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Discourse Topic vs. Sentence Topic Exploiting the Right Periphery of German Verb-Second Sentences

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Abstract

Exploring the interface between discourse structure and syntax, the present study addresses the relationship between discourse topicality and marked word order in German V2-sentences. It takes as its point of departure two manifestations of a highly marked syntactic structure at the right periphery of the German sentence: the 'extraposition' (also called 'unbracketing', *Ausklammerung* in German grammars) and the 'right-dislocation' (*Rechtsversetzung*). In both cases, verbless constituents like PPs and NPs appear beyond the right frontier of the sentence (created by a closure-marking final element), in the 'extended postfield' (*Nachfeld*).

On the basis of a corpus collected from German contemporary newspapers (*Frankfurter Allgemeine Zeitung*) and *Süddeutsche Zeitung*), we will show that these two right-peripheral syntactic strategies 'extraposition' and 'right-dislocation' can have the same discourse function, despite different syntactic and prosodic/typographic features. They indicate that the referent of the right-peripheral constituent (NP or PP) is salient and highly relevant for the whole discourse. It functions as the 'discourse topic referent', i.e. the discourse referent that is most stably activated in the mental representation of each discourse segment. We claim that both investigated strategies are relevant 'forward-looking' devices (often in a combination with 'backward-looking' strategies), guaranteeing referential coherence in discourse by imposing certain constraints on the subsequent and / or previous discourse segment(s).

1. Introduction

In our study we will discuss the notion of *discourse topic* at the interface of discourse and syntax, demonstrating its relevance for creating a coherent text and investigating its relation to certain language specific syntactic and prosodic means in German. The notion of discourse topic is, however, an elusive concept in text linguistics and in information structural research. The difficulties in its definition arise both from the discourse perspective and from the interface perspective, since it is very hard to identify its functional load and to find systematic patterns for the formal realization of this notion. We will, however, argue that the right-peripheral position outside the verbal bracket of the German sentence – the so-called 'postfield' (*Nachfeld*) – can play a prominent role in marking discourse topicality and contribute to strengthening of coherence relations in texts.

The structures under investigation can be considered as the two most important right peripheral syntactic phenomena of the German sentence, 'unbracketing' (*Ausklammerung*)

and 'right-dislocation' (*Rechtsversetzung*). Unbracketed and right-dislocated constituents are placed in different parts of the postfield in the German sentence as a result of different syntactic operations: movement or base-generation. Movement is assumed to be relevant only for unbracketing where similarly to 'extraposition' (possible in other languages like English) a constituent is pushed to the right edge of the sentence leaving behind a trace. In contrast, right-dislocated constituents are base-generated sentence-externally and are connected to a pronominal copy in the middle field or in the prefield of the sentence.

Sentential constituents like subordinated sentences with object function are often 'extraposed',¹ and the placement on the right periphery is also the preferred alternative for relative clauses. According to a generally accepted claim, no special discourse effects arise in these cases of preferred or "grammaticalized" postfield placement. In contrast, unbracketed or right-dislocated NPs and PPs in the postfield or in the so-called 'extended postfield'² are regarded as marked structures with special discourse functions (see the discussion below in section 3).

In our study we will focus on the two above mentioned types of postfield-structures – unbracketing and right-dislocation of non-sentential constituents in German contemporary newspapers – illustrated below in examples (1) and (2).³ By analysing attested instances of these right-peripheral structures we will reconsider their functional load from the 'global', textual perspective, paying special attention to their impact on the development of the discourse. In example (1) the unbracketed PP *mit Christian Wulff* on the right periphery displays a high degree of integration into the rest of the sentence, both on the syntactic and on the prosodic level, here supported by the lack of use of the punctuation mark comma.⁴ (Postfield constituents are marked in boldface.)

(1) Man kann Mitleid haben **mit Christian Wulff.** one can compassion have with Christian Wulff 'One can have compassion with Christian Wulff.'

¹ Unbracketing is typical for subordinated sentences (see Inaba 2007, *Duden 4. Die Grammatik* 2016: 897-898 § 1386). The occurrence of sentential constituents in the middle field is highly marked and in case of finite sentential constituents without correlates often ungrammatical (see for example Zifonun, Hoffmann & Strecker 1997: 1651).

² See Zifonun's (2015) proposal for the differentiation of the postfield and for the introduction of the notion "extended postfield" in section 3 below.

³ Unbracketed constituents in the postfield are generally prepositional phrases. However, the investigation of their discourse function in this study concentrates on the referential and discourse properties of the NP within the PP.

⁴ Cf. for example Lambert (1976), Altmann (1981: 46), Hoberg (1981: 188), Zahn (1991), Filpus (1994), Zifonun, Hoffmann & Strecker (1997: 1649-1650), *Duden 4. Die Grammatik* (2016: 897 § 1386).

(sueddeutsche.de, 05.01.2012)⁵

In example (2) the right-dislocated NP *der Kanzlerkandidat der SPD* can be regarded as an 'apposition equivalent' in the sense of Zifonun (2015: 40), since it is both coreferent and case congruent with the pronoun *er* (*he*) in the middle field (also in boldface).⁶

(2) Was hat **er** eigentlich gesagt, **der Kanzlerkandidat der SPD?** what has he really said the chancellor candidate GEN SPD 'What did he really say, the chancellor candidate of SPD?' (faz.net, 30.12.2012)⁷

The right-dislocated NP is generally separated from the host sentence prosodically, indicated by a (micro-)pause in front of the right-dislocated NP in oral language and a comma in written language. As argued by Averintseva-Klisch (2007, 2009), this structure has generally two basic types; it can be used for the clarification of referential identity (as *Rechtsversetzungs-Nachtrag*), or for discourse topic marking (as *Rechtsversetzung* in the strict sense). Since the referent of the NPs is already introduced in the first sentence of the text in the above-mentioned case, the function of right-dislocation cannot simply be the disambiguation of pronominal reference; rather, in example (2), the marking of the discourse topic seems relevant.

Our claim is that particularly short non-sentential constituents in the postfield of the German sentence, both in case of right-dislocation and unbracketing, can have relevance for

(1 §) Man kann Mitleid haben **mit** *Christian Wulff*. <u>Er</u> ist nicht, wie es <u>seinem</u> Amtseid entspräche, damit beschäftigt, Schaden vom Volk abzuwenden, sondern Schaden von <u>sich selbst</u>. <u>Er</u> verbraucht all <u>seine</u> Kraft damit, <u>sich</u> zu erklären und <u>seine</u> Fehler zu entschuldigen.

(1 §) Was hat er eigentlich gesagt, der Kanzlerkandidat der SPD? (...)

⁵ Example (1) is embedded in the following text:

^{(1§) &#}x27;One can have compassion with Christian Wulff. <u>He</u> is not, as would be in keeping with <u>his</u> oath of office, occupied with averting harm from the people, but with averting harm from <u>himself</u>. <u>He</u> expends all his energy on vindicating himself, and excusing his mistakes.

⁶ This phenomenon is subsumed under the category *Thematisierungsausdruck* ('thematizing expression') in the IDS-Grammatik (Zifonun, Hoffmann & Strecker 1997: 1647).

⁷ Example (2) is embedded in the following text:

^{(2 §) &}lt;u>Peer Steinbrück</u> beklagt <u>sich</u> über die zu niedrige Vergütung des Jobs, den<u>er</u> im kommenden Herbst anstrebt, heißt es nun. (...)

^{(11 §) &}lt;u>Steinbrück</u> und das liebe Geld – der <u>Kanzlerkandidat</u> wird das Thema einfach nicht los. (...) Das ist umso prekärer, als <u>er</u> es im Wahlkampf mit einer Kanzlerin zu tun bekommt, die <u>ihm</u> auch in dieser Hinsicht keine Angriffsfläche bietet.

^{(1 §) &#}x27;What did he really say, the chancellor candidate of the SPD? (...)

^{(2 §) &}lt;u>Peer Steinbrück</u> complains about the low salary of the job that <u>he</u> is aiming for next autumn, it is now said (...)

^{(11 §) &}lt;u>Steinbrück</u> and the dear money – <u>the chancellor candidate</u> simply cannot get away from this topic. This is all the more awkward as in the election campaign <u>he will have to deal with a chancellor</u> who presents him with no weak spot in this respect either.

⁸ "Afterthought" is also mentioned as a possible function of right-dislocation by Averintseva-Klisch (2007) and Truckenbrodt (2016).

the whole text or for larger sections of it. In our paper, we would like to concentrate on the common functional features of these two marked right-peripheral structures, despite certain above-mentioned syntactic and prosodic differences. From the 'local' perspective they are both related to the host sentence, and are relevant for marking prominence in it (see also sections 6 and 7 below). The right-peripheral constituent can either carry the nuclear focus of the sentence or mark a postnuclear secondary focus in both structures. They are also very similar with respect to their discourse function since they can both indicate discourse topicality. From the 'local' perspective they are

The specific discourse function of non-sentential postfield constituents is, however, dependent on the location of the sentence (containing the postfield constituent) in relation to other sentences in the text. As our empirical analysis will show, in a sentence at the beginning of a text, noun phrases or prepositional phrases in the postfield announce the discourse topic and serve as *forward-looking devices*, imposing constraints on the continuation of the subsequent segments. In contrast, in a sentence concluding a text, noun phrases or prepositional phrases in the postfield are *backward-looking devices*, marking the return to the discourse topic of the previous segments and providing it with special prominence.

According to our claim, the two investigated cases of right-peripheral structures 'unbracketing' and 'right-dislocation' seem to be extremely conclusive for the *information packaging* in text, since they demonstrate a strong correlation between the right-edge position and the highest possible degree of *salience* of the discourse referents. Our hypothesis is that the postfield placement of NPs and PPs in German written texts should be regarded as a contextually adequate, coherence-strenghtening and salience-maximizing linearization strategy for indicating the maximal degree of salience achievable in the given discourse. Our hypothesis is anchored in the *Mental Salience Framework* (MSF) of Chiarcos (2003, 2005, 2010, 2011), providing an appropriate textlinguistically based model for the explanation of the functional relevance of the right-peripheral placement in the German sentence. Especially the notion of 'speaker salience' elaborated in Chiarcos' model and the development of salience metrics for the prediction of contextually adequate realization preferences within the NLG (Natural Language Generation) systems seem to be crucial for

⁹ In this article we will focus on the *common discourse function* of unbracketing and right-dislocation since this aspect has not been investigated in research yet.

¹⁰ It is important to point out that the assumed function of postfield constituents as discourse topic markers is only one of several possible functions (see for an overview section 3.2. below). However, other discourse functions are not taken into consideration in this study.

the functional analysis of unbracketed PPs and right-dislocated NPs in German (see below section 5). As empirical base of the present study we use articles from prominent German contemporary newspapers *Frankfurter Allgemeine Zeitung* and *Süddeutsche Zeitung*.

The paper is structured as follows: After the introductory section, section 2 argues for the distinction between 'discourse topic' and 'sentence topic', and analyses the relation between these two concepts which require operationalization on different levels at the syntax-discourse interface. Section 3 discusses the relevance of sentential edge positions for the expression of different types of topichood and focuses on the functional load of the leftand right-periphery of German sentences. In section 4, the 'global' and 'local' constraints of information structuring will be discussed with reference to key notions like 'coherence', 'referential movement' and 'salience', suggested in influential approaches of linguistic research. Section 5 presents the theoretical framework for the investigation of discourse topicality at the interface of discourse and syntax where special attention will be payed to Chiarcos's Mental Salience Framework, emphasizing the relevance of different types of salience for information packaging. The following two sections (6 and 7) contain our qualitative analysis of selected examples with unbracketed and right-dislocated nonsentential constituents in different textual positions, at the beginning of a text (section 6) and at the end of the text (section 7). In our analysis of the functional properties of postfield placement, we include information packaging both within the sentence and within the whole discourse. The final section of our article (section 8) contains the conclusions of our study and a short discussion of its possible theoretical and methodological extensions in future research.

2. Discourse Topic vs. Sentence Topic at the Discourse-Syntax Interface

The central pragmatic concept of this article is the notion of *topichood*. Topics are generally claimed to contribute to the organization of information in discourse in a decisive manner and function as "sort keys" to file and access information (Kuno 1972). Topichood has been investigated during the last six decades both from the micro-perspective, i.e. perspective of the sentence, and from the macro-perspective of the text. However, there is no doubt that the notion of topichood on the sentence level has recieved considerably more attention in research than topichood on the discourse level, also called "discourse topic" (Reinhart 1982, Brown and Yule 1983), "quaestio", the notion of "what a text, a narrative is

about" (Klein & Stutterheim 1991, 2002), or the *issue* or *question under discussion (QUD)* (Roberts 1996a/b).

We claim that the analysis of information structure requires the investigation of both local and global constraints on the structure of sentences and discourse. We will argue that discourse topics should be distinguished from sentence topics and that these two types of topichood are relatively independent notions, operating on different levels of discourse.

2.1. Sentence Topics

The notion of "sentence topic" is regarded as one of the core notions of information structure, which contributes to the binary division of sentences together with its complementary notion called "comment" or "focus". The most influential definition of sentence topics is suggested on the basis of the *aboutness*-relation typical for predicative constructions. According to Hockett (1958/21963: 201), "[t]he most general characteristic of predicative constructions is suggested by the terms « topic » and « comment » for their ICs [intermediate constituents]: the speaker announces a topic and then says something about it. Thus *John* | *ran away*; *That new book by Thomas Guernsey* | *I haven't read yet*. In English and the familiar languages of Europe, topics are usually also subjects, and comments are predicates: so in *John* | *ran away*." The definition of topics based on aboutness is advocated in several important functionally anchored works on information structure (Reinhart 1982, Gundel 1988, Lambrecht 1994, Molnár 1998, Jacobs 2002, Bianchi and Frascarelli 2010).

The view of topichood based on "what the sentence is about" is, however, rejected by Chafe (1976: 51), who defines "real" topics (present in topic prominent languages) as setting "a spatial, temporal, or individual framework within which the main predication holds". Frame-setting for topichood is also considered as relevant in other works (Jacobs 1984, 2002, Molnár 2006, and Krifka 2007 suggesting for these cases the notion "delimitation"), even if in these approaches the topic definition is not restricted to this dimension.

There are also widely diverging views in research on the relevance of the discourse-semantic feature *givenness* for topichood. Whereas stronger or weaker versions of context-dependence (*givenness* and/or *familiarity*) are regarded as obligatory topic correlates in many approaches (cf. Gundel 1974, Lambrecht 1994, *Centering Theory*), the possiblity of context-independence is argued for in Reinhart (1982), Frey (2004), Krifka (2007), and Büring (2016). Krifka (2007: 39-40) claims that "[...] in many cases, topic constituents are

"old" in the sense of being inferable from the context. But there are certainly cases of new topics". He illustrates this with the following appropriate discourse-initial sentence:

(3) [A good friend of mine]_{Topic} [married Britney Spears last year]_{Comment}

Concerning the formal indicators of sentence topics morphological means as the particle -wa in Japanese and the specific intonational pattern fall-rise (Molnár 1998, 2002, 2006, Büring 2016) received much attention in research. In most approaches, though, specific syntactic positions (the sentence-initial or early placement) and different topic structures (hanging topic, left dislocation) are regarded as the most important topic marking devices (see the discussion below in section 3).

2.2. Discourse Topics

Not only the notion of sentence topic is controversial, but also the definition of discourse topicality seems to be a challenge for the theory on information structure. As discussed by Stede (2004: 242), there are several approaches to the notion of 'discourse topic' which "are not entirely unrelated but nonetheless quite distinct:

- 1. DT1: An entity (a discourse referent) talked about in the discourse, which plays a particular prominent role the discourse can be said to be 'about' this entity.
- 2. DT2: an over-arching 'theme' that might not be explicitly mentioned in the discourse but has ramifications for certain aspects of its structure.
- 3. DT3: An 'ideal question' that readers can construct for each sentence in the discourse, and that is answered by a sentence.
- 4. DT4: A proposition that readers have to actively construct when processing a sentence or a sequence thereof, and that has specific consequences for subsequent processing."

(Stede 2004: 242)

The definition proposed in Stede (2004) under *Discourse topic (DT1)* corresponds best to the approach advocated in our analysis. We understand *discourse topic* here as the discourse referent that is most stably activated in the mental representation of each discourse segment; as such, DT is the default goal of coherence relations. This can be illustrated by examples (1) and (2) mentioned in the introductory part of this article where unbracketing und right-dislocation serve as important structural devices of marking the referent of a right-peripheral NP or PP as the discourse topic. In these examples the referents – *Christian Wulff*

in (1) and *Peer Steinbrück* in (2) – are placed at the right periphery in the first sentence of each text. This placement of the NP and the PP is highly marked in written German, which makes it possible to draw special attention to these referents. The special highlighting (as *narrow focus* and/or part of the focus) at the right periphery on the sentence level can also anticipate special relevance of these referents for the whole text. The expectation can be fulfilled later in discourse; the *forward-looking center* can thus be guaranteed both on the sentence level and on the textual level identifying the discourse topic of text, i.e. the most persistent element in the following segment(s) (see footnotes 5 and 7 above). As will be demonstrated later in section 7, persistency of an entity and discourse relevance can also be combined with postfield placement of a constituent in the concluding part of a text.

2.3. The Relation between Discourse topic and Sentence topic

As the information structural analysis of the right-peripheral non-sentential constituents *Christian Wulff* and *Peer Steinbrück* in examples (1) and (2) indicate, the relation between sentence topic and discourse topic is not a straightforward matter. Importantly, discourse topicality is not dependent on the sentence topic status of a constituent. We will elaborate this issue by analysing the short dialogues in (4)-(6) below. The discourse topic *Bob Dylan's new album* is specified in the questions in all three cases, and is taken up in the answers by *it* in (4-A₁) and (5-A₂) and by one of the discs *Til The Sun Goes Down* in (6-A₃) (underlined in the sentences). The discourse topic does, however, only correspond to the sentence topic in (4-A₁) where it stands in the sentence initial position. In (5-A₂) it is embedded in the comment part as a given element, and in (6-A₃) it belongs to the focus of the sentence. Cf.:

(4) Q: What about **Bob Dylan's new album**?

A₁: It includes three discs with 30 songs by American songwriters.

(5) Q: What about **Bob Dylan's new album**?

A₂: I haven't heard about it.

(6) Q: What about **Bob Dylan's new album**?

A₃: I like one of the discs *Til The Sun Goes Down* very much.

This shows that the "what about x?" test is only adequate to specify topichood of a constituent x on the discourse level since the sentence internal structure into topic and comment is based on different criteria. For sentence topics the appropriate marking of topichood within the sentence (aboutness or frame setting for the predication) is essential,

motivating not only the preference for discourse-semantic features like givenness, familiarity (and also referentiality, specificity) of the entity but requiring also early mentioning for processing. In contrast, discourse topics are operating beyond the sentence level; consequently, discourse topicality requires the consideration of more complex discourse properties. It is mainly based on the relevance of a referent for the whole text, indicated by its persistency, i.e. its occurence in a large number of segments of the text.

It is important to emphasize that this prominent discourse role does not necessarily need the use of special syntactic or prosodic means or specific information structural roles within the sentence. As we have seen above, discourse topicality can be combined with topichood marking on the sentence level (primarily by sentence-initial or early placement), but the constituent referering to the discourse topic can also be integrated in the later comment-part of the sentence. However, as claimed in connection with the analysis of examples (1) and (2) strategically relevant segments of the text (especially in initial and final textual positions) provide optimal conditions for indicating their discourse relevance prospectively or regressively. The choice of specific syntactic positions and marked structures at the right periphery of the sentence, connected to implicit prosodic patterns in written texts (construction of default prosodic structures and covert assignment of focal accents during silent reading) can signal unambiguously the relevance of the referent (denoted by an NP or PP) for the whole discourse or at least for larger segments of the text.

We also assume that the degree of relevance and prominence of a constituent both on the sentence and on the discourse level correlates with the degree of markedness of the mapping between syntactic function, degree of determination and position (see also Chiarcos' proposal below in section 5). The expression of the prominent discourse role of a referent can be supported by its information structural status in the sentence which in case of NPs and PPs placed to right of the verbal bracket often means nuclear focus or secondary focus.

3. The Relevance of Edge Positions for the Expression of Topichood

The claim is often made in linguistic research that edge positions have a special status in information structuring: Besides their contribution to the division of the sentence into foregrounded and backgrounded material they play a key role in integrating the information of a sentence into a greater discourse context. In the discussion of textual coherence, special attention was payed to the left periphery of the sentence, often by reference to the

universality of the so-called "TOPIC before FOCUS"-constraint (or some of its versions).
The cognitively and functionally based argumentation is appealing: Constituents related thematically to the preceding discourse (the so-called "topics") come first, while constituents with new ("focused") information appear later. The specific functions of the left and right periphery are, however, dependent on the typological features of languages, where especially the opposition between verb-initial (VSO, VOS) and non-verb-initial (SVO, SOV) is of high relevance (see Herring's 1990 "Word Order Type Principle"). It seems though uncontroversial that in non-verb-initial (SOV, SVO) languages the function of the left periphery is mainly related to the function of establishing coherence in discourse. The linear syntactic structure is assumed to mirror iconically the dichotomy based on the two main constraints of information structuring – constraint of coherence and constraint of informativeness, by preferring given or known elements at the left edge and adding new, informative elements later in the sentence, closer to the right periphery.

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3.1. Left Periphery vs. Right Periphery of the German V2-Sentence

As mentioned above, topichood is claimed to have a strong affinity to givenness, i.e. the discourse given or referential status of the element which makes it easier for the hearer/reader to anchor the new information in the later part of the sentence. According to Halliday (1967, 1970) the leftmost position of the sentence is reserved for the *topic* function (in his terminology *theme*), defined as "the point of departure for the clause as a message" (Halliday 1967: 212) and called "the peg on which the sentence is hung" (Halliday 1970: 161). This claim has been questioned later in research. However, even theories of information structure which do not argue for a 1:1 correlation between the sentence-initial position and topichood consider the first – or an early – position for topics as optimal for the creation of "file cards" and expression of "aboutness".

The relevance of the left periphery (or early mentioning) for sentence topics seems to be accepted also for the analysis of German. The prefield, i.e. the position in front of the finite verb creating the first part of the verbal bracket (e.g. Molnár 1993, 1998, Filippova and Strube 2007, see also Chiarcos' claims below in section 5) or the leftward positions in front of the position of sentence adverbials in the middle field (Frey 2004, 2006, 2007) are suggested to be necessary preconditions for the formal realization of topichood. Even

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¹¹ See Gundel's (1988: 229) Given Before New Principle, Tomlin's (1986: 37) Theme First Principle, and Herring's (1990: 164) Discourse Iconicity Principle.

¹² See the discussion of the edge positions and the relevant discourse-pragmatic principles in Molnár (2012).

approaches emphasizing the cataphoric function of sentence topics (i.e. the relevance of anchoring the predication in the initial part of the sentence) claim that topics have a high degree of responsibility for the connection of the sentence with previous segments of the discourse and for functioning as backward-looking centers. Grammatical features of sentence topics like the marking of discourse givenness by pronouns or definiteness of the noun phrases are often mentioned as relevant properties of topics, contributing to the formal expression of their anaphoric or backward-looking character.

In contrast, the right periphery of the German sentence can be claimed to have a different discourse function – at least on the sentential level. German is a language with a basic SOV-order and a verbal bracket (created by the finite verb and non-finite parts of the predicate), showing a strong preference for the placement of the nuclear focus of the sentence at the end of the clause (either on the last constituent of the middle field or on the closing part of the verbal bracket). The placement of the focused element in the right periphery is especially relevant in written texts, where discourse relevance and prominence can only be indicated by syntactic means in the absence of explicit prosody.

3.2. Postfield

Right peripheral placement of a constituent is also possible in the German postfield, outside of the verbal bracket. The notion of postfield (Nachfeld) was introduced in the "twofield-theory" (Zwei-Felder-Theorie' by Drach (1937/21939) identifying the position after the finite verb in declarative sentences (cf. 'Grundplan' in Drach² 1939: 17). The model of Drach has, however, been modified; since Engel (1970a/b, 1972) the proposals for the topological division of the German sentence take also the verbal bracket into consideration. The position(s) preceding the final part of the verbal bracket belong to the 'middle field' (Mittelfeld), whereas the position following the verbal bracket constitutes the 'postfield' (Nachfeld). This view is further elaborated in the IDS-Grammatik (Zifonun, Hoffmann, and Strecker 1997: 1644–1675, cf. also Wöllstein 2014: 73–76, *Duden-*Grammatik 2016: 897– 898). The right periphery outside of the verbal bracket is divided in two positions, the 'postfield' (Nachfeld) and the 'right outfield' (rechtes Außenfeld) on the basis of the criterion of 'syntactic integration'. This criterion has, however, been questioned by Zifonun (2015) who argues against a bipartite structure in the right periphery and instead suggests the notion of 'extended postfield' (erweitertes Nachfeld). She regards the extended postfield after the verbal bracket as a single field with 'reduced syntacticity' (verminderter Syntaktizität).

The discourse function and the information structural markedness of the right peripheral non-sentential constituents can, however, vary depending on a number of grammatical factors (see Eisenberg 1999: 391-392). Syntactic function (objects vs. adverbials), morphological realization (noun phrases vs. prepositional phrases, pronouns vs. adverbs) and also length have an impact on the degree of grammaticality and appropriateness of the placement at the right periphery. The right peripheral placement of case marked arguments (subjects and objects) is highly marked (Zifonun, Hoffmann, and Strecker 1997: 1660, Eroms 2000), whereas non-obligatory adverbials realised as prepositional phrases occur more frequently in the postfield and are less marked. Short pronominal arguments in the postfield are borderline cases or ungrammatical (see Eisenberg 1999, Frey 2015). The increase of constituent length by coordination or the insertion of a cataphoric element (contributing to right-dislocation) can improve the grammaticality of right peripheral placement also for case marked nominal phrases (see Zifonun, Hoffmann, and Strecker 1997: 1651, Eroms 2000: 380, Truckenbrodt 2016).

Several functional analyses of the right periphery in German emphasize its relevance for focusing of the postfield constituent (cf. Vinckel 2006a; Zifonun, Hoffmann, and Strecker 1997). The righthand placement of constituents in the final sentence position outside of the verbal bracket shows, however, a functional diversity both in written texts and in interactions. It is used for extension of information by precision, explication and addition of information as well as for exemplification and repair. Heterical strategies, stylistic figures (Vinckel 2006a, 171-178) and the *afterthough*-effect (this however in unaccented cases, Truckenbrodt 2016) and its special functions in spoken language (Auer 1991, 1996) are also discussed in research. Indicating discourse topicality can thus only be claimed as one of the discourse functions of postfield placement (also mentioned as a relevant discourse function in earlier stages of German, see Coniglio and Schlachter 2015).

This discourse function is, however, dominating in the collected newspaper texts where postfield or the 'extended postfield' contains not only a prominent constituent of the sentence but also on the discourse level. Using a marked structure at the right periphery makes the narrow focus reading of a non-sentential constituent outside the verbal bracket possible. ¹⁵ This is often related to further interpretational components: with emphatic,

¹³ See also Vinckel (2006a/b), Vinckel-Roisin (2011a/b and 2012a), Vinckel-Roisin (2015) and Molnár's (2014) report on the conference "Das 'Nachfeld' im Deutschen zwischen Syntax, Informationsstruktur und Textkonstitution: Stand der Forschung und Perspektiven".

¹⁴ See also the contributions in Vinckel-Roisin (2015).

¹⁵ In case of right dislocation, the isolated sentence external structure requires prominence (even if it does not

contrastive interpretation or with marking of textual persistence and special discourse relevance. Since this last mentioned interpretational feature is characteristic for discourse topics, we can assume that a narrow focus in the two marked syntactic structures on the right periphery is an optimal device for the expression of discourse topicality. Whereas a sentence with postfield placement in the initial segment of a text (or a text segment) can be used for announcing the discourse topic and signalling its persistence in the later segments of the text, postfield mentioning of a constituent in a sentence appearing in the final part of the text can draw attention to the persistency of its referent in earlier segments and contribute to strengthening its relevance for the whole discourse.

4. 'Global' and 'Local' Constraints of Information Structure

As mentioned above, the study of discourse topicality requires the consideration of organizing principles in language that account for the ordering of information in discourse beyond the level of sentence. Investigations of the *textual perspective* depart generally from the discourse context and are either interested in *locally* manifested connections of discourse segments or in the *global* structure of texts. Studies focusing on the local constraints of text and/or discourse have mostly addressed the question, how *preceeding* discourse segments influence word order and information structure within the sentence and which syntactic and lexical choices can guarantee textual coherence in an optimal way.

One of the most influential proposals for the organization of information in texts was developed by Daneš (1970, 1974) in the so-called "thematic progression" model, claiming that the organization of information in texts is determined by "the choice and ordering of utterance themes, their mutual concentration and hierarchy as well as their relation to the hypertheme of the superior text units (such as paragraph, chapter [...]) to the whole text, and to the situation" (Daneš 1974: 114). In this model, special attention was payed to the local strengthening of textual relations, by the investigation of the connection between the "theme" of utterances and the "theme" and the "rheme" in the immediately preceeding utterances.¹⁶

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exclude focus on sentence internal constituents at the same time). Focus on the right periphery is, however, only a (preferred) option in unbracketings where the nuclear focus can also be assigned to the right peripheral part of the verbal bracket.

¹⁶ The most important local patterns discussed by Daneš are (i) "simple linear progression" (where the *theme* of the later utterance is derived from the *rheme* of the previous utterance), and (ii) the "continuous theme" (where the *themes* of two neighboring utterances are identical).

The local and global constraints on textual coherence have also been examined on the basis of the concept of "referential movement" suggested by Klein and Stutterheim (1991) in the so-called "Quaestio model". Klein and Stutterheim (1991, 2002) argue that a coherent text is not an arbitrary set of utterances and it involves a 'referential movement' within various semantic domains (called 'referential domains'), such as persons, place, time, circumstances, modality, and others. Importantly, this model also pays attention to the text as a whole and is mostly interested in the question how the local constraints follow from the global ones. The basic idea is that a coherent text is an answer to a question "What happened (to you) at this time at this place?" and contains utterances which "in their entirety serve to express, for a given audience and to a given end, a complex set of information, a *Gesamtvorstellung*" (Klein and Stutterheim 1991: 1). Global constraints resulting from the *Gesamtvorstellung* and the *Quaestio* ("text question") "[...] can be stated as restrictions on possible referential movement and, as a consequence, of the appropriate language-specific means to express this referential movement" (Klein and Stutterheim 1991: 3).

The relevance of questions for discourse structure and coherence in discourse have also been discussed in terms of a *Question under Discussion* (QUD) developed by Ginzburg (1996) and Roberts (1996a/b). This approach claims that discourse proceeds by continually raising explicit or implicit questions, and that each sentence in discourse addresses a (often implicit) QUD either by answering it, or by bringing up another question that can help answering that QUD. If the interlocutor accepts the question, it becomes the QUD, a narrowed set of alternatives to be addressed. A QUD can thus be regarded as a partially structured set of questions which discourse participants are mutually committed to resolve at a given point in time.

The QUD-proposal is based on the intuition which also lies behind the question-answer test used already by the Prague School theorists for detecting the focus (in their terminology the "rheme") of sentences. An answer to a question is appropriate only if its focused constituent corresponds to the *wh*-phrase of the question. For example, (8-a) with a nuclear pitch accent and narrow focus on the subject (indicated by small caps) is an appropriate answer only to (7-a), whereas (8-b) only fits the question in (7-b) by assigning accent and focus to the direct object.

- (7) a. Who received the Peace Nobel Prize 2015?b. What did the Tunisian National Dialogue Quartet receive 2015?
- (8) a. [The TUNISIAN NATIONAL DIALOGUE QUARTET] F received

the Peace Nobel Prize 2015.

b. The Tunisian National Dialogue Quartet received [THE PEACE NOBEL PRIZE] F.

QUDs provide essential contextual information and explicate strategies of inquiry. The approaches based on the notions of *Quaestio* and *QUD* have also created a bridge between the global structure of discourse and the local characteristics of sentences, and make the clarification of the relation between the discourse topic (on different textual levels) and the topic-focus articulation of sentences possible.

A further relevant notion for the analysis of referential coherence and information structuring in discourse in functional, cognitive and computational approaches is the cognitively based notion of 'salience'. Linguistic salience describes (i) the accessibility of entities in a speaker's or hearer's memory and (ii) how this accessibility affects the production and interpretation of language. ¹⁷ The notion of salience, defined in psychology and neurobiology as a gradual assessment of attentional states, has, however, led to considerable confusion in linguistic theory by referring to different, incompatible aspects of attention. As Chiarcos (2010: 33) points out, it has been used "as a near-synonym of 'givenness' (Sgall et al., 1986, p.54f.), but also as a near-synonym of 'newness (for the hearer)' (Davis and Hirschberg, 1988), or 'degree of interest (of the speaker)' (Langacker, 1997, p.22)."

5. Theoretical Framework – Mental Salience Framework

In the *Mental Salience Framework* (MSF) Chiarcos (2010) developed a two-dimensional model of salience in order to resolve the terminological and theoretical problems connected with this problematic notion and to make its formalization possible in the NLG systems. He distinguishes two independent dimensions of salience in discourse associated with different roles regarding the flow of attention in discourse, 'speaker salience' and 'hearer salience': "speaker salience represents the attentional states of the speaker (that express her intentions to guide the hearer's focus of attention), and hearer salience represents the speaker's approximation of the attentional states of the hearer' (Chiarcos 2010: 34). Chiarcos also claims that from the perspective of an NLG system, especially the 'attentional states' of the speaker are decisive for discourse planning. This

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¹⁷ Theories of linguistic salience had to explain how the salience of entities affects the form of referring expressions (cf. the *Givenness Hierarchy* in Chafe 1976, Givón 1992, Gundel et al., 1993), or how it affects the local coherence of discourse (cf. *Centering Theory* in Grosz, Joshi & Weinstein 1995).

does not mean that the hearer-related perspective can be neglected: "[...] a cooperative speaker takes the perspective of the addressee into consideration, i.e., she acts according to her assumptions about the attentional states of the hearer (Prince 1981). Generating text that is both coherent (for the hearer) and goal-directed (for the speaker) requires both perspectives" (Chiarcos 2010: 34).

In his model, Chiarcos elaborates earlier salience-related approaches where Givón's (1983, 2001) two-dimensional analysis of 'topicality' and the distinction between different attention centers proposed in the framework of *Centering Theory* play a prominent role. Hearer salience and speaker salience show namely similarity to Givón's notions of 'anaphoric topicality' of a referent (measured by the distance from its last mention) and 'cataphoric topicality' (measured by its persistence (frequency) within the subsequent utterances). The distinction between the attentional states of hearer and speaker is also closely related to the proposal of *Centering Theory*: "[...] assumed attentional states of the hearer can indeed be characterized as being primarily backward-looking (the preceding discourse allows to approximate the attentional states of the hearer), whereas attentional states of the speaker involve a forward-looking aspect (subsequent discourse can unveil the speaker's earlier intentions to elaborate on a particular issue)" (Chiarcos 2010: 34).¹⁸

Another basic feature of mental salience is according to Chiarcos its dynamic character. This leads to the possibility and necessity of its ranking dependently of the development of discourse, cf. Chiarcos (2010: 120):

Mental salience is a dynamic property of representations within a mental model; mental salience characterizes the attentional state of a given mental representation relative to the attentional states of other mental representations within this mental model. Thereby, mental salience induces a ranking (partial or total order) over the representations in the mental model [...].

Ranking of speaker and hearer salience affects information packaging and is essential for the use of appropriate formal means in discourse. The calculation of salience degree decides about the choice of referential expressions, assignment of grammatical roles¹⁹ and word order options. Speaker salient (forward-looking) referents are prototypically realized with oblique nouns, accompanied by the indefinite articles, placed in later positions (as the underlined consituent in (9)). In contrast, constituents with low speaker salience (and high

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¹⁸ See especially the discussion of two centering theories in Chiarcos (2010: 77–95): the *Centering Theory* of Grosz, Joshi & Weinstein (1995) and the *Functional Centering Theory* of Strube & Hahn (1999). See also the discussion of the forward-looking centers in German sentences in Vinckel-Roisin (2012b).

¹⁹ Chiarcos (2010: 33) uses the term 'grammatical roles' for syntactic functions.

hearer salience) are often subjects, indicated by a definite article in (10) or a pronoun in (11). They often stand initially or in early sentence internal positions (as the italicized constituents in examples (10 and (11)):

- (9) Turkey and Greece were hit by a strong earthquake.
- (10) The Aegean eartquake killed two tourists in July 2017.
- (11) *It* also injured 500 people.

According to Chiarcos, non-canonical alignments of syntactic functions and positions as in (12) where the definite object is topicalized are marked (contrastive) and indicate higher speaker salience. Non-canonical structures as left-dislocation in (13) are also marked and appropriate means for indicating high speaker salience. (The marked left-peripheral structures are underlined):

- (12) The strong earthquake, many people will never forget.
- (13) As for the Aegean eartquake, many people will remember it.

Chiarcos develops a formalization of salience degree within the NLG-system and the proposed model for salience metrics includes both the hearer salience score and the speaker salience score calculated on the basis of the type of referring expression (definite or indefinite noun phrase, proper name, pronoun), grammatical role, and word order. An important task for the salience metrics is to predict preferences for information packaging. Chiarcos argues that the choice between unmarked and marked structures is mainly dependent on the speaker salience score. In German, higher degree of speaker salience is primarily connected to expectations of a marked word order – as formulated in Principles 10 and 11 below:²⁰

• Principle 10 (Speaker salience and marked word order).

The more speaker salient a discourse referent is, the greater is its potential to induce marked word order. (Chiarcos 2010, 193)

• Principle 11 (Salience and word order in German main clauses).

The more hearer salient a given referent is, the greater is the preference for an unmarked position within the core of the clause.

²⁰ See a more detailed discussion of the relation between *salience and word order* in Chiarcos (2010: 188-196).

The more speaker salient a discourse referent is, the greater is the preference to be placed in a marked position outside the core of the clause. (Chiarcos 2010, 194-195)²¹

According to Chiarcos, the principles of markedness hierarchy have consequences for the left periphery of German sentences: The degree of newsworthiness or relevance of a referent for the speaker motivates prefield placement or left-dislocation, corresponding to the distributional markedness hierarchy of topological fields (Chiarcos 2010: 157).

Chiarcos does not take, however, the postfield placement and its alternative realizations into consideration. Our aim is to fill this gap of information structural and syntactic research ²² by highlighting the discourse function of two marked postfield-structures in German. Based on the MSF-framework special attention will be payed to the specification of both dimensions of salience (backward-looking hearer salience, and forward-looking speaker salience) not only at the sentence level, but also at the textual level. Thus concentrating on the interface between discourse and grammar, Chiarcos' ideas will be relevant both concerning the "packaging hierarchies, i.e., rankings of grammatical devices for different packaging phenomena..., that are aligned with cumulated salience scores calculated from hearer salience and speaker salience" and the principles for the mapping between packaging hierarchies and salience scores.

We also claim that the investigation of texts from the global perspective should include factors related to genre, since the patterns which are manifest in a discourse are constrained by genre considerations. The term 'genre' is used here in the sense defined by Dudley-Evans (1987: 1): "a typified society recognized form that is used in typified society recognized circumstances. It has characteristic features of style and form that are recognized, either overtly or covertly, by those who use the genre." According to Lüger (1995a: 54), press texts with monologue format are thoroughly planned and especially *press commentaries* prefer "meinungsbetonte Darstellungsformen" ('opinion emphasizing ways of presentation'). The high degree of planning results in a high degree of "intentionality", which contributes to the foregrounding of the addressee's side and the intention of a manipulative influencing of the addressee.²³

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²¹ The notions *core* und *clause* are used in Chiarcos (2010) in the sense of *Role and Reference Grammar*: CORE includes the verb and its "base generated" arguments (here *core* corresponds to the middle field), CLAUSE includes Vorfeld ("pre-core slot"), CORE and PERIPHERY. See the detailed discussion in van Valin (1993: 10) and the overview in van Valin (2009).

²² See also Chiarcos (2003: 56).

²³ Cf. Lüger's original formulation in German (1995a: 54): die "Intentionalität, die den adressatenbezogenen Aspekt von Pressetexten in den Vordergrund rückt und nicht zuletzt eine manipulative Beeinflussung

6. Establishment of the Global Discourse Topic in the Initial Part of the Text

The discourse function of the 'extended postfield' of the German sentence will be the main topic of the following sections analysing different empirically attested cases of postfield placement in the German sentence. We will show that the specific type of narrow focusing in the right periphery is an excellent device for the explicit linguistic marking of the discourse topic – the most salient element in the discourse.

Our analysis is structured correspondingly to the position of the sentence containing a postfield non-sentential constituent in the discourse. We will demonstrate that the discourse strategies can vary depending on the initial or final position of the sentence in the investigated newspaper texts: Announcement of the discourse topic is possible in the beginning of the discourse whereas reinforcement of discourse topicality can be provided in the concluding part. Due to limitations of space, cases of postfield placement occurring in sentences with "intermedial textual position", i.e. in openings and endings of specific paragraphs cannot be included in our analysis. Earlier analysis of unbracketing (Vinckel-Roisin 2011a, 393-394; 2012a, 153-155) and right-dislocation in German (Averintseva-Klisch 2009: 159-160), as well as our recently collected postfield corpus show that both unbracketed and right-dislocated constituents can be used as discourse structuring devices on the intermediate level. As topic-announcing expressions they mark the topic-shift in the intermediate position in an unambiguous way in this case.

6.1. Material - Method

The relevance of the postfield for the establishment of the discourse topic will be discussed on the basis of recent examples for both unbracketing and right-dislocation. The data were collected manually und are taken from *Süddeutsche Zeitung* and *Frankfurter Allgemeine Zeitung*. ²⁴ Our analysis can confirm the results of earlier investigations of unbracketing in German carried out by Vinckel-Roisin (2011a/b; 2012a), claiming the relevance of the sentential postfield for discourse topic marking on the basis of a

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intendieren kann." See also Lüger (1995b, 2001, 2005) and the 'nearness-distance' model of Koch & Oesterreicher (1990).

²⁴ Our data collection contains 50 recent examples for unbracketing and 30 examples for right-dislocation which were elicited in order to show the use of discourse topic announcement and reinforcement in German newspapers.

comprehensive corpus-based study. ²⁵ Concerning the discourse function of the right-dislocation the results of our analysis support also the claims of Averintseva-Klisch (2009).

We wish to make a qualitative analysis of selected cases without a statistical evaluation of the corpus in this study. Based on theoretical consideration related to the interface between syntax and information structure, our primary goal is to account for the information structural status of the NPs and PPs in the postfield, both on the sentential level and on the level of discourse. We will thereby clarify certain obligatory and possible correlations between discourse topicality and the discourse status of postfield constituents within the sentence.

Our argumentation will be motivated both by the formal and functional features of the attested examples and on different displacement tests (placement in the prefield and middle field within the sentence and change of the word order of constituents in the subsequent segment(s)). The evaluation of different versions elicited in informal acceptability judgments by native informants can provide evidence for the superiority of the postfield placement in the given text both from the perspective of the sentence and the whole text. As will be shown, the acceptability judgments confirm that only the postfield placement of a PP or NP can trigger expectations concerning the continuation of the discourse in an unambiguous way and guarantee the preservation of attention on these referents.²⁶

As mentioned above in section 3, the analysis of newspaper texts should also take genrespecific constraints into consideration. One of the most striking features of press texts is the special pattern for the introductory part of newspaper articles required by genre conventions. The 'headline', the 'title' and the 'lead' are obligatory and constitutive parts of this text type, and generally, they are inserted later by the journalist or the redaction, based on the content of the article. ²⁷ All examples investigated in detail below (examples (14)-(17)) follow this typical pattern.

6.2. Analysis of unbracketed constituents

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²⁵ This study was financially supported by the Humboldt-Foundation 2009/2010 and carried out at the Humboldt Universität zu Berlin (Lehrstuhl Syntax).

²⁶ For this paper the acceptability judgments were elicited by informal discussions with 3 native speakers of German. The judgments of the interviewed persons seem to show a complete (100%) identity. However, we are aware of the fact that further acceptability judgments and experiments (e.g. eye-tracking studies) are needed for the confirmation of our results (see below section 8).

²⁷ See Schneider & Raue (1998: 170), Sauer (2007: 164) and the overview in Szakmary (2002: 164).

Example (14) demonstrates unbracketing of a PP in the first sentence of the text, where the PP *für Sepp Blatter* is placed after the verbal bracket. (The sentences containing unbracketing and right dislocation in 6.3. are italicized with the postfield constituents boldfaced; the relevant elements of the referential chain are underlined):

(14) (HEADLINE) Fifa-Präsident

(TITEL) Blatter hätte das Bundesverdienstkreuz eigentlich nicht bekommen dürfen (LEAD) Sepp Blatter, der derzeit gesperrte Präsident des Fußball-Weltverbands Fifa, hat sein Bundesverdienstkreuz am Ende der WM 2006 unter fragwürdigen Umständen bekommen.

(1 §) Mit dem Friedensnobelpreis hat es nicht geklappt für Sepp Blatter. ²⁸ Der inzwischen suspendierte Chef des Fußball-Weltverbandes Fifa hätte diese Auszeichnung gerne entgegengenommen, er hätte sie aus seiner Sicht auch völlig verdient. Blatter betrachtet den Fußball ja als globale Friedensbewegung, sich selbst hat er schon mal mit dem Papst auf eine Stufe gestellt. [...]. (sueddeutsche.de, 23.11.2015)

'(HEADLINE) President of FIFA

(TITLE) Blatter should not have received the "Bundesverdienstkreuz" prize (LEAD) Sepp Blatter, the currently suspended president of the football world confederation FIFA, received his award Bundesverdienstkreuz at the end of the 2006 world cup in dubious circumstances.

(1 §) The Nobel Peace prize did not work out for Sepp Blatter. The, in the meantime suspended, president of the football world confederation FIFA would have wished to receive this award, and from his perspective he would have fully deserved it too. Blatter regards football as a global peace movement, and he has already placed himself on the same level as the pope [...].'

According to our claim, the right peripheral position of the unbracketed PP has the function of indicating discourse topicality of the denoted referents and is motivated by the high degree of their salience. Interestingly, the degree of speaker salience seems to be crucial for discourse topicality. Consequently, the central question of our analysis is how the high mental salience from the perspective of the speaker can be identified and calculated. This requires the specification of the relevant cognitive, pragmatic and grammatical factors, which influence or decide about the values, both from the perspective of text production and text perception.

'The Nobel Peace prize did not work out for Sepp Blatter.'

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^{28 (14)(1§)} Mit dem Friedensnobelpreis hat es nicht geklappt für Sepp Blatter.
with the Peace Nobel Prize has it not worked out for Sepp Blatter

In Chiarcos' model (2010: 134ff.) the measurement of speaker salience is not only based on cognitive factors (on perceptual aspects of salience, cf. Pattabhiraman 1993), but also on linguistic and textual features. The most important indicator of speaker salience is the frequency of occurrences in the text, i.e. persistence (corresponding to the "topic persistence (TP) of referents" suggested by Givón 2001: 457). The frequency of mentioning in the subsequent discourse (e.g. in form of pronominal anaphors) seems to have special relevance for calculating speaker salience in a certain part of the text. (However, as discussed in section 7 below, persistence in the previous part of the discourse has the same impact on the values). Crucially, the relevant value of salience includes the cumulated salience scores calculated from speaker salience and hearer salience (see Chiarcos' proposal in section 5 above).

All those above mentioned factors which indicate a very high degree of speaker salience are attested in example (14). Not only the textinitial position of the sentence containing the unbracketed PP in (14) is of importance for structuring the whole discourse, but also the fact that this sentence makes use of special syntactic structures and a marked alignment of grammatical role and syntactic position using specific syntactic structures. In addition, the discourse referent of the short postfield constituent 'Sepp Blatter' in (14) is activated already in the beginning of the text, in close vicinity to the sentence with the postfield structure, indicating high degree of hearer salience of the referent.

It is relevant to point out that the marked combination of the speaker and hearer salience is also based on the requirements of the genre, including "headline – titel – lead" of the article (introducing these entities) and imposing expectation on the elaboration of the information in the subsequent text. The assumption of the discourse topical character of the referent 'Sepp Blatter' in the article and its *newsworthiness* (a relevant speaker salience factor, discussed in Chiarcos' (2010) model) is confirmed by the development of discourse in (14), by the repeated name *Blatter*, *Sepp Blatter*, *Blatter* and the explicit anaphoric elements *Fifa-Präsident*, *der*; *sein*.

Consequently, the attested high salience scores for 'Sepp Blatter' are motivated both by factors lying behind speaker salience (marked position, highlighting by marked alignment of grammatical roles and syntactic position, and persistence in the text) and by hearer salience (namely the previous mentioning of these referents in the introductory headline-titel-lead part of the article and short distance to previous mentioning). The combination of the high degree of speaker salience and the high scores for hearer salience contribute to the

highest possible salience in these cases, accounting for the optimal discourse topicality marking by the postfield constituents.²⁹

In the following discussion, we will show the effect of different displacements and other strategies on the information structure of the sentence and the text by the detailed analysis of different positions of the PP *für Sepp Blatter* in the introductory sentence of text (14). This PP, which is unbracketed in the original version of example (14a), can be either placed in the middle field (surrounded by the verbal bracket) as in (14b) or moved to the prefield, in front of the finite verb as in (14c) below on the next page.

The syntactic structure of (14a) is marked from the beginning due to the placement of the PP (*mit*) dem Friedensnobelpreis in the prefield, identifying a highly marked [+discourse new; +hearer new] (in Prince's 1992 terminology) sentence topic with contrastive function. The unbracketing of the PP für Sepp Blatter results in an additional, syntactically marked structure, where prosodic highlighting of this highly salient discourse referent seems to be the preferred version. In (14b) the placement of the PP für Sepp Blatter in the middle field position in front of the negation particle leads to a change of the information structural status of this PP:

- (14a) Mit dem Friedensnobelpreis hat es nicht geklappt für Sepp Blatter.
- (14b) Mit dem Friedensnobelpreis hat es für Sepp Blatter nicht geklappt.

Due to the presence of the negation particle (attracting accent and focus) the placement of the PP in (14b) can indicate the background status of the referent of *Sepp Blatter*, thereby strongly reducing its potential to function as a discourse topic in the subsequent text. However, in spoken language, an additional focus accent on the PP would be compatible with the (secondary) focus reading of this constituent (this could be marked typographically by capitals). Importantly, this word order option (with different prosodic patterns) does not make the continuation of the text inappropriate with the choice of the same referent ('Sepp Blatter') as the topic of the subsequent sentence as attested in example (14a). Both the background reading or a (possible, but in the written version not preferred) focus reading of 'Sepp Blatter' in the first sentence of the text can be compatible with the topic function of this referent in the second sentence (corresponding to the patterns "continuous themes" and "linear progression" suggested by Daneš 1970, 1974). This new sentence topic (in this case

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²⁹ According to Chiarcos, the salience scores for the speaker also include the salience scores calculated for the hearer.

'Sepp Blatter', realized as the NP der inzwischen suspendierte Chef des Fußball-Weltverbandes Fifa) can principally also be sustained in the following sentences of the texts. However, neither options of the PP-placement within the middle field of the sentence (with or without prominence) would guarantee the triggering of further expectations on the continuation of the text.

Turning to the potential prefield position of the PP *für Sepp Blatter* as illustrated in (14c), we can note that this also seems to be problematic from the point of view of the information structure in the given discourse (appearing as the first sentence of the text):

(14c) [?] Für Sepp Blatter hat es mit dem Friedensnobelpreis nicht geklappt.

The PP *für Sepp Blatter* as a potential sentence topic is ambiguous between a 'continuous, given topic' (without pitch accent) and a 'contrastive topic' reading (with pitch accent) within the sentence. However, neither of these readings is optimal for triggering expectations on discourse topicality in the given text. Even if the first mentioned reading is compatible with discourse topicality of 'Sepp Blatter', it is not appropriate for manipulating attention and marking of high speaker salience of the referent. The latter (contrastive topic) is also ruled out in the discourse, since there are no competing alternatives to 'Sepp Blatter' in the previous or following text segments. (As demonstrated in the original example (14a) above, only 'Sepp Blatter' is mentioned as referent in the introductory part of the text and the topic of the following sentences is the same referent 'Sepp Blatter').

As the comparison between the postfield, middle field and prefield positions of the PP *für Sepp Blatter* above shows, the placement of a specific constituent in the prefield, middle field or postfield has consequences for focussing options and for the information structural division of the sentence. Further, the choice of the most appropriate information structural pattern in a sentence is dependent on both contextual factors related to the global discourse stucture and genre specific factors.

In order to show the impact of the postfield placement on information structure for the subsequent discourse, we would like to discuss two other instances of displacement in (14d) and (14e), where the immediately following sentence (S2) has been changed. The difference between the two test-cases is the position of the PP *für Sepp Blatter* in the first sentence (S1): the middle field placement of this PP in (14d) is contrasted to its postfield placement in (14e). Let's start with the analysis of example (14d) where the PP *für Sepp Blatter* stands within the verbal bracket:

(14d) [S1] Mit dem Friedensnobelpreis hat es **für Sepp Blatter** (auch) nicht geklappt. [S2] Geklappt hat es dieses Jahr für das tunesische Quartett, das aus dem tunesischen Gewerkschaftsverband (UGTT), dem Arbeitgeberverband (UTICA), der Menschenrechtsliga (LTDH) und der Anwaltskammer besteht.

The word order in the first sentence of (16d) leads to a coherent connection between (S1) and (S2) which is established by the continuity of the predicate *geklappt*. The conditions for contrast are also fulfilled partly by contrasting different polarities of the predicate (*nicht geklappt* and *geklappt*), and partly by the comparison of the referents in focus 'Sepp Blatter' and 'tunesisches Quartett'. Consequently, the topic shift in (S2) after (S1) (i.e. shifting from the PP *mit dem Friedensnobelpreis* to *geklappt*) is appropriate when (S1) is realized with an unmarked word order without the exploitation of the postfield.

In contrast, the unbracketing of the PP *für Sepp Blatter* leads to inappropriateness of the contrastive topicalization of the predicate *geklappt* and contrastive focusing of the constituent *für das tunesische Quartett*, since these contradict the expectations triggered by the unbracketing of the PP *für Sepp Blatter*:

(14e) Mit dem Friedensnobelpreis hat es nicht geklappt **für Sepp Blatter**. ?? Geklappt hat es (aber) dieses Jahr für das tunesische Quartett, [...]

The expectation in (S2) of the example (14e) is a continuation of the discourse topic 'Sepp Blatter', announced by the marked word order in (S1). This discourse-topic announcing strategy explains why a shift to another the referent is evaluated as problematic by native informants.

The comparison of the sentences (14a), (14b) and (14c) with the PP *für Sepp Blatter* in different syntactic positions as well as the contrast between (14d) and (14e) indicate the following: the unmarked word order with this PP in the middle field (with background or focus reading of the PP) opens up for more possibilities in the continuation of the text than the marked placement of the PP in the postfield. The postfield placement triggers specific expectations for the hearer not only with respect to the choice of the following sentence topic but also for the establishment of the discourse topic. The choice of the contextually most appropriate textual pattern attested in the original version of the sentence in (14a) can also be related to genre. As discussed above in section 5, the high degree of planning typical for press texts resulting in a high degree of "intentionality" turns the foregrounding of the addressee's side – and thereby the manipulative influencing of the addressee – to the optimal strategy.

6.3. Analysis of right-dislocated constituents

Example (15) demonstrates the right-dislocation of the NP *die Fußballvereine*, which is coreferent with the pronoun *sie* standing in the prefield of the same sentence.

(15) (HEADLINE) Bundesliga-Kommentar

(TITEL) Neuer Mut tut meistens gut

(LEAD) Die Beförderung von Julian Nagelsmann oder anderen zu Bundesliga-Cheftrainern beweist: Die alte Gleichung im Berufsbild eines Coaches gilt nicht mehr. Doch das Modell, auf den großen Unbekannten zu setzen, hat auch seine Tücken.

(1 §) Sie sind mutiger geworden, die Fußballvereine. 30 So mutig wie nun die TSG Hoffenheim war überhaupt noch kein Klub. Mitten in der Saison die auch noch stark abstiegsgefährdete Mannschaft nicht nur einem Trainerneuling in der Bundesliga, sondern mit Julian Nagelsmann gleich einem Coach anzuvertrauen, der bislang nur Erfahrung mit Jugendmannschaften besitzt [...] – das ist ungewöhnlich für eine Branche, die, [...] gerne auf Bewährtes setzt und Neuerungen erst einmal gründlich misstraut. [...]

(faz.net, 15.02.2016)

'(HEADLINE) Bundesliga-comment

(TITLE) New courage often does good

(LEAD) The promotion of Julian Nagelsmann and others to Bundesliga coaches confirms: The received wisdom regarding the professional image of a coach is no longer valid. However, the model of betting on the big "unknown", is also deceitful.

(1 §) *They have become braver*, *the football leagues*. No club has ever been as brave as the <u>TSG Hoffenheim</u>. To entrust <u>the strongly relegation-threatened team</u> in the middle of the season to not just a coaching novice but, in Julian Nagelsmann, to a coach who until now only has experience with youth teams [...] – this is unusual in a <u>business that [...]</u> prefers to bet on the well-tried and deeply mistrusts novelties [...].

We claim that postfield placement also in this case has a relevant function for attention manipulation and for the indication of information structural prominence both on the level of sentence and on the level of discourse. The marked alignment of grammatical role and syntactic position (here by mentioning the referent of the subject *sie* in a later position), the (at least implicit) accent assignment combines two dimensions: *Calling* attention to a certain constituent (by narrow focusing) locally and predicting the *sustainment* of attention on this constituent during a longer discourse segment, i.e. turning this constituent to discourse topic

they are braver become the football leagues

³⁰ (15) (1§) Sie sind mutiger geworden, die Fußballvereine.

^{&#}x27;They have become more brave, the football leagues.'

of the text or text segment (see also Averintseva-Klisch 2009 on right-dislocation). The information structural analysis of different types of displacements and the results of acceptability judgments using displacement tests show convincingly that the unambiguous marking of the combination "focus status and discourse topicality" seems to be only possible by placement in the postfield – not only in case of unbracketing (as discussed above in section 6.2.), but also in the right-dislocated structures.

There are, however, relevant word order differences between example (14) and example (15). In example (15) the word order is unmarked with a subject pronoun in the prefield followed by the predicate. Here "only" the right-dislocation of the NP *die Fußballvereine* and its separation from the sentence result in a marked alignment of grammatical role and position. The syntactic separation leads to the creation of a separate prosodic phrase requiring an obligatory accent (also relevant for the implicit prosody), and consequently to a high degree of speaker salience. (In the above discussed example (14) with unbracketing, the syntactic structure was marked already in the beginning of the sentence, due to the placement of the PP (*mit*) *dem Friedensnobelpreis* in the prefield.)

As for the analysis of the alternatives to the text-initial sentence containing a right-dislocation in the original version (15a), the displacement strategies are more complicated than in the unbracketed cases. Since the right-dislocated NP *die Fußballvereine* in (15a) has a pronominal copy in the sentence, this pronominal copy should be replaced first by the right-dislocated constituent. Whereas (15b) shows the replacement of the personal pronoun by the reference-idential NP in the prefield, (15c) contains the NP in its base position in the middle field, moving instead the predicative *mutiger* into the prefield:

- (15a) Sie sind mutiger geworden, die Fußballvereine.
- (15b) **Die Fußballvereine** sind mutiger geworden.
- (15c) ?Mutiger sind die Fußballvereine geworden.

It is easy to realize not only the relevant syntactic differences between the variants (15a), (15b) and (15c), but also the effects of the syntactic changes on the information structure. (15b) has an unmarked word order with the subject in the prefield, making the reading with maximal focus domain possible. This means that the whole sentence can be new information and none of its constituents is specially highlighted in information structural sense (the sentence accent is assigned in the default way to the focus exponent, which is in this case

the predicative mutiger). This option does not exclude the possibility that the NP die $Fu\beta ballvereine$ can function both as a sentence topic and a discourse topic, it does however not trigger any predictions. Compatibility with discourse topicality does not mean unambiguous marking of this discourse function. As discussed above, discourse topicality requires highlighting with highest possible speaker salience scores, which can only be indicated by narrow focus structures (achieved by marked alignments of positions and grammatical roles) or by marked special structures (dislocation, cleft), and which optimally includes also high degree of speaker salience.

The result of the displacement of the subject in the second modified case, in (15c), is strange in the given context. Not only a predicative in the prefield of a discourse initial sentence is marked, but also the placement of the subject in the middle field position immediately before the closing part of the verbal bracket, which normally hosts the focus or focus exponent of the sentence. Since both constituents appear in marked positions – the predicative in the prefield and the subject in the middle field – they both trigger a highlighted, focused or contrastive reading. However, the conditions for contrast are not fulfilled in the context of the original example in (15a); this explains why the sentence is odd in the given discourse. The conclusion is that the original option with right-dislocation (and narrow focusing) is the optimal choice, since it is not only compatible with the discourse topic function of the NP die Fußballvereine, but it can also guarantee the highest possible salience score for this NP and the unambiguous marking of its discourse topicality. The subsequent text in (15) confirms this claim: the right-dislocated NP die Fußballvereine serves as a discourse topic, licencing the referential chain of the related NPs in the following sentences of the text die TSG Hoffenheim, die auch noch stark abstiegsgefährdete Mannschaft, Jugendmannschaften und eine Branche, die [...].

To sum up, our analysis has shown that the postfield placement of NPs and PPs in the investigated newspaper texts announces the discourse topic of a text or text segment in an unambiguous and optimal way, which would not be possible without the exploitation of this sentence position. We argued that the marked syntactic alignment of grammatical role and sentence position at the right periphery can indicate the highest possible degree of salience of a referent within the sentence. The high salience score based on the focus status of the constituent in unbracketing and right-dislocation has consequences for the discourse

³¹ Changes of default prosody can only be marked in written texts by the use of different typographical strategies (caps, italics) – without additional marking the nuclear accent falls on the focus exponent.

structure by triggering the expectation that the referent is highly relevant for the whole discourse.

7. Returning to the Global or Local Discourse Topic – Text-Final Placement

Concluding the investigation of the postfield in the German sentence and its relevance for marking discourse topicality, we will discuss some cases of high speaker salience manifested by postfield placement, where the referent is serving primarily as a backward-looking center. In this cases, the unbracketed or right-dislocated constituent appears in the final segment of the text. Similarly to the above discussed examples (14) and (15) unbracketing and right-dislocation are important rhetorical strategies for this text type, anchored in a high degree of "intentionality" of use which serves the manipulation of the addressee's attention. The placement in the marked right-peripheral position signals the return and reinforcement of the discourse topic, by re-activating and focusing a [+discourse old; +hearer old] referent, showing a high degree of persistency in the text.

The texts presented in (16) and (17) below demonstrate the efficiency of postfield placement also for marking the return to the discourse topic. In (16) the PP um VW is standing to the right of the verbal bracket in the first sentence of the last paragraph of the press commentary. Due to its persistency in the text (marked by underlining of the relevant items) it can be assigned high hearer salience in this final part of the text; however, due to its placement triggering prominence (both in prosodic and information structural sense) it also receives high speaker salience scores. The combination of the high salience values from both the hearer and the speaker perspective leads to the highest possible degree of salience for the postfield constituent making its function as the discourse topic possible.

(16) (HEADLINE) Nach Abgasmanipulation

(TITEL) So viel Dummheit von VW ist unentschuldbar

(LEAD) Mit der Klage der US-Regierung gegen Volkswagen bekommt der Abgas-Skandal eine völlig neue Dimension. Eine, die zeigt: Das Schlimmste steht dem Unternehmen noch bevor.

- (1 §) Zu den vielen unentschuldbaren Dummheiten des <u>VW</u>-Skandals gehörte vom ersten Tag an der Umstand, dass <u>der Konzern</u> nicht nur die Käufer <u>seiner</u> Diesel-Pkw in Europa und Fernost jahrelang belog, sondern auch jene in den USA. [...] ...(2 §) ...(5 §)...
- (6 §) Einige Institute haben bereits ausgerechnet, wie viele Menschen rein statistisch gesehen wegen der unzulässigen <u>VW</u>-Abgasemissionen an Atemwegsund Herzerkrankungen gestorben sind, [...]
- (7 § / last paragraph)

Es war einige Zeit ruhig geworden **um** VW – zu ruhig, wie sich jetzt zeigt: ³² Alle, die geglaubt haben, das Schlimmste sei für <u>den Konzern</u> bereits ausgestanden, werden nun eines besseren belehrt. Das Schlimmste, es steht erst noch bevor. (sueddeutsche.de, 05.01.2016)

'(HEADLINE) After the exhaust manipulation

(TITLE) So much stupidity by VW is inexcusable

- (LEAD) With the complaint by the US government against Volkswagen, the exhaust scandal gains a completely new dimension. One which shows: The worst is yet to come for the company.
- (1 §) Among the many inexcusable stupidities of the <u>VW-scandal</u> was from day one the fact that the <u>conglomerate</u> was lying for many years not only to buyers of their diesel cars in Europe and the Far-East, but also to those in the USA. [...] ...(2 §)...(5 §)...
- (6 §) Some institutes have already calculated how many people purely statistically have died of respiration and heart diseases because of the unpermitted <u>VW</u> exhaust emissions, [...]
- (7 §) For some time it has been quiet **around** VW too quiet, as it has now turned out: all those who believed that the worst had already passed for must now think again. The worst is yet to come for VW.'

In text (17) below, the politician *Rainer Brüderle* is in the center of interest. Interestingly, in the final paragraph the referent is mentioned in the two last sentences of the press commentary. The right-dislocated NPs, *der kalauernde Bierzeltrhetoriker* and *Rainer Brüderle*, indicate in both cases the role of this referent as discourse topic.

(17) (HEADLINE) Brüderle-Rede auf FDP-Parteitag

(TITEL) Fehlprogrammierter Mittelstürmer

- (LEAD) Rainer Brüderle macht ab sofort den Miro Klose der FDP. Doch auf dem Parteitag der Liberalen in Berlin präsentiert sich ein müder, abgekämpfter Stürmer, der nur selten seine Fähigkeiten durchblitzen lässt und so redet, als stünden die Russen noch vor der Tür.
- (1 §) Es dauert eine Stunde und sechs Minuten, bis <u>Brüderle</u> mal etwas lauter wird. [...]
- ...(2§) ... (12 §)...

(13 §) Manche Scherze verunglücken irgendwie: "Ich mache für die FDP die Sturmspitze wie Miro Klose", sagt <u>er</u> und redet danach davon, dass der jetzt in anderen Ländern aushelfe. Will <u>Brüderle</u> auswandern?

(14 § / last paragraph) Erst in den letzten Minuten fängt er plötzlich nochmal aus dem Nichts heraus an, den Saal niederzubrüllen: "Wir überlassen diesen Fuzzis, diesen fehlprogrammierten Typen nicht unser Land!"

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³² (16) (7§/last paragraph)

Es war einige Zeit ruhig geworden **um VW** – zu ruhig, wie sich jetzt zeigt:

it was some time quiet become around VW too quiet as itself now shows

^{&#}x27;For some time it has been quiet around VW – too quiet, as it has now turned out:'

Da war er wieder, der kalauernde Bierzeltrhetoriker Brüderle. 33 Der, der einen Marktplatz in eine liberale Kampfarena verwandeln kann. An diesem Tag seiner Kür zum Spitzenmann aber wirkte nur einer völlig fehlprogrammiert: Rainer Brüderle.³⁴ (sueddeutsche.de, 10.03.2013)

'(HEADLINE) Brüderle speech at FDP-party conference

(TITLE) Misprogrammed centre forward

(LEAD) Effective immediately, Rainer Brüderle will play as the Miro Klose of the FDP. However, at the party conference of the liberals in Berlin, a tired and exhausted striker presents himself, whose skills only seldom shine through – and who speaks as if the Russians stood before the door.

- (1§) It takes one hour and six minutes before Brüderle grows somewhat louder. [...] $...(2\S) ... (12\S)...$
- (13 §) Some jokes fail somehow: "I will be the centre forward for the FDP like Miro Klose", he says, and then speaks of how the latter now helps out abroad. Does Brüderle want to emigrate?
- (14 §) Not until the final minutes does <u>he</u> suddenly out of nowhere resume shouting down the hall: "We do not surrender our country to these freaks, these misprogrammed characters!" Here he was again, the bantering beer tent rhetorician Brüderle. The one who can transform a market place into a liberal battle arena. However, on this day of his election to leader only one person appeared completely misprogrammed: Rainer Brüderle.'

With the examples discussed in this section we wanted to show that the placement of a NP or PP in the right periphery at the end of German newspaper texts can also be used for marking a backward-looking center combined with high speaker salience. This strategy seems relevant for the stabilization of coherence relations and fulfilling special textualrhetorical function ("Pointierung", Lüger 1995b: 220). Interestingly, both examples taken from our press corpus illustrate another relevant rhetorical strategy for this genre, called "Rahmenkomposition" ('frame composition'). As Kurz et al. (2000: 138) point out, this strategy "gehört im Journalismus zu den älteren Mitteln, auch in der Argumentation" ('belongs in journalism to the older devices, also in the argumentation'). In the above

Da war er wieder, der kalauernde Bierzeltrhetoriker Brüderle.

An diesem Tag seiner Kür zum Spitzenmann aber wirkte nur einer völlig day his election to standout but acted only one fehlprogrammiert: Rainer Brüderle.

³³ (17) (14 §/last paragraph)

here was he again the bantering beer tent rhetorician B 'Here he was again, the bantering beer tent rhetorician Brüderle.'

³⁴ (14 §/last paragraph)

^{&#}x27;However, on this day of his election as leader only one *person* appeared totally misprogrammed: Rainer Brüderle.'

discussed cases the 'frame composition' is supported by the unbracketed and right-dislocated constituent appearing in a sentence in the final section of the text, creating the other pillar of the frame introduced in the headline, title and/or lead. Thereby it contributes not only to the unambiguous marking of the discourse prominence of the constituent in the postfield, but also to the strengthening of the argumentative force of the press commentary.

8. Conclusion

The main goal of the present study was to discuss different types of topichood and their relation to the edge positions of the German sentence at the syntax-discourse interface. Special attention was payed to the discourse-pragmatic properties of two right-peripheral structures, called unbracketing and right-dislocation, and their relevance for the expression of topichood. The discussion was based on the key notion of 'mental salience' and its different types as suggested by Chiarcos (2010) in *Mental Salience Framework*. Our main claim was that non-sentential constituents in the German postfield as a result of an unbraketing or a right-dislocation can have the same discourse function in our corpus: equipped with the highest possible degree of salience (including both hearer and speaker salience), they are in both cases highly relevant for the whole discourse. Consequently, they can function as discourse topics at the global text structure.

The distinction of different aspects of salience as suggested in Chiarcos' framework and the estimation of salience scores in dependence on different contextual and linguistic factors seemed fruitful for the clarification of the cognitive and linguistic aspects of discourse topicality. Whereas hearer salience is backward oriented and primarily based on the degree of givenness of a certain constituent, also related to the distance of its previous mention, speaker salience is forward-looking and requires prominence in the linguistic context. On the global textual level, this can be guaranteed by the high degree of persistence; however, we have also argued that certain requirements should be fulfilled on the local level of information packaging in order to make the strong or unambiguous marking of the prominent textual function as discourse topic possible. Prominence and discourse relevance can be indicated by the marked alignment of a given grammatical role (subject, object, adverbial) to an edge position, accompanied by explicit or implicit prosody. This fact indicates a close relation of discourse topicality to sentential focus, which – especially when realized in marked syntactic structures as narrow focus at the right periphery of the sentence – can contribute to the maximization of salience scores. Besides high speaker salience, high hearer

salience value can also be important for guaranteeing the highest possible salience score value in a certain discourse.

As we have emphazised in this article, the right periphery beyond the verbal bracket of the German sentence is – at least in case of non-sentential constituents – a syntactically non-obligatory, and thus entirely pragmatically ruled position. This position can be considered as the preferred position for the expression of discourse topicality in press texts, by creating optimal conditions for marking the highest degree of the combined hearer and speaker salience. It can thereby serve the unambiguous marking of discourse topicality – either the announcement of the discourse topic or the return to this most prominent referent of the discourse.

In future research, the discourse relevance of syntactic structures at the right-periphery of the sentence should also be investigated by extending the range of methodological and theoretical issues. Concerning the methodological dimension, further corpus studies and more extensive acceptability judgments could contribute to research in this field, relying also on quantificational and statistical evaluation of the empirical data. The methodological tools for the calculation of saliency scores and the statistical analysis are already developed in Chiarcos' model, which could be applied to the analysis of postfield structures. The results could be confirmed and further examined by the application of modern psycholinguistic experiments, where eye-tracking studies seem to be especially important and conclusive.

As for the cross-linguistic perspective of the investigation of the relation between discourse topicality and structures at the edge of the sentence further contrastive, comparative studies (for example based on the results of Ashby 1988, Lambrecht 2001, Grobet 2002 for French, Grosz and Ziv 1998 for English, and Averintseva-Klisch 2009 for German) and typologically anchored studies would be of great interest, leading to the establishment of language specific patterns and universally relevant cognitive and pragmatic principles in this field.

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