Editorial

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Left and right peripheries in discourse: an introduction

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Abstract: This paper provides an introduction to a collection of papers focusing on the left and right peripheries in discourse from both theoretical and empirical perspectives as well as across various languages. After outlining the main aims and questions underlying research on the left and right peripheries of discourse units, this paper presents an overview of the current state of the art by summarizing some of the key topics that have recently received increasing scholarly attention. These include (i) the question of granularity, i.e. the nature of the unit in relation to which the left and right peripheries can be defined, (ii) the question of how the left and right peripheries are internally structured and linguistically realized, and (iii) the question of where to draw the boundary between the core and the peripheries of discourse units. This introduction concludes with short summaries of the six papers included in this special issue.

Keywords: discourse unit; extra-clausal constituent; left periphery; right periphery; sequential ordering

1 Left and right peripheries in discourse: research aims and questions

Over the past one or two decades, there has been an increasing amount of research on the internal structure of discourse units (henceforth DUs) in general, and the left and right peripheries of DUs in particular, which is reflected in a large number of studies investigating the peripheries and their role in the structuring of discourse across a wide range of languages and from both synchronic and diachronic perspectives (see, e.g., the contributions in Beeching and Detges 2014a; Hancil et al. 2015; Van Olmen and

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Šinkūnienė 2021a). While the internal structure of – and the linguistic elements occurring at – the left periphery (henceforth LP) and the right periphery (henceforth RP) have been largely ignored in traditional, sentence-based accounts of grammar, recent discourse-oriented approaches to grammar – including Systemic Functional Grammar (Halliday et al. 2014), Functional Discourse Grammar (Hengeveld and Mackenzie 2008) or Discourse Grammar (Heine et al. 2013) – have come to acknowledge the important role that the peripheries and their constituent linguistic elements play for the structuring of discourse, thus contributing to providing "a complete and adequate account of the grammatical organization of connected discourse" (Dik 1997a: 12; see also Fetzer 2014a: 50; Mackenzie 2016: 476).

Research on LP and RP has so far addressed a number of important issues from various perspectives (see Sections 2 and 3 for a more detailed discussion), including the question of granularity (i.e. the nature of the unit in relation to which LP and RP can be defined), the question of how the peripheries of DUs are internally structured and linguistically realized (i.e. which linguistic elements LP and RP consist of), and the question of where to draw the boundary between the core and the peripheries of DUs (i.e. whether to consider the boundary between core and peripheries as discrete or gradient). The overall aim of this special issue is to further elaborate on these key topics by providing fresh perspectives on – and further insight into – both the internal structure of LP and RP across languages (in terms of which linguistic categories occur at the peripheries and how they are sequentially ordered) and the conceptualization of the boundary between the core and the peripheries of DUs. In order to achieve this aim, this special issue addresses the following research questions:

a) Which structural slots do DUs in general – and LP and RP in particular – consist of?
b) How (i.e. by means of which linguistic material) are the structural slots at LP and RP realized across languages?
c) How can the co-occurrence and sequential ordering of linguistic elements at the peripheries be modelled?
d) How can the boundary between the core and the peripheries within DUs be defined and conceptualized?

The six contributions to this special issue focus on the topics and questions outlined above from theoretical and empirical as well as synchronic and diachronic perspectives. They investigate linguistic phenomena at LP and RP across various languages, including English (Lewis; Mustafa and Kaltenböck; Pinson), Italian, Spanish and Basque (Coniglio and Monforte), Danish (Heegård Petersen) as well as German and Persian (Lehmann et al.).

2 Discourse and its constitutive parts

Discourse may be examined from various perspectives, each of which addresses issues that are fundamental to any analysis of – and approach to – discourse. From the perspective of discourse syntax, on the one hand, discourse may be conceptualized as a structural configuration consisting of a varying number of concatenated and linearized DUs that constitute stretches of spoken and/or written discourse. The meaning of this linearized whole is understood as being more than the sum of the meanings of its constitutive parts (i.e. the individual units of discourse), with the particular sequential organization of DUs triggering specific discursive meanings which cannot be deduced from the propositional meanings of the individual DUs themselves (see, e.g., Fetzer 2010: 17–18; Hodge 2017: 521–522). Discourse semantics and discourse pragmatics, on the other hand, consider any piece of discourse to underlie "a general default principle of coherence" (Bublitz and Lenk 1999: 157). Discourse is thus conceived of as a coherent, meaningful whole, and the main questions to be addressed from a discourse-semantic and discourse-pragmatic perspective are how the constitutive parts of discourse are semantically and pragmatically connected and how discourse participants "construe a coherent representation of discourse both at a global stage for discourse-as-a-whole and locally for embedded discourse units within the discourse" (Klumm et al. 2023: 5).

While there has over the past few decades been a vast amount of research adopting discourse-semantic and discourse-pragmatic perspectives on discourse and investigating the nature of the connectedness of DUs by way of discourse relations (for an overview, see Klumm et al. 2023), this special issue adopts a largely discourse-syntactic approach to discourse. From this perspective, particular emphasis is being placed on the questions of (i) how DUs can be defined and conceptualized, and (ii) how these constitutive parts are internally structured and linguistically realized. The questions of granularity (i.e. the nature of the basic unit of investigation) and the internal structure of DUs are addressed in Sections 2.1 and 2.2, respectively, while Section 3 zooms in on the left and right peripheries of DUs, focusing on their internal structure and linguistic realization.

2.1 The question of granularity

DUs are generally agreed to be the essential building blocks in the construction of discourse, but the answer to the question of granularity – i.e. how these basic units of investigation are conceptualized – is "controversial and depends strongly on the respective research paradigm, and on its goals and methodology" (Fetzer 2018: 395).

Different approaches to discourse grammar conceptualize the most basic unit underlying their respective framework in divergent ways: Systemic Functional Grammar (Halliday et al. 2014), for instance, focuses on the question of how clauses (as lexicogrammatical entities) are combined to create text (as a semantic entity), whereas Functional Discourse Grammar (Hengeveld and Mackenzie 2008) takes as its basic unit of investigation the Discourse Act, which may be morphosyntactically encoded in different ways (i.e. as regular clauses or as units smaller than a clause). Fetzer (2018: 395–396) provides further examples of how DUs are conceptualized across theoretical frameworks, e.g. in terms of "propositions and illocutionary acts in formal theories of discourse, [in terms of] clause, sentence, utterance in linguistics-based discourse analysis and text linguistics, [in terms of] turn and turn-constructional unit in conversation analysis and interactional linguistics, and [in terms of] speech act, conversational contribution, discursive contribution, and pract and pragmeme […] in discourse pragmatics" (see also Beeching and Detges 2014b: 1–4; Van Olmen and Šinkūnienė 2021b: 3–4).

In order to show in how far the type of unit chosen as the basic unit of investigation may have an influence on the segmentation and analysis of actual corpus data, Degand and Crible (2021) provide an analysis of the position and functions of discourse markers in French on the basis of three different types of DUs from three levels of analysis, i.e. clauses (syntactic level), intonation units (prosodic level) and turns (interactional level). The authors argue that the choice of DU may indeed have a strong influence on how the position and functions of discourse markers are defined and described: The clause is identified as "the most functionally-motivated unit" (Degand and Crible 2021: 42) in that it systematically accounts for the functional variation of discourse markers, whereas turns and intonation units only partially capture their possible positions and functions, which seems to make these two types of DU less suitable for an analysis of the positional distribution and functional variation of discourse markers.

The Val.Es.Co model of discourse segmentation (see, e.g., Briz Gómez and Pons Bordería 2010; Salameh Jiménez et al. 2018) provides an even more fine-grained picture, making a distinction between eight hierarchically ordered units of linguistic analysis. According to this model, which aims to segment and analyze oral discourse (in particular conversational Spanish), the eight hierarchical units are subact, act, intervention, exchange, dialogue, turn, turn-taking and discourse, which amount to three orders of information (i.e. informative, structural and social) and four positions (i.e. initial, medial, final and independent) (for an overview, see Salameh Jiménez et al. 2018: 113).

2.2 The structural slots within discourse units

The question of how the internal structure of DUs can be conceptualized has received considerable scholarly attention over the past few decades. There have been various proposals for the modelling of the internal structure of DUs in a wide range of languages (for an overview, see Beeching and Detges 2014b). For French, for instance, Detges and Waltereit (2014) propose a *preamble-rheme model* with three structural slots (i.e. a rhematic element at the centre/core as well as pre- and post-rhematic elements in the preamble and the post-script, respectively), whereas Degand (2014) makes a tripartite distinction between initial, medial and final positions for the units of clause, utterance and turn.

In German, the so-called *topological field model* (*topologisches Feldermodell*) is used to describe the different syntactic slots (so-called *fields* and *brackets*) that may be filled by linguistic material in the basic clause types of German (see, e.g., Engel 1972, 1996). According to the original version of the model, the German clause contains a *left sentence bracket* (*linke Satzklammer*), which hosts the finite verb in V1 and V2 clauses and which is preceded and followed by elements in the *prefield* (*Vorfeld*) and *middle field* (*Mittelfeld*), respectively. The middle field is followed by the *right sentence bracket*, which hosts clause-final verbs and which in turn is followed by elements in the *postfield* (*Nachfeld*). Zifonun et al. (1997) propose a more fine-grained structure of the clause in German by adding to the model a *left outfield* (*linkes Außenfeld*) preceding the prefield and a *right outfield* (*rechtes Außenfeld*) following the postfield, thus accounting for syntactically non-integrated and optional phenomena such as vocatives, interjections and left/right dislocations (see also Averintseva 2007; Averintseva-Klisch 2009; Catasso 2024; Speyer 2008; Vinckel-Roisin 2015; Wöllstein 2014; Zifonun 2015).

One approach to the internal structure of DUs that differs considerably from those outlined above is Onodera's (2014) 'onion-skin' model for Japanese. According to this model, the structure of DUs is conceptualized in terms of four concentric layers, with each layer corresponding to a different discourse-pragmatic status of its constituents. While the two innermost layers represent the most focused or salient information (i.e. acts and events), the two outermost layers consist of linguistic elements which express subjective and intersubjective functions, respectively.

According to cartographic syntax (see, e.g., Cinque 1999; Rizzi 1997), which aims to provide a detailed and fine-grained map of syntactic structures, sentences consist of hierarchies of functional projections, each corresponding to specific syntactic and semantic structures (e.g. mood, tense, aspect, topic and focus). Of particular interest within this approach to syntax has been the left periphery of the sentence, i.e. the area preceding the Inflectional Phrase (IP) (in a split-IP approach: the Tense Phrase (TP) as uppermost

projection of IP). In earlier terminology (e.g. Chomsky 1986), this area is referred to as Complementizer Phrase (CP). Based on Rizzi (1997) and later developments, the left periphery is argued to be decomposed into a series of hierarchically ordered functional projections – i.e. Force Phrase (ForceP), Topic Phrase (TopP), Focus Phrase (FocP) and Finiteness Phrase (FinP) – each of which encodes specific syntactic and discourse-related functions. It is important to note that the layer of functional projections referred to (in generative terms) as *left periphery* does not comprise clause-external material, i.e. what counts as the left periphery in more functionalist approaches (see below) is actually to the left of ForceP in cartographic syntax.

Within broader theoretical frameworks of discourse grammar, the internal structure of DUs is modelled in different ways. In Systemic Functional Grammar (Halliday et al. 2014), for instance, it is the textual metafunction which provides the linguistic resources for building up "sequences of discourse, organizing the discursive flow, and creating cohesion" (Halliday et al. 2014: 31). Thus, by including a textual metafunction in its model, Systemic Functional Grammar aims to account for how (i.e. by means of which linguistic resources) individual clauses are combined to turn a text into a unified, well-formed whole, thus taking into consideration discourse phenomena that are usually neglected in sentence-based approaches to grammar. Within the textual metafunction, particular emphasis is placed on the thematic structure of a clause in terms of Theme and Rheme. The Theme is defined as "the element that serves as the point of departure of the message" (Halliday et al. 2014: 89) and subdivided into topical, interpersonal and textual Themes. The (obligatory) topical Theme of a clause may be optionally preceded and/or followed by at least one interpersonal Theme (e.g. vocatives) and/or by at least one textual Theme (e.g. discourse connectives). A Theme which contains only one type of Theme (i.e. a topical Theme) is called *simple Theme*, whereas a Theme which contains additional interpersonal and/or textual Themes is referred to as *(extended) multiple Theme* (see, e.g., Gómez-González 1998, 2001). In contrast to the Theme, the Rheme remains underspecified in Systemic Functional Grammar, being vaguely defined as "everything that is *not* part of the Theme, or as what remains once the Theme has been identified" (Dupont 2015: 92; emphasis in original). There are only few studies which have proposed a more fine-grained classification of the Rheme (by analogy with the tripartite classification of the Theme), thus aiming to adequately account for the discourse-pragmatic functions that elements in rhematic position may fulfil (see, e.g., Fries 1992, 1994, 2002; Klumm 2021).

Functional Grammar (Dik 1997a, 1997b), which aims "to reveal the instrumentality of language with respect to what people do and achieve with it in social interaction" (Dik 1997a: 3), takes the clause as its basic unit of investigation. The internal structure of the clause is conceptualized in terms of several layers (see Dik 1997a: 217, 291–292): The innermost layer is referred to as *nuclear predication* and composed of basic or derived predicate frames. The nuclear predication may be

extended to a *core predication*, and the core predication to an *extended predication*, by means of additional operators, satellites and higher-order variables. The extended predication may turn into a *proposition* through the additional use of attitudinal operators and satellites, while the outermost layer is the *clause*, which is composed of the proposition plus illocutionary operators and satellites. While Dik's ideas for a functional grammar of discourse are neither systematic nor exhaustive, giving "no more than a sketch of a number of elements that should go into the making of a functional grammar of discourse" (Dik 1997b: 410), Functional Grammar provides a comprehensive account of *extra-clausal constituents* (see Dik 1997b: 379–407), which play a crucial role at the peripheries of DUs (see Section 3).

Functional Discourse Grammar (Hengeveld and Mackenzie 2008) is conceived of as the Grammatical Component of "a wider theory of verbal interaction" (Hengeveld and Mackenzie 2008: 1), consisting of four independent and internally layered levels which are organized in a top-down manner, i.e. an Interpersonal Level (pragmatics), a Representational Level (semantics), a Morphosyntactic Level (morphosyntax) and a Phonological Level (phonology). As has been outlined in Section 2.1, the main focus of Functional Discourse Grammar is on the analysis of *Discourse Acts*, which constitute "complete contributions to the ongoing discourse" (Keizer 2015: 14) and may thus be linguistically realized by regular clauses as well as by units smaller than the clause such as vocatives or conventionalized phrases (see Hengeveld and Mackenzie 2008: 4; Keizer 2015: 14). Discourse Acts may combine into *Moves*, and the relations holding between Discourse Acts are conceptualized in terms of *rhetorical functions* (see Hengeveld and Mackenzie 2008: 53–58; Keizer 2015: 54–57). As for the internal structure of Discourse Acts, various structural slots are identified at the Morphosyntactic Level: At the highest layer (i.e. the Linguistic Expression), a distinction is made between a clausal position (P^{centre}) and two extra-clausal positions, with one preceding P^{centre} (i.e. P^{pre}) and one following P^{centre} (i.e. P^{post}).[1] The clausal position P^{centre} is filled by the Clause (i.e. the second-highest layer at the Morphosyntactic Level), which is in turn internally structured into clause-initial, clause-medial and clause-final positions (see Hengeveld and Mackenzie 2008: 312).

Now that various models of – and approaches to – the internal structure of DUs have been presented, the looming question is how the different structural slots within DUs in general – and the left and right peripheries within DUs in particular – are linguistically realized. This issue will be addressed in more detail in Section 3.

1 In addition to P^{pre} and P^{post}, Giomi and Keizer (2020) and Keizer (2020) propose a third extra-clausal position, i.e. an interpolated position P^{int}, in order to account for those extra-clausal constituents that interrupt the clausal host.

3 The left and right peripheries of discourse units

While Section 2 has provided an overview of the internal structure of DUs in general, this section zooms in on the left and right peripheries of DUs, focusing in more detail on three widely discussed and interrelated issues, i.e. (i) the linguistic elements which may occur at LP and RP, (ii) the internal structure of LP and RP in terms of structural slots, and (iii) the conceptualization of the boundary between the core of a DU and its peripheries.

As far as their linguistic realization is concerned, the peripheries of DUs are generally agreed upon by scholars to be occupied by a wide range of linguistic categories, including – among many others – discourse connectives (see, e.g., Celle and Huart 2007), comment clauses (see, e.g., Brinton 2008), question tags (see, e.g., Martínez Caro 2020), general extenders (see, e.g., Traugott 2015) or left/right dislocations (see, e.g., Averintseva-Klisch 2009). The contributions to this special issue focus on several further categories occurring at LP and/or RP: Diana Lewis investigates the sentence adverbs *apparently* and *sadly* as well as the discourse connector *instead* in English; Ozan Mustafa and Gunther Kaltenböck focus on evidential *last I* (ELI) fragments in English; Mathilde Pinson examines one particular type of the N-*is* construction in English (i.e. *(the) bottom line (is)*) and its surrounding elements at LP; Marco Coniglio and Sergio Monforte focus on left-peripheral optative particles in Italian, Spanish and Basque; Jan Heegård Petersen investigates the use of different types of adverbials in left-dislocated position in spoken Danish; and Nico Lehmann, Vahid Mortezapour, Motahare Sameri, Elisabeth Verhoeven and Aria Adli compare the use of different types of right-peripheral subjects (i.e. extraposition, right dislocation and afterthought) in German and Persian.

The various categories outlined above have been subsumed under different umbrella terms such as *pragmatic markers* (following the broad definition by Fraser 2009), *parentheticals* (Dehé and Kavalova 2007a), *theticals* (Heine et al. 2013; Kaltenböck et al. 2011) and *extra-clausal constituents* (Dik 1997b; Kaltenböck et al. 2016a). For the sake of consistency, it is the notion of extra-clausal constituent (henceforth ECC) that will be used in the remainder of this introductory chapter, given that the term nicely captures the idea that those linguistic elements classified as ECCs are – in some way or another – 'outside' the clause to which they are attached. Dik (1997a: 310) defines ECCs as linguistic elements "which are not part of the clause proper, but [which are] more loosely associated with it in ways which can most adequately be described in terms of pragmatic functionality". More specifically, ECCs are characterized by a number of formal and functional features, the most important of which are summarized in Table 1 below.

Table 1: Formal and functional properties of ECCs (based on Brinton 1996: 33–35; Dehé and Kavalova 2007b: 4–15; Dik 1997b: 379–407; Jucker and Ziv 1998: 3; Kaltenböck et al. 2016b: 4–11).

(1)	**Prosodic non-integration:** ECCs are typically set off prosodically from the rest of the DU, thus forming a separate tone unit
(2)	**Syntactic non-integration**: ECCs are not part of the constituent structure of the clause to which they are attached
(3)	**Syntactic optionality:** ECCs can be omitted without affecting the grammaticality of their host clause
(4)	**Positional mobility:** ECCs may precede, follow and even interrupt the clause to which they are attached[a]
(5)	**Semantic non-restrictiveness:** ECCs do not contribute to the propositional content of a DU
(6)	**Non-truth conditionality:** ECCs do not affect the truth conditions of a DU
(7)	**Multifunctionality:** ECCs are multifunctional in that they can fulfil both textual (i.e. discourse-structuring) and interpersonal (i.e. subjective and intersubjective) functions

[a]Given that the main focus this special issue is on the left and right peripheries of DUs, instances of ECCs occurring in clause-medial/interpolated position (see, e.g., Giomi and Keizer 2020; Harthan 2022; Keizer 2020; Lenker 2010, 2014) are only marginally discussed in the contributions to this special issue.

Looking at the functions of ECCs from a diachronic perspective, elements at LP have been hypothesized to have undergone a process of subjectification and thus to be subjective, whereas those at RP have been hypothesized to have undergone a process of intersubjectification and thus to be intersubjective (see Beeching and Detges 2014b; Salameh Jiménez et al. 2018). The universality of this hypothesized functional asymmetry between LP and RP has been tested – and challenged – in numerous studies across languages (see, e.g., the contributions in Beeching and Detges 2014a; Van Olmen and Šinkūnienė 2021a).

While the features provided in Table 1 are generally considered sufficient for assigning linguistic elements to LP/RP and for distinguishing them from elements belonging to the core of a DU, Kaltenböck (2007: 31) claims that the formal and functional properties of ECCs are often presented "without clear indication as to which criteria are taken as primary" for the assignment of extra-clausal status. Indeed, previous research has demonstrated that not all characteristic features apply to all left- and right-peripheral elements to the same extent. Traugott (2015), for instance, convincingly shows that some of the features are applicable to a limited number of ECCs only, which leads her to conclude that the characteristic features of ECCs "cited repeatedly are weak tendencies […] and cannot be used as diagnostics" (Traugott 2015: 127). Given both the wide range of types of ECCs and the considerable amount of variation with regard to their formal and functional

characteristics, it can thus be argued from a cognitive-prototype perspective that some linguistic elements generally considered to belong to the peripheries of DUs are more prototypical members of LP/RP than others. In other words, the more of the formal and functional features described in Table 1 apply to linguistic elements, the more they are prototypical ECCs and thus prototypical members of LP/RP.

While the internal structure of DUs in general has been modelled in different ways in various languages (see Section 2.2), scholarly attention has only relatively recently come to focus on a more specific modelling of the internal structure of LP and RP in terms of patterned co-occurrences of peripheral elements and their sequential ordering within LP and/or RP. The structural slots within LP and RP and the ordering preferences of peripheral elements has been investigated in more detail in several languages, including French (e.g. Crible and Degand 2021; Detges and Waltereit 2014), Spanish/Catalan (e.g. Cuenca and Marín 2009; Pons Bordería 2018), German (e.g. Averintseva-Klisch 2009; Frey 2018, 2023), Dutch (e.g. van der Wouden and Foolen 2015, 2021) and English (e.g. Cuenca and Ludivine 2019; Fetzer 2014b; Fraser 2015; Klumm 2024; Koops and Lohmann 2015, 2022; Lohmann and Koops 2016). While most studies investigating the co-occurrence of linguistic elements at the peripheries of DUs have focused on sequences of ECCs at LP (see also Section 2.2 on multiple Themes in Systemic Functional Grammar), there are only few studies which have examined in more detail the sequential ordering of linguistic elements at RP (see, e.g., Haselow 2019; Izutsu and Izutsu 2021; Klumm 2024; van der Wouden and Foolen 2015). What most scholars working on the internal structure of LP and RP agree on, however, is the finding that the particular ordering of linguistic elements at LP and/or RP is highly constrained and systematic in that it is determined by the function that the respective ECCs fulfil within the discourse (e.g. discourse-structuring vs. (inter)subjective). This argument is also pursued by Pinson (this issue), who investigates the various linguistic elements surrounding the English construction *(the) bottom line (is)* at LP with regard to their respective discourse-pragmatic functions. Finally, as far as the number of potential structural slots at LP and RP is concerned, the studies mentioned above vary widely in their scope, focusing on a minimum number of two slots at LP and/or RP and up to a maximum number of four potential slots at LP in Dutch (see van der Wouden and Foolen 2015) and nine potential slots at LP in English (see Pinson this issue).

A final issue that has received increasing scholarly attention over the past few years relates to the question of how the boundary between the core of a DU and its peripheries can best be conceptualized. Generally speaking, a broad distinction between elements belonging to the core of a DU and elements belonging to LP/RP can be made on the basis of the formal and functional features listed in Table 1: While elements at LP/RP are typically characterized as being

prosodically independent, syntactically optional, semantically non-restrictive and non-truth-conditional, elements belonging to the core of a DU are typically defined by way of exclusion, i.e. as being prosodically integrated, syntactically obligatory, semantically restrictive and truth-conditional. That such a broad distinction is too simplistic has already been shown in the discussion of ECCs above, which has revealed that linguistic elements at the peripheries of DUs are best approached from a cognitive-prototype perspective, given that not all characteristic features provided in Table 1 apply to all ECCs to the same extent. Such a prototype-anchored conceptualization cannot only be applied to the internal structure of LP and RP (as described above), but also to the boundary between the core of a DU and its peripheries. As has been argued for in recent research (see, e.g., Klumm 2024; Rizzi and Cinque 2016; Traugott 2015), the boundary between elements at the peripheries and elements belonging to the core of DUs is best described as fuzzy and gradient (rather than as clear-cut and discrete) because many linguistic elements have an intermediate status with respect to the features listed in Table 1 in that they may fulfil some of the features (and may thus be considered to belong to the peripheries) while they may not fulfil others (which would suggest classifying them as belonging to the core). Klumm (2024), for instance, discusses the borderline status of sentence adjuncts in English, which are characterized by features applying both to core constituents (i.e. they contribute to the propositional content, and affect the truth conditions, of a DU) and to elements at the peripheries (i.e. they are syntactically optional and positionally mobile). The gradient nature between core and peripheries is also argued for in the contribution to this special issue by Diana Lewis, who investigates the development of sentence adverbs and discourse connectors in English on the basis of *apparently*, *sadly* and *instead*. By adopting a diachronic perspective, Lewis shows that the distinction between core and peripheries is blurred during language change, with the boundary being permeated progressively, imperceptibly and via hybrid uses. This is in line with Traugott (2016: 27), who argues that LP and RP (as well as the linguistic elements considered to belong to the peripheries) "are on a continuum from 'inner core clause' position to 'outer' position, since many originate in adverbs and other expressions used within the argument structure of the clause".[2]

2 This line of argument is closely related to the process of *cooptation* argued for in Discourse Grammar (Heine et al. 2013; Kaltenböck et al. 2011), according to which linguistic units such as clauses, phrases or words are transferred from the domain of Sentence Grammar to the domain of Thetical Grammar.

4 Contributions to this special issue

In her contribution, Diana Lewis adopts a diachronic viewpoint on the English left periphery and the boundary between core and periphery of a DU. She compares the development of three speaker-oriented sentence adverbs that started life in the core of the clause, but now typically occur in the periphery, namely the evidential adverb *apparently*, the evaluative adverb *sadly* and the discourse-connecting adverb *instead*. All three evolved into peripheral stance expressions by similar mechanisms. English recruited a large number of evidential and, later, evaluative sentence adverbs from the Early Modern English period onwards. Lewis traces their development using several contemporary and historical corpora of British English, e.g. the Old Bailey Corpus, the EEBO collection, and the spoken section of the British National Corpus. *Apparently* developed from a modal adverb, denoting visibility to observer and speaker (placed in the core) towards an evidential adverb of hedged validity (placed at the periphery). The bridging context were probably stative predicates, especially cases in which an adjectival (or participial) predicate was modified. With *sadly*, the bridging context also seems to have been the modification of an adjectival or participial predicate. Here, the evolvement from a modal adverb to a sentence adverb needs an intermediate step of usage as *sadly* as negative intensifier. *Instead* did not undergo any semantic change, but a change in the possible conjuncts, from entities (typically expressed by noun phrases) via predicates (typically represented by gerunds) to propositions. In all three cases, the shift in meaning was accompanied by a syntactic shift of these elements towards the left periphery, eventually crossing the fuzzy boundary between core and periphery. Typically, while being in the borderland, so to say, there are many instances in which the usage is ambiguous between the modal core reading and the speaker-oriented peripheral reading, which facilitates the semantic and syntactic change of these items.

The paper by Ozan Mustafa and Gunther Kaltenböck focuses on an extra-clausal fragment in English, namely *last I/we* + V, (e.g. *last I checked*), and traces its formal and functional development. The authors draw their conclusions from a corpus study of the Corpora of Historical and Contemporary American English (COHA and COCA). The origin of these fragments are full-fledged sentences in specificational function (i.e. a copula construction in which one element, the variable, is defined by another element, the value, or equated with it) that start to become truncated around 1860 and are used purely as downtoners in the beginning, indicating that the speaker does not want to wholly commit themselves to the truth of the proposition because of limited available evidence. The area of usage extends in the course of the 20th century to booster functions (where, just opposite to the original use, the reliability of the source is emphasized) and ironic usage (exploiting a pragmatic incompatibility of

fragment and host clause). The verbs used in this construction were originally verbs of physical or mental sensation such as *hear*, which remains the most common one up to now. In the 1940s, the verb *check* entered the picture and soon became the second-most frequent one. This predicate (and others first used in the *last I/we* + V-construction) indicates a semantic change in this construction, as with this predicate presentational sentences are not possible anymore, but only readings in which *last* functions as a temporal adjunct. This indicates a specialization of this fragmentary form towards evidential use, while the full versions remain non-evidential. At the same time, a shift in allegiance occurs, in which this construction in general is increasingly associated with temporal adjuncts. An increasing independence from their host clause is indicated by several formal changes, such as the loss of compulsory temporal agreement between the *last I/we* + V fragment and the host clause. Eventually, the fragment has acquired discourse-structuring functions, indicating topic shifts.

In investigating *N-is* sequences, especially the sequence *(the) bottom line (is)*, Mathilde Pinson shows that LP in English can be divided into nine optional slots, the first four being reserved for expressions marking disjunction with the previous discourse, the latter five being more argumentative in character, enhancing the validity of the upcoming assertion and trying to convince the listener of it. Introductory fragments in general started life diachronically as main clauses but were reduced and are now parenthetical fragments introducing an independent clause. They do not contribute to the truth-conditional meaning of the clause introduced by them, but they have several other functions, for example giving the speaker extra time to plan their utterance, and signalling the pragmatic function of the upcoming utterance. The introductory fragment under consideration, *(the) bottom line (is)*, is topic-oriented and has the function of signalling that the previous discourse is being summarized, a change in sub-topic is launched, or a digression is ended. Using the spoken section of the Corpus of Contemporary American English, Pinson focuses on left-peripheral elements surrounding *bottom line* in such sequences and explores whether there are ordering preferences. Many elements show very clear tendencies: Connectors like *but*, *so* etc., attention getters and *well* nearly categorically precede *bottom line*, whereas addresses, expressions of reportative evidentials and *though* are almost always found after *bottom line*. Taking the relative ordering of the elements co-occurring with *bottom line* into account, Pinson manages to establish nine slots at LP preceding the core clause: 1: *well*, 2: connectors encoding discursive links to the preceding discourse, 3: *I mean*, 4: attention getters, 5: subjectifiers, 6: *bottom line*, 7: *though*, 8: desubjectifiers, 9: addresses. The order of these slots displays movement from establishing a (disjunctive) link to the previous discourse to the (positive) validation of the present utterance.

While the three papers forming the first part of the special issue (Lewis, Mustafa and Kaltenböck, and Pinson) discuss the development of English left-peripheral elements, the three papers forming the second part (Coniglio and Monforte, Petersen, Lehmann et al.) focus on other languages, including as German, Danish, Italian, Spanish, Persian, and Basque. Marco Coniglio and Sergio Monforte investigate optative particles in various languages. Optative particles fall into two classes, i.e. *vacuous optative particles* (or *optative I-particles*) on the one hand, in which the optative meaning is only emphasized, but other linguistic means are necessary to convey the notion of optativity (such as German 'nur', English 'only', Italian 'solo'), and *optative markers* (or *optative C-particles*) on the other hand, in which the particle is a sufficient denotator of optativity (such as Italian 'magari', Spanish 'ojalá', Basque 'agian'). Vacuous optative particles tend to occur within the clause proper, while optative markers tend to occur at the left periphery of clauses. The grammaticalization path of both classes of particles is different: While vacuous optative particles tend to emerge from lower adverbial elements, optative markers usually stem from former matrix clauses with meanings like 'I wish', 'it may be' etc. In this respect, they are comparable to the English left-peripheral elements discussed by Pinson as well as Mustafa and Kaltenböck. All optative particles have in common that LP must be activated, either by the particle itself (in the case of optative markers) or by other means such as verbal movement (in the case of vacuous optative particles). The term *left periphery* is understood here in the generative sense as the leftmost part of the clause proper, quite unlike the usage in the more functionalist literature represented by the papers in the first part of the volume, in which the periphery is an area outside the clause proper. The different positions and properties of these particles are a consequence of their being licensed in different projections in the syntax tree.

The contribution by Jan Heegård Petersen describes the distribution and functions of fronted adverbials in spoken Danish. There is variation in positioning them in the prefield (i.e. the position immediately before the finite verb in a verb-second language such as Danish) or in a position even further to the left, the so-called *Extra-left position*, which is presumably outside the core clause, that is, a left periphery conceptualized in the same way as in the papers dealing with English by Lewis, Mustafa and Kaltenböck, and Pinson. If adverbials occur in Extra-left position, a resumptive pronoun occurs in the prefield. The construction is thus quite comparable to German left dislocation and occurs in other Scandinavian languages as well. Some classes of adverbials, e.g. conditional clauses or temporal clauses (especially the ones introduced by *når* 'when'), are very prone to appear in Extra-left position, while others, like attitude and modal adverbials (e.g. *heldigvis* 'luckily' or *alligevel* 'in spite of') are found there only in roughly half of the cases, otherwise standing in the prefield. The variation is induced by grammatical and discourse-structuring factors, and to a lesser extent by lexical weight, which has been suggested as the main factor

in earlier literature. To identify these factors, Petersen conducted a corpus study of transcripts of sociolinguistic interviews. One important factor is the type of adverbial: While clausal adverbials are in general more prone to the Extra-left position, there are differences in with regard to their semantic function, with conditional clauses being more frequently found in Extra-left position than temporal clauses. As for non-clausal adverbials, summarizing adverbials are found in Extra-left position in 70 % of cases, whereas other adverbials occur there less frequently. Only 17 % of attitude adverbials, being the least frequent group, are found in Extra-left position. As for discourse structure, the construction has been claimed in previous research to indicate the closing of a discourse unit and the introduction of a new point of departure, which is partly corroborated by Petersen's study.

In contrast to the other five studies, the paper by Nico Lehmann, Vahid Mortezapour, Motahare Sameri, Elisabeth Verhoeven and Aria Adli is concerned with the right periphery rather than the left periphery. The main question leading their investigation is whether subjects in the right periphery behave similarly with respect to registers in German and Persian, both being structurally verb-final languages (the verb-second effect in German comes about by movement of the verb to the left in main clauses). In both languages, as in all languages that have been researched in this respect, placement of the subject to the right periphery is a rare phenomenon. The area after the clause-final verbal complex is argued to count as right periphery. Distinguishing several structural slots for such right-peripheral material with a different degree of bondage to the core clause (as indicated e.g. by prosody or the compatibility with correlates), the authors identify four formally distinct types of right-peripheral subjects, i.e. extraposed subjects, right-dislocated subjects, afterthought subjects with a pronoun correlate in the core clause, and afterthought subjects with a full NP correlate. It is known that the use of peripheries is highly dependent on register and production mode, in the sense that peripheries are used at all, and in the sense that the discourse-structuring and information-structuring functions may differ across registers. Based on a corpus study on the multilingual Leg*Reg corpus, the authors found that the two types of afterthought serve the same function, namely the attribution of further qualities to the subject referent in the case of afterthought with full NP correlate, and the clarification of the referent (if it is ambiguous or too little salient) in the case of afterthought with pronoun correlate. Likewise, the functions of Persian extraposition and German right dislocation are quite similar, establishing the topic of the following discourse. German extraposition has a different function, being restricted to focused information, while in the Persian data, right dislocation is not attested. Overall, right-peripheral subjects are more often found in interactive communicative events than in monological ones. The effect has been found to be significant in Persian, but not in German, which might have to do with the fact that Persian is more ready to position subjects in the right periphery than German.

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