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Hengeveld, K.; Narrog, H.; Olbertz, H.

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Kees Hengeveld, Heiko Narrog and Hella Olbertz

A functional perspective on the grammaticalization of tense, aspect, modality, and evidentiality

1 Introduction

The book to which this chapter is an introduction collects a number of studies on the grammaticalization of tense, aspect, modality, and evidentiality written from a functional perspective. In this introductory chapter we address a number of issues relevant to the general topic of this volume, which surface in different ways and combinations in the following chapters. After that we will explain the structure of this book in view of these issues. The overarching issues that we will address in the following sections are the following.

A functional approach to grammaticalization addresses the question how grammaticalization paths reflect changes in the function of a linguistic element, either in terms of its denotation (semantics) or in terms of its communicative function (pragmatics). It furthermore looks for explanations of these changes in the communicative function of language and the contexts in which language is used. In Section 2 we have a closer look at these properties of a functional approach to grammaticalization.

Grammaticalization, however, obviously does not only involve the function of the grammaticalizing element but also has a formal counterpart that needs to be accounted for. A principled functional approach to grammaticalization therefore needs to strictly separate functional and formal aspects of the grammaticalization process. This issue is addressed in Section 3.

Many functional approaches to language are concerned to develop a grammatical theory that is equally applicable to languages of all possible types, based on the results of extensive cross-linguistic research. This has led to a close, though certainly not exclusive connection between functional theory formation and studies in language typology. The relation between grammaticalization processes and typological differences between languages is discussed in Section 4.

An important issue in recent functional studies of grammaticalization is the idea that grammaticalization is a scope-widening process, such that processes of

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grammaticalization can be systematically described and predicted in a number of small steps along a pathway that ranges from narrow to wide scope. This idea is again not exclusive to functional approaches, but the pathways proposed in functional approaches are based on functional notions in a hierarchical relationship rather than on structural positions. This issue is further explored in Section 5.

Conclusions to this chapter are presented in Section 6. The conclusion will be followed by a brief explanation of the structure of this book in Section 7.

2 Functionalism and grammaticalization

Functional theories of grammaticalization differ from formal ones in at least two respects, which will be discussed in this section. The differences concern the priority given to either contentive or formal changes on the one hand, and the explanations provided on the other.

Functional theories of language have in common that they try to understand and describe grammatical systems in terms of the extralinguistic requirements imposed on those systems. In Dik's (1986: 10) words, these requirements can be divided into: "(i) the aims and purposes for which natural language expressions are used; (ii) the means by which natural languages are implemented; (iii) the circumstances in which natural languages are used." Dik then argues that a possible natural language is defined as one that complies with the various requirements mentioned above and continues: "Indirectly, the functional prerequisites define the notion 'possible linguistic change': a possible linguistic change must lead from one possible language to another possible language" (Dik 1986: 10). Language is thus primarily seen as an instrument, and its structure should be understood in terms of the functions this instrument is used for. A change in the instrument should not lead to a situation in which it can no longer carry out its functions.

Requirement (i) corresponds to pragmatics; (ii) to syntax, morphology, phonology, and phonetics; and (iii) partly to semantics. Here a clear difference with formal approaches to grammaticalization emerges. As noted by Nykiel (2014: 12), "minimalist grammaticalization describes change at the level of phrases and interpretations in terms of phrase structure come into play. For functionalists grammaticalization is conceived of as not only morphosyntactic change but also, if not primarily, semantic, pragmatic, and phonetic." Narrog (this volume) is a bit more careful when he draws attention to the fact that certain changes that are generally considered functional in functionalist approaches may be derived

from structural configurations in formal approaches, as shown for instance in van Gelderen (2011).

What follows from the above is that in a functional approach to grammaticalization pride of place is given to semantic and pragmatic change, which may be subsumed under the term contentive change, while formal change is seen as a consequence of or concomitant with contentive change. In formal approaches, on the other hand, pride of place is given to formal change, and contentive change is seen as a consequence of or concomitant with formal change. In Section 3 below we will return to the question how the interaction between contentive and formal change is dealt with in functional approaches.

A second aspect distinguishing functional from formal approaches to grammaticalization concerns the kind of explanation that is offered for the process. In formal approaches, a grammar can only change during the process of (first language) acquisition. This is, for instance, the position taken in Roberts & Roussou (2003), who claim that in child language acquisition grammaticalization steps are taken that lead to simpler underlying structures, or by van Gelderen (2004), for whom children's language acquisition is guided by economy principles. In functional approaches, it is generally maintained that 'grammar emerges out of usage' (Harder & Boye 2011: 58). Hopper & Traugott (2003: 44) argue explicitly against children being the primary drivers of change. For them, adolescents and adults play at least an equally if not more important role. Giomi (this volume) formulates it this way: "there is a general consensus that the phenomenon is essentially rooted in language usage." And Davari & Kohan (this volume) when discussing the rise of the progressive in Persian use exactly this kind of explanation, when they state: "We suggest that the progressive function arose through context-induced reinterpretation based on metonymic relations."

3 Grammaticalization of form and function

It has long been assumed in grammaticalization studies that there is co-evolution of form and function in grammaticalization. This has been called the 'parallel path hypothesis' (Siewierska & Bakker 2005; see van Rijn (2016) for more details) and is defended in e.g. Bybee et al. (1994: 20). The parallel path hypothesis entails that every formal change would be accompanied by a contentive change, and the other way around. Formal changes would then develop along cline such as the one in (1) (cf. Siewierska 2004: 262):

- (1) \emptyset < fusional form < agglutinative affix < clitic < grammatical word
< content item

It is not difficult to come up with counterexamples to the parallel path hypothesis. Many languages, for instance, exhibit highly grammaticalized question particles. Consider the following example from Hatam (Reesink 1999: 69):

- (2) *A-yai bi-dani mem di-ngat i.*
 2SG-get to-me for 1SG-see INT
 ‘Would you give it to me so that I can see it?’

The sentence final particle *i* ‘INT’ would on all counts qualify as highly grammaticalized from a contentive perspective: it is strongly abstract in meaning, and it has the widest possible scope. Yet the formal category that expresses this abstract meaning is that of the grammatical word, which is only the second category in the cline in (1).

On the other hand, from early on, Heine and collaborators entertained a ‘meaning-first’ hypothesis, in which functional (semantic) change is the core and primary in grammaticalization, and may or may not be accompanied by formal changes. Heine & Reh (1984: 62) hypothesized that “[d]esemanticization is the process which is responsible for most other developments”, and Heine et al. (1991: 15) write that “functional processes chronologically precede both morpho-syntactic and phonetic processes; that is, if a linguistic unit undergoes both desemanticization and cliticization, then the former is likely to precede the latter in time.” Likewise, in Heine & Kuteva (2002: 3), the authors make clear that “grammaticalization, as conceived here, is above all a semantic process”, and “new grammatical meanings arise, and it usually takes quite some time before any corresponding morphological, syntactic, and/or phonetic changes can be observed. In many languages, [...] tense or aspect auxiliaries may still behave morphosyntactically largely like lexical verbs even if they have lost their lexical semantics and serve exclusively as functional categories.”

Bisang (2004) is the first publication to highlight a systematic disconnection between functional and formal change in grammaticalization in a specific group of languages as an areal phenomenon. It is not surprising that the languages Bisang discusses are of the isolating type, where formal adaptations of the kinds assumed in (1) do not go well with the morphological type of the language, to the extent that they go beyond the stage of the grammatical word.

In this volume several authors similarly reject the parallel path hypothesis. They argue that contentive change and formal change are two different processes that should each be described in their own right. Often the two processes will occur hand in hand, but this is not necessarily the case in the process of grammaticalization. This alternative approach is most clearly formulated in Narrog (this volume) when he states: “The claim is that formal and functional grammaticalization proceed unidirectionally in the sense that we expect that in the vast

majority of cases of grammatical development at least either form or function advance along parameters of grammaticalization while neither of them should regress. On the other hand, the entry point in grammaticalization and the pace of development differ marker by marker, construction by construction. Therefore it is not possible to expect every marker and construction that is functionally more grammaticalized to be also formally more grammaticalized than a functionally less grammaticalized item, and vice versa.” Furthermore, he suggests that “the core of grammaticalization is functional. Formal changes (in a functional sense of “formal”), at least to the extent that they are reflected in written language, are merely optional.”

Similarly, Hengeveld (this volume) claims: “Grammaticalization is seen as a combination of contentive and formal change, and, crucially, it is argued that these need not go hand in hand, though there are restrictions on how they combine.” Hengeveld then continues to specify these restrictions.

Giomi (this volume) makes the issue more precise by separating pragmatic and semantic change on the contentive side and morphosyntactic and phonological change on the formal side using the model of Functional Discourse Grammar. He concludes: “By mapping directional universals explicitly onto the structure of the four levels, the FDG approach gains a decisive advantage over most functionally oriented theories of grammaticalization: that of showing how language change is not only compatible with general cognitive principles, but directly reflects the same underlying grammatical hierarchy as is observable synchronically across the languages of the world. In this way, it provides precise grammar-internal constraints on possible and impossible patterns of grammaticalization.”

In her study of the grammaticalization of the perfect in French and German, Rebotier (this volume) shows that, whereas an exclusively formal view on this matter leads to the conclusion that the English perfect should be more grammaticalized than the German one, a contentive view on this relation reveals exactly the contrary, i.e. that the German perfect is much more grammaticalized than the English one.

4 Grammaticalization and language typology

In order to uncover the principles underlying processes of grammaticalization at the highest possible level of abstraction, it is important to study these processes in languages of maximally different types and affiliations. This way generalizations may be arrived at that would be missed if we would restrict ourselves to the study of grammaticalization in a single language or in a limited number of

mutually related languages. Among the competing approaches to grammaticalization theory, particularly the lines of research by Heine (e.g. Heine 1997a, b) and of Bybee (e.g. Bybee et al. 1994) have made systematic use of typological data. The idea pursued in both lines of research is to find explanations for synchronic typological patterns in the paths that led to their grammaticalization. As Heine (1997a: 2) writes, “[l]anguage is a historical product and must be explained first of all with reference to the forces that have shaped it.” Similarly, Bybee (2006: 187) claims that “the very robust and very specific paths of development shown above constitute much stronger cross-linguistic statements than any statements we could devise about synchronic states” (Bybee 2006: 187).

Conversely, insights from typology may help predict patterns of grammaticalization or of language change in general. Furthermore, synchronic typological patterns may also constrain grammaticalization in a specific language. For an overview of the literature on both directions of potential influence and constraints, see Narrog (in press).

To start with the importance of typology for the study of grammaticalization, it is important to mention the contribution of Greenberg (1978), who introduces the notion of ‘dynamic typology’. The basic idea is that typological hierarchies predict possible languages. Every change in a language can be interpreted as the change from one possible language to another possible language. Therefore, diachronic changes can be seen as steps along the same typological hierarchies that are used to describe synchronic variation. Hengeveld (1991) provides an example of this, arguing that the typological hierarchy defining the extent to which languages allow different types of non-verbal predication is reflected in the pathway along which the Latin verb *stare* ‘stand’ developed into a copula in the Ibero-Romance languages.

In the current volume the point mentioned in the beginning of this section, however, i.e. the importance of the study of grammaticalization processes in widely divergent languages, is more prominently present. The languages studied include some that have not received much attention so far in the grammaticalization literature. This is true, for instance, for Tundra Nenets. Jalava (this volume) shows that insubordination (Evans 2007), a process the relevance of which has been demonstrated for several languages, has given rise to an evidential marker in Tundra Nenets as well. Similarly, García Castillero (this volume) contributes to our body of knowledge on grammaticalization by studying the rise of the conditional form in Old Irish. He shows that the counterfactual meaning arose out of the combination of future and imperfect tense markers in indirect speech, just as it did in e.g. Spanish and several other Romance languages.

Other studies in this volume show that proposals in the literature on the theory of grammaticalization can be applied fruitfully to languages not considered

so far. For instance, Olbertz & Honselaar (this volume) show that the division of modalities into volitive and non-volitive ones, as proposed in Narrog (2005), is the appropriate one in describing the behaviour of the Dutch modal *moeten* ‘must’. As another example, Rebotier (this volume) discusses Leiss’ (1992) statement that lexical aspect is intimately related to grammaticalization, and fruitfully applies this idea to the German and French present perfect, thus explaining both the differences and the similarities between the corresponding grammaticalization processes.

Finally, the study of grammaticalization in a wide range of typologically diverse languages may lead to the discovery of processes hitherto unattested. This is the case of the ‘possessive progressive’, a cross-linguistic rarity attested in Persian, as described in Davari & Kohan (this volume).

5 Grammaticalization and layering

In many different frameworks grammatical categories are organized in layers, such that the higher the layer, the wider the scope of the grammatical category. Clear evidence for the reality of layering comes from strictly agglutinating languages such as Japanese, where the morpheme closest to the stem has the narrowest scope and the one farthest from the stem has the widest scope (Narrog 2009: 37). Hengeveld (1989: 142) was probably the first to give a diachronic interpretation to the notion of layering, when he hypothesizes that diachronic developments in the field of TAM expressions will go from lower to higher scope, and not the other way round. In other words, grammaticalization is predicted to proceed in such a way that a certain category may assume a function one layer up, but the opposite process would not be expected to occur. This idea is applied in Hengeveld (2011) to the development of Tense and Aspect categories. As an example of a process predicted by the theory he discusses the development of the verb *haber* ‘have’ in Peninsular Spanish, as presented in Olbertz (1993). *Haber* started out as a lexical verb of possession. It then came to express resultative aspect at the lowest layer of grammatical analysis. Subsequently it developed into a marker of anterior relative tense, moving one layer up. Finally, it started to express absolute tense in a number of restricted contexts, again moving one layer up.

The layering hypothesis gives rise to a large set of predictions, the exact nature of which of course depends on the definition of layers in a specific theory, as most clearly shown in Narrog (2009). Reversely, studies of layering and scope expansion in grammaticalization phenomena can be used to evaluate the validity of competing hypotheses on layering, as also suggested in Narrog (2009) and

Narrog (2012). A possible functional explanation of the phenomenon of layered scope increase would be that this process reflects an increase in speech-act orientation, that is, change towards categories that are more speaker-oriented (especially those that are speaker-deictic), hearer oriented, and finally speech-act, or discourse-oriented at the highest layers (cf. Narrog 2012; Narrog, this volume).

Many papers in this volume touch upon the idea of scope increase. Hengeveld (this volume) sets out a general theory of grammaticalization as a hierarchical process using the model of Functional Discourse Grammar. Giomi (this volume) expands on this theory by explicitly connecting it to contextual factors. Narrog (this volume) shows the relevance of this approach for modality in general and in Japanese, while Olbertz & Honselaar (this volume) show the relevance of this approach more concretely for the analysis of the grammaticalization of the Dutch modal *moeten* from modal to illocutionary functions; Tena Dávalos (this volume) studies the development of future reference in Mexican Spanish from that same perspective; and Villerius (this volume) applies this idea to Heritage Javanese spoken in Suriname.

6 Summary

We have discussed a number of issues that are distinctive of the various contributions in this volume. First of all, we argue that functional approaches to the grammaticalization of tense, aspect, modality and evidentiality take the instrumentality of language as their starting point, which means that semantic and pragmatic changes are assigned primary importance as compared to formal changes, such that the latter may but need not co-occur with the former. Secondly, and following from the previous point, the papers in this volume do not assume, and some even explicitly argue against, the idea that change in meaning and change in form have to go hand in hand. Thirdly, the studies in this collection present a wide array of genetically different languages, and some general studies explicitly address typological facts, thus providing the ground for more broadly supported explanations of grammaticalization than those that consider the properties of closely related languages only. Finally, the idea of layering is being advanced, i.e. the hypothesis that grammaticalization proceeds in such a way that the scope of a grammatical item increases as it further grammaticalizes.

Given the wide range of functional theories of language, it is not surprising that not every functional approach to grammaticalization adheres to all of these distinctive features of this volume, but each of the chapters of this book clearly manifests at least one of them.

7 The structure of this book

This book is divided into two parts. The first part contains three general studies, and the second seven language-specific studies.

In the opening chapter of the first part *Kees Hengeveld* discusses a wide range of grammaticalization phenomena from typologically different languages in order to elaborate on the idea that grammaticalization is a matter of scope increase (see Section 5), using the theory of Functional Discourse Grammar. *Riccardo Giomi* focuses on the role of context (see Section 2) and its formalization in Functional Discourse Grammar in processes of grammaticalization, thus reconciling Heine's (2002) idea of the importance of "bridging contexts" with the highly formalized framework of Functional Discourse Grammar. *Heiko Narrog's* primary concern is to show that formal and contentive change do not necessarily go hand in hand (see Section 3), but that functional change is essential whereas formal change is accidental and highly language specific. Using examples from the domain of modality he argues that by default formal and functional changes do not correlate negatively, but that in the exceptional cases in which they do, it is the form rather than the function that is being degrammaticalized.

In the second part of this book, the grammaticalization of tense, aspect, modality and/or evidentiality categories in languages from various genetic stocks is studied, the relevance of which was discussed in Section 4. The chapters of this part are ordered in such a way that, starting from non-Indo-European languages, we proceed to lesser known Indo-European languages and end with West-Germanic. *Sophie Villerius* compares Javanese (Malayo-Polynesian) with its heritage variety spoken in Surinam as regards different realizations of modality and aspect, one of the findings being that in the domain of modality there is scope increase from participant-oriented to event-oriented modal categories in the Surinamese variant. *Lotta Jalava* studies the grammaticalization of evidentiality and modality in Tundra Nenets (Samoyedic). She argues that there are two main grammaticalization paths of modal and evidential suffixes in Tundra Nenets, the verbalization of participles and insubordination, both of which probably represent an areal pattern. *Shadi Davari* and *Mehrdad Kohan* investigate a typologically rare grammaticalization path in Persian (Indo-Aryan), in which a verb of possession comes to be used as a progressive auxiliary. *Carlos García Castillero* compares the rise of the conditional in Old Irish (Celtic) with that in Old Spanish, Spanish being representative in this respect of most Romance languages. *Jimena Tena Dávalos* traces the development of the 'go'-future in Mexican Spanish (Romance) from the lexical expression of movement through prospective aspect and near future to the expression of absolute future tense and argues that the synthetic future, which is based on a modal-like expression

in Latin, is presently acquiring a modal meaning again. *Aude Rebotier* studies the role of lexical aspect in the grammaticalization of the perfect in French (Romance) and German (West-Germanic), in both of which the perfect expresses past tense meanings. She argues that the crucial difference in the grammaticalization processes is due to the fact that French has grammatical aspect, which German lacks. *Hella Olbertz* and *Wim Honselaar*, finally, apply the framework of Functional Discourse Grammar in their diachronic and synchronic study of the the Dutch (West-Germanic) modal *moeten*, in which they describe the development of modal meanings into illocutionary functions, i.e. from modal possibility to optativity in the Middle Ages and from modal necessity to imperativity in 20th century.

References

- Bisang, Walter. 2004. Grammaticalization without coevolution of form and meaning: The case of tense-aspect-modality in East and mainland Southeast Asia. In Walter Bisang, Nikolaus P. Himmelmann & Björn Wiemer (eds.), *What makes grammaticalization: A look from its fringes and its components*, 109–138. Berlin & New York: Mouton de Gruyter.
- Bybee, Joan L. 2006. Language change and universals. In Ricardo Mairal & Juana Gil (eds.), *Linguistic universals*, 179–194. Cambridge: Cambridge University Press.
- Bybee, Joan, Revere Perkins & William Pagliuca. 1994. *The evolution of grammar*. Chicago: University of Chicago Press.
- Davari, Shadi & Mehrdad Naghzhguy Kohan. This volume. The grammaticalization of progressive aspect in Persian.
- Dik, Simon C. 1986. On the notion 'Functional Explanation'. *Working Papers in Functional Grammar* 11.
- Evans, Nicolas. 2007. Insubordination and its uses. In Irina Nicolavea (ed.), *Finiteness: Theoretical and empirical foundations*, 366–431. Oxford: Oxford University Press.
- Gelderen, Elly van. 2004. *Grammaticalization as economy*. Amsterdam & Philadelphia: John Benjamins.
- Gelderen, Elly van. 2011. Grammaticalization and generative grammar. A difficult liaison. In Heiko Narrog & Bernd Heine (eds.), *The Oxford handbook of grammaticalization*, 43–55. Oxford: Oxford University Press.
- Giomi, Riccardo. This volume. The interaction of components in a Functional Discourse Grammar account of grammaticalization.
- Greenberg, Joseph. 1978. Diachrony, synchrony, and language universals. In Joseph Greenberg (ed.), *Universals of human language*, Vol. 1, 61–91. Stanford: Stanford University Press.
- Harder, Peter & Kasper Boye. 2011. Grammaticalization and functional linguistics. In Heiko Narrog & Bernd Heine (eds.), *The Oxford handbook of grammaticalization*, 56–68. Oxford: Oxford University Press.
- Heine, Bernd. 1997a. *Cognitive foundations of grammar*. New York: Oxford University Press.
- Heine, Bernd. 1997b. *Possession: Sources, forces, and grammaticalization*. Cambridge: Cambridge University Press.

- Heine, Bernd. 2002. On the role of context in grammaticalization. In Ilse Wischer & Gabriele Diewald (eds.), *New reflections on grammaticalization* (Typological Studies in Language, 49), 83–101. Amsterdam & Philadelphia: John Benjamins.
- Heine, Bernd, Ulrike Claudi & Friederike Hünemeyer. 1991. *Grammaticalization*. Chicago: The University of Chicago Press.
- Heine, Bernd & Tania Kuteva. 2002. *World lexicon of grammaticalization*. Cambridge: Cambridge University Press.
- Heine, Bernd & Mechthild Reh. 1984. *Grammaticalization and reanalysis in African languages*. Hamburg: Buske.
- Hengeveld, Kees. 1989. Layering in Functional Grammar. *Journal of Linguistics* 25(1), 127–157.
- Hengeveld, Kees. 1991. Tipología, sincronía, diacronía. In Henk Haverkate, Kees Hengeveld, Gijss Mulder & Hella Olbertz (eds.), *Exploraciones semánticas y pragmáticas del español* (Foro Hispánico 2), 81–94. Amsterdam: Rodopi.
- Hengeveld, Kees. 2011. The grammaticalization of tense and aspect. In Bernd Heine & Heiko Narrog (eds.), *The Oxford handbook of grammaticalization*, 580–594. Oxford: Oxford University Press.
- Hengeveld, Kees. This volume. A hierarchical approach to grammaticalization.
- Hopper, Paul J. & Elizabeth C. Traugott. 2003 [1993]. *Grammaticalization*. 2nd edn. Cambridge: Cambridge University Press.
- Jalava, Lotta. This volume. Grammaticalization of modality and evidentiality in Tundra Nenets.
- Leiss, Elisabeth. 1992. *Die Verbalkategorien des Deutschen: Ein Beitrag zur Theorie der sprachlichen Kategorisierung*. Berlin & New York: Walter de Gruyter.
- Narrog, Heiko. 2005. Modality, mood, and change of modal meanings: A new perspective. *Cognitive Linguistics* 16(4), 677–731.
- Narrog, Heiko. 2009. *Modality in Japanese: The layered structure of the clause and hierarchies of functional categories*. Amsterdam & New York: John Benjamins.
- Narrog, Heiko. 2012. *Modality, subjectivity, and semantic change: A cross-linguistic perspective*. Oxford: Oxford University Press.
- Narrog, Heiko. In press. Typology and grammaticalization. In Alexandra Y. Aikhenvald and R.M.W. Dixon (eds.), *The Cambridge handbook of of linguistic typology*. Cambridge: Cambridge University Press.
- Narrog, Heiko. This volume. Relationship of form and function in grammaticalization – the case of modality.
- Nykiel, Jerzy. 2014. Grammaticalization reconciled: Functionalist and minimalist insights into the development of purpose subordinators in English. *Language Sciences* 42(1), 1–14.
- Olbertz, Hella. 1993. The grammaticalization of Spanish *haber* plus participle. In Jaap van Marle (ed.), *Historical Linguistics 1991: Papers from the 10th International Conference on Historical Linguistics*, 243–263. Amsterdam & New York: John Benjamins.
- Olbertz, Hella & Wim Honselaar. This volume. The grammaticalization of Dutch *moeten*: modal and post-modal meanings.
- Rebotier, Aude. This volume. The grammaticalization of tenses and lexical aspect: The case of German and French perfects.
- Reesink, Ger P. 1999. *A Grammar of Hatam, Bird's Head Peninsula, Irian Jaya*. (Pacific Linguistics, Series C, 146.) Canberra: Australian National University.
- Rijn, Marlou van. 2016. The grammaticalization of possessive person marking: A typological approach. *Transactions of the Philological Society* 114(2), 233–276.
- Roberts, Ian & Anna Roussou. 2003. *Syntactic change: A minimalist approach to grammaticalization*. Cambridge: Cambridge University Press.

Siewierska, Anna. 2004. *Person*. Cambridge: Cambridge University Press.

Siewierska, Anna & Dik Bakker. 2005. Inclusive and exclusive in free and bound person forms.

In Elena Filimonova (ed.), *Clusivity: Typology and case studies of the inclusive–exclusive distinction*, 151–178. Amsterdam & New York: John Benjamins.

Tena Davalos, Jimena. This volume. The end of a cycle: Grammaticalization of the future tense in Mexican Spanish.

Villierius, Sophie. This volume. Modality and aspect marking in Surinamese Javanese: Grammaticalization and contact-induced change.