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Peripheries and their internal structure: an empirical analysis of left- and right-peripheral sequences across written English discourse

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Abstract: This article investigates the distribution, linear ordering and functions of sequences of linguistic elements occurring at the left and right peripheries of discourse units across three genres of written English discourse. Based on a corpus of news reports, commentaries and personal narratives, the paper aims to account for discourse-genre-specific preferences in the use of peripheral two-part sequences such as *and so*, *but I think* or *now though*. The data show considerable variation across genres in terms of (i) which formal types of sequences occur at the peripheries, (ii) how peripheral elements are sequentially ordered, and (iii) which discourse-pragmatic functions left- and right-peripheral sequences fulfil in written English discourse. The observed variation in the use of peripheral sequences across news reports, commentaries and personal narratives can be explained by discourse-related factors as well as the specific communicative purposes of each genre. The present article argues for a prototype-anchored conceptualization of the internal structure of discourse units: On the one hand, the left and right peripheries are conceptualized as containing a wide range of – more and less prototypical – linguistic elements (i.e. extra-clausal constituents and adjuncts); on the other hand, the boundary between *core* and *periphery* is conceptualized as fuzzy and gradient.

Keywords: adjunct; discourse grammar; extra-clausal constituent; periphery; sequence

1 Introduction

Over the past few 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 (see, e.g., the contributions in Beeching and

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Detges 2014; Hancil et al. 2015; Van Olmen and Šinkūnienė 2021). 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, functional approaches to language have come to acknowledge the important role that the (linguistic elements at the) peripheries play for the structuring of discourse (see, e.g., Dik 1997a, 1997b; Halliday and Matthiessen 2014; Heine et al. 2013; Hengeveld and Mackenzie 2008).

The left and right peripheries of DUs may be occupied by a wide range of linguistic categories which have been subsumed under the term *extra-clausal constituents* (henceforth ECCs; see Dik 1997a, 1997b; Kaltenböck et al. 2016). ECCs are characterized by a number of formal features, and they have been shown to fulfil textual (i.e. discourse-structuring) and/or interpersonal (i.e. subjective or intersubjective) functions. Adjuncts (using Quirk et al.'s [1985] terminology) are generally not categorized as ECCs, but they may still be argued to belong to the periphery of DUs because they may fulfil important discourse-related functions (see, e.g., Doherty 2001, 2003; Hasselgård 2010).

Research on LP and RP has recently focused in greater detail on the internal structure of the peripheries, in particular the co-occurrence and linear ordering of sequences of adjacent peripheral elements. The distribution, sequential ordering and discourse-pragmatic functions of peripheral sequences will also be the focus of this paper. However, while previous studies have mainly focused on two-part sequences of discourse markers (as one type of ECC) occurring at LP in spoken discourse, the present study aims to investigate the distribution and linear ordering of sequences of various peripheral elements (i.e. ECCs and adjuncts) occurring at LP and RP in written discourse.

The study is based on data covering three genres of written English discourse, i.e. news reports and commentaries from *The Guardian*, and personal narratives written by students from the Universities of Portsmouth and Sussex. The main aim is to examine – and account for – similarities and differences in the use of peripheral two-part sequences between the three discourse genres, in particular (i) with regard to the co-occurrence of various formal and functional types of left- and right-peripheral elements, and (ii) with regard to preferences in – and constraints on – the sequential ordering of peripheral sequences across discourse genres. These issues will be approached from both a quantitative and a qualitative perspective, thus aiming to account for the discourse-pragmatic functions of, and motivations for, the use of two-part sequences at LP and RP in news reports, commentaries and student stories.

Ultimately, this paper argues for a prototype-anchored conceptualization of the internal structure of DUs: The left and right peripheries of DUs are conceptualized as containing a wide range of linguistic elements, i.e. both ECCs proper (as prototypical elements at LP/RP) and adjuncts (as less prototypical elements at LP/RP and more closely

related to the core of DUs), which results in a conceptualization of the boundaries both within the peripheries and between the core and LP/RP as fuzzy and gradient.

The present paper is structured as follows. Sections 2 and 3 provide the theoretical background on the internal structure of DUs and on sequences at LP and RP, respectively. Section 4 introduces the data and methodology underlying this study. The quantitative results will be presented in Section 5 and discussed from a more qualitatively oriented perspective in Section 6. In the concluding section, the main findings will be summarized and placed in a wider context.

2 The internal structure of DUs

The term *periphery* can be defined as referring to the structural slots within a DU which precede and follow the *core* (or *host*). The question of granularity, i.e. the nature of the unit in relation to which LP and RP can be defined, has been addressed from a variety of perspectives across theoretical frameworks. The basic unit of investigation has been conceptualized in terms of *clause* in text linguistics, *turn* or *turn-constructional unit* in conversation analysis, *proposition* in discourse semantics and *utterance* in discourse pragmatics, to name but the most commonly used concepts (for an overview, see Fetzer 2018).

Given its focus on written English discourse, the present study takes as the basic unit of investigation the structural unit of clause. More precisely, a DU is defined in this paper as (i) containing an independent clause as the core, and (ii) being optionally preceded and/or followed by linguistic elements placed at LP and/or RP. The independent clause representing the core consists of the following constituents (using Quirk et al.'s [1985] terminology): The verb is considered “the most ‘central’ element” within the core “in that (i) its position is normally medial rather than initial or final; (ii) it is normally obligatory; (iii) it cannot normally be moved to a different position in the clause; and (iv) it helps to determine what other elements must occur” (Quirk et al. 1985: 50). These other elements include the subject (e.g. *my overarching plan* in [1]), (subject/object) complements (e.g. *to go into an engineering role and work my way up* in [1]), (direct/indirect) objects (e.g. *that there would be no attempt to declassify cannabis* in [2]) and obligatory predication adjuncts (e.g. *into chaos* in [3]).¹ Their presence (or absence) in a clause is determined by the transitivity of the verb.

1 As illustrated in (1)–(3), the constituents of the core of a DU may be formally realized by phrases and/or dependent clauses. While dependent clauses may be argued to be DUs in their own right (consisting of core and periphery), they have been excluded from further consideration in this study given the present paper's conceptualization of the core of a DU as consisting of an independent clause. Instances of dependent clauses and their conceptualization in terms of core and periphery will, however, be taken into account in future research.

- (1) *My overarching plan is to go into an engineering role and work my way up.*
(Student story [A.G.], University of Portsmouth)
- (2) *A source close to the home secretary confirmed on Monday that there would be no attempt to declassify cannabis.*
(News report [Syal], *The Guardian*, 10/10/2022)
- (3) *The British economy has spiralled into chaos.*
(Commentary [Sridhar], *The Guardian*, 03/10/2022)

In addition to the syntactically obligatory constituents described above, the core of a DU is argued to also contain optional predication adjuncts (see Quirk et al. 1985: 510–511) such as *by the Unison, Usdaw and Community trade unions* in (4).

- (4) *The council leader has been backed by the Unison, Usdaw and Community trade unions.*
(News report [Elgot], *The Guardian*, 10/10/2022)

While being syntactically optional (and thus less central than verb, subject, complement, object and obligatory predication adjunct), optional predication adjuncts can still be argued to belong to the core (rather than to the periphery) of DUs because they give a specification of the action described by the verb of the core clause and are thus semantically tightly connected to the verb, which is reflected in their being positionally fixed, usually occurring in a position close to the verb.²

While the core constituents of a DU are (i) typically obligatory, (ii) positionally fixed, (iii) licensed by the argument structure of the verb of the core clause, and/or (iv) semantically tightly connected to the verb of the core clause, the left and right peripheries of a DU are defined in the present study as containing those linguistic elements which do not meet the criteria of the core constituents. In other words, linguistic elements at LP and RP are usually (i) syntactically optional, (ii) positionally mobile, (iii) not licensed by the argument structure of the verb of the core clause, and/or (iv) not semantically connected to the verb of the core clause. Previous research has shown that the peripheries of DUs can be occupied by a wide range of linguistic categories (e.g. discourse markers, comment clauses, vocatives, question tags etc.) which have been subsumed under the term *extra-clausal constituents* (Dik 1997a, 1997b; Kaltenböck et al. 2016). ECCs are characterized by a number of prosodic, syntactic and semantic features, including prosodic non-integration, syntactic non-integration, syntactic optionality, positional mobility, semantic non-restrictiveness and non-truth conditionality (see, e.g., Dik 1997b: 380–407; Kaltenböck et al. 2016: 4–11). While these formal features are generally considered sufficient for assigning

² The definition of the core of DUs used in this paper corresponds to what Functional Grammar (Dik 1997a, 1997b) has termed *core predication*.

linguistic elements to LP/RP and for distinguishing them from elements belonging to the core of DUs, numerous studies across languages have shown that not all characteristic features apply to all left- and right-peripheral elements to the same extent, with some of the features being applicable to a limited number of ECCs only (see, e.g., Traugott 2015). In other words, there is considerable variation across the diverse types of ECCs with regard to the applicability of the prosodic, syntactic and semantic features identified in the literature. Adopting a cognitive-prototype approach to the internal structure of DUs in general, and to the internal structure of LP and RP in particular, we may thus make the following two assumptions: First, some linguistic elements occurring at the peripheries are more prototypical members of LP/RP than others, i.e. the more of the characteristic features described above apply to linguistic elements, the more they are prototypical members of LP/RP; second, the boundary between elements at the peripheries and elements belonging to the core of DUs is gradient and fuzzy. This prototype-anchored conceptualization of the internal structure of DUs has recently been argued for by Traugott (2015), and will also be argued for in this paper.

The fuzzy boundary between elements within the core and elements at the peripheries of DUs can be illustrated with what traditional grammar has called (*sentence*) *adjuncts* (see Quirk et al. 1985: 511–514). On the one hand, sentence adjuncts – just like core constituents and unlike ECCs – contribute to the propositional content, and affect the truth conditions, of a DU. That is, sentence adjuncts affect the meaning and interpretation of – and are thus semantically related to – the core clause, which is why they are typically *not* categorized as belonging to the periphery of DUs. On the other hand, sentence adjuncts can be argued to be ‘outside’ the clausal core in that they usually are – unlike most core constituents – syntactically optional and positionally mobile. Moreover, as has been shown in previous research (see, e.g., Doherty 2001, 2003; Hasselgård 2010), sentence adjuncts – just like ECCs such as discourse connectives – may fulfil important discourse-pragmatic functions, including the signalling of a specific thematic development of the underlying discourse (e.g. a temporal sequence of events, as signalled by the two temporal adjuncts at LP in [5]), or the signalling of a contrastive relation between DUs (as signalled by the temporal adjuncts *earlier in the year* vs. *now* in [6]).³

- (5) **[When it was time to start college]**, I already knew what I wanted to do for my career **[and]** picked a criminology A level that would get me into university. **[After 2 years of hard work]** I found myself at an Open Day at Portsmouth.

(Student story [I.L.], University of Portsmouth)

³ In all examples, elements belonging to the peripheries of DUs are highlighted in bold and square brackets.

- (6) **[Earlier in the year]** fears of a protracted stalemate were causing hesitation and doubt over whether Ukraine and its supporters could stay the course. **[Now]**, Ukraine has removed that doubt **[by seizing the initiative and maintaining it far longer than most outside observers thought possible]**.

(Commentary [Giles], *The Guardian*, 05/10/2022)

It is due to their potential as discourse-structuring devices that sentence adjuncts – just like ECCs – are classified in the present study as belonging to LP and RP, respectively. The peripheries of DUs as conceptualized in this paper can thus be said to contain both ECCs (as central elements, with varying degrees of prototypicality across types of ECCs) and sentence adjuncts (as less central elements).⁴ This is illustrated in (7), where the LP of the first DU is realized by the sentence adjunct *for 30 years after the second world war*, and the LP of the second DU by a sequence of the ECC *but* and the sentence adjunct *since the mid-1970s*.

- (7) **[For 30 years after the second world war]**, an increasing share of national income went to labour in the form of wages and salaries. **[But]** **[since the mid-1970s]** more has flowed into the profits and dividends of those who own capital.

(Commentary [Jacobs], *The Guardian*, 10/10/2022)

Based on Quirk et al.'s (1985) classification of adverbials, the present paper considers sentence adjuncts (as described above) to belong to the category of adjunct, while *disjuncts* and *conjuncts* are classified as ECCs. Unlike sentence adjuncts, disjuncts (e.g. *luckily*, *unfortunately* etc.) and conjuncts (e.g. *however*, *furthermore* etc.) do not contribute to the propositional content, nor affect the truth conditions, of the core clause and are thus considered more prototypical members of LP and RP. In addition to these semantic criteria, disjuncts and conjuncts differ from adjuncts in terms of several syntactic criteria which apply to adjuncts but not to disjuncts and conjuncts (e.g. the possibility of becoming the focus of a cleft sentence; see Quirk et al. 1985: 504–505, 1070–1071). For example, concessive clauses such as *even though it was a risk* in (8) below are categorized as ECCs in the present study, thus following Quirk et al.'s (1985: 1070–1073) classification of concessive clauses as disjuncts (see also König 2006: 821). Despite various criteria that can be used to identify adjuncts and ECCs, the distinction between these two categories is not always straightforward, as will be further discussed and illustrated in Section 4.

⁴ Given the present study's focus on LP and RP, all instances of ECCs and sentence adjuncts that are interpolated in the core clause (such as *on Monday* in [2] above or *this week* in [16] below) have been excluded.

- (8) ***[Even though it was a risk], the combination of having an undergrad degree and a Master's, and being able to demonstrate everything I'd learnt along the way, put me in a good position.***

(Student story [A.C.], University of Portsmouth)

Just like the core constituents described above, both sentence adjuncts and ECCs may be formally realized by phrases and dependent (adverbial) clauses. Sentence adjuncts in English are most frequently realized by prepositional phrases (e.g. *after 2 years of hard work* in [5]), adverb phrases (e.g. *now* in [6]) as well as finite and non-finite adverbial clauses (as in [5] and [6], respectively); ECCs may be realized by a wide range of formal constituents, including conjunctions (such as *and* in [5] or *but* in [7]), various types of phrases (e.g. adverb phrases such as *though* in [17] below), dependent clauses (such as *even though it was a risk* in [8]), and (semi-)fixed constructions such as comment clauses (e.g. *I mean*; see Brinton 2008) or the *the-X-is* construction (e.g. *the truth is*; see Berthe 2022; Keizer 2016).

The present study investigates linguistic elements occurring at the left and right peripheries of DUs both in terms of the formal categories they belong to (i.e. conjunction, phrase or adverbial clause) and in terms of their functional categories (i.e. sentence adjunct or ECC). The main focus will be on two-part sequences of ECCs and/or sentence adjuncts occurring at LP (such as *but since the mid-1970s* in [3]) and at RP (such as the sequence illustrated in [9] below). The theoretical background on left- and right-peripheral two-part sequences will be provided in the following section.

- (9) ***Rishi Sunak warned of "difficult decisions to come" [as he became the UK's second unelected prime minister in seven weeks on Tuesday], [promising to "fix" the economic mess which he blamed in part on his predecessor].***

(News report [Quinn], *The Guardian*, 25/10/2022)

3 Sequences at LP and RP

The internal structure of the peripheries of DUs in terms of patterned co-occurrences and their linear ordering has only recently been addressed in greater detail. For English, there has been an increasing amount of research over the past ten years focusing on the distribution, ordering and functions of sequences of elements at LP and RP.

Most studies investigating the co-occurrence of linguistic elements at the peripheries in English discourse have focused on two-part sequences of discourse

markers (henceforth DMs) at LP, e.g. *and so, but then, well I think* etc. (see, e.g., Cuenca and Crible 2019; Fetzer 2014; Koops and Lohmann 2015, 2022; Lohmann and Koops 2016), while DM sequences at RP have been addressed in few studies only (e.g. Haselow 2019; Izutsu and Izutsu 2021). As for the studies' findings, there is consensus that DM sequencing is highly constrained at both peripheries, and that there are "a number of different functional motivations underlying both the co-occurrence of DMs and their ordering" (Lohmann and Koops 2016: 441).

The present study differs from previous research on peripheral sequences in English discourse in several respects: While most studies have focused on the combinations of linguistic elements occurring either at LP or at RP in spoken discourse, the present study investigates sequences at both peripheries across written English discourse. The most important difference between this and previous studies, however, relates to the nature of the linguistic elements defined as belonging to the periphery of DUs. Apart from DMs, the present paper takes into account various formal and functional types of peripheral elements, including both phrases and clauses, as well as both ECCs proper and sentence adjuncts. Thus, the focus of the analysis presented in Sections 5 and 6 will be on left- and right-peripheral two-part combinations of either (i) two ECCs, (ii) one ECC and one adjunct, or (iii) two adjuncts.⁵

The combination of two (or more) adjacent adjuncts in English has been investigated by Hasselgård (2010), who has shown that sequences of adjuncts occur by far most frequently in clause-final (i.e. right-peripheral) position (see Hasselgård 2010: 54). This preference has been accounted for by the *principle of end-weight* (see Quirk et al. 1985: 1361–1362), according to which syntactically heavier (i.e. longer) constituents are placed after lighter (i.e. shorter) ones. The end-weight principle also has an effect on the relative order of adjuncts within a sequence, with phrasal adjuncts typically being followed by clausal adjuncts, as in (10).

- (10) *The mayors held an emergency meeting [on Thursday afternoon] [after hundreds of services were cancelled this month by operators including TPE, Avanti and Northern].*
(News report [Topham], *The Guardian*, 28/10/2022)

⁵ For reasons of space, and given the wide range and diversity of categories of ECCs and sentence adjuncts, the present paper does not investigate in greater detail the co-occurrence and linear ordering of specific types of ECCs (e.g. discourse markers and comment clauses) or specific semantic categories of sentence adjuncts (e.g. temporal and spatial adjuncts), but adopts a holistic perspective by looking at the categories of ECC and sentence adjunct as a whole. A detailed investigation of the combinations of various types of ECCs and/or sentence adjuncts at LP and RP would likely yield valuable insights but would go beyond the scope of this paper given its main aim of providing a broad overview of the internal structure of the left and right peripheries across written English discourse.

Compared with instances of single adjuncts, sequences of two (or more) adjacent adjuncts at either LP or RP are relatively rare in English (see Hasselgård 2010: 272–273). The general avoidance of peripheral sequences of adjuncts in English discourse may be explained by what Doherty (2001, 2003) has termed the strategy of *balanced information distribution*. According to this strategy, speakers aim at “securing an easy-to-process distribution of information at both sides of the (finite) verb” (Doherty 2003: 34). Thus, instead of clustering two (or more) adjuncts at one of the peripheries, speakers of English often prefer a more even distribution of adjuncts across peripheries, thus facilitating discourse processing and ensuring speaker-intended interpretation.

Finally, one approach to language which deals with the internal structure of the left periphery in greater detail is Systemic Functional Grammar (Halliday and Matthiessen 2014; henceforth SFG). According to SFG, the *Theme* of a clause – i.e. “the element that serves as the point of departure of the message” (Halliday and Matthiessen 2014: 89) – can be categorized into three types, i.e. topical, interpersonal and textual. The topical Theme (i.e. the first element in a clause which expresses ideational meaning) may be 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). In case the theme zone (see Fetzer 2008; Hannay 1994) is realized by more than one type of Theme, we speak of an (*extended*) *multiple Theme* (see, e.g., Gómez-González 1998, 2001). The topical Theme of a clause is considered *marked* if it is realized by a sentence adjunct (or *circumstantial Adjunct* in SFG terms). It is thus in these cases that the topical Theme can be said to belong to the left periphery as conceptualized in Section 2. This is illustrated in Table 1, where both the textual Theme *but* and the marked topical Theme *since the mid-1970s* are considered to be part of LP, while the core is represented by the Rheme, which “is usually defined by exclusion, 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).

If all three types of Theme are present in a clause, the leftmost slot is usually occupied by a textual Theme, which is typically followed by an interpersonal Theme,

Table 1: Multiple-Theme configuration according to SFG.

<i>But</i>	<i>since the mid-1970s</i>	<i>more has flowed into the profits and dividends of those who own capital</i>
Textual Theme	Marked topical Theme	Rheme = core
Multiple Theme = LP		

while the topical Theme is usually the final element within a multiple Theme (see, e.g., Fetzter 2008; Gómez-González 2001).⁶

The present study adopts an integrated approach to the internal structure of the left and right peripheries of DUs. As for the various types of linguistic elements being said to belong to LP and RP, this paper is informed by Dik’s (1997a, 1997b) and Kaltenböck et al.’s (2016) conceptualization of extra-clausal constituents, as well as by Quirk et al.’s (1985) functional category of (sentence) adjuncts. As for the co-occurrence and linear ordering of peripheral elements, SFG (Halliday and Matthiessen 2014) provides the input for the analysis of LP (in terms of textual, interpersonal and marked topical Theme). The same categorization into textual, interpersonal and topical elements will be used for the analysis of RP.⁷

4 Data and methodology

In order to provide a comprehensive account of the distribution, linear ordering and discourse-pragmatic functions of peripheral two-part sequences across written English discourse, the present study draws on data from three discourse genres, i.e. informative discourse, argumentative discourse and narrative discourse. More specifically, the data comprise news reports from the British daily newspaper *The Guardian* (collected between 4 and 28 October 2022), commentaries from *The Guardian* (collected between 2 and 31 October 2022), and personal narratives written by students from the Universities of Portsmouth and Sussex. All texts underlying this study are available on the websites of *The Guardian* and of the Universities of Portsmouth and Sussex, respectively (see Supplementary Material). The details of the corpus are represented in Table 2.

Table 2: Data overview.

	Texts	Words	DUs
News reports	61	37,573	1,270
Commentaries	48	46,924	2,484
Student stories	42	17,430	1,163

⁶ This configuration does not apply to extended multiple Themes, where the topical Theme is followed by textual and/or interpersonal elements.

⁷ In contrast to the Theme, the Rheme is not categorized into different types in Halliday and Matthiessen (2014). However, alternative classifications with different types of Rheme have been proposed by Fries (1992, 1994) and Klumm (2021).

Each text chosen for the present study has been manually divided into DUs by two raters (the author of the study and a student assistant), based on the definition provided in Section 2. Every DU contains an independent clause representing the core, which consists of a (finite) verb and those constituents pertaining to the verb (i.e. subject, complement, object(s), obligatory predication adjunct and/or optional predication adjunct(s)). All linguistic elements preceding and/or following the core of a DU have been categorized as belonging to the left and/or right periphery of the respective DU. Each DU has been specified with regard to whether or not LP and RP have been filled with linguistic material, and – if so – how many peripheral elements have been used (i.e. how many slots at the peripheries have been filled). In addition, all linguistic elements assigned to the periphery of DUs have been categorized according to formal types (i.e. conjunctions, phrases and adverbial clauses) and functional types (i.e. ECCs and adjuncts).

The fact that the present paper argues for a prototype-anchored conceptualization of the internal structure of DUs – with fuzzy boundaries not only within the core and within the peripheries, but also between core and periphery (see Section 2) – implies that the division of the DUs in the present corpus into core versus periphery, as well as the categorization of elements within the peripheries, has not always been straightforward. During the data classification process described above, any discrepancies in categorization between the raters have been assessed, negotiated and aligned on the basis of specific syntactic and semantic criteria. Three cases in point will be discussed and illustrated in the following.

First, the distinction between optional predication adjuncts (as part of the core) and sentence adjuncts (as part of the periphery) has been made on the basis of their positional mobility, with sentence adjuncts being positionally mobile and optional predication adjuncts being positionally fixed (see Quirk et al. 1985: 511). This criterion can be applied to the first sentence in (7) above, where the prepositional phrase *for 30 years after the second world war* has been classified as sentence adjunct (and thus as part of the periphery) because it may easily be moved to the end of the sentence without any change in meaning (*An increasing share of national income went to labour in the form of wages and salaries for 30 years after the second world war*). The prepositional phrase *in the form of wages and salaries*, by contrast, is more tightly connected to the verb *went* and may thus not easily be moved to another position in the sentence, hence its classification as optional predication adjunct belonging to the core.

Second, the question of whether two (or more) circumstantial elements co-occurring at the peripheries (e.g. spatial and temporal adjuncts) function as two (or more) separate adjuncts or as one (with the head being modified by further embedded circumstantial information) has been answered by taking into account the meaning in context. This is illustrated in (11) and (12).

- (11) **[In Aberdeen] [on Monday]**, Sturgeon talked about independence a staggering 58 times.
(Commentary [Kettle], *The Guardian*, 13/10/2022)
- (12) *Labour prides itself on being the party of equality. [Yet] [at the party's annual conference in Liverpool last week], a group of Labour women found themselves denied an exhibition stall.*
(Commentary [Sodha], *The Guardian*, 02/10/2022)

Circumstantial elements co-occurring at the peripheries have been classified as separate adjuncts if the circumstantial information provided by each element “show[s] a certain semantic attraction” (Ungerer 2017: 23) to the clause as a whole. This is the case in (11), where each circumstantial element at LP independently relates to (i.e. contributes spatial and temporal information to the propositional content of) the clause as a whole, hence the classification of *in Aberdeen* and *on Monday* as a two-part sequence of two separate adjuncts. By contrast, in cases where there is “a more precise referential affiliation of the circumstance” (Ungerer 2017: 24), i.e. where a circumstantial element provides specific circumstantial information on a single referential item in the clause rather than on the clause as a whole, the element in question has been classified as a modifier within the corresponding phrase, hence the categorization as one constituent with embedded circumstantial information (see also Ungerer 1988: 128–132). This is argued to be the case in (12), where the circumstantial elements *in Liverpool* and *last week* do not relate to the clause as a whole, but rather modify the noun phrase *the party's annual conference* by providing specific information on where and when the conference took place, hence the classification of the prepositional phrase *at the party's annual conference in Liverpool last week* as one constituent at LP.

Third, the distinction within LP and RP between ECCs and sentence adjuncts has been made on the basis of (i) the semantic criteria of semantic (non-)restrictiveness and (non-)truth conditionality (with adjuncts – unlike ECCs – contributing to the propositional content, and affecting the truth conditions, of a DU), and (ii) different syntactic tests proposed in Quirk et al. (1985: 504–505, 1070–1072). In the case of adverbial clauses introduced by the subordinating conjunction *while*, for instance, the meaning of the conjunction – and thus of the dependent clause – has been disambiguated as either temporal (=adjunct) or concessive (=ECC) with the help of the linguistic context as well as syntactic tests such as the ability of adjunct clauses (unlike ECCs) to be the focus of a cleft sentence. This is illustrated in (13), where the adverbial clause introduced by *while* at LP has been classified as concessive – and thus as ECC – because (i) *while* does not signal a temporal relation between two simultaneous events but a contrastive/concessive relationship between the dependent and the independent

clause “arising from a contrary expectation” (Quirk et al. 1985: 1099), and (ii) the syntactic tests for adjuncts proposed in Quirk et al. (1985) cannot be applied.

- (13) *Three-quarters of environmental charity executives and trustees thought increasing diversity would have a positive impact on the sector. [But] [while 86% of leaders agreed it should be a top priority for the sector], only 22% felt it actually was.*
(News report [Gayle], *The Guardian*, 05/10/2022)

The data underlying the present study have been analyzed both from a quantitative perspective (using the concordancing software *AntConc* [version 4.2.0] for corpus frequencies and the chi-square test of independence for statistical analyses) and from a qualitative perspective. The results will be examined and discussed from these two perspectives in Sections 5 and 6, respectively.

5 Results

In a first step, the DUs identified for each discourse genre (see Table 2 above) have been examined with regard to the questions of (i) in how many DUs are LP and RP filled with linguistic material, and (ii) how many slots at LP and RP are filled with linguistic material in how many cases. Table 3 provides the distribution of DUs in each genre according to the number of slots filled at LP and RP – ranging from zero slots (i.e. LP/RP having been left empty) to four slots.

The LP of DUs is left empty significantly more frequently ($\chi^2 = 154.435$; $df = 2$; $p < 0.0001$) in news reports (76.9 %) than in commentaries (59.9 %) and student stories (54.1 %), whereas RP is left empty significantly more frequently ($\chi^2 = 18.098$; $df = 2$; $p < 0.001$) in commentaries (83.8 %) and student stories (83.9 %) than in news reports

Table 3: Overview of slots filled at LP and RP across discourse genres (with relative frequencies highlighted in bold).

	News reports				Commentaries				Student stories			
	LP		RP		LP		RP		LP		RP	
	N	%	N	%	N	%	N	%	N	%	N	%
0 slots	976	76.9	998	78.6	1,487	59.9	2,082	83.8	629	54.1	976	83.9
1 slot	281	22.1	234	18.4	855	34.4	367	14.8	465	40.0	179	15.4
2 slots	13	1.0	35	2.8	135	5.4	35	1.4	66	5.7	8	0.7
3 slots	–	–	3	0.2	5	0.2	–	–	3	0.2	–	–
4 slots	–	–	–	–	2	0.1	–	–	–	–	–	–
	1,270		1,270		2,484		2,484		1,163		1,163	

(78.6 %). Conversely, LP is more frequently filled with linguistic material in commentaries (with a range between one and four slots being filled) and student stories (between one and three slots) than in news reports (with a maximum of two slots being filled at LP), while at the same time RP is more frequently filled with linguistic material in news reports (between one and three slots) than in commentaries and student stories, where not more than two slots are occupied at RP. The same discourse-genre-specific preferences can be observed for peripheral two-slot sequences, which occur significantly more frequently ($\chi^2 = 45.683$; $df = 2$; $p < 0.0001$) at LP in commentaries (5.4 %) and student stories (5.7 %) than in news reports (1.0 %), while right-peripheral two-slot sequences are used more frequently ($\chi^2 = 17.641$; $df = 2$; $p < 0.001$) in news reports (2.8 %) than in commentaries (1.4 %) and student stories (0.7 %).

In a second step, each left- and right-peripheral two-slot sequence identified within each genre has been analyzed with regard to the formal and functional features of the co-occurring linguistic elements. Given that the overall frequencies of peripheral two-part sequences in the present corpus are relatively low (see Table 3), the following quantitative results will be treated in terms of tendencies rather than in terms of statistically (non-)significant differences.

Table 4 provides an overview of the distribution of the peripheral two-part sequences identified in each genre in terms of the formal categories that their constitutive elements belong to. Elements at LP and RP have been categorized into conjunctions (mainly *and* and *but*), phrases and dependent (i.e. adverbial) clauses.⁸

Table 4: Distribution of peripheral two-part sequences in terms of formal categories (with relative frequencies highlighted in bold).

	News reports				Commentaries				Student stories			
	LP		RP		LP		RP		LP		RP	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Conjunction + phrase	7	53.8	–	–	54	40.0	–	–	32	48.5	–	–
Conjunction + adv. cl.	2	15.4	–	–	32	23.7	–	–	14	21.2	–	–
Phrase + phrase	3	23.1	13	37.1	25	18.5	10	28.6	5	7.6	2	25.0
Phrase + adv. cl.	1	7.7	20	57.1	15	11.1	21	60.0	5	7.6	3	37.5
Adv. cl. + phrase	–	–	1	2.9	5	3.7	2	5.7	–	–	–	–
Adv. cl. + adv. cl.	–	–	1	2.9	–	–	2	5.7	–	–	3	37.5
Other	–	–	–	–	4	3.0	–	–	10	15.1	–	–
	13		35		135		35		66		8	

⁸ The category *Other* in Table 4 comprises instances of elements that did not fit in any of the formal categories described above. Such elements include comment clauses as well as instances of the *the-X-is* construction.

Table 4 shows a similar tendency across all three genres for sequences at LP to consist of formal categories that are syntactically short (in particular conjunctions followed by phrases, such as *but* followed by *since the mid-1970s* in [7] above), whereas two-part sequences containing at least one adverbial clause are relatively rare at LP, in particular in news reports. At RP, by contrast, most two-part sequences contain at least one adverbial clause, with the combination of a phrase followed by an adverbial clause being the most frequent pattern across all three genres. This particular sequential order abides by the principle of end-weight, with phrasal elements typically coming before clausal elements at RP (see [10] in Section 3).

Table 5 presents the distribution of the different combinations of left- and right-peripheral elements in terms of their functional categories. As shown in Section 2, this paper suggests a broad functional distinction of linguistic elements at LP and RP between ECCs proper and (sentence) adjuncts.

Across all three genres, two-part sequences at LP tend to contain at least one ECC. If left-peripheral sequences consist of two ECCs, the combination usually includes – in SFG terms – a textual Theme followed by an interpersonal Theme (which corresponds to the typical multiple-Theme configuration described in Section 3). This type of linear ordering is illustrated in (14), where the textual element *but* is followed by the interpersonal element *I think*.

- (14) *I'm often out on my bike, I go swimming in the sea, [and] I'm training for the Brighton Marathon. I do really appreciate where I live, [but] [I think] lockdown made me appreciate it more.*
(Student story [T.A.], University of Sussex)

The numbers provided in Table 5 suggest that left-peripheral sequences of two ECCs are more frequently used in commentaries and student stories than in news reports. This difference may be accounted for by the different communicative purposes of each genre. Given that news reports aim to present information in a way that is

Table 5: Distribution of peripheral two-part sequences in terms of functional categories (with relative frequencies highlighted in bold).

	News reports				Commentaries				Student stories			
	LP		RP		LP		RP		LP		RP	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
ECC + ECC	1	7.7	–	–	44	32.6	1	2.9	17	25.8	–	–
ECC + adjunct	9	69.2	–	–	67	49.6	2	5.7	48	72.7	–	–
Adjunct + ECC	1	7.7	1	2.9	9	6.7	7	20.0	1	1.5	1	12.5
Adjunct + adjunct	2	15.4	34	97.1	15	11.1	25	71.4	–	–	7	87.5
	13		35		135		35		66		8	

discursively constructed as objective as possible, they do not usually contain any interpersonal elements (and hence – at least in the present corpus – hardly any sequences of two ECCs). Commentaries and student stories, by contrast, are much more subjective and intersubjective (aiming to persuade, or in some way connect with, the reader) and therefore contain numerous instances of interpersonal elements (see also Biber 1988: 148–150).⁹

The most frequently occurring combination of functional categories at LP across news reports, commentaries and student stories is that of an ECC followed by an adjunct, which is again in line with SFG's typical multiple-Theme configuration of a textual or interpersonal Theme followed by a topical Theme. Across all three genres, the ECC preceding an adjunct at LP is most frequently textual (i.e. discourse-structuring) in nature, often realized by the conjunctions *but* (as in [7]) or *and* (as in [15]).

- (15) ***[Just the other week], over 2 million people watched Scotland ladies play, [and] [next season], the Women's Super League begins.***
(Student story [L.O.], University of Portsmouth)

In contrast to LP, ECCs are hardly found at RP in the present data. Instead, the most frequent pattern of right-peripheral two-part sequences occurring across all three genres is the combination of two adjuncts, as in (9) and (10) above. In each genre, this configuration occurs more frequently at RP than at LP, which is in line with previous research (see Hasselgård 2010: 54).

So far, the distribution of peripheral two-part sequences in terms of their formal categories (see Table 4), and their distribution in terms of their functional categories (see Table 4), have been investigated independently from each other. However, a closer look at (i) the formal realization of ECCs and adjuncts, and (ii) the relative length (in terms of number of words) of two-part sequences at LP and RP, reveals an interesting correlation between the formal and functional categories described above. First of all, the finding that across genres LP is most frequently occupied by sequences containing syntactically short (i.e. non-clausal) elements and at least one ECC may be explained by the fact that the vast majority of ECCs – i.e. 81.3 % of all ECCs that occur in two-part sequences in the data underlying the present study – are non-clausal in nature (i.e. realized by conjunctions or phrases).¹⁰ The adjuncts occurring

⁹ The writer's opinion may not only be expressed by means of interpersonal elements at the peripheries, but also by modal auxiliaries within the core of DUs, as is, for instance, the case with *may* and *could* in (17) below.

¹⁰ More precisely, of all 272 ECCs occurring in peripheral two-part sequences in the present corpus, 221 instances are non-clausal, while 51 instances are realized by dependent clauses. This tendency is very similar across the three genres underlying the present study, i.e. news reports (11/13 = 84.6 % non-clausal ECCs), commentaries (141/175 = 80.6 % non-clausal ECCs) and student stories (69/84 = 82.1 % non-clausal ECCs).

in peripheral two-part sequences in the three genres are significantly less frequently realized by non-clausal (i.e. phrasal) elements than ECCs – of all 311 adjuncts under investigation, 210 instances (i.e. 67.5 %) are realized by phrases – which may account for the more balanced distribution of adjuncts across LP and RP in the present corpus.¹¹

In terms of their relative length, the data show a striking difference between two-part sequences at LP and two-part sequences at RP in that left-peripheral sequences are relatively short (i.e. 7.1 words on average), whereas sequences at RP contain more than twice as many words (i.e. 15.8 words on average).¹² While the low average number of words in sequences at LP may be explained by the large number of one-word ECCs at LP (i.e. the conjunctions *and* and *but*, as well as adverbs such as *however*, *though*, *yet*, *still*, *so* etc.), the relatively long two-part sequences at RP may be accounted for by the principle of end-weight. Indeed, the ratio between non-clausal and clausal ECCs/adjuncts is considerably more balanced at RP (97:56) than at LP (334:96). As for the four different two-part combinations displayed in Table 5 (i.e. ECC + ECC, ECC + Adjunct, Adjunct + ECC and Adjunct + Adjunct), the principle of end-weight also seems to play a role in the ordering of ECCs and/or adjuncts at RP, with the relative length of the second element in right-peripheral two-part sequences being more than twice as long (11.2 words) as the first element (4.6 words).¹³ More specifically, of all 78 right-peripheral two-part sequences identified in the present data, the second element is longer (i.e. contains more words) than the first element in 64 cases (i.e. 82.1 %).

The quantitative results presented in this section will be discussed from a more qualitatively oriented perspective in Section 6, which takes into consideration the wider linguistic context of specific examples from the present corpus, thus aiming to account for the discourse-pragmatic functions of, and motivations for, the use of two-part sequences at LP and RP in news reports, commentaries and student stories.

¹¹ The frequency difference between non-clausal ECCs and non-clausal adjuncts is highly significant ($\chi^2 = 14.183$; $df = 1$; $p < 0.001$).

¹² In order to determine the average number of words of the left- and right-peripheral two-part sequences in the present corpus, the total number of words of all sequences has been divided by the number of sequences at LP and RP, respectively (at LP: $1.521 \text{ words} \div 214 \text{ sequences} = 7.1 \text{ words per sequence}$; at RP: $1.230 \text{ words} \div 78 \text{ sequences} = 15.8 \text{ words per sequence}$).

¹³ The relative length of the first and second element in two-part sequences at RP has been calculated by dividing the total number of words of all (first and second) elements by the number of sequences at RP: Relative length of first element = $358 \text{ words} \div 78 \text{ sequences} = 4.6 \text{ words}$; relative length of second element = $872 \text{ words} \div 78 \text{ sequences} = 11.2 \text{ words}$.

6 Discussion

While the quantitative results have shown a relatively similar distribution of peripheral two-part sequences in terms of their formal and functional features across all three discourse genres underlying the present study, the main focus of the following discussion will be on the more general discourse-genre-specific preferences in the use of two-part sequences at LP and RP. In particular, this section aims to account, and provide motivations, for why (i) two-part sequences at LP are more frequently used in commentaries and student stories than in news reports (Section 6.1), and, conversely, why (ii) two-part sequences at RP are more frequently used in news reports than in commentaries and student stories (Section 6.2).

6.1 Discourse-genre-specific preferences at LP

As has been illustrated in Section 5, the present data show a statistically significant difference in the use of left-peripheral elements in general – and of left-peripheral two-part sequences in particular – between commentaries and student stories on the one hand, and news reports on the other. This genre-specific variation at LP may be accounted for by the specific functions that left-peripheral elements serve to fulfil on the level of discourse, as well as by varying communicative purposes across the three genres under investigation.

Table 5 has shown that across genres, LP tends to be filled by two-part sequences of which at least one constituent functions as ECC, which corroborates the general tendency for ECCs to occur more frequently at LP than at RP (see, e.g., Kaltenböck et al. 2016). The range of ECCs used at LP in the news reports is largely restricted to textual elements (in particular *but* and *however*), with interpersonal elements being virtually absent, which has been accounted for by genre-specific constraints with respect to impartiality and objectivity (see Section 5; see also Biber et al. 1999: 859, 882). In the commentaries and student stories, by contrast, the ECCs used in left-peripheral two-part sequences in the present corpus cover a much wider range of linguistic elements, including both textual elements (e.g. *and*, *but*, *however*, *yet*, *so*, *moreover*, *in fact* etc.) and interpersonal elements (e.g. *I think*, *I guess*, *the truth is*, *alas*, *admittedly*, *thankfully* etc.). The commentaries and student stories underlying the present study thus seem to be less restricted than the news reports with regard to the use of two-part sequences at LP (in particular with regard to the choice and range of textual and interpersonal elements), which may be accounted for by the fact that the writers of news reports are more constrained (by the newspaper's editorial code of practice) in their use of ECCs than writers of commentaries or personal narratives.

Another reason why two-part sequences at LP are used significantly more frequently in commentaries and student stories than in news reports may have to do with how – i.e. by means of which linguistic material – DUs are related to each other. Both left-peripheral ECCs and left-peripheral adjuncts may serve to establish an explicit link between a preceding DU and the DU introduced by the peripheral element(s). While left-peripheral ECCs may signal a wide range of semantic relations between DUs (see, e.g., Taboada 2009), left-peripheral adjuncts may signal a specific thematic development of the underlying discourse or a contrastive relation between DUs (see, e.g., Doherty 2001, 2003; Hasselgård 2010). In other words, left-peripheral linguistic material is used to import various types of contextual information (with varying degrees of specificity) into the discourse, thus indexing particular contextual frames within which the DUs underlying the discourse are interpreted (see, e.g., Fetzer 2012; Goffman 1986). Both left-peripheral ECCs and left-peripheral adjuncts can thus be regarded as framing devices serving to facilitate discourse processing and to ensure speaker-intended interpretation.

The question of how much contextual information needs to be imported into the discourse in order to ensure felicitous communication (Grice 1975) is heavily dependent on the underlying discourse genre and its communicative purposes (see, e.g., Fetzer 2007). The three genres investigated in the present study vary considerably in terms of their communicative purposes as well as their contextual constraints and requirements, which is argued to be reflected in varying amounts of contextual information imported into the discourse by means of left-peripheral linguistic material.

News reports – as an example of informative discourse – typically report on one recent event, aiming to inform the reader about this event by presenting the most important facts (about what happened, who was involved etc.). These facts can be said to speak for themselves, i.e. in order for them to be understood by the reader, the facts presented in the individual DUs of a news report do not necessarily need to be provided with (left-peripheral) contextual information indexing a particular contextual frame and signalling the relations holding between DUs (see also Biber et al. 1999: 765–767). In other words, writers of news reports seem to focus mainly on conveying propositional information in individual DUs (rather than on making the relations between DUs explicit), hence the significantly lower frequency of left-peripheral (sequences of) linguistic elements within this genre. This is illustrated in (16) below, which shows the beginning of a news report. Instead of indexing a contextual frame or importing large amounts of contextual information into the discourse, the writer of the news report mainly focuses on the question of *who* does/ did or says/said *what*. The only piece of contextual information in (16) is provided by the temporal adjunct *this week*, which is, however, not placed in left-peripheral position but is interpolated within the core of the second DU. Placing temporal adjuncts in medial (i.e. non-peripheral) position is a common strategy in news

reports, which do not necessarily require to present temporal information referring to the events they report on but – if they do – often place it in medial position (see Hasselgård 2010: 103–104).¹⁴

- (16) *Farmers in England say they are increasingly optimistic that the government may yet row back on its plans to cut funding for nature-friendly farming initiatives. The farming minister, Mark Spencer, this week met the RSPB and the chair of the Nature Friendly Farming Network (NFFN), both organisations that had been critical of plans to remove subsidies for creating wildlife habitats.*

(News report [Horton], *The Guardian*, 19/10/2022)

Argumentative discourse (represented by the commentaries in this study) has the communicative purpose of negotiating the validity of a standpoint at issue. The writers of newspaper commentaries typically discuss a controversial issue (usually revolving around a recent event of widespread interest) and aim to persuade readers to adapt their standpoint by presenting arguments and counterarguments and weighing them against each other (see Biber 1988: 148–150). Compared with news reporters, writers of commentaries can thus be expected to make their discursive intention more explicit by indexing particular contextual frames within which the relations between the DUs are to be interpreted. This is achieved through the frequent use of left-peripheral (sequences of) linguistic elements, which serve to guide readers through the discourse and to ensure writer-intended interpretation. An example from the present data is provided in (17), where the left-peripheral sequence [*for now*] [*though*] is used to signal a contrast between what “may come to haunt Sunak’s leadership” in the future with what “is the issue” at the moment.

- (17) *It is not the only potential abuse that may come to haunt Sunak’s leadership – the Boris Johnson privileges inquiry is next month [and] there are questions about the return to government of Gavin Williamson, who was sacked by Theresa May for leaking classified documents. [For now], [though], Braverman is the issue that could rattle Sunak’s carefully balanced cabinet soonest and most dangerously.*

(Commentary [Kettle], *The Guardian*, 26/10/2022)

Finally, narrative discourse (represented by the student stories in this study) is characterized by typically presenting not just one event (as do news reports) but a series of past events which are usually (but not necessarily) displayed in chronological order. The storyline of a narrative may be subject to various specifications regarding

¹⁴ Another common feature of news reports (which distinguishes this genre from commentaries and personal narratives) is the frequent use of indirect and direct reported speech, as illustrated in (2), (16) and (20).

characters, setting and plot. In order to make sufficiently clear how their story unfolds and how the events described are related to each other, writers of narratives are expected to provide an appropriate amount of contextual information through the use of (left-peripheral) circumstantial (and textual) elements, thus making explicit the relations holding between DUs. This is illustrated in (18), where the adjunct *after graduating* at LP of the first DU and the two-part sequence *and then* at LP of the second DU index a contextual frame within which the events described are to be interpreted, that is, as temporally sequential (for a similar example, see [15] above).

- (18) **[After graduating] I moved to London [to study for a Master's, in order to broaden my knowledge and learning], [and] [then] took a real punt [and] moved to Hong Kong.**
(Student story [A.C.], University of Portsmouth)

6.2 Discourse-genre-specific preferences at RP

Compared with the discourse-genre-specific preferences in the use of linguistic elements at LP, the RP of the DUs investigated in this study presents an opposite picture, with right-peripheral elements in general – and right-peripheral two-part sequences in particular – being used significantly more frequently in news reports than in commentaries and student stories. While previous research has suggested various DU-internal reasons for placing linguistic elements in clause-final/right-peripheral position (e.g. the principle of end-weight; see Hasselgård 2010: 62), this section elaborates on two discourse- and information-structure-related factors which may account for the discourse-genre-specific preferences in the use of right-peripheral two-part sequences identified in the present study.

As has been argued in Section 6.1, one of the main purposes of news reports is to present in a concise manner the most important (or ‘newsworthy’) information about a particular event. In order to make it as easy as possible for the reader to process this information, writers of news reports may be assumed to abide by the common information-structural pattern of given information being presented first and followed by new information (see, e.g., Quirk et al. 1985: 1360–1361). It may therefore be argued that the most important (or ‘newsworthy’) information in news reports is placed towards the end of DUs and may thus be included either in a postverbal constituent within the core (e.g. in direct objects representing reported speech with new information about what a particular person has said) or in elements at RP. This tendency in news reports for placing new information towards the right edge of a DU may account for the relatively high frequency of (sequences of) elements at RP (see Table 3), where new information is usually provided by means of adjuncts

describing particular circumstances of the event presented in the respective news report. In commentaries and student stories, by contrast, the information-structural pattern of given information being followed by new information does not seem to be applied as rigidly as in news reports. This is reflected in the fact that the writers of the commentaries and student stories underlying this study make frequent use of ‘marked’ configurations – including the placement of adverbial clauses in left-peripheral position (see Section 5) – in order to accomplish their communicative purposes (see SFG’s marked Theme [Section 3]). More specifically, in order to achieve their goals of persuading the reader of their viewpoints (in commentaries) as well as highlighting particular aspects of – and guiding the reader through – a story (in student stories), the writers of these two genres can be argued to attract the reader’s attention through the use of (sequences of) elements at LP. These left-peripheral sequences often contain new (or even unexpected) information (see also Gundel’s [1988] *first things first principle*) and are thus argued to be more common in commentaries and student stories than in news reports, where readers are assumed to expect information to be ordered along the lines of the *given-before-new principle*.

Taking into account the strategy of balanced information distribution (see Section 3), the relatively frequent use of two-part sequences at RP (in particular combinations of two adjuncts) may seem surprising. In the commentaries and student stories from the present corpus, sequences of adjuncts at RP are frequently found in examples where LP has already been occupied by at least one element, in which case a sequence of elements at either LP or RP cannot be avoided.¹⁵ This is illustrated in (19), where the three peripheral elements in each of the respective DUs are distributed across LP and RP as evenly as possible, with one peripheral element (i.e. the ECCs *likewise* and *that said*, respectively) being placed at LP, and a sequence of two adjuncts being placed at RP.

- (19) *Party conferences are the best and worst juries of political leadership. Bets on Thatcher as prime minister at her chaotic 1981 Blackpool conference – with cabinet members openly deriding her at fringe meetings – were overwhelmingly that she would not survive to Christmas. She was declared “the most unpopular prime minister since the second world war”. [Yet] she survived. [Likewise], Neil Kinnock was universally regarded as a Downing Street shoo-in by Labour [at Brighton] [in 1991]. It was not to be. [That said], Truss left Birmingham [this week] [with a mountain to climb and no evidence of a map, let alone boots or a rope].*
(Commentary [Jenkins], *The Guardian*, 06/10/2022)

¹⁵ There may be cases in which sequences of peripheral elements have been avoided by interpolating one of the peripheral elements in the core clause. Such cases have, however, not been taken into account in the present study.

In contrast to commentaries and student stories, the news reports from the present corpus contain several instances in which sequences of two adjuncts occur at RP even though LP has been left empty (as in [9] and [10] above). Thus, in these cases, the strategy of balanced information distribution can be said to have been ignored as the clustering of elements at RP has not been avoided. The fact that two-part sequences at RP are used even in cases where LP has been left empty (which tends to be more frequently the case in news reports) may be accounted for by what Givón (1995) has termed “cataphoric grounding”. According to this principle, a cohesive relation of coreferentiality is created between a linguistic element occurring at RP of one DU (representing new information) and another element in the following DU, which is realized as unmarked topical Theme (representing given information). This pattern is illustrated in (20) and (21).

- (20) *Kwarteng told the Commons that “no decisions have been made” [and] stressed it was a “natural, usual statutory process that’s being taken”, [adding: “We will have more detail at the time of the medium-term fiscal plan.”] The plan was hastily brought forward [from 23 November to 31 October] [amid huge pressure from Tory MPs, who said the government had to act more swiftly to avoid more market turmoil]. A growing number of them went public [with their calls for benefits to rise with inflation, including the former chancellor Sajid Javid]. (News report [Allegretti], *The Guardian*, 11/10/2022)*
- (21) *The National Cyber Security Centre, an arm of the GCHQ spy agency, contacted the Conservative party over its leadership voting preparations [on Thursday], [having also intervened before the previous leader ballot]. That August intervention resulted in the party enhancing security around the voting process, [but] it is understood that NCSC has not advised changes to the voting system this time.* (News report [Milmo], *The Guardian*, 19/10/2022)

Example (20) provides two instances of the pattern described above. The *medium-term fiscal plan* mentioned in the direct quote as part of the adverbial participle clause at RP is taken up as the unmarked topical Theme (i.e. the subject *the plan*) in the following DU. In this DU, the *Tory MPs* mentioned in the second adjunct of the right-peripheral two-part sequence are taken up as unmarked topical Theme in the following DU through the meronymically specified noun phrase *a growing number of them*. In (21), the same pattern can be observed for the adverbial clause *having also intervened before the previous leader ballot*, which occurs at RP of the first DU (as the second element of a two-part sequence) and is taken up as the unmarked topical in

the following DU (in the form of the noun phrase *that August intervention*). Both (20) and (21) provide further support for the argument made at the beginning of this section, i.e. that writers of news reports – in order to facilitate discourse processing – tend to follow the information-structural pattern of given information being presented first and followed by new information.

7 Conclusions

The main aim of this paper has been to provide a comprehensive account of the distribution, linear ordering and discourse-pragmatic functions of left- and right-peripheral two-part sequences across written English discourse. The corpus-based study has revealed considerable variation in the distribution of two-part sequences at LP and RP between news reports, commentaries and student stories, with left-peripheral sequences occurring more frequently in commentaries and student stories, and right-peripheral sequences being more frequent in news reports. These discourse-genre-specific preferences have been accounted for in terms of (i) discourse- and information-structure-related factors, and (ii) the specific communicative purposes of each genre.

As for the various formal and functional categories and their linear ordering within peripheral sequences, the analysis has shown largely similar preferences across discourse genres, with LP being most frequently filled with sequences of an ECC and an adjunct, and RP typically containing two adjacent adjuncts. In sequences consisting of an ECC and an adjunct, the ECC is most frequently placed at the outermost edge of either LP or RP, whereas adjuncts are usually placed closer to the core of the respective DU, resulting in the combination of ECC followed by an adjunct as the typical order at LP, and the combination of adjunct followed by an ECC as the typical order at RP.¹⁶ This particular ordering iconically reflects – and lends support to – the prototype-anchored conceptualization of the internal structure of DUs argued for in this paper: ECCs, on the one hand, are prototypically placed furthest away from the core of a DU (i.e. at the outermost edge of LP/RP) because (i) they tend to be prosodically independent, syntactically optional, semantically non-restrictive and non-truth-conditional, and (ii) they fulfil functions at the level of discourse (e.g. signalling relations with preceding or following DUs). Sentence adjuncts, on the other hand, have been shown to have a borderline status between the core and the peripheries of DUs because they are characterized by features applying both to core

¹⁶ More specifically, of all 135 left-peripheral sequences containing an ECC and an adjunct, 124 (i.e. 91.9 %) have the order ECC + Adjunct, while of all 11 right-peripheral sequences containing an ECC and an adjunct, 9 (i.e. 81.8 %) have the order Adjunct + ECC (see Table 5).

constituents and to peripheral elements (see Section 2), which is why they can be argued to be prototypically placed closer to the core, thus following ECCs at LP and preceding ECCs at RP. In other words, the more a linguistic element is considered to be a prototypical member of LP/RP (because the [majority of the] characteristic features of peripheral elements apply), the more typically it is placed towards the outermost edge of LP/RP and thus further away from the core of the respective DU, whereas the less a linguistic element is considered to be a prototypical member of LP/RP (because only few of the characteristic features of peripheral elements apply), the more typically it is placed closer to the core.

While this prototype-anchored conceptualization of the sequential ordering of elements at LP and RP applies to the vast majority of cases in the data underlying the present study, a brief note is required at this point on those cases in which the order of ECC and adjunct is reversed – i.e. Adjunct + ECC at LP and ECC + Adjunct at RP. The atypical combination of an adjunct followed by an ECC at LP – i.e. an extended multiple Theme in SFG terms (see Section 3) – can be accounted for by the writer's intention to single out and put particular emphasis on the leftmost element at LP (i.e. the adjunct). This leftward-pointing function is illustrated in (17) above, where the ECC *though* does not only signal a concessive relation with the preceding DU but also puts particular emphasis on the immediately preceding temporal adjunct *for now* (for a similar discussion of the functions of the ECC *however*, see, e.g., Klumm [2021]). Particular discourse- and information-structure-related factors also play a role for the interpolation of ECCs and sentence adjuncts in the core clause of a DU, though such cases have not been considered further in the present study. As for the ordering of ECCs and adjuncts at RP, there are only two instances in the present data in which the ECC precedes the adjunct. In each of these two cases, the adjunct consists of considerably more words than the ECC, thus abiding by the principle of end-weight. In sum, it is both particular discourse-/information-structure-related factors (at LP) and syntactic factors (at RP) which can be said to account for those cases in which ECCs and adjuncts are not sequentially ordered in the prototypical way described above.

Given that this paper has focused on the internal structure of the left and right peripheries of independent clauses, further research is called for in order to investigate in greater detail the internal structure (in terms of core vs. periphery) of dependent clauses, i.e. those clauses functioning as constituents of either core or periphery within the superordinate DU. As has been shown in previous research (see Hasselgård 2010: 44–45), there are particular restrictions in terms of how dependent clauses are internally structured and how LP and RP can be conceptualized, depending, for instance, on the type of dependent clause (e.g. finite vs. non-finite). It is thus important to take these restrictions into consideration in order to account for the functions that peripheral elements within dependent clauses fulfil on the level of

discourse. Such an analysis will contribute to an even more comprehensive picture of the internal structure of DUs in general – and the internal structure of LP and RP in particular – in written English discourse.

Data availability: The data used for Tables 3, 4 and 5 are available at https://osf.io/c5fdz/?view_only=e6d9e0de280f44088f6f1bb957548632.

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