REVIEWS

Elly van Gelderen (ed.), *Cyclical change* (Linguistik Aktuell/Linguistics Today **146**). Amsterdam & Philadelphia: John Benjamins, 2009. Pp. viii + 329.

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This edited volume of papers which were presented at the Linguistic Cycles Workshop at Arizona State University in April 2008 makes an important contribution to the understanding of cyclical change. It presents empirical data from a range of languages which exemplify cyclical changes in a variety of functional domains, including negation, pronouns, copulas, verbal agreement, auxiliaries and topic markers. In recent years, there has been extensive discussion of cyclical change in negation, known as the Jespersen Cycle (Jespersen 1917). However, less attention has been paid to generalising the principles of cyclical change to other functional domains.

One of the empirical problems in the study of cyclical change, discussed by some of the contributors, is that instances of complete cycles are rare in the textual records of individual languages. Therefore, extending the study of cyclical changes to encompass a range of phenomena in a variety of languages allows cyclical change to be examined in more detail.

The volume, it seems to me, has three aims:

1. To set out how cyclical changes can be identified in linguistic data and present new empirical evidence of cyclical changes. This takes the form of locating new evidence for well-known changes, such as Jespersen's Cycle, and evidence for parallel cycles in other functional domains.
2. To identify and give principled accounts of why cyclical changes start (the linguistic and extralinguistic conditions required for particular cyclical changes to take place).
3. To give principled accounts of the differences between cyclical and non-cyclical changes within a Minimalist syntactic framework.

The editor's introduction outlines the characteristics of cyclical change as competition between processes of semantic weakening and renewal. Many of the papers formalise these processes within Minimalist syntax (Chomsky 1995, 2000) as change in the semantic interpretability of formal features. Van Gelderen's (2004) hypothesis that cyclical change is based on competing notions of Economy in Minimalist syntax provides the theoretical focus of many of the papers.

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The volume clearly demonstrates that cyclical changes share certain characteristics at both descriptive and more theoretical levels. However, differences in the theoretical perspectives and assumptions of the individual contributors mean that much more detailed syntactic work remains to be done to see whether the range of changes discussed here can be integrated into a single account of cyclical change, and to test the principles outlined in van Gelderen (2004).

The volume is divided into four parts. In Part I, 'Negatives', the main focus is on the most well-known cyclical change: the changes in sentential negation known as the Jespersen Cycle (Jespersen 1917). In Parts II ('Pronouns, agreement, and topic markers') and III ('Copulas, auxiliaries, and adpositions'), the focus broadens to argue that other examples of grammaticalisation in functional domains are cyclical changes. Finally, Part IV, 'An experiment', lays out the rationale and methodology of an experiment to induce and study cyclical change in an artificially constructed language.

The contributions in Part I focus on two main themes: the reinforcement and renewal of negatives at stage two of Jespersen's Cycle, and the re-lationship between Jespersen's Cycle and negative concord. Jack Hoeksema ('Jespersen recycled'), Johan van der Auwera ('The Jespersen cycles') and Theresa Biberauer ('Jespersen off course? The case of contemporary Afrikaans negation') present detailed accounts of Jespersen's Cycle, which address the conditions required for grammaticalisation of a new negative marker to take place. Both Hoeksema and van der Auwera claim that it is not phonological reduction of a head or clitic negative that drives renewal at stage two of Jespersen's Cycle. They each argue that the source of new negative markers are polarity items used pragmatically to mark emphasis. Loss of pragmatic constraints will lead to the grammaticalisation of em-phatic polarity items as pragmatically neutral sentential negative markers.

Van der Auwera's thorough and wide-ranging paper compares many ac-counts of cyclical change to negation since Jespersen (1917), explaining the differences between them. He synthesises all of these into a single account and argues convincingly that the driving force in Jespersen's Cycle is not phonological weakening of the original negative, as Jespersen claimed, but pragmatic change.

Hoeksema claims that there is an ongoing process of cyclical renewal in non-standard English dialects, in which polarity items are being reanalysed as minimisers with negative meaning. His contribution discusses what is required for such a reanalysis to take place.

Biberauer argues that Afrikaans bipartite negation (of the form nie_1 'not' … nie_2 'not') is anomalous in terms of Jespersen's Cycle. Whilst the second nie_2 is obligatory, it is not grammaticalised as a negative marker, but remains in concord with the negative marker nie_1. She identifies a range of syntactic phenomena indicating that the clause-final nie_2 is not grammaticalised as a

negative marker, and argues that the failure of *nie* to grammaticalise is a consequence of its structural position and feature specification.

In 'The negative cycle in Early and Modern Russian', Olena Tsurska argues that change in the negative concord patterns in the history of Russian is a consequence of Jespersen's Cycle. Changes to patterns of negative concord follow from changes in the semantic interpretability of negative features on sentential negative markers at successive stages of Jespersen's Cycle.

The main concern of Parts II and III is to identify linguistic cycles in functional domains other than negation. While van Gelderen (2004) models cyclical change through loss of movement dependencies (the Late Merge Principle) and the reanalysis of specifiers as functional heads (Head Preference Principle), the papers in these sections present many different forms of cyclical change.

For example, Clifton Pye ('Cycles of complementation in the Mayan languages') identifies a cycle of reduction and renewal in Mayan verbal complementation patterns. Instead of selecting a main verb as its complement, an aspect marker becomes proclitic on the main verb, at which point it is renewed by a new aspect marker.

In 'RATHER – on a modal cycle', Remus Gergel considers the case of English *rather*. He argues that some instances of *rather* have a modal meaning, which, in his view, arises through both a semantic cycle and a syntactic cycle. The issue is interesting and the semantic formalism contributes a new perspective on the origin of *rather*. However, the change appears to be grammaticalisation (a shift from temporal reference to modal reference, with a concomitant change in syntactic distribution). This development lacks the element of renewal we find in other cycles, as, for example, the negative, copula or pronoun cycles.

The most robust empirical evidence for cyclical changes comes from pronoun and copula cycles. These seem to fit van Gelderen's (2004) account more straightforwardly than some of the other cycles. In his chapter, Terje Lohndal presents evidence for 'The copula cycle'. Copulas develop from pronouns and may become auxiliaries or affixes. Drawing on work by Li & Thompson (1977), Lohndal argues that pronouns and demonstratives became copulas in Chinese. He also identifies full copula cycles in Hebrew and Palestinian Arabic, and accounts for them using the framework outlined in van Gelderen (2004). For Lohndahl, demonstrative pronouns are specifiers with interpretable features. In becoming a copula, features of the pronoun become uninterpretable, and therefore need to be valued by a specifier with matching interpretable features. This feature-valuation requirement ensures that the pronoun is renewed.

Diana Vedovato and Kyongjoon Kwon discuss pronoun cycles. In 'Weak pronouns in Italian: Instances of a broken cycle?', Vedovato argues that the continued use of weak subject pronouns instead of clitic or null forms in Standard Italian is a remnant from an earlier stage in the pronoun cycle.

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She argues that Italian weak pronouns are maintained in certain registers as a consequence of codified norms in these registers, using textual evidence to reconstruct a pronoun cycle for earlier stages of Italian. Furthermore, she argues that the cycle is recurring in modern Italian dialects, with certain strong pronouns becoming weak.

In 'The subject cycle of pronominal auxiliaries in Old North Russian', Kwon addresses the question of whether cyclical change is unidirectional. He argues that an auxiliary verb is reanalysed as a pronoun in North Russian, and presents this change as an instance of a pronoun cycle in reverse. In the pronoun cycle described by van Gelderen (2008), a pronoun can go through clitic and agreement marker stages before becoming an auxiliary verb. In North Russian, on the other hand, an auxiliary verb becomes a pronoun. Kwon argues that whilst this appears to be counter to the usual direction of grammatical development, it is amenable to an analysis in terms of feature loss.

Cathleen Waters describes 'The preposition cycle in [the history of] English'. She characterises this cycle as semantic bleaching of the original spatial element of the preposition, followed by addition of a new spatial prepositional element. Her analysis accounts for the development of prepositions like *above*, historically derived from two prepositions (in the case of *above*, *a + bufan*). Waters's approach receives support from the fact that there is clear evidence for cyclical renewal, not just once, but recurrently. Waters provides a formal account of these renewals in terms of the interplay between functional heads in an articulated functional structure for prepositional phrases, proposed by Svenonius (2010).

In 'Two instances of a broken cycle: Sentential particles in Old Italian', Cecilia Poletto argues that not all changes in the distribution of functional heads are consequences of cyclical change or categorial reanalysis. She shows that change in the distribution of certain Italian function words, which, she argues, are topic markers, is not due to cyclical change or categorial reanalysis, but instead is a consequence of changes elsewhere in the grammar.

Part IV, which consists solely of the chapter by Roeland Hancock & Thomas G. Bever ('The study of syntactic cycles as an experimental science'), sets out the rationale and methodology for a Situated Artificial Language Learning experiment, which examines whether the changes in usage patterns predicted by van Gelderen's (2004) account of syntactic change can be reproduced in an experimental setting. More specifically, the experiment is concerned with the question of whether variability in the input data can trigger cyclical change, and aims to track the relationship between changes in usage patterns and changes in grammaticality judgements. If this project delivers its objectives, it will provide insights for the study of historical changes.

Overall, this volume significantly adds to the research on the linguistic status and analysis of cyclical change. It provides new evidence and analysis

of changes that could reasonably be regarded as cyclical. However, the volume also highlights the need for more research, raising a number of interesting questions. Two of these are the following:

1. Can the cycles presented here be given a unified syntactic analysis within a single framework and set of theoretical assumptions? As it stands, it is largely left to the reader to determine what properties the various cycles have in common.
2. How does cyclical change fit within the wider context of grammaticalisation? How can cyclical change and grammaticalisation be distinguished in terms of (i) their syntactic analysis and (ii) the mechanisms or conditions that give rise to cyclical change as distinct from grammaticalisation?

The achievement of this volume is to demonstrate that cyclical changes occur in many functional domains in many languages, and to propose syntactic analyses which capture some of the principles common to these diverse cyclical changes.

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Phi-features play a crucial role in syntax, semantics and morphology, and nowadays form the backbone of many grammatical theories. As obvious and