. 2021. Diachronic syntax. 2nd edn. Oxford: OUP.

References (4)



- Roberts, Ian G. & Anna Roussou. 2003. *Syntactic change: a Minimalist approach to grammaticalization*. Cambridge: Cambridge University Press.
- Sanfelici, Emanuela. 2023. The syntacticization of discourse in diachrony: Insights from subordination. Talk given at the 24th Diachronic Generative Syntax Conference (DiGS), Paris, July 2023.
- Simonenko, Alexandra. 2023. A language change approach to probabilistic universals: Case and order. Talk given at the 24th Diachronic Generative Syntax Conference (DiGS), Paris, July 2023.
- Taylor, Ann. 2020. Treebanks in historical syntax. *Annual Review of Linguistics* 6, 195–212.
- Tomalin, Marcus. 2006. *Linguistics and the formal sciences: the origins of generative grammar*. Cambridge: Cambridge University Press.
- Trips, Carola & Charles Yang. 2023. Grammaticalization as distributional learning: English modals in history. Poster presented at the 24th Diachronic Generative Syntax Conference (DiGS), Paris, July 2023.

References (5)



- Trudgill, Peter. 2011. Sociolinguistic typology: Social determinants of linguistic complexity. Oxford: OUP.
- van Gelderen, Elly. 2004. Grammaticalization as economy. Amsterdam: John Benjamins.
- van Gelderen, Elly. 2011. *The linguistic cycle: language change and the language faculty*. Oxford: Oxford University Press.
- van Gelderen, Elly. 2021. *Third factors in language variation and change*. Cambridge: Cambridge University Press.
- van Kemenade, Ans. 2007. Formal syntax and language change: developments and outlook. *Diachronica* 24 (1), 155–169.
- Walkden, George. 2009. The comparative method in syntactic reconstruction. MPhil dissertation, University of Cambridge.
- Walkden, George. 2013. The correspondence problem in syntactic reconstruction. *Diachronica* 30 (1), 95–122.
- Walkden, George. 2014. Syntactic reconstruction and Proto-Germanic. Oxford: OUP.

References (6)



- Walkden, George. 2023. Adult language acquisition and change. Talk given at the 24th Diachronic Generative Syntax Conference (DiGS), Paris, July 2023.
- Walkden, George & Anne Breitbarth. 2019. Complexity as L2-difficulty: implications for syntactic change. *Theoretical Linguistics* 45 (3–4), 183–209.
- Weerman, Fred. 1993. The diachronic consequences of first and second language acquisition: the change from OV to VO. *Linguistics* 31, 903–931.
- Whitman, John, Dianne Jonas & Andrew Garrett. 2012. Introduction. In Dianne Jonas, John Whitman & Andrew Garrett (Eds.), *Grammatical change: origins, nature, outcomes*, 1–12. Oxford: OUP.
- Willis, David. 2011. Reconstructing last week's weather: syntactic reconstruction and Brythonic free relatives. *Journal of Linguistics* 47, 407–446.
- Yang, Charles D. 2002. Knowledge and learning in natural language. Oxford: OUP.