REVIEWS


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As is clear from the curriculum of almost any linguistics department in modern US universities, there are now many questions that researchers might ask about language: how it is acquired by children, how it is exploited by poets, how it varies sociologically, how it is used for communication purposes, how Spanish is best learned by English-speaking adults, and so on. The central research question for the second half of the nineteenth century, as the discipline was getting established in Europe and the US, was quite simply: How did the language under investigation get to be the way it is? As far as Hermann Paul was concerned, this was the only possible question: ‘it has been objected that there is another view of language possible besides the historical. I must contradict this’ (1891:xlvii). Whether other views of language were possible or not, this historical question first became central in Germany, and it grew not only out of Sir William Jones’s insight about the historical relatedness of languages but also from a general intellectual movement of the late eighteenth to mid-nineteenth century that we refer to today as ‘Romanticism’.

As the nineteenth century progressed, linguists formulated historical ‘laws’ with ever greater precision. They studied the similarities among cognate words, words derived from the same historical source; this was the basis for establishing historical relationships, and then for establishing the sound changes that derived one form from another historically. In due course, this yielded what we now call Grimm’s law; later Grassmann’s law, Verner’s law, and other diachronic ‘laws’ took care of the many exceptions to Grimm’s correlations (see Lightfoot 1999:Ch. 2 and Davies 1998:Ch. 4).

The year 1876 brought a lot of productive work and is often referred to as the annus mirabilis of the nineteenth century (e.g. Hoenigswald 1978). The idea that sound change was regular and systematic was formulated in 1878 in the preface to Osthoff and Brugmann’s Morphologische Untersuchungen, and the people who held the idea of exceptionless regularity were referred to as the Junggrammatiker, the ‘neo-grammarians’.

The nineteenth-century work on the Germanic consonant shift illustrates a more general point, which affected other new disciplines that were beginning to emerge at the same time. The field of linguistics first identified itself by claiming that language history was law-governed, even if the notion of ‘law’ was scarcely that of Boyle’s law or gravity, which are timeless. The term referred to specific sound changes or ‘correspondences’ affecting specific languages at specific times. One could formulate precise correspondences of the form ‘$a \to b$ in some phonetically definable context’, where $a$ and $b$ were sounds in corresponding words at two stages of history. The input was the inventory of words in some language (attested or reconstructed), and the output was the inventory of corresponding words at some later stage. Sound $a$ became something else, $b$, systematically. In any event, languages were supposed to change in systematic ways, and historical linguists, perhaps more than other kinds of linguists, have always been concerned with issues of explanation.

There was a similar focus on historical processes in what we now call evolutionary biology, following the work of Charles Darwin, Alfred Wallace, and many others studying changes in species, and what we call political science, following the historical work of Karl Marx, who studied the development of monarchies into feudal and then into mercantile societies. Evolutionary biologists, political scientists, and linguists focused on what were seen as historical processes and the nature of change—why change is sometimes catastrophic and sometimes gradual, for example.
The question then arises as to what kind of explanation could be offered for changes of this type in different disciplines. Late-nineteenth-century linguists explored the nature of sounds (through the emerging field of phonetics), hoping that their nature would cast light on how they change, and there was radical rethinking of the biological ‘grand synthesis’, as Mendel’s work on biochemistry drew the attention of evolutionary thinkers, and political scientists sought to understand revolutionary change in societies and how it differed from gradual change. Historians of language, of natural species, and of political systems appealed to principles of history, as if Clio, the muse of history, operated by general principles that could be discovered. These historians, however, sought to ground their historical principles outside of history, in the nature of sounds, biological mutations, or societies; they read each other and tried to understand how different disciplines grounded their histories. Given the historical focus of the new sciences, I called the latter half of the nineteenth century the ‘century of history’ in Lightfoot 1999, 2013.

Within linguistics, substantial work has been done in recent decades deriving historical change from the nature of language acquisition. Change takes place when young children acquire different mature grammars. Generally, children are exposed to ambient, external language, and, as a result, they set their parameters (Chomsky 1981) or parse their E-language and invent the elements of their I-languages accordingly (Lightfoot 2020). If the E-language has shifted from what earlier speakers were exposed to, there may be new acquisition, hence language change, and no principles of history are required.

That is not the approach of the curious book under review, which is committed to discovering nineteenth-century-style historical processes, particularly ‘cycles’ that occur, the authors say, multiple times in multiple languages, notably the frequently cited Jespersen’s cycle involving the strengthening and weakening of forms of negation. The book is dense and requires a thorough acquaintance with different versions of the minimal apparatus of economy principles: late merge principle, head preference principle, minimize structure (up to crash), and so forth. The authors see themselves following the lead of Roberts and Roussou (2003) in offering formal accounts for grammaticalization, the development of new nonlexical, functional categories, and the authors frequently invoke principles of I-languages to show why those internal languages have undergone some changes, a troubling matter to which we return later. The title of the book indicates that cycles are at the core of its concerns, but ‘grammaticalization’ is an umbrella term and it is unclear quite what that means in generative analyses. We are told at the outset that cyclic changes are ‘much more pervasive than previously thought’ and that ‘they display a remarkably high degree of cross-linguistic regularity’ (1), but in the next sentence it notes that grammaticalization is ‘an umbrella term which encompasses various processes which interact’ and that ‘it can affect different levels of linguistic signs’. Indeed, in one sense, a significant virtue of the book is the wide range of phenomena considered from a wide range of languages. This cornucopia will challenge future scholars seeking genuine explanations for the new parses and commonalities among the different structures that they are calling ‘cycles’. Readers will wish they had been given some guidance by at least some of the contributors, but it is unlikely that merely using minimalist apparatus will reveal commonalities among the diverse cycles, and there is no reason to believe that the contributors had much, if any, conversation about shared ideas of what constitutes a cycle. I now embark on brief characterizations of the very varied conceptions of cycles that the contributors do use.

Elly van Gelderen offers the first of the twelve contributions to this collection, asking how the idea of cycles might cast light on the reanalysis of a phrase as a head. Chomsky argued that labeling paradoxes arise when two phrases or two heads merge. The labeling algorithm is treated as a special case of minimal search, looking for syntactic heads in a particular domain. Therefore, when two phrases are merged together, there are two possible heads that could provide a label for the complex syntactic object created through XP-YP merge. Chomsky argues that there are two solutions to this paradox, but van Gelderen adds a third.

As noted, most of the work reported in the book under review presupposes minimalist equipment, but Eric Fuss draws on nongenerative work of 1970s typologists like Talmy Givón (1979), who were inspired by nineteenth-century ideas about diachronic processes, whereby languages
moved from one ‘pure type’ to another, where pure types were defined in terms of linear word order, ‘SVO’, ‘SOV’, and so forth, where a pure SVO language also has harmonic P before NP, Aux before V, and so on. Givón and others translated Joseph Greenberg’s work on harmonic features into claims about diachronic hierarchies predicting which features will change in which order. Fuss takes a driving force behind cyclical change to be grammaticalization and focuses on the relationship between syntactic and morphological change and the rich agreement hypothesis. This leads to what Roberts and Roussou (2003) call ‘upward reanalysis’. Repeated occurrence of upward reanalysis creates cycles of grammaticalization. The latter has the effect that elements are merged as high as possible.

Susann Fischer, Mario Navarro, and Jorge Vega Vilanova deal with clitic climbing in a wide range of Romance languages, beginning with Old Spanish and Old Catalan and arguing that doubling reflects a cycle with five different stages, interacting with a verb movement parameter.

Jacopo Garzoni and Silvia Rossi also study the historical development of pronouns in Old Italo-Romance, particularly dative pronouns like loro. They depart from the assumption that the development from strong to weak and eventually to clitic status follows a cyclic trajectory. Instead, they treat grammaticalization as reflecting Roberts and Roussou’s upward reanalysis of functional material.

Judy Bernstein, Francisco Ordoñez, and Francesc Roca also treat grammaticalization in the extended noun phrase, particularly the emergence of personal articles in the history of Latin and Ibero-Romance. Like the Romance development of definite articles from demonstratives, the emergence of these personal articles is taken as a cyclic change, whereby phrasal (adjectival) elements occupying specifier positions develop into X0 heads, and eventually into (clitic) affixes in the form of articles.

Kari Kinn analyzes bare singular nouns in Middle Norwegian and finds new data sources indicating that they continued to exist, their loss being more recent than hitherto thought, arguably connected to the loss of null arguments under the ‘DP cycle’, the development of the system of definite and indefinite determiners in the history of Norwegian. Kinn also argues that the indefinite article passed through a stage at which it served as a specificity marker. Bare singular nouns with an indefinite interpretation are significantly more frequent than those with a definite interpretation, supporting the hypothesis that definite determiners grammaticalized earlier.

Andreas Blümel and Marco Coniglio elaborate the topic of upward or cyclic change within the extended functional projection of DP. They consider the emergence of the was-für construction in sixteenth-century Early New High German. They argue that the was-für construction not only supplanted the earlier equivalent was + partitive genitive construction, but it also directly evolved from it by a structural reanalysis of the earlier binominal construction as a small-clause-like mononominal one. The D head of the higher (silent) noun was then recategorized as a functional F, a higher head in the extended projection of the lower DP.

Moreno Mitrovic offers the last chapter on changes in the nominal domain, drawing together changes in the syntax, semantics, and pragmatics of quantificational particles of Indo-European and Japonic, sometimes referred to as the quantifier cycle.

Cecilia Poletto and Emanuela Sanfelici offer the most accessible and best-written chapter of the volume, investigating the so-called relative cycle in the history of Italian. Many syntactic changes have been attributed to reanalysis of an element from a phrase into a head. One instance of a spec-to-head change is that of relative pronouns (i.e. phrases) reanalyzed as complementizers (i.e. heads), according to the spec-to-head principle. Owing to an economy limit guaranteeing that the structure be as minimal as possible, specifiers may be reanalyzed as heads. Some recent proposals by Kayne (2005), whereby heads must be silent, challenge this approach. Poletto and Sanfelici analyze a specific case of what has standardly been assumed to be cyclic change from a pronoun into a complementizer head, for reasons of economy. The crucial empirical point is that che was a pronoun in Old Italian and became a complementizer in Modern Italian, not compatible with prepositions, unlike in Old Italian. Poletto and Sanfelici argue persuasively that che never underwent any categorial change; the distinction between Old and Modern Italian is better captured by assuming that what has changed is the silent companion of
In Old Italian it was possible to have a null inanimate thing paired to the relativizer *che* as in free relatives (197). This paper is salutary, arguing that careful work may suggest that phenomena apparently open to a cyclic analysis are best treated differently.

The next two chapters deal with the negative cycle. First, Karen De Clercq offers a micro-study of two styles of French, *le bon usage* (BUF) and colloquial French (CF), where sentential negation is indicated by *ne* together with *pas* or a negative indefinite (*personne*, *rien*) in BUF, but the *ne* is dropped in CF. She assumes that *rien* and *personne* enter into concord relations with each other, while *pas* co-occurring with *n*-words results in a double negation reading as well. In addition, she proposes a lexical decomposition of *personne* and *rien* in both BUF and CF, which she exploits to explain negative concord as well as double negative readings with *pas*.

Second, Elitzur A. Bar-Asher Siegal and Karen De Clercq study a law construction in Jewish Babylonian Aramaic, which can be characterized as an external negator taking wide scope, resulting in the meaning ‘it is not the case’, a kind of cleft form. This leads the authors to ask whether there may be a general pathway of change affecting negative clefts.

The last chapter is by Montserrat Batllori, Elisabeth Gibert-Sotelo, and Isabel Pujol and deals with changes in the argument structure of psych verbs in Spanish. The phenomena are unusual in instantiating a kind of cyclical change that is not coupled with morphological changes, suggesting that cyclical change does not necessarily go hand in hand with a process of grammaticalization. The authors suggest that the extent to which grammaticalization and the linguistic cycle are mutually independent is a topic for future research. For a very different approach based on a parsing analysis of acquisition, see Lightfoot 2020:§3.3.

The contributors to this volume work with quite different notions of what a cycle might be, echoing the scattershot approach of current work on a theory of parameters, where linguistic theories have not been very sophisticated. However, innovative work by evolutionary biologists has approached variation as resulting from a process similar to what Lightfoot 2020 has argued for. That approach may open the way to a better understanding of variation in biology.

Darwin (1859) lamented that neither he nor anybody else had ever seen a new species emerging, and he regarded that as a major failing of his theory, but the finches of the Galápagos Islands that came to carry his name have been recognized as illustrating natural selection in progress. Peter and Rosemary Grant (1989) did the early work, leading to the discovery of thirteen species of finch in the Galápagos Islands, each with a distinctively shaped beak. The Grants discovered why the different species had differently shaped beaks. The particular beak of each species enabled it to eat the food that was available on its own particular island: big seeds, little seeds, tree bark, even blood (the vampire finch pecks other birds’ wings and tails, wounding them and sipping their blood), depending on the island. Over time, natural selection resulted in different beak shapes that were efficiently specialized for these different types of food.

The Grants collected data which showed that natural selection occurs and can be seen to occur from year to year. Indeed, they were able to implement a model that predicted which beaks should evolve on different islands, given the seeds there. For each island, the model correctly predicted the divergent paths of evolution for the beaks of finches.

In short, Darwin’s finches typically have one of the thirteen beaks the Grants identified, and the specific beak shape is the one suitable for picking up the seeds of the island they inhabit. This specialization developed over time: initially the finch’s genetic material was neutral or ‘open’ with respect to beak size and shape, but natural selection led to further specifications such that the Grants’ correlation between beak characteristics and feeding patterns emerged, reflecting new genetic information.

The kind of variation we have seen in the syntax of different languages and in different historical stages of languages is typical of the kind of variation that inspired Darwin and the Grants. It is not the kind of variation that is subject to genetically defined limitations characterized by syntactic parameters. Rather, it reflects the openness of genetic information, the way in which the environment might enhance genetic properties.

Of course, the enhancements that we see in Darwin’s finches are different from those we see in the language of three-year-old children: the finch species have selected particular beak shapes...
and that selection is inherited by their offspring, whereas the three-year-old child selecting the
I-language of some form of English has selected new I-language elements, and each child has to
discover their I-language anew. There is no comparable inherited change. However, the nature
of the variable properties, beak shapes and I-language elements, shows similarities, and both con-
stitute responses to environmental factors, for instance the availability of seeds on the home is-
land or the available distribution of words like can or must, which leads them to be categorized
or parsed as Infl elements. As with specific beak shapes on different islands, so with specific
I-language elements emerging in, being selected by, three-year-old children.

So variable properties across the I-languages of the world may be seen as similar in nature to
the variable properties that we see elsewhere in the biological world. And in all of these cases, ex-
ternal factors have internal effect, whether on genetic makeup or on emerging I-languages. Vari-
ation familiar to biologists is not fundamentally different from what comparative linguists
observe. Seeing the similarities may enhance communication between linguists and evolutionary
biologists (and others in the wider scientific community) and between different kinds of linguists
who have become used to working in their isolating silos.

We view universal grammar (UG) as open, with its effects complemented by the very specific ef-
fects of parsing. This is analogous to biologists seeing the genetics underlying variation in beak
shapes as open enough to be enhanced by the effects of natural selection. This takes us into the world
of complex adaptive systems, self-organization, and variation stemming from apparently minor
fluctuations and varying initial conditions in evolutionary and cell biology, statistical biophysics,
and other factors. Modeling fluctuations and noise in linguistic experiences and in the availability
of seeds on the Galápagos Islands stimulates an interest, widely shared these days, in minor oscilla-
tions that may yield change across many domains. Comparative linguists interested in the acquisi-
tion of variable systems by young children could bring much to those broad discussions.

Lightfoot 2020 discusses how many very specific properties may emerge in some individuals as
they parse the ambient language to which they are exposed and assign linguistic structures that are
different from those that earlier language users assigned. Observing how linguistic and other sys-
tems change often reveals aspects of their nature. The result is a very different vision of variable
properties. Proponents of binary, UG-defined parameters expect to see variable properties falling
into narrow classes of recurring variation, like the contributors to the volume under review. The al-
ternative vision of Lightfoot 2020, being based on the parsing of E-language, leads us to expect
greater variation in I-languages, and that is what we find in examining how languages may change
from user to user across generations: languages develop idiosyncratic properties which are not
shared by languages that are closely related historically or geographically. UG keeps languages
similar to each other in conforming to invariant principles that are part of our biological endow-
ment. But UG is open, open enough to allow languages to vary as parsing requirements demand,
when children discover new contrasts and select new I-language structures accordingly. Evolution-
ary biologists have found that same kind of variation in the beaks of Darwin’s finches, and we ex-
pect that the parsing-based analysis we have developed and the approach to learning it entails will
lead to a better understanding of language variation, one where information provided by UG is sup-
plemented by information that emerges through learning through parsing.

Regrettably, this volume does not present a coherent vision of cycles such that they provide a
mechanism for understanding how change proceeds in language, in political systems, or in popu-
lations of species. It does, however, enable linguists to think better about variable properties in
ways that biologists will understand.

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Reviewed by Kristin Bech, University of Oslo

This volume was published in the aftermath of the International Conference on English Historical Linguistics, which took place in Essen in 2016. It thus represents a cross section of the research going on in the field of English historical morphosyntax. Since the book covers different topics, the introduction is not a state-of-the-art overview, but very briefly situates the contributions within the larger field of English historical linguistics. The thirteen contributions are grouped under three headings: nominal constructions, verbal constructions, and adverbs and adverbials, and the editors provide short summaries of each article. In the following I also summarize each article, but focus on providing some information about data, methods, and results as well. Obviously, the summaries do not do justice to the complexities of the research, but are meant as an aid to understanding how research is carried out in the field. At the end I provide some general comments.

Elżbieta Adamczyk’s contribution concerns changes in the nominal morphology of Old English. Old English nouns belonged to declensional classes that depended on the original stem type, but the system was unstable. Adamczyk proposes three factors that led to the restructuring of the nominal morphology. The first is frequency of occurrence, and a correlation is shown between the level of innovation in the Old English nominative and accusative plural and the proportion of plurals: the declensional classes that are less frequent in the plural show a high level of innovation in their plural paradigms. The second factor is morphophonological salience: the more salient inflectional markers resist analogical pressure. Salience is defined according to certain criteria such as zero marking, suffixation, and consonant and vocalic stem modulation. The third factor is the analogical pressure on neutral forms in the paradigms, analogy being triggered by cross-paradigmatic similarities: the higher the percentage of neutral forms in the paradigm, the higher the percentage of innovation. Adamczyk also considers how the interaction between fre-