Looking at the periphery from the suburbs:
An information-structurally based taxonomy of
Hanging Topics in German

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Abstract

In this paper, it is proposed on the basis of data from German that some of the information-structural features encoded by the projections located in the clause-internal Split-CP domain in the Rizzian (1997) model are replicated in the so-called "outer left periphery", i. e. in the area situated above ForceP. In doing this, I pursue a cartographic approach in which information structure is directly represented in the syntax by means of syntactic heads that project within the clausal left periphery. The main claim of the paper is that the outer left periphery (of German) includes dedicated projections for four classes of topics, namely so-called "Contrastive Hanging Topics", "Aboutness Contrastive Topics", "Familiar Hanging Topics" and "Frame-setting Hanging Topics". The observations made in this paper pave the way for a comparison with other languages, as well as for the question of the universality of this clause-peripheral makeup.

1   Introduction

Present-Day German is a so-called "asymmetric V2 language" in which main clauses exhibit V-to-C movement resulting in Verb-Second (V2) (e. g. in declarative clauses, (1a)-(2a)) or Verb-First (V1) (e. g. in yes/no interrogative clauses, (1a)-(2b)) word order as a generalized rule, while in embedded clauses introduced by a complementizer, the finite verb remains in some lower projection (standardly identified with the head position of the IP, German being an IP-head-final system, cf. Haegeman 1991: 52; Borsley/Suchsland 1997) (1b)-(3). In V2 configurations, the clausal prefield, namely the left-peripheral area of the clause preceding the finite verb situated in C°, can only be occupied by one XP. According to this principle, only one constituent can (and must) move to Spec,CP to satisfy an EPP-like feature carried by C that requires that the pre-C° position not be empty in main clauses (cf. Den Besten 1977/1983).

(1)
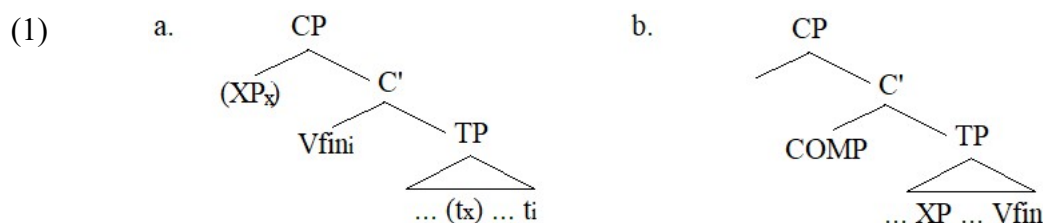
(2) a. [CP   *Hans*_x   [C°   *hat*_i   [IP/VP   t_x   *ein*   *Auto*   t_i]]].
          Hans.NOM   have.3SG.PRS   a.ACC   car.ACC

          'Hans has a car.'

     b. [CP [C°   *Hat*_i   [IP/VP   *Hans*   *ein*   *Auto*   t_i]]]?
                    have.3SG.PRS   Hans.NOM   a.ACC   car.ACC

          'Does Hans have a car?'

(3) [CP [C°   *dass*   [IP/VP   *Hans*   *ein*   *Auto*   *hat*]]].
                 that   Hans.NOM   a.ACC   car.ACC   have.3SG.PRS

     '…that Hans has a car.'

In the last decades, the clause-internal portion of the left periphery of German and of V2 systems in general, including e. g. the older stages of Germanic and Romance languages, has enjoyed a great deal of attention in the literature (cf., among many others, van Kemenade 1987; Pintzuk 1993; Axel 2007; Speyer 2008; Fuß 2008; Petrova 2012; Walkden 2014, 2017; Demske/Wiese 2016; Hinterhölzl 2017; Hsu 2017; Haegeman/Greco 2018; Wolfe 2018; Samo 2019; Meklenborg 2020; Catasso 2021; Breitbarth 2022, to appear; Sluckin/Bunk to appear).

One fundamental issue that has been thoroughly investigated (but still not entirely resolved) especially in generative linguistics is whether – and if so, to what extent – the clause-internal portion of the CP of V2 languages can be assumed to include all the positions (projections in cartographic or specifiers in minimalist terms) generally assumed for languages like Italian as proposed by Rizzi (1997, 2001 and much subsequent work). In (4), a simplified version of this model is given:

(4)   ForceP > IntP > TopP* > FocP > TopP* > FinP (> TP …)

In Rizzi's conception of the clausal left periphery, syntax substantially consists in filling given positions that are argued to be stable cross-linguistically with elements that realize information-structural categories such as topic and focus. In the case of the left periphery, the corresponding projections are preceded by ForceP, a projection that encodes clause-typing features and illocutionary force (and opens up the clause), and followed by FinP, which is responsible for finiteness and roughly corresponds to C° in the standard three-layered representation of the clause. One of the questions pursued with respect to V2 languages is whether these systems also include these positions, but activate them in a much more limited way, so that generally only one of the projections above FinP can be occupied by a constituent moved or merged into the CP area.

A further area that has been studied – but has not received as much attention – is the syntacticization of what I will label "outer left periphery" here, i. e. of the domain of the utterance that is insensitive to the clause-internal syntactic operations and whose filling does not interact with structural word-order rules such as V2. Many achievements have been made in the past decades that have shed light on the area above ForceP (cf. e. g. Hill 2013, 2014; Haegeman 2014; Haegeman/Hill 2013).

In this article, the focus will be on one of the constructions that are typically localized in the outer left periphery of German, namely so-called "Hanging Topics" (henceforth: HTs). I will

contend that HTs do not constitute a uniform class of generic topics to be identified in light of their morphosyntactic features, but that they are part of an information-structurally-motivated taxonomy similar – *mutatis mutandis* – to that of the clause-internal CP area. In doing this, I will adopt a cartographic approach based on the persuasion that the functional and lexical elements displayed in the overt syntax are part of a fixed computational system involving specialized positions for XPs and heads to be moved or base-generated into.

The paper is structured as follows: in Section 2, an overview is given of the basics concerning the notion of HT as it is treated in the literature, including its syntactic position and its interpretation; furthermore, some key properties of HTs in German are looked at in some detail. Section 3 presents the results of an empirical pilot study of the acceptability, distribution and information-structural features of this construction. On the basis of this first outcome, a simple taxonomy of HTs is proposed for Present-Day German that categorially – but, crucially, not word-order-wise – replicates the one generally assumed for CP-internal topics. Section 4 concludes.

2   Hanging Topics

2.1   Structural position in the extended left periphery

In languages like German, HTs are constituents surfacing in the outer left periphery of the root clause that are resumed by a co-indexed element (i. e. e. g. by a demonstrative or personal pronoun or an epithet) either in some inner-peripheral specifier to the left of the finite verb or in the middle field (the area between the left and the right sentence bracket). HTs are one of many strategies that languages make use of to introduce a topic (in Krifka's 2008a spirit). At least three features conclusively differentiate hanging topicalization (henceforth: HTalization) and left dislocation, the latter also involving a topic resumed by a clause-internal element: (i) only left dislocation shows binding effects; (ii) in left dislocation, but not in HTalization, Principle-C effects may be induced by an R-expression inside the dislocated phrase; (iii) HTalization exhibits an obligatory pause between the topic and the inner left periphery (cf. Altmann 1981; Benincà 1988; Meinunger 2004; Frey 2004; Shaer/Frey 2004; Kempchinsky 2008; Fernández-Sánchez/Ott 2020, to which the reader is referred for details).[1]

Abstracting away from marked cases (Samo 2019: 146f.), however, a prototypical HT configuration is one in which the topic bears nominative and the resumptive element the case it receives in light of its syntactic function in the matrix clause (5a). All configurations in which

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[1] A further issue that still has not been entirely resolved in the literature concerns the moved vs. non-moved status of HTs and left-dislocated constituents and the relevance of this criterion to distinguish the former, which are generally classified as base-generated items, cf. e. g. Grohmann (1997, 2000, 2003); Aoun/Benmamoun (1998); and Helland/Meklenborg Nilsen/Lohndal (2020) (Emonds 2004 for Present-Day English; Boeckx/Grohmann 2005; and van Kemenade/Meklenborg (to appear) for Old English being prominent exceptions in this respect), from the latter, which are at the center of a debate regarding whether they result from movement into the left periphery (for German, cf. e. g. Grohmann 1997, 2000, 2003; Grewendorf 2002; Frey 2004) or are base-generated there (e. g. Giorgi 2015, 2016; Hinterhölzl 2017). In what follows, I will no longer consider the discussion about left-dislocated phrases, which is not relevant to the present investigation.

both phrases are in the nominative case and the resumptive is a *d*-pronoun are formally ambiguous between a HT and a left-dislocation reading if one only considers the linear order (5b).[2] The only way to disambiguate the status of *der Hans* in an utterance like (5b) is to embed it into a context and consider the prosodic contour of the sentence, which systematically implies a phonological pause between the DP in first position and the rest of the clause:

(5)   a.   *Der*   *Hans$_i$*   –   *dem$_i$*   *habe*   *ich*   *all*
            the.NOM.SG   Hans.NOM   that.DAT   AUX.1SG.PRS   I.NOM   all.ACC.PL

            meine   *Bücher*   *geschenkt.*
            my.ACC.PL   book.ACC.PL   PTCP-give-PTCP

            '(Let me tell you something about) Hans – I gave him all my books.'

      b.   *Der*   *Hans$_i$*   –   *der$_i$*   *ist*   *echt*   *nett.*
            the.NOM.SG   Hans.NOM   that.NOM   be.3SG.PRS   really   nice

            '(As for) Hans, he is really nice.'

As far as their syntactic position is concerned, Benincà (2001) proposes on the basis of data from Italian that HTs are first-merged in the specifier of a projection which she calls 'Disc(ourse)P' to the left of ForceP (for a more in-depth view, also cf. Benincà/Poletto 2004). A similar idea, embedded into a theory of parentheticals, is found in Giorgi (2015: 246f.), who further develops an observation by Cinque (2008). In fact, HTs are positioned above CP/ForceP in most theoretically-informed works of the last decades explicitly addressing the architecture of the left periphery, irrespective of the language and of the label used for the corresponding projection (Legate 2001 for Warlpiri; Kempchinsky 2008 for Spanish; Belletti 2008 for Italian;[3] Salvesen 2013 for Old French; Petrova 2012 for Middle Low German; Bayer/Dasgupta 2016 for English; Cowper/DeCaen 2017 for Hebrew; Samo 2019; and Fernández-Sánchez/Ott 2020 for Present-Day German, among many others):[4]

(6)   [$_{HT}$ *Der*   *Hans*,   [$_{ForceP}$ *den*   *mag*   *ich*   *nicht*]].
            the.NOM.SG   Hans   that.ACC   like.1SG.PRS   I.NOM   NEG

            '(As for) Hans – I don't like him.'

In fact, in light of the formal features mentioned above, there is no reason to believe that such elements should appear CP-internally if we assume CP-internalness to be a correlate of connec-

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[2] For the sake of clarity, demonstrative-pronominal resumptives of HTs are glossed as 'that' in this paper, personal-pronominal ones as the corresponding categories in English and epithets as the literal translation of the full DPs which realize them.

[3] In Belletti (2008), HTs are contrasted to left-dislocated topics topologically in a more articulate way: it is assumed that the HT is part of a separate sentence (a defective CP phase) which is completely silent. Abstracting away from the technical details of Belletti's analysis, whose theoretical motivation I find very credible (for an analysis of some types of HTs relying on the assumption of a defective phrase, also cf. Samo 2019), the substance of this proposal is that HTs are located in some position above the inner CP of the clause in which the resumptive appears.

[4] Krapova/Cinque (2008: 264), who consider the features of topic constructions in Bulgarian, are not so explicit as to the position of HTs and argue that "while CLLDed phrases and HTs are hosted in the CP space, presumably in the specifier position of dedicated functional projections" (their footnote 11).

tivity and syntactic/prosodic integration. What is more controversial, however, is the very nature of their topical essence and their contribution to the utterance that they introduce. This is discussed in the next paragraphs.

2.2 Key features of HTs

Some of the points made in Fábregas' (2016) work on HTalization in Spanish include that: (i) this phenomenon excludes iteration of the XPs functioning as HTs (as also contended by Cinque 1983 for Italian; and Krapova/Cinque 2008: 263 for Bulgarian, but argued not to hold for German by Grohmann 2000; Shaer/Frey 2004; and Boeckx/Grohmann 2005); (ii) it may only involve familiar and contrastive constituents and cannot introduce new referents (in other words, (some types of) Aboutness Topics) in the discourse, and; (iii) HTs can only be realized by DPs (an argument that is generally – tacitly or explicitly – agreed upon in the literature, cf. e. g. Belletti 2008).

In the present paper, I contend that the three above-mentioned properties are not to be excluded in German and that their conspiracy allows a larger information-structurally motivated taxonomy of HTs.

2.2.1 Iteration

The first issue to be considered here is the possibility to have multiple HTs. As shown in a number of works, this phenomenon is not ruled out in German. Abraham (cited as "p. c." in Boeckx/Grohmann's 2005, fn. 6) calls such constructs *themata pendentia in extremo*. Cf. (7) (Boeckx/Grohmann 2005: 148):

(7)   *Alex$_i$,*   *der*   *Wagen$_j$,*   *seine*   *Mutter$_k$,*   *gestern*   *hat*
     Alex   the.NOM.SG   car   his.NOM.SG   mother   yesterday   AUX.3SG.PRS

     sie$_k$ *ihm$_i$*   *den$_j$*   *geschenkt.*
     she.NOM   he.DAT   it.ACC   PTCP-give-PTCP

     '[Alex, the car, his mother –] yesterday she gave it to him.'

As is easy to imagine, this structure is marginal in actual usage, but it is still possible. The authors also show that any other word order in the clause-internal domain of the clause would lead to ungrammaticality (see (8)) and construe this fact to illustrate that "[t]he data [above] are puzzling if [the resumptives] are treated as pronouns linked to their antecedent in a non-movement fashion", i. e. that the utterance-initial HTs result from movement (see footnote 1 above):

(8)   a.   *   *... gestern*   *hat*   *die$_k$*   *den$_j$*   *dem$_i$*   *geschenkt.*
     b.   *   *... gestern*   *hat*   *dem$_i$*   *den$_j$*   *die$_k$*   *geschenkt.*
     c.   *   *... gestern*   *hat*   *dem$_i$*   *den$_j$*   *die$_k$*   *geschenkt.*
     d.   *   *... gestern*   *hat*   *dem$_i$*   *die$_k$*   *den$_j$*   *geschenkt.*

Although these grammaticality judgments are certainly embraceable, an explanation à la Ockham's razor seems to better account for these facts. What these data can be interpreted to show is that the HTs are first-merged (clause-externally) in an order that mirrors a plausible (clause-internal) base-generation of the indirect and of the direct object (note that in the German middle field, the unmarked word order is IO > DO), with the insertion of *seine Mutter* as the rightmost referent since the possessive co-indexed with *Alex* would be uninterpretable if it did not follow

the corresponding constituent in the overt syntax. In the middle field of the clause in which the three resumptives occur, the pronouns are serialized according to the standard order Subject > IO > DO, because the referent for *sie* has already been introduced in the area above ForceP, and the order results from syntactic operations that take place at some point of the derivation – differently from what is observable in the pre-ForceP area, where (some kind of deficient) Merge, but not (the very same type of) Move (as in the clause-internal domain of the clause) may occur.

Note that the presence of a possessive only serves as an "explicitor" for the correct interpretation of the utterance, in which it is Alex' and not someone else's mother who performs as the subject of the giving, but if *Mutter* were simply introduced by a definite article like *die* (*die Mutter* 'the mother') (as is the case in the same sentence in Grohmann's (2000: 145) example (21)), the interpretation of this constituent would not be any different, and the grammaticality of the clause-internal order would also remain the same.

2.2.2   Interpretation and form

Frascarelli/Hinterhölzl (2007) distinguish three classes of topics, which are assigned different information-structural properties directly related to the nature and degree of activation of their referent:

- Aboutness Topics are referents (re-)introduced in the discourse which the sentence predicates something about e. g.:
  [*Johann Wolfgang Goethe*]AboutTopic *was born in Frankfurt in 1749.*
- Contrastive Topics are referents that realize alternatives without having any impact on the focus value of the sentence, e. g.:
  [*Goethe*]ContrTopic *was born in 1749*, [*Schiller*]ContrTopic *was born in 1759.*
- Familiarity Topics are given referents generally used for topic continuity and typically realized as pronouns, "supposed to be salient in the consciousness of the protagonists" (Féry 2007: 168), e. g. in a lecture about the literary *Sturm-und-Drang* movement, after ten sentences about the referent *Goethe* and without any topic shifts:
  [*He*]FamTopic *also wrote some lesser known poems about the beauty of the German language.*

More controversially, Fábregas assumes for HTs on the basis of data from Spanish that these can only realize contrastivity or familiarity, but are not fit for aboutness. If we accept the idea that HTalization in Spanish and German works in different ways, then this restriction on Familiarity does not seem to be the case in German. HTs that display aboutness in Frascarelli/ Hinterhölzl's spirit are, instead, a very productive pattern, both in everyday spoken communication and in written language. The two examples in (9) and (10) exemplify the former, but in two different declinations. Example (9) is from (here: fictionally) literary language. The sentence containing the HT *dieser Mann* ('this man'), of course, needs to be embedded into the corresponding context, which is provided in order to determine the information-structural reading of the topic with reasonable certainty. In this sentence, *dieser Mann* is re-introduced and marks a referential shift in the description. This DP is resumed by a personal pronoun (*er* 'he') after a parenthetical. Also note that even the very beginning in the context contains a HT that can be categorized as an Aboutness Topic (*ein französischer Kaffee und Croissants* 'a French coffee and croissants') placed above the inner-CP domain of the sentence. Crucially, the clause

that this DP opens up (*habe ich lange nicht gegessen* 'I haven't had these for a long time') does not exhibit a V2 arrangement in which the above-mentioned occupies the prefield, but contains a silent resumptive. Here and in the following examples, the topic and the corresponding resumptive are indicated in bold:

(9)   context:

Endlich mal wieder ein französischer Kaffee und Croissants, habe ich lange nicht gegessen. Ein Blick auf die Karte genügte, um zu wissen, daß mein Frühstück, drei Croissants und Aufstrich, teuer werden würde. Ich rufe den Ober […] und bestelle. Einen Moment später fällt mein Blick auf einen sehr elegant angezogenen Herrn – aber vielleicht bedeuten sein gepflegter Haarschnitt, sein anliegender Anzug, seine Bewegungen nur für mich Eleganz und nicht unbedingt für einen Franzosen? Vielleicht, jetzt werde ich fast sicher, ist das nur sein Alltagsauftritt? Also, der Mann kommt herein, ohne Mantel. Was, wieso eigentlich? Es ist immerhin Mitte Oktober und es nieselt draußen. Also, auch wenn er unbedingt elegant erscheinen will, sollte er auch an seine Gesundheit denken und sich einen Mantel kaufen. Vielleicht ist es aber nur für mich ein Zeichen von Ärmlichkeit, ohne Mantel herumzulaufen, wenn es draußen kühl ist?

'At last, a French coffee and croissants again, this is something I haven't had for a long time. A short look at the menu was enough to know that my breakfast – three croissants with spread – would be very expensive. I call the waiter […] and order. One moment later, I notice a very elegant man – or do his neat haircut, his tight suit and his walk look classy to me, but not to the French? Could this be his everyday-life appearance? Well, the man comes in, without a coat. What – how so? After all, it is mid October, and it is drizzling outside. I mean, even if he wants to look elegant at all costs, he should think about his health and buy himself a coat. Or do *I* just see that as a sign of poverty when someone hangs around without a coat even when it is cold outside?'

sentence:

Also,	***dieser***	***Mann*$_i$**	*ich*	*weiß*	*nicht*	*ob*	*elegant*
well	this.NOM.SG	man	I.NOM	know.1SG.PRS	NEG	whether	elegant

oder	*durchschnittlich,*	*ob*	*arm*	*oder*	*wohlhabend,*	***er*$_i$**
or	ordinary	whether	poor	or	wealthy	he.NOM

kommt	*jedenfalls*	*in*	*das*	*Café –*	*warum*	*eigentlich,*	*was*
come.3SG.PRS	anyway	in	the.ACC.SG	café	why	actually	what

hat	*er*	*morgens*	*um*	*8 Uhr*	*in*	*einem*	*Café*
have.3SG.PRS	he.NOM	in-the-morning	at	8 a. m.	in	a.DAT.SG	café

zu	*suchen,*	*arbeitet*	*er*	*etwa*	*nicht?*
to	look-for.INF	work.3SG.PRS	he.NOM	maybe	NEG

'Well, this man – I am not sure if that was an elegant or ordinary man, whether poor or wealthy – he came into the café – how so? What is he doing in a café at 8 a. m.? Doesn't he have a job?'

(Müller 1981: 117–118)

Example (10), instead, is the first line in a blog article. Also in this case, the utterance in which the DP *Ehrlichkeit in der Wissenschaft* ('honesty in science') appears is clearly not a V2 clause: after introducing the topic, which is realized by means of a HT, the clause-internal domain of the clause is opened up by a *wh*-element. The HT, which must necessarily be assumed to be an Aboutness Topic here since the referent is mentioned for the first time, is resumed in the middle field by a so-called "pronominal adverb". In fact, it is somewhat curious that that the idea of a putative incompatibility of HTs and of the information-structural category of aboutness is even discussed in the literature: it seems that all the classical examples illustrating this topic even in research outputs that only marginally have to do with topicality (e. g. examples like (6) above) and also more marginal examples that have been used in thematically dedicated papers (e. g. (7)) involve constituents that are intuitively good candidates for a categorization as Aboutness HTs:

(10) **Ehrlichkeit**   **in**   **der**   **Wissenschaft**ᵢ,   *wer*   *glaubt*   **daran**ᵢ*?*
      honesty   in   the.DAT.SG   science   who.NOM   believe.3SG.PRS   in-it

      'Honesty in science – who believes in that (anymore)?'

                                                                    (*scilogs.spektrum.de*, 28 February 2011)

HTs interpreted contrastively are, in fact, very recognizable and can be disambiguated by means of so-called "topic markers" (also labeled "post-initial particles") with the appropriate meanings, which have traditionally been treated in combination with CP-*internal* topics in the literature (cf. e. g. Métrich/Courdier 1995; Pasch et al. 2003; Breindl 2008; Volodina/Weiß 2010; Speyer/Weiß 2018; also cf. Catasso 2021: 768 for an exception). Such (fully optional) elements as *aber*, *hingegen*, *dennoch* ('however', 'on the other hand') etc. make explicit that the referent of the constituent that they accompany and to whose right they surface is necessarily to be construed as one of two or more items of a set of alternatives, the other alternative(s) being implicit or part of the preceding or following context.[5] To illustrate this difference between clause-internal Contrastive Topics and HTs interpreted contrastively, cf. the examples in (11a) and (11b), respectively. In (11a), the Contrastive Topic is the first constituent in a V2 clause (in structural terms) that exhibits a linear V3 word order due to the occurrence of the topic marker *aber*. In (11b), instead, *Hans* clearly realizes a HT, since it is clause-external – which is explicitly shown by the presence of a phonological pause between the particle and the rest of the sentence, as well as by the fact that this constituent is resumed by a personal pronoun in the

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[5] Note that in some cases, Aboutness HTs can also be disambiguated by inserting a topic marker (with a corresponding semantics; for a detailed information-structural account, cf. Breindl 2008) to the right of the relevant constituent. Cf. e. g. the example in (i), in which *bspw.* (*beispielsweise* 'for instance') functions as a post-initial particle used to highlight an Aboutness Topic introduced for the first time in the discourse:

(i)   *Es*   *gibt*   *viele*   *Themen,*   *die*   *heikel*   *sind.*
      EXPL   give.3SG.PRS   many.ACC.PL   topic.ACC.PL   REL.PR.NOM.PL   thorny   be.3PL.PRS
      Ehrlichkeit **in**   **der**   **Wissenschaft**   *bspw.*   *–*   *wer*   *glaubt*
      honesty   in   the.DAT.SG   science   for-instance   who.NOM   believe.3SG.PRS
      daran*?*
      in-it

      'There are many topics that are thorny. Honesty in science, for, instance – who believes in that?'

prefield of the clause). In the latter case, the constituent is therefore more loosely bound to the sentence. However, the interpretation of (11a) and (11b) is the same.

(11) a. *Eva*   *war*   *super.*   **Hans**   *aber*   *hat*   *alle*   *enttäuscht.*
          Eva   be.3SG.PST   great   Hans   *aber*   AUX.3SG.PRS   all.ACC.PL   disappoint-PTCP

      b. *Eva*   *war*   *super.*   **Hans**$_i$ *aber*   –   *naja,*   **er**$_i$ *hat*
          Eva   be.3SG.PST   great   Hans   *aber*   well   he.NOM   AUX.3SG.PRS

          alle   *enttäuscht.*
          all.ACC.PL   disappoint-PTCP

      'Eva was great. Hans, however, disappointed everybody.'

Example (12) contains a further example of a contrastive HT (taken from a thread of an online forum in which users discuss the consequences of having a pet for one's furniture), embedded into the corresponding context. In this post, the user contrasts the curtains (*die Gardinen*, accordingly marked in the context), about which she says that she would not be so sorry if the cat ruined them, to an old precious piece of furniture which she would like to keep the pet from scratching. The latter constituent (*meine antike Kommode* 'my antique commode') is adjacent to the contrastive topic marker *hingegen* ('instead') and resumed clause-internally by a pronominal adverb (*darüber* 'about it'):

(12) context:
      Was die Möbel anbelangt – so isses halt. [**Die Gardinen**] *sind billige von Ikea. Kein großer Verlust. Und an das Gefranse gewöhnt man sich bestimmt irgendwann* (…).
      'As to the furniture – well, that's just the way it is. My curtains are cheap Ikea stuff. No great deal. I'm sure I'll just get used to the fringes someday (…).'
      sentence:

      [**Meine**   **antike**   **Kommode**]$_i$ *hingegen*   –   **darüber**$_i$ *muss*
      my.NOM.SG   antique.NOM.SG   commode   instead   about-it   must.1SG.PRS

      ich   *mit*   *ihr*   *nochmal*   *ein*   *ernstes*   *Gespräch*
      I.NOM   with   she.DAT   again   a.ACC.SG   serious.ACC.SG talk

      führen.
      lead.INF

      'My antique commode, however – I will have to have a serious conversation about it with her (= the cat).'

                                                                    (*netzkatzen.de*, 30 July 2013)

Note that the (optional) presence of a topic marker to the immediate right of a HT is not only a strategy to disambiguate the contrastive reading of the constituent, i. e. of the corresponding referent; it also strongly suggests that such particles cannot be assumed to be moved constituents, since the element that they accompany is arguably first-merged in the (clause-external domain of the) CP.[6]

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[6] This contradicts many of the analyses proposed for post-initial particles in general. For configurations like (11a) above, in which a run-of-the-mill, viz. clause-internal, contrastive topic surfaces in the CP immediately followed by a topic marker, analyses have been put forth in which the topic: (i) is base-generated in the middle field; (ii) is moved into the specifier position of a phrase headed by the particle (also first-merged in the TP/VP area) at some point of the derivation, and then; (iii) the whole complex is raised into some left-peripheral specifier, resulting in

Familiar HTs are – predictably – also possible in German, where they cannot generally be followed by a topic marker, as is the case for clause-internal Aboutness and Contrastive Topics (cf. Breindl 2008). This, of course, does not rule out that there may be languages exhibiting specialized particles or similar elements that mark the familiar reading of a topic. In the following example, the referent *Fabian* is neither newly nor re-introduced in the discourse, and its interpretation is not contrastive. Its very high degree of activation makes a categorization of the corresponding constituent as a familiar HT the most plausible option. Note that the DP *dieser Fabian* ('this Fabian') must be a HT here, since it is non-case-marked and the corresponding middle-field resumptive is a personal pronoun:

(13)   context:
         *Sie redet die ganze Zeit über ihn. **Fabian** hat das gemacht, **Fabian** hat dies und das gesagt, **Fabian** hat nen Burger gegessen, **Fabian** ist mit Susi (seiner Tochter) in den Park gegangen, **Fabian** hier **Fabian** da **Fabian** überall.*
         'She (= my friend) talks about him (= her boyfriend) all the time. Fabian did this, Fabian said this and that, Fabian ate a hamburger, Fabian went to the park with Susi (his daughter), Fabian here, Fabian there, Fabian everywhere.'
         sentence:

[**Dieser Fabian**]ᵢ,	*ich*	*kann*	***ihn***ᵢ	*nicht*	*mehr*	*sehen*
this.NOM.SG Fabian	I.NOM	can.1SG.PRS	he.ACC.SG	NEG	more	see.INF

---

the linearization that is spelled out at PF (cf. e. g. Volodina/Weiß 2010). In more recent analyses, it has been proposed that the particle is generated in the head position of a CP projection hosting topics in whose specifier the topic is moved from the middle field (Catasso 2015, 2021; Speyer/Weiß 2018). This seems to be evident if one looks at (regionally marked, but not controversial) data like (i), where a splittable pronominal adverb has the contrastively interpreted deictic component *da* (lit. 'there') raised into the clause-internal left periphery and the "prepositional" component stranded in the first-merge site. Sentence (i) is taken from an online forum in which the users exchange views on their favorite manga series. In the context of this example, two types of manga are discussed ("type A" and "type B") and contrasted to each other. In the relevant clause, the lexical element *davon* ('of-it') is split into one part topicalized into the CP (neutrally glossed as '*da*' and followed by a contrastive topic marker) and one part that appears in situ:

(i)   context:
        [*Typ A kann ich nicht leiden. Er hat viele Eigenschaften, die mir nicht gefallen*]. *Für Typ B wird gerne K-On angeführt.*
        'I cannot stand Type A. It has a lot of features that I don't like. For Type B, people generally mention *K-On!* (= title of a popular Japanese manga series).'
        sentence:

Da	*hingegen*	*bin*	*ich*	*ein*	*absoluter*	*Fan*	***von***.
da	instead	be.1SG.PRS	I.NOM	a.NOM.SG	absolute.NOM.SG	fan	of

        'This one (= type B), instead, I'm a big fan of.'
        (*computerbase.de*, 11 September 2012, first part of the context simplified)

In consideration of the data discussed here for HTs, this approach, in which such markers lexicalize the information-structural feature encoded by the projection itself, seems to be on the right track.

und	*ich*	*kann*	**seinen**ᵢ	*Namen*	*nicht*	*mehr*	*hören.*
and	I.NOM	can.1SG.PRS	his.ACC.SG	name.ACC.SG	NEG	more	hear.INF

'This Fabian guy – I'm sick of even the sight of him and I'm tired of hearing his name.'

An additional point that needs to be made here is that at least in German, not only are HTs possible which display aboutness, contrastiveness and familiarity in Frascarelli/Hinterhölzl's spirit; in some cases, a HT can also receive the interpretation of a Frame-setting Topic – or vice versa, depending on the perspective, a Frame-setting Topic can be realized clause-externally and therefore exhibit the behavior of a HT (for an explanation of a slightly different phenomenon in similar vein, cf. Ebert/Ebert/Hinterwimmer 2014). Let us now consider the data in (14), in which a clausal (14a) and a non-clausal (14b) constituent, respectively, appear in some syntactically non-integrated position to the left of the CP, but both introduce what seem to be clause-external frames. The interjection *ach* functions as a disambiguating element here, since it can be assumed to be positioned in some projection above ForceP (along Wöllstein's (2014) and Haegeman/Hill's (2013) lines). Just as typical HTs, the adverbial clause in (14a) and the PP in (14b) would be categorized as regular Frame-setters if they surfaced CP-internally (i. e. in a structural position in which they would be part of the syntactic computation of the clause):

(14) a.

[**Als**	**ich**	**20**	**war**]ᵢ	–	*ach,*	*ich*	*war*	**damals**ᵢ
when	I.NOM	20	be.1SG.PST		oh	I.NOM	be.1SG.PST	then

so	*unbeschwert!*
so	light-hearted

'When I was 20 – how happy I was back then!'

  b.

[**In**	**meiner**	**Schulzeit**]ᵢ	–	*ach,*	*ich*	*war*	**damals**ᵢ
in	my.DAT.SG	schooltime		oh	I.NOM	be.1SG.PST	then

so	*unbeschwert!*
so	light-hearted

'In my schooldays – how happy I was back then!'

The two sentences in (14) illustrate a pattern that is productive in spoken usage. In the approach pursued in the present paper, there does not seem to be any reason to believe that the utterance-initial constituents in (14a) and (14b) are any different from regular Frame-setting Topics except for their syntactic position. Note that HTs in general are one of the possible strategies used to introduce some kind of topic in the discourse. In this respect, uttering a sentence of the type "*Hans – ich liebe diesen Mann*" ('Hans – I love this man'), in which the DP in first clause position is arguably an Aboutness HT, is, in fact, not at all different from introducing the frame within which a sentence is to be interpreted by spelling out a CP-external Frame as the first constituent in the utterance, as in (14a)-(14b). To the best of my knowledge, such data have been mainly ignored in the literature (but for a systematic analysis of similar patterns, cf. Breitbarth 2022, to appear). However, they also need to be accounted for, and given the observations made so far, it seems plausible that they can be embedded into a general taxonomy of information-structurally specialized HTs.

A further parallel between clause-internal Frames and Frame-setting HTs is that both categories can be(come) Contrastive Topics/Contrastive HTs given the appropriate context. This comes as little surprise – at least with respect to CP-internal topics – given Krifka's (2008b) and Krifka/Musan's (2012) observations on the notion of delimitation. What is relevant to the present discussion is that this parallel also applies for topics only loosely bound to the clause-internal area of the clause. Cf., for instance, the examples in (15) and (16). In the former, the temporal PP *am zweiten Tag* ('on the second day') is a clause-internal topic that is contrasted to a PP occurring in the pre-context. The adjunct in the relevant sentence provides the very frame within which the content of the sentence is to be interpreted, but at the same time, it is interpreted contrastively. This reading is also disambiguated by means of an adversative marker to the immediate right of the constituent (*aber* 'however'). In (16), we have a similar pattern, but in this case, the constituent in first position qualifies as a HT. The contrastive interpretation of the PP, which simultaneously functions as a Frame-setting HT, is disambiguated by *hingegen* ('instead'):

(15) context:

[***Am ersten Regattatag***] *hatten wir nur eine Wettfahrt, in dieser waren wir auf Platz vier und unsere Gegner in der Qualifikation zweite. Damit wäre es sich nicht ausgegangen, da der Vorsprung der vorangegangenen Regatten nicht so groß war.*

'On the first day of the regatta day, we had only one race, in which we were fourth, while our rivals in the qualification were second. It wouldn't have been enough, since the advantage gained in the previous regattas was not so great.'

sentence:

Am	***zweiten***	**Tag**	*aber*	*haben*	*wir*	*den*
in-the.DAT.SG	second.DAT.SG	day	however	have.1PL.PRS	we.NOM	the.ACC.SG

ersten	*Platz*	(…)	*ersegelt.*
first.ACC.SG	position		gain.PTCP

'On the second day, however, we were first (…).'

(*uycas.de*, 8 June 2018)

(16) context:

Obwohl Deutschland diesbezüglich rein theoretisch besser dastehen sollte als die NL, was das angeht, sind die beiden Länder eigentlich kaum miteinander zu vergleichen. [***In den Niederlanden***] *sind die Job-Perspektiven sowohl im BWL- als auch im PS-Bereich sehr gut* (…)*.*

'Although Germany should in principle be in a better situation than the Netherlands with respect to this, the two countries are in fact incomparable. In the Netherlands, the job opportunities are excellent both for Business Administration and for Psychology graduates.'

sentence:

[***Bei***	***uns***	***in***	***Deutschland***]ᵢ	*hingegen*	–	*was*	*ist*	***hier***ᵢ
at	we.DAT	in	Germany	instead		what.NOM	be.3SG.PRS	here

eigentlich	*los?*
actually	up

'In Germany, instead – what is actually wrong with this country?'

(*studis-online.de*, 11 December 2021)[7]

If the assumption that HTs can realize Frames is on the right track, this also implies that the phrase category associated with this type of topic is not necessarily a DP, differently from what is generally stipulated for HTs. This is also clear from the examples above, in which the HTs are, respectively, a whole subordinate clause (14a) or a PP (14b)-(16)-(i) in footnote 7. For space reasons, I am not able to go into greater detail and illustrate all possible combinations of labels and information-structural functions here. For the time being, it suffices to say that the phrase categories compatible with clause-internal topics (typically DP, PronP, PP, CP and AdvP)[8] can also realize the corresponding HTs.

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[7] As we said with respect to other types of HTs, the category of the expression resuming the clause-external topic may vary: it can have, for instance, a pronominal or epithetic nature. In principle, the very referent of the constituent realizing the HT and the expression resuming it can even be identical, as in the following example, in which the phrase in first position is also a Contrastive HT:

(i) context:
Die Bedingungen für Forschung und auch für Biotech-Startups sind in Boston bereits perfekt ausgelegt.
'The conditions for research and also for biotech startups are optimally designed.'
sentence:

In	***Berlin***ᵢ	*hingegen...*	*also*	*entweder*	*steckt*	***Berlin***ᵢ	*in*	*den*
in	Berlin	instead	well	either	stick.3SG.PRS	Berlin	in	the.DAT.PL

Startlöchern	*oder*	*es*	*ist*	*eingeschlafen.*
start-hole.DAT.PL	or	it.NOM.SG	be.3SG.PRS	V.PRT-PTCP-fall-asleep-PTCP

'In Berlin, instead… well, Berlin is either waiting in the wings or it is just inactive.'
(*tagesspiegel.de*, 5 July 2017)

[8] Note that in the case of adverbial HTs, the reading is bound to one specific class of adverbs generally labeled "domain adverb(ial)s" (cf., among the most recent contributions from a comparative perspective, Grübl 2018; De Cesare et al. 2020), since run-of-the-mill adverbs are non-referential and therefore unable to function as topics in general. Domain adverbs typically appear at the beginning of a sentence (irrespective of whether they are regular topics or HTs) and refer to a certain state of affairs that may be interpreted as frame-setting and/or contrastive (along the lines of the discussion in Krifka & Musan 2012). The topical status of such adverbs has only been discussed with respect to the possibility of realizing a canonical (i. e. CP-internal) topic so far, but they can also function as HTs. The possibility for domain adverbs to be topics despite their semanto-syntactic category is due to the fact that they implicitly introduce a referent in the discourse that is to be identified within the adverb and is obligatorily interpreted as such in the relevant contexts. Cf. the following examples. In (i), the CP-internal domain adverb *körperlich* 'physically' can be assumed to provide a frame into which the predicate is to be embedded, but at the same time, it is interpreted contrastively (see the referent *die psychische Aufarbeitung* 'the psychic reprocessing' in the pre-context). In (ii), modeled on a context similar to that of (i), the utterance-initial constituent in the second sentence is a HT, but it performs the very same function:

(i)

Die	*psychische*	*Aufarbeitung*	*dauert*	*eine*	*Weile*
the.NOM.SG	psychic.NOM.SG	reprocessing	last.3SG.PRS	a.acc.sg	while

Körperlich	*ist*	*sie*	*aber*	*fit.*

3 Defining the layers: The word order of HT projections

3.1 The study

In the previous paragraphs, it has been proposed that HTs in German can realize aboutness, contrastive, familiar and frame-setting reference. As is generally the case with linguistic data occurring in colloquial interaction, it is not an easy task to define the regularities underlying the observable word orders in speech production. However, the observations made above about the interpretation and the syntactic status of the HT classes of German raise one fundamental question that needs to be addressed: Does the outer left periphery of German include dedicated projections to host these different types of topics? And if so, do the corresponding projections appear in a fixed word order parallel to what is generally stipulated for information-structurally defined positions in all cartographic approaches to word order?

The main difficulty in answering this question is related to the fact that to do this, one has to consider patterns in which more than one HT occurs, which – as we underlined with respect to data like (7) above – are not attested so frequently as to allow us to work with existing corpora in a satisfactory way. Such arrangements, although still possible, defy the limits of grammatical acceptability and cannot be expected to occur often enough for the linguist to be able to draw any relevant conclusion on their behavior. In the same vein, relying only on one's grammaticality judgments does not necessarily produce valuable insights.

In order to investigate this issue and in consideration of these points, a small pilot study was conducted that involved 17 adult (min. = 29, max. = 64) native speakers of German, mainly from Southern and Western Germany (11 = Bavaria, 5 = North-Rhine Westphalia, 1 = Hamburg). The participants, who were recruited among friends and acquaintances, all hold a university degree (5 = B. A., 8 = M. A., 4 = PhD.), but none of them is a linguist; they do not have any kind of explicit linguistic background knowledge, and were not provided with any information about the objectives or the scope of this study before or during the experiment. In a live Zoom session, each participant In the study received a total of 35 sentences (as written stimuli), most of which (18) were distractors. The test persons were asked to evaluate the grammaticality of each sentence on a scale from 1 (= ungrammatical) to 10 (= perfectly grammatical) and, if necessary, to comment on their judgments. Each of the sentences was preceded by a short description of the context into which the relevant utterance should be embedded. If required or necessary for other reasons, the stimuli were integrated with additional contextual information

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| | physically | be.3SG.PRS | she.NOM | however | fit |
'The psychic reprocessing will take a long time. But physically [= with respect to **her body**], she is fine.'

(ii) *Psychisch* *hat* *sie* *sich* *einigermaßen* *erholt.* ***Körperlich***ᵢ
psychically have.3SG.PRS she.NOM REFL more-or-less recover-PTCP physically
aber – ***darüber***ᵢ *können* *wir* *erst* *in* *den* *nächsten*
however about-it can.1PL.PRS we.NOM only in the.DAT.PL next.DAT.PL
Tagen *mehr* *sagen.*
day.DAT.PL more say.INF
'She has recovered psychologically more or less. Physically [= with respect to her physical recovery], however – well, we will be able to say more about it in a couple of days.'
((i) from: *focus.de*, 13 November 2013)

about the sentences, and additional questions about the context were answered. This being a pilot study, I also took note of any relevant comment on each of the sentences. In some cases, additional judgments on some of the items were collected to test the corresponding hypotheses (see 3.2 below for the details). The stimuli were submitted one by one and in different orders to avoid any effects due to tiredness or distraction in the last phase of the experiment, which on average lasted between 50 and 85 minutes per test person. In (17a)-(17b), two of the sentences are reported in combination with the context presented (separately) for both (here translated into English for the sake of convenience):

(17)   context:
‘You were at Maria’s place yesterday evening with a group of close friends. It was a very nice evening: there was a lot of chatting, eating, drinking and a very enjoyable and relaxed atmosphere. One of your friends, Hans, was at the center of attention for most of the time: he told a lot of funny stories, and everybody laughed and had a lot of fun. However, Hans drank a little bit too much, and near the end of the evening it was clear that he would not be able to drive back home. Maria, who has a guest room at her place, offered him to stay for the night and go home safely the day after in order not to leave his car in her garage and have to collect it later. On the following day, you call Peter, one of the other guests at Maria’s, who is a tax accountant. You ask him something about your tax declaration, with which you are having trouble. During the conversation, yesterday’s situation with Hans being too drunk to drive suddenly comes into your mind, so after discussing with Peter about your tax declaration, you say:’

sentence:

a. *Also,   Hans,   gestern   bei   Maria   –   Gott   sei   Dank*
   so   Hans   yesterday   at   Maria   God   be.3SG.SBJV.PRS   thank

   durfte   er   dort   übernachten!
   be-allowed.3SG.PST   he.NOM   there   overnight.INF

   ‘Well, Hans, yesterday at Maria’s place – thank God he stayed there for the night!’

b. *Also,   gestern   bei   Maria,   Hans –   Gott   sei   Dank*
   so   yesterday   at   Maria   Hans   God   be.3SG.SBJV.PRS   thank

   durfte   er   dort   übernachten!
   be-allowed.3SG.PST   he.NOM   there   overnight.INF

   ‘And what about Hans yesterday at Maria’s place? Thank God he stayed there for the night!’

In these two sentences, two HTs appear in the outer left periphery: *Hans* (‘Hans’) and *gestern bei Maria* (‘yesterday at Maria’s place’). For the latter, I assume that the temporal adverb and the local adjunct, despite being two different constituents, form a ‘big Frame’ and can be construed as belonging together. For the two different HTs in (17a) and (17b), the intended reading given the context provided is one in which Hans is an Aboutness HT marking a topic shift (the context specifies that this DP must receive an out-of-the-blue reading), and the temporal-local adjunct is a Frame-setting HT, for which there does not seem to be any reason to think that it

should be interpreted contrastively here. The aim is to test whether the (at least preferred) serialization of these two categories is one in which the projection for Aboutness HTs is higher or lower than that hosting Frame-setting HTs.

A further example, which is reported in (18), should verify whether Contrastive HTs can be iterated in the outer left periphery. As underlined by Castiglione (2019: 33), even though no iteration of contrastive topics in one and the same sentence appears in Frascarelli/Hinterhölzl's (2007) corpus, one cannot exclude that this configuration may be possible given the appropriate discourse conditions (cf. Castiglione 2019: 33 on this). Indeed, if we relate this observation to clause-internal Contrastive Topics in German, a configuration like the following is possible, in which *Maria* and *in der Kirche* ('in the church') in the first clause and *Hans* and *im Verein* ('in the club') in the second clause realize two Contrastive Topics In the same utterance, the rest of the sentence being part of the focus domain, as accordingly marked in the example:

(18)   A: *Ich habe gehört, dass sich Hans und Maria in der Kirche und im Verein um die*
              Dekorationen kümmern werden. Wie habt ihr das genau organisiert?
              'I heard that Hans and Maria will take care of the decorations in the church and in the club. How did you arrange that exactly?'

        B: *Maria   wird   in   der   Kirche   [die   Girlanden*
              Maria   will.3SG.PRS   in   the.DAT.SG   church   the.ACC.PL garland.ACC.PL

              *aufhängen]*F,   *Hans   wird   im   Verein   [die*
              hang-up.PTCP   Hans   will.3SG.PRS   in-the.DAT.SG   club   the.ACC.PL

              *Tische   decken]*F.
              table.ACC.PL   cover.INF

              'Maria will hang up the garlands in the church, Hans will set the tables in the club.'

German being a V2 language, these two Contrastive Topics must either both appear in the middle field or be distributed between the prefield and the middle field (as is the case in (18)). Using the context in this example (namely Speaker A's sentence), which disambiguates the required information-structural category of each of the constituents, in the study I tested whether (19) would be judged as acceptable (and, if so, *how* acceptable it would be judged) by the participants:

(19)   *Maria,   in   der   Kirche   –   sie   wird   dort   die*
        Maria   in   the.DAT.SG   church   she.NOM   will.3SG.PRS   there   the.ACC.PL

        Girlanden   aufhängen,   Hans,   im   Verein –   er
        garland.ACC.PL   hang-up.PTCP   Hans   in-the.DAT.SG   club   he.NOM

        wird   dort   die   Tische   decken.
        will.3SG.PRS   there   the.ACC.PL   table.ACC.PL   cover.INF

Assuming the iteration of two or more Familiar Topics would arguably be incompatible with the general idea that these elements are "used for topic continuity" (Frascarelli/Hinterhölzl 2007: 88). The same is true of the repetition of Familiar *HT*s: if one topic realizes identifiable continuity in a concatenation of sentences in a text, it is rather implausible that at some point two topics surface in the left periphery of the clause that refer to two familiar entities (unless

one categorizes highly inferable referents as "familiar"). Therefore, for this category no iteration patterns were tested in this experiment. However, the co-occurrence of a Familiar HT and a Frame-setting HT was considered, e. g. in the following stimuli, for which the very same precontext as for (13) above was proposed. The context, however, was integrated with instructions about the situation in which the sentence could be uttered, namely in a dialogue between close friends that regards Sabrina's new boyfriend, whom Sabrina seems to be very fond of, but who is unfaithful (for space reasons, I only reproduce the beginning of the sentence in (20), which goes on as follows: …*dass er auf mich steht* '…that he is into me'):[9]

(20) a. *Also,   dieser   Fabian, auf der   Party   – da   kommt*
         so   this.NOM.SG   Fabian   at   the.DAT.SG   party   there come.3SG.PRS

         er   zu   mir   und   sagt …
         he.NOM   to   I.DAT   and   say.3SG.PRS

         'So, this Fabian guy, at the party – he comes to me and says …'

      b. *Also,   auf der   Party, dieser   Fabian   – da   kommt*
         so   at   the.DAT.SG   party   this.NOM.SG   Fabian   there come.3SG.PRS

         er   zu   mir   und   sagt   …
         he.NOM   to   I.DAT   and   say.3SG.PRS

         'So, (let me tell you something about) this Fabian guy, at the party – he comes to me and says …'

A further option that was investigated (reported in (21) below) is one in which three HTs co-occur in the outer left periphery, namely the same Familiar HT as in (20) (the situational precontext being the same), an Aboutness HT (*Maria*, with a parenthetical specification by the speaker that she was also at the party), and what is supposed to be a Frame-setting HT. Also in this case, two versions of this sentence were submitted to the participants: (21a), in which the Familiar HT surfaces in a higher position than the Aboutness HT, and (21b), in which we find the opposite order, but the Frame is in the same relative position as in (21a). Of course, in (21b), the parenthetical is to be read cataphorically. The cataphoric use of deictic expressions is, in fact, not particularly marked in spoken usage. For good measure, however, the participants were also explicitly asked to rate the sentence by preserving the same context, but obliterating this parenthetical:

(21) a. *Also,   dieser   Fabian, Maria –   sie   war   auch   da –,*
         so   this.NOM.SG   Fabian   Maria   she.NOM   be.3SG.PST   also   there

         auf Peters   Party –   er   hat   sie   dort
         at   Peter.GEN   party   he.NOM   have.3SG.PST   she.ACC   there

         geküsst!
         PTCP-kiss-PTCP

---

[9] Note that for this sentence, a HT interpretation must be assumed to distinguish it from an adverbial-resumption structure in which *da* resumes the topicalized Frame and functions like *d*-pronouns in pronominal left dislocation. In fact, left dislocation and HTalization are always *potentially* ambiguous: (i) in pronominal left dislocation, if no case marking is visible, and; (ii) in adverbial left dislocation, if the resumptive is *da*. In this case, however, a number of easily identifiable factors play a role in disambiguating the status of the elements at the beginning of (20), e. g. the prosody of the utterance and the word order of the sentence, which even in the absence of prosodic input is automatically associated with a HT reading of *auf der Party*.

'So, this Fabian guy, Maria – she was there, too -, at Peter's party – she kissed her there!'

b. *Also,   Maria –   sie   war   auch   da –,   dieser   Fabian,*
    so   Maria   she.NOM   be.3SG.PST also   there   this.NOM.SG Fabian

    auf   Peters   Party –   er   hat   sie   dort
    at   Peter.GEN party   he.NOM   have.3SG.PST she.ACC   there

    geküsst!
    PTCP-kiss-PTCP

'So, (let me tell you something about) Mary – she was there, too –, this Fabian guy, at Peter's party – she kissed her there!'

In (22), another pattern is considered in which two HTs occupy the pre-ForceP area and the context forces an interpretation in which one of the two referents is a Contrastive HT and the other one a Frame-setting HT. The two versions of this sentence submitted to the test persons, realizing two different positions of these two HTs, are reported in (22a), where the Contrastive HT appears in a higher position than the framing HT, and (22b), where the Frame-setting HT occurs to the left of the contrastively interpreted constituent:

(22)   context:

    In letzter Zeit ist Peter sehr ruhig gewesen. So kenne ich ihn nicht.
    'Peter has been very quiet, recently. This is not like him.'
    sentence:

a. *Hans   hingegen   auf   der   Party –   er   hat   dort*
    Hans   instead   at   the.DAT.SG party   he.NOM   have.3SG.PRS there

    die   Sau   rausgelassen!
    the.ACC.SG sow   V.PRT-PTCP-let-PTCP

    'Hans, instead, at the party – he went hog wild!'

b. *Auf   der   Party   Hans   hingegen –   er   hat   dort*
    at   the.DAT.SG party   Hans   instead   he.NOM   have.3SG.PRS there

    die   Sau   rausgelassen!
    the.ACC.SG sow   V.PRT-PTCP-let-PTCP

    'At the party, Hans, instead – he went hog wild!'

For the time being there are, to the best of my knowledge, no *empirical* studies testing the grammaticality of different types of HT co-occurring in the outer left periphery and/or their relative positioning in the pre-CP domain (the data in Grohmann's 1997, 2000, 2003; and Boeckx/Grohmann's 2005 studies, which are groundbreaking from this point of view, are based on introspective evidence). As pointed out above, these data typically occur in spontaneous spoken interaction and the participants were all non-linguists. Furthermore, the present investigation is a pilot study. Therefore, the two research questions to be considered here with respect to the prospective results can be formulated as follows:

- Can any *identifiable* preferences be detected in the participants' ratings? If so, do these (more or less) clearly point to an architectural makeup of the area hosting HTs in the outer left periphery?

- If no identifiable picture can be drawn from these results: does that imply that at least the HTs themselves (differently from the corresponding resumptives in the clause-internal area of the clause) can be first-merged clause-externally in a "random" relative order?

3.2   Results

In Table 1, the average rating for each stimulus are summarized. For space reasons, the submitted pre-contexts cannot all be discussed (the reader is referred to the exemplary items above). However, each sentence was accompanied by a (pre-)context to disambiguate the information-structural category of the HT, which is given in the corresponding column in the table. As for the abbreviations used in this column: F = Familiar HT, A = Aboutness HT, C = Contrastive HT, FS = Frame-setting HT. In the case of domain adverbials, two options were indicated, since these elements (at least those occurring clause-internally) are often treated as "Contrastive Frame-setting Topics" in the literature (see the discussion above).

	Sentences	HT pattern	average rating
1)	*Also, dieser Fabian, Maria – sie war auch da –, auf Peters Party – er hat sie dort geküsst!*	F > A > FS	**7.17**
2)	*Also, Maria – sie war auch da –, Fabian, auf Peters Party – er hat sie dort geküsst!*	A > F > FS	4.2
3)	*Maria, in der Kirche – sie wird dort die Girlanden aufhängen, Hans, im Verein – er wird dort die Tische decken.*	C > C	1.52
4)	*Also, Hans, gestern bei Maria – Gott sei Dank durfte er dort übernachten!*	A > FS	**6.76**
5)	*Also, gestern bei Maria, Hans – Gott sei Dank durfte er dort übernachten!*	FS > A	5.05
6)	*Maria, körperlich – da ist sie ganz zierlich!*	A > C/FS	**7.11**
7)	*Körperlich, Maria – da ist sie ganz zierlich!*	C/FS > A	4.17
8)	*Also, auf der Party, dieser Fabian – da kommt er zu mir und sagt …*	FS > F	4.17
9)	*Also, dieser Fabian, auf der Party – da kommt er zu mir und sagt …*	F > FS	**7.7**
10)	*Hans hingegen auf der Party – er hat dort die Sau rausgelassen!*	C > FS	**8.11**
11)	*Auf der Party, Hans hingegen – er hat dort die Sau rausgelassen!*	FS > C	1.94

	Sentences	HT pattern	average rating
12)	*Maria, Hans – sie hat ihn geküsst!*	A > A	**7.70**
13)	*Maria, Hans – er hat sie geküsst!*	A > A	5.11
14)	*Auf der Party, Maria, dieser Fabian – sie hat ihn geschlagen!*	FS > A > F	3.11
15)	*Maria, dieser Fabian – er hat sie geküsst!*	A > F	3.94
16)	*Hans aber, Maria – er hat sie geküsst!*	C > A	2.23
17)	*Auf der Party, Hans, Maria – er hat sie dort geküsst!*	FS > C > C	1.94

Table 1: Complete list of stimuli and summary of results

Of course, Table 1 only includes the items relevant to the present discussion and not the 18 distractors also used in the same study.[10]

3.3   Discussion

These results are at least indicative of a tendency in the preferences of the participants. In a nutshell, sentences (1), (4), (6), (9), (10) and (12) in Table 1, accordingly marked in bold and all performing an average score of >7.0 points, are the stimuli that were rated as exhibiting the most acceptable patterns. The outer-left-peripheral HT serializations observable in these six utterances are summarized in (23) for the reader's convenience:

(23) a. Familiar HT > Aboutness HT > Frame-setting HT   sentence (1)
      b. Aboutness HT > Frame-setting HT   sentence (4)
      c. Aboutness HT > Contrastive/Frame-setting HT   sentence (6)
      d. Familiar HT > Frame-setting HT   sentence (9)
      e. Contrastive HT > Frame-setting HT   sentence (10)
      f. Aboutness HT > Aboutness HT   sentence (12)

These ratings are interesting for a number of reasons. In the first place, they seem to build a fairly coherent case. In particular, they suggest that the projection hosting Frame-setting HTs is the lowest of the four (in (a), three categories are displayed that point to this relative word order; in (b)-(e), only two categories appear in the HT area, but in all cases, Frame-setting HTs occur to the right of the other HT). The stimuli reported in Table 1 that contain patterns violating this ordering, for instance (2) (A > F > FS) or (11) (FS > C), all performed poorly, with average ratings <6.0. Sentence (3), moreover, which exhibits two Contrastive HTs pro conjunct, scored

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[10] For the sake of completeness, the fillers used in this study were mainly either clearly grammatical or clearly ungrammatical variants of the 17 sentences submitted in order to test the acceptability of HT serializations. Two examples are given in (i) and (ii), which are both modeled on sentences (6) and (7) in Table 1, the first exhibiting, respectively, an uncontroversial left dislocation (or HT structure, depending on the prosodic contour of the utterance) and a subject topicalization:

(i)   *Maria,*   *die*   *ist*   *körperlich*   *ganz*   *zierlich.*
      Maria   that.NOM   be.3SG.PRS   physically   very   delicate
(ii) *Maria*   *ist*   *körperlich*   *ganz*   *zierlich.*
      Maria   be.3SG.PRS   physically   very   delicate
      'Maria is physically very delicate.'

even below the average of the quasi-ungrammatical structures on the list (namely the ones in the <2.0 spectrum). Given that – as was shown above (= example (19)) – the context provided to the study participants for this sentence forces a Contrastive-HT reading, but the order itself is in principle also compatible with other interpretive options in which the lower constituent realizes a (non-contrastive) Frame-setting HT, the test persons were additionally asked to evaluate the acceptability of the single conjunct *Maria, in der Kirche – sie wird dort die Girlanden aufhängen* (lit. 'Maria in the church she will there the garland hang-up') in a context in which *Maria* is an Aboutness HT and *in der Kirche* a non-contrastive HT. Accordingly, this sentence obtained the second-highest average rating (7.88 points) of all items in the study after sentence (10) (exhibiting the order Contrastive HT > Frame-setting HT), which scored 8.11 points. Along these lines, the sentences that performed the worst are the ones that violate this ordering: in particular, all serializations in which a Contrastive HT linearly precedes an Aboutness HT (e. g. sentence (16) in Table 1) and any sentence in which the Frame-setting HT is not the rightmost element have received relatively or very low ratings. A further (expected) result is that Aboutness HTs can be iterated, but that there seems to be a preference concerning the order of the middle-field resumptives associated with a given sequence of HTs in the outer left periphery (sentences (12)-(13) in Table 1; see the discussion on Grohmann's data in 2.2.1).

Secondly, these results show an unexpected preference for a serialization that seems to be (at least with respect to the items used in this experiment) more rigid than the one generally discussed in the literature for clause-internal topics. If we consider the general outcomes of the existing information-structurally-oriented studies of the left periphery of both Historical and Present-Day German *in combination* (e. g., among others, Frascarelli/Hinterhölzl 2007; Speyer 2008; Petrova 2012; Speyer/Weiß 2018; and Catasso 2015, 2021), the picture that these studies paint is that CP-internal topics realize a hierarchy of the following type, with the categories of Aboutness and Frame potentially occupying two positions. With respect to the former: in Frascarelli/Hinterhölzl 2007, it appears to the left; in Speyer 2008; and Petrova 2012 to the right of the position dedicated to contrastive elements. As has been shown in a number of recent works in the realm of cartographic syntax (cf., e. g., Rizzi/Bocci 2017), the (inner) left periphery and the lower areas of the clause include multiple positions for topics with different information-structural labels. Thus, the formalization in (24) possibly corresponds to a structure in which more than one position for Aboutness is available or in which the lower projection functions as an intermediate step for a topic moving out of the middle field and on its way to its landing site in the structure to acquire some of the relevant information-structural features with which it surfaces. With respect to Frame-setting Topics, instead, Catasso (2021) proposes that a further FrameP (or a projection with very similar features) must be postulated in a lower position of the CP area to make sense of data of the type *Hans, als das passierte, war zu Hause* (which is possible in German and in a number of other languages, cf. the English translation 'Hans, <u>when that happened,</u> was at home'):

(24)   [Frame-sett.] > (Aboutn.) > Contr. > (Aboutn.) > Fam. > [Frame-sett.]

The hierarchy in (24), which summarizes the results of the existing studies in one coherent representation, shows among other things that in general, the projection encoding Contrastivity never occupies an edge position, but is located more or less in the middle of an array of projections specialized for HT marking.

If the results of the present pilot study are at least approximately representative of the general makeup of the area above ForceP hosting HTs, they show that the preferred order is the one in which Frame-setting HTs are the lowest of the four categories, linearly preceded by Contrastive HTs, which are in turn preceded by Aboutness and Familiar HTs:

(25)   [HT_Fam [HT_About [HT_Contr [HT_Frame [ForceP …]]]]]

To be sure, the investigation presented in this paper does not address the structural and topological distinction between Aboutness and Familiar HTs in a very detailed manner, but is only able to show a slight tendency (see items (2) and (15) in Table 1). In the formalization in (25), I represent the position of Familiar HTs to the left of the position for Aboutness HTs in light of the results in Table 1, which seem to indicate a preference for the serialization Familiar HT > Aboutness HT. Moreover, the two types of HT are placed in different projections because – as contended above – Aboutness HTs can be iterated, but Familiar HTs cannot – at least not in the outer left periphery). However, a more in-depth investigation of this sequence and of the technical details associated with it must be left to future research. In any case, even in (24) one can see that Aboutness and Familiarity may (at least optionally) appear next to each other. Given the limited scope of a pilot study like this, for the time being, I do not have much to say about the reasons behind this ordering and what this can tell us about the structure of the outer left periphery or about UG in general. These findings will have to be integrated with further evidence also including other types of elements typically occurring in the pre-ForceP area.

3.4   Contrastivity in the left periphery

In the sections above, it has been argued that both in the clause-internal and in the clause-external area of the left periphery (of German, but this can also be extended to other languages), constituents can be hosted that qualify as "Contrastive Frames". Corresponding structures are found in (15) and (18) above for clause-internal and in (16), as well as in footnotes 7 and 8 for clause-external topics interpreted contrastively. In (26)-(27), two of these examples, (15) and (16), are repeated in a simplified form for the reader's convenience.

(26)   Clause-internal "Contrastive Frame-setting Topic":

Am	***zweiten***	***Tag***	*aber*	*haben*	*wir*	*gewonnen.*
in-the.DAT.SG	second.DAT.SG	day	however	have.1PL.PRS	we.NOM	PTCP-win-PTCP

'On the second day, however, we won.'

(27)   "Contrastive Frame-setting HT":

In	***Deutschland***	*hingegen* –	*was*	*ist*	***hier***_i	*eigentlich*	*los*?
in	Germany	instead	what.NOM	be.3SG.PRS	here	actually	up

'In Germany, instead – what is actually wrong with this country?'

Considering that Contrastive Topics/HTs and Frame-setting Topics/HTs realize two different information-structural categories, the question must be raised as to how this is represented in syntax. Assuming that both the inner and the outer left periphery include a low projection for frame-setting elements linearly preceded by one in which Contrastivity is encoded (see (24) and (25)), I propose the following scenarios:

- Contrastive Frames occurring in the inner CP-layer are base-generated in the middle-field area and raised into the left periphery of the clause reaching their PF position by cyclical

movement within the CP. They are first moved to Spec,FinP to derive the Bottleneck Effect (Cardinaletti 2010; Haegeman 1996; Hsu 2017; Roberts 2004), then to the lower Spec,FrameP to acquire the relevant framing features and eventually to the specifier of the projection hosting Contrastive Topics (say, Spec,ContrP), in which it is interpreted as in (26). This is arguably the projection whose head is able to generate a topic marker of the *aber*-type. Once the XP has reached this position and the rest of the syntactic computation of the clause is complete, it can be spelled out. Note that this is not an *ad-hoc* derivation: in a structure of the type *Hans, als das passierte, war zu Hause*, in which the temporal clause is positioned (and arguably base-generated, cf. Catasso (2021: 788–792) for the technical details) in the specifier position of the lower FrameP, this clause is incompatible with a contrastive reading. Indeed, no topic marker can accompany the Frame, whereas a sentence of the type *Hans aber, als das passierte, war zu Hause* 'Hans, instead, when that happened, was at home', is perfectly grammatical). Such data are undeniably part of the syntactic inventory of German. What still needs to be clarified in the literature is what features exactly differentiate the lower and the higher FrameP in the clause-internal area of the left periphery. It could be assumed – along Krifka's (2008b); and Krifka/Musan's (2012) lines – that (in this case, *some*) Frame-setting Topics and Contrastive Topics instantiate one and the same category and that what we have labeled "the higher FrameP" above is nothing else but the projection standardly hosting Contrastive Topics in German. If this is the case, then we may assume that the two "FramePs" in the German left periphery are to be discerned by means of their compatibility with a contrastive reading: if the Frame is non-contrastive, it remains in the lower Spec,FrameP once it has reached this position; if it is contrastive, it moves further to the higher FrameP/ContrP, in whose head a topic particle is optionally merged. This derivation, which entails that the finite verb moves to Fin°, is schematically illustrated in (28):

(28) $[_{ForceP}$ $[_{Force°}$ $[_{FrameP/ContrP}$ **FRAME-SETTING TOPIC**$_i$ $[_{Frame°/Contr°}$ (**TOPIC MARKER**)
       $[... [_{FrameP}$ **t**$_i$ $[_{Frame°}$ $[_{FinP}$ $[_{Fin°}$ $[_{TP}$ **t**$_i$ $]]]]]]]]]]$[11]

- Accordingly, Contrastive HTs can be assumed to be base-generated in the specifier of the low outer-left-peripheral projection labeled "HT$_{Frame}$" in (25) and moved to the higher Spec,HT$_{Contr}$, the position in which they are spelled out. Following Krifka's seminal thoughts on the conflation of the projections hosting Frames and Contrastive Topics (but, again, adapting them to our model), it can be assumed that non-contrastive Frame-setting HTs are

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[11] It goes without saying that exactly the same can be unproblematically assumed for Frames that are not contrastive, but "Aboutness-like", as in the following example, in which the first constituent in the second sentence, *in Deutschland* ('in Germany'), accompanied, functions as a Frame and simultaneously introduces a new referent in the discourse which is marked by an Aboutness-Topic marker (*z. B.* 'e. g.', 'for instance'):

(i)   *Europa*   *hat*   *viele*   *BWL-Absolventen.*   *In*   *Deutschland*   *z. B.*
      Europa   have.3SG.PRS   many.ACC.PL   BA-graduate.ACC.PL   in   Germany   e. g.
      sind   *dieses*   *Jahr*   *200.000*   *Studierende*   *dieses*   *Fachs.*
      be.3PL.PRS   this.ACC.SG   year   200,000   student.NOM.PL   this.GEN.SG   subject.GEN.SG
      'Europe has many BA graduates. In Germany, for instance, we have 200,000 students enrolled this year.'

In such cases, the XP can further move into the specifier specialized for Aboutness, whose head can generate a corresponding topic marker.

base-generated in HT$_{Frame}$ and surface in that position, optionally preceded by other topics that are themselves first-merged in their spell-out specifier; while Contrastive Frame-setting HTs are raised into Spec,HT$_{Contr}$, which can also generate an adversative topic marker in its head position. This is in line with the observable restriction that forbids the occurrence of two Contrastive HTs in the outer left periphery of the clause. If a domain adverb like *körperlich* in *Maria, körperlich – da ist sie ganz zierlich* (lit. 'Maria, physically – there is she very delicate') can be assumed to be both frame-setting and contrastive, then it will be moved into the corresponding specifier, while the higher specifier, HT$_{About}$, is the position in which *Maria* is base-generated. This is also the case in (27), where *in Deutschland* is first-merged in HT$_{Frame}$ and then moved into Spec,HT$_{Contr}$ to receive the relevant reading. If a higher constituent (say, a DP) is interpreted contrastively, a contrastive interpretation is ruled out for the constituent functioning as a Frame, as in example (22) (*Hans hingegen auf der Party – er hat dort die Sau rausgelassen!* 'Hans, instead, at the party – he went hog wild there!'), which will therefore remain in Spec,HT$_{Frame}$. This is shown in (29a) (based on (14a)) and (29b) (based on (16)/(27)):

(29)   a.   [HT$_{Fam}$ [HT$_{About}$ [HT$_{Contr}$ [HT$_{Frame}$ *Als ich 20 war* – [ForceP …]]]]]

       b.   [HT$_{Fam}$ [HT$_{About}$ [HT$_{Contr}$ *In Deutschland* [HT° *hingegen*] [HT$_{Frame}$ t$_i$ –
            [ForceP …]]]]]

These two derivations account both for the results of the study carried out in the present paper and for the differences observable between run-of-the-mill and HTs with a contrastive and a non-contrastive reading.

4   Concluding remarks

In this paper, I have conducted a survey of HT types in Present-Day German based on their information-structural features and their syntactic position. In particular, three properties of HTs in this language have been addressed from a theoretical perspective: (i) their (possibile or impossible) iterability; (ii) their interpretation, intended as their information-structural categorization, and; (iii) the phrase category that may possibly realize a HT.

From a taxonomic perspective, it has been proposed – assuming Frascarelli/Hinterhölzl's (2007) hierarchy and on the basis of corpus data – that HTs can realize Aboutness, Contrastivity, Familiarity and Frameness just like clause-internal topics. Further, it has been contended that among the non-frame-setting elements, multiple Aboutness HTs, but not multiple Contrastive and Familiarity HTs can appear in the outer left periphery of the same clause. The iterability of Frame-setting HTs in one and the same sentence, instead, has not been explicitly addressed and is left to future research. As far as their phrase category is concerned, I have argued (against the mainstream view) that HTs do not exclusively have the form of DPs or PronPs, but can also be CPs and PPs (e. g., Frame-setting HTs) and AdvPs (in the case of domain adverbs). In fact, this taxonomy could be extended to further categories, e. g. VPs (cf. [*Ein Semester im Ausland studieren*]$_{VPi}$ – [*so eine Chance*]$_i$ *hätte ich auch gerne in meiner Studienzeit gehabt,* 'Spend(ing) a semester abroad – I would have been happy to have such a chance in my university days').

In the second part of the paper, I have presented and discussed the results of an empirical pilot study in which the relative word order of HTs in the outer left periphery of German was explored from a cartographic perspective. The main outcomes of this investigation seem to point to a distribution of HT projections in the pre-ForceP area of the type $HT_{Fam} > HT_{About} > HT_{Contr} > HT_{Frame}$. Moreover, the issue concerning the syntacticization of so-called (clause-internal, as well as "hanging") "Contrastive Frames" has been addressed. In this respect, it has been proposed that the contrastive reading of originally scene-setting elements is obtained by movement of the relevant constituent into the specifier of a ContrP, which is present both CP-internally and in the outer-left-peripheral domain of the utterance dedicated to HTs.

It goes without saying that the results of the empirical pilot investigation carried out in this article only represent the first step of what needs to be further developed both quantitatively and qualitatively in order to be able to make conclusive statements about the cartography of HTs in German. What is more, a more refined examination of the structure of the outer left periphery from a cartographic point of view should include a treatment of the interplay between the HT classes addressed here and the other categories that may surface in the outer left periphery (e. g., interjectional and interactional elements à la Haegeman/Hill 2013, sentence adverbs merged clause-externally, etc.). An additional question that should be answered is whether the order of the HTs in the clause-external domain of the left peripheral is universal or subject to interlinguistic variation.

Despite a number of aspects concerning the nature of the syntactic distribution of HTs in German to be reviewed and empirically investigated more thoroughly, the present study hopefully paves the way for future empirical work on the cartography of the pre-ForceP domain of the utterance.

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