On Embedded Topics in German

by

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Abstract

The topic-comment dichotomy as an information structural aspect of sentences has been studied intensively in the past literature. However, only very recently the question arised whether there may be sentence-topics also in embedded constructions. The few existing studies touching on this subject, primarily Japanese ones, suggest a tight relationship between the general possibility of topic-embedding and the assertive character of the embedding verb.

This thesis discusses the conditions for embedded topicality on the basis of a new collection of German data. The analysis of this data reveals that in German there is clear evidence for embedded topics in assertive as well as in non-assertive environments. This surprising result is discussed against the background of the opposed Japanese findings and some considerations from other languages.
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1 Introduction

This thesis provides empirical evidence for the claim that sentence topics are not solely main clause phenomena but may also occur in embedded structures. In particular, based on an established verb classification by Hooper and Thompson (1973) it is shown that any predicate taking a sentential complement may host a topical phrase in its sentential complement. Contrarily to the accepted assumption that topics may only be embedded by the limited class of assertive predicates like ‘say’ and ‘think’, in this paper German embedding topics are shown to be actually not restricted to any specific main clause verb type.

In the first part of my thesis I will give an introductory sketch on the historical and conceptional background of topicalsity as one aspect of Information Structure. In the next step I will establish the empirical devices I make use of in the core part of the thesis. This will include the implementation of several ‘topic-tests’, as well as the evaluation of a designated position for topics in German clauses found by Frey (2000). After having a short glance on proposals concerning the possible number of topics per sentence, the focus then is on properties of topics in embedded clauses in German as well as in other languages. I will empirically support the claim that, contrarily to recent findings for the Japanese language, topic-embedding in German does not depend on the assertive or non-assertive character of the embedding verb. In fact, topic-embedding in German will be shown to be generally possible with any predicate that may have a sentential complement. As one of the consequences it will become evident that German left dislocation, a construction commonly considered topic-marking, can’t be retained as a test for topicality.

1.1 Information Structure: Basic notions

The idea of Information Structure (IS) goes back to Halliday (1967) and further, and by now has evolved into a vast and wide-stretching field of research. In the literature a multiplicity of concepts has been subsumed under the term IS, and there is no conclusive consensus on a clear and decisive characterization of them. Accordingly, the selection of notions I am going to present here can only draw the outline of what is commonly called IS rather than providing a complete list of terms that have been associated with this subject of research.

Generally, the information structure of an utterance refers to the way in which individual parts of the message are informative in a given context\(^1\). Information Structure is a pragmatic property of sentences: Whereas from a semantic viewpoint each sentence has its truth conditions, i.e. it is either true or false in a given context, from a pragmatic viewpoint each sentence has its appropriateness conditions, i.e. it is either appropriate or inappropriate to utter it in a given context. By changing the status of individual phrases with respect to different information-structural aspects, an utterance which is appropriate in a given context may in the same context become inappropriate, even though its truth

\(^1\)Cf. [Halliday, 1967].
conditions and syntactic environment remain constant.
I adopt a position of Steube and Späth (2004) and many other linguists working on IS in assuming that an utterance can be viewed as being naturally partitioned into structural pairs with respect to two major information-structural aspects:

- **Givenness:**
  Information conveyed by an utterance consists of a ‘given’ and a ‘new’ part. The given part, called the *(back-)ground*, covers information which is already available in the discourse. The new part, and the more relevant one from the speaker’s viewpoint, constitutes the intonationally highlighted utterance *focus* (sometimes also called the *rheme*).

- **Aboutness:**
  An utterance can be viewed as being split into what is its subject-matter and what is said about this subject-matter. The former, usually a nominal phrase, is called the sentence *topic* (or sometimes the *theme*), while the latter constitutes the *comment*.

As an illustration, consider (1):

(1) What about Paul, when did he leave?
   a. Paul left at nine o’clock.
   b. [Paul left] _background_ [at nine o’clock] _focus_.
   c. [Paul] _topic_ [left at nine o’clock] _comment_.

From the question in (1) it can be inferred that, first, there’s Paul, and second, Paul left. The only constituent conveying *new* information in (1b) and arguably the one the speaker considers the most relevant for the questioner is the adverbial ‘at nine o’clock’, and hence this constitutes the *focus*. ‘Paul’ is the right candidate for the *topic* in (1c), because the *subject-matter* information is requested about is ‘Paul’.

By making use of linguistic means such as syntactic rearrangements and intonation, a speaker can influence the information-structural effects of his utterance and thereby transmit an intended message with great efficiency. For example, if (1a) was uttered as an answer to the question in (2) instead of the one in (1), it would rather be structured as in (2a) with respect to givenness.

(2) Who among the guests left at nine o’clock?
   a. [Paul] _focus_ [left at nine o’clock] _background_.

The speaker would indicate this structure by intonationally accentuating ‘Paul’ instead of ‘at nine o’ clock’, effectively drawing his listener’s attention to the part of the message which is most informative in this context.

The information-structural aspect I am interested in in this thesis is the *aboutness*-aspect. In the course of this section I will discuss the concept described by the term *topic* in some more detail.
1 INTRODUCTION

1.2 Defining topicality

The general idea of a sentence topic\(^2\) is quite old. In the late 19th century, the philosopher Brentano and his student Marty developed a ‘theory of judgements\(^3\)’, which distinguishes between two types of sentences:

\begin{enumerate}
\item The telephone rang.
\item John bought all his shoes at the flee market.
\end{enumerate}

When a sentence like (3a) is uttered, according to Brentano and Marty there is a simple speaker-judgement involved, concerning the truth of what is expressed by (3a). In their terminology, this is a \textit{thetic judgement}, and (3a) accordingly is a \textit{thetic sentence}. By contrast, (3b) involves a ‘double-judgement’: First the existence of a certain entity is confirmed, and then a predicate is assigned to that entity. This is what Brentano and Marty call a \textit{categorical judgement}, represented by a \textit{categorical sentence}.

Kuroda (1972) takes up Brentano’s and Marty’s idea of thetic and categorical judgements as a description of the cognitive mechanisms that underlie utterances, and brings in his own conceptions of \textit{affirming} and \textit{asserting}. He suggests that a thetic sentence like (3a) is one which expresses a simple description of a perceived stimulus. Uttering (3a) then means to \textit{affirm} the truth of (3a), while this act of affirming in turn depends on the cognitive act of having perceived what is expressed by (3a). This sentence-type is topicless; the entire sentence is a comment, a situation description. By contrast, categoric sentences associate an attribute with an entity; they introduce a topic and then comment on it. Such sentences, like (3b), according to Kuroda are not “tight by [their] nature to any other particular forms of acts or states\(^4\)”, they may ground on a logical inference, a perception, knowledge or even on a belief. A sentence containing a topic expresses “an autonomous cognitive act of \textit{asserting}\(^5\)”, that is of “attributing a predicate to a subject, (...) [where] the (...) topic represents the subject of the predication\(^6\)”. Von der Gabelentz (1869) and Paul (1880) later on coin the terms ‘psychological subject’ and ‘psychological predicate’, referring to ‘the object the speaker is thinking about’ and ‘what the speaker is thinking about that object’, respectively. These terms are already very close to what is nowadays commonly called ‘topic’ and ‘comment’. Their underlying core concept is, again, \textit{aboutness}.

\(^2\)Note that when I use the term \textit{topic} henceforth, I mean what is also referred to as the sentence-internal topic or \textit{s-topic}.

\(^3\)See [Kuroda, 1972] for a detailed description of Brentano’s and Marty’s work.

\(^4\)[Kuroda, 2005], p. 29.

\(^5\)[Kuroda, 2005], p. 29, the italic font was added by the author.

\(^6\)[Kuroda, 2005], p. 25.
Consider (4):

\[(4) \quad \begin{align*}
&\text{a. } [\text{Paul}]_{\text{Topic}} [\text{adopted Sarah in 1983}]_{\text{Comment}}. \\
&\text{b. } [\text{Sarah}]_{\text{Topic}} [\text{was adopted by Paul in 1983}]_{\text{Comment}}.
\end{align*}\]

In (4a), we spontaneously have the feeling to be given information about Paul, namely that he adopted Sarah in 1983, whereas in (4b) we rather learn something about Sarah, even though the truth conditions of the two sentences are identical. First of all, this shows again that differing information-structural effects may be induced by changes in word-order, intonational patterns or context, without the sentence-meaning being affected. And evidently, two sentences with identical denotations may still differ in what we consider them to be about. This aboutness aspect is the defining property of topicality.

The difficult question what it exactly means for an expression to be about something has been discussed e.g. by Reinhart (1981) in great detail. Her famous ‘file card metaphor’ relates topicality to the internal organization of the Common Ground (CG)\(^7\). She suggests that “NP sentence topics [...] [are] referential entries under which we classify propositions in the context set [i.e. the Common Ground; note from the author] and the propositions under such entries in the context set represent what we know about them in this set\(^8\)”.

While Reinhart gives a full formal account on her argument, for simplicity I will here settle for a mere intuitive pragmatic definition offered by Krifka (2007):

\[(5) \quad \text{[Krifka, 2007]} \]

The topic constituent identifies the entity or set of entities under which the information expressed in the comment constituent should be stored in the CG content.

One problem of representing aboutness in a formal model of discourse the way Reinhart (1981) does is that the concept of knowledge representation as a file card-like structure is nowadays controversial. What has become more popular especially among cognitive scientists is the idea of an “amorphous connectionist web\(^9\)” rather than a static hierarchical database as the structure of knowledge representations. This development is accommodated in a recent study by Portner (2007). His approach deliberately separates the event of marking a topic from the level of knowledge representation. The act of marking a phrase as topical by his account is a “separate performative\(^10\)”, which does not specify any fixed structure for the entity’s mental representation itself.

\[(6) \quad \text{[Portner, 2007]} \]

\[\text{\([TOP]\text{C}^c = [\lambda x \lambda w. \text{speaker(c)’s mental representation of } x \text{ is active in } w]\)]\]

---

\(^7\)The ‘Common Ground’ is definable as the shared knowledge of the interlocutors.


\(^10\)Portner, 2007, p. 11.
In Portner’s (2007) framework, by indicating that a phrase denoting an entity \( x \) is a topic phrase, a speaker \( c \) reports that his/her mental representation of \( x \) is active in world \( w \)\(^{11} \). This is a performative act which is independent of the actual structure this mental representation of \( x \) possesses - \( x \) may be an entry in a file-card library, a cell in a connectionist network, or anything else.

If one assumes the true nature of mental representations to be independent of the human language faculty, this flexible approach might thus be favored over the traditional ones.

It should be mentioned here that there is a number of linguists who define the topic-comment dichotomy not in terms of aboutness, but rather in terms of givenness\(^{12} \). With this conception they follow a tradition from the Prague School\(^ {13} \), whose scholars assume that topic is the true complement of focus\(^ {14} \), and that it thus simply constitutes the ‘old information’ included in a sentence. Familiarity, then, is considered the relevant factor determining topicality. Some authors also take the stand that topicality should indeed be defined in terms of aboutness, but that covering ‘old information’ still is a necessary condition for a phrase to be topical\(^ {15} \).

However, several studies addressing the divergence of current topic definitions in the end give convincing reasons for the familiarity condition to be abandoned. An early and popular one is Reinhart (1981). More recently, Yamato (2007) has pointed out that in Japanese, discourse non-familiar entities may be topics, and discourse familiar entities may be non-topics. He concludes that familiarity cannot be a defining property of topichood\(^ {16} \).

I will therefore stick to the Brentano-based view and define topicality in terms of aboutness.

As a final remark on the terminology, following Reinhart (1981) I assume that only referential expressions, including specific indefinite DPs, may function as aboutness topics. Quantified DPs, non-specific indefinites, question words or sentential adverbs, then, are not considered possible topics. For an account on frames like ‘healthwise’ in Healthwise, he is fine, which are assumed to have a lot in common with aboutness topics, see, for example, Krifka (2007) and Jacobs (2001).

\section{Topic-tests}

The class of so called topic-prominent languages uses syntactic or morphologic markers to overtly designate topical phrases. In Japanese, for example, topics are followed by the particle \(-wa\) and usually occur in sentence-initial position:

\(^{11}\) \([\text{Portner, 2007}].\)

\(^{12}\) For references see [Reinhart, 1981].

\(^{13}\) The Prague Linguistic Circle or Prague School was an influential linguistic group in Prague from 1928 until the end of World War II.

\(^{14}\) Originally the Prague School used the terms ‘theme’ and ‘rheme’ instead of ‘topic’ and ‘focus’, respectively.

\(^{15}\) Cf. e.g. [Hockett, 1958]

\(^{16}\) Cf. [Yamato, 2007].
(7) [Maki et al., 1999]

a. *John-wa kono hon-o yonda.*
   J.-TOP this book-ACC read
   ‘As for John, he read this book.’

b. *Kono hon-wa John-ga yonda.*
   this book-TOP J.-NOM read
   ‘As for this book, John read it.’

The bigger part of the topic-prominent languages is *discourse-configurational*, which means that they indicate aspects of discourse structure - e.g. topicality - via syntactic marking rather than morphologically. Examples for structurally-topic-marking languages are Hungarian\(^{17}\), Italian\(^{18}\) and Turkish\(^{19}\), where the landing site of topics in each case is the left-periphery of the sentence.

For languages which do not show topic-prominence in either way, the issue of finding out where the topics are is somewhat more difficult. What is needed then is a proper test allowing to identify the topic-phrase in a sentence. In the core of this thesis I will make use of some of those tests which have been developed for detecting topichood in German. The current section will therefore be reserved for an introduction of topic-tests, as well as for a proposal by Frey (2000), who finds that German is in fact, as well as e.g. Turkish, discourse-configurational.

2.1 Context-setting

There is a cross-linguistic tendency to have the grammatical subject of a sentence serving as the sentence topic. Assumably this is ascribable to its naturally high prominence in the discourse\(^{20}\). An English illustration of this preference can be found in (4) above, where in the first case the agent is topical, whereas in the second case it’s the patient, but in both cases it’s the grammatical subject of the sentence.

However, it is important to note that this coincidence is not an obligatory one: If an appropriate pre-context is added to (4) (as shown in (8)), the most salient argument in terms of topicality now becomes ‘Sarah’ rather than the nominative ‘Paul’.

(8) A: What happened to Sarah in 1983?
   B: Paul adopted Sarah in 1983.

Here, B’s utterance under unchanged, ‘neutral’ intonation suddenly sounds odd. One rather expects ‘Paul adopted’ to be accented (*focused*), and low pitch on ‘Sarah in 1983’.

From this we can infer two things: First, subjects are unmarked topics, which means that if nothing else is explicitly topic-marked, then it is likely that the subject is the topic, as it

\(^{17}\) See [Kiss, 2007] for an account of Hungarian topics.

\(^{18}\) See [Rizzi, 1997] for an analysis of topic-marking in Italian.

\(^{19}\) See [Kornfilt, 1997].

\(^{20}\) This has been found by [Morimoto, 2006], [Li and Thompson, 1976] and others.
is the case in (4). Second, by integrating an utterance into an appropriate context we can pre-establish a particular phrase (‘Sarah’ in this case) as being topical. If the utterance sounds odd in combination with the pre-context, that phrase is a very unlikely candidate to serve as its topic under the given word-order and intonational pattern.

This second fact has been used to test phrases for their topic status quite frequently in the literature, because it is simple and effective. Reinhart (1981), for example, states that “a sentence [S] can be paraphrased as in [(9)] only if the NP following about can be its topic:\footnote{Reinhart, 1981}, p. 11."

\begin{equation}
(9) \quad \text{He said about NP that S.}
\end{equation}

Although it certainly relies on intuitions which sometimes are vague, I will go along with the tradition to use context-setting as a simple tool-to-start-with, always in correspondence with the more solid test introduced in the following subsection.

\subsection*{2.2 The German middle field}

The second ‘test’ I am going to work with bases on a study by Frey (2000), who found a designated topic-position in the German middle field. His influential work thus regards German a discourse-configurational language. His central claim is cited in (10).

\begin{equation}
(10) \quad \text{[Frey, 2004b]}
\end{equation}

In the middle field of the German clause, directly above the base position of sentential adverbials (SADVs), there is a designated structural position for topics: all topical phrases occurring in the middle field, and only these, occur in this position.

The middle field of the German clause is the part of the clause which is (a) between the position of the finite verb and the verbal end-complex in a V-second clause, or (b) between the position of the complementizer and the verbal end-complex in a non-finite clause or a finite clause introduced by a complementizer. See (11) for an illustration.

\begin{equation}
(11) \quad \text{[Frey, 2004b]}
\end{equation}

\begin{itemize}
\item[a.] Den Hans wird Maria morgen treffen.
\item[b.] dass Maria morgen den Hans treffen wird
\end{itemize}

\text{the-ACC H. will M. tomorrow meet}

\text{PREFIELD VFIN MIDDLE FIELD VERBAL COMPLEX}

\text{‘Tomorrow Mary will meet Hans.’}

\text{‘that tomorrow Mary will meet Hans’}

\footnote{Reinhart, 1981}, p. 11.

\footnote{Apart from this, the context-setting test shows poor compatibility with left-dislocated phrases and indefinite DPs. Both problems, however, are of minor relevance for my thesis. The former is shortly addressed in section 2.3, for details on the latter, see [Endriss, 2008].}
The term ‘SADV’ refers to “adverbials which express the speaker’s estimation of an eventuality\(^\text{23}\), e.g. ‘luckily’, ‘apparently’, ‘certainly’. For (10), exclusively the ‘neutral use’ of SADVs as sentence adverbials is relevant, in which they ‘characterize the whole proposition without any presupposition\(^\text{24}\) and have a base position which is “higher than any base positions of any argument and of any other adverbial\(^\text{25}\)”. There is a second use of SADVs as narrow focus inducers of one constituent of the sentence, while the rest of the sentence is presupposed. The difference between the two is shown in (12) and (13).

(12) a. \textit{Nächstes Jahr wird Maria wahrscheinlich nach London gehen.}  
    next year will M. probably to London go  
    ‘Next year Mary will probably go to London.’

(13) \textit{Gehst sonst noch irgendein \textit{wenn} jemand \textit{ab} Ausland?}  
    goes else anybody abroad  
    ‘Is anybody else going abroad?’

a. \textit{Früher oder später wird \textit{PAUL SICHERlich} Ausland gehen.}  
    Sooner or later will P. certainly abroad go  
    ‘Sooner or later PAUL is CERTAINly going abroad.’

In (12), ‘wahrscheinlich’ (‘probably’) is used as an eventuality estimation, as required by (10), and ‘Maria’ is a topic. By contrast, in (13) ‘sicherlich’ (‘certainly’) induces a focus on ‘Paul’, while ‘ins Ausland gehen’ (‘go abroad’) is presupposed. This latter use introduces special properties for SADVs and is not relevant for (10).

In the following I will present those four of the numerous phenomena Frey cites as evidence for (10) which I think are the most important (see Frey (2000) for more). The first empirical argument is given by contexts enforcing aboutness:

(14) [Frey, 2004b]

\begin{verbatim}
Ich erzähle dir etwas über Maria.
I tell you something about M.
\end{verbatim}

a. \textit{Nächstes Jahr wird Maria wahrscheinlich nach London gehen.}  
    next year will M. probably to London go  
    ‘Next year Mary will probably go to London.’

b. \textit{Nächstes Jahr wird wahrscheinlich Maria nach London gehen.}  
    next year will probably M. to London go  
    ‘Next year probably Mary will go to London.’

The context in (14) raises the expectation that ‘Maria’ is an aboutness topic in the succeeding sentence. (14a,b) show that, under such circumstances, if ‘Maria’ occurs in the

\(^{23}\)Frey, 2004b, p. 5.  
\(^{24}\)Frey, 2004b, p. 5.  
\(^{25}\)Frey, 2004b, p. 5.
middle field, it obligatorily is located in the designated structural position for topics (pre-
ceding the sentence adverbial ‘wahrscheinlich’). Hence, middle field expressions which are
topical in the sense of aboutness must occur in the middle field topic position.

The second argument goes in the opposite direction: If an expression can’t be a topic,
then it must not occur in the middle field topic position.

(15) [Frey, 2004a]
   a. *Während des Vortrags haben mindestens drei Teilnehmer
      during the-GEN lecture have at least three participants
      leider geschlafen.
      unfortunately slept
   b. *Heute hat fast jeder erstaunlicherweise gearbeitet.
      today has almost everyone surprisingly worked

As (15) shows, non-referential expressions (which cannot be topics, cf. section 1.2), cannot
precede sentence adverbials in the middle field.

The third argument involves cataphoric pronouns, i.e. pronouns which refer ahead to
another sentence unit. According to Reinhart (1981), cataphoric pronouns are licensed
only if the phrase they corefer with is a topic phrase. Given that, (16) again confirms that
a topic phrase (a) may precede an SADV, and (b) may not occur elsewhere in the middle
field.

(16) [Frey, 2004b]
   a. Weil er₁ gut trainiert hat, wird Paul₁ wahrscheinlich morgen spielen.
      since he well trained has will P₁ probably tomorrow play
      ‘Since he has trained well, Paul is probably going to play tomorrow.’
   b. *Weil er₁ gut trainiert hat, wird wahrscheinlich Paul₁ morgen spielen.
      since he well trained has will probably P₁ tomorrow play

As a last argument, note that a typical thetic sentence sounds odd if its subject is located
in middle field topic position:

(17) [Frey, 2004b]
   a. Das Telefon läutet.
      the telephone rings
      ‘The telephone is ringing.’
   b. Beim Abendessen hat leider das Telefon geläutet.
      at dinner has unfortunately the telephone rung
      ‘At dinner unfortunately the telephone rang.’
   c. ?Beim Abendessen hat das Telefon leider geläutet.
      at dinner has the telephone unfortunately rung
In the empirical part of my thesis I will use (10) to check for the topichood of discourse referents. I will place them in middle field topic position and see whether the sentence is still grammatical. If so, the referent in question is its topic.

### 2.3 German left dislocation

Practically everyone working on IS assumes that a construction called ‘Linksversetzung’ in the German literature (‘left dislocation’) functions as a topic-marking device\(^\text{26}\). Frey (2004a) systematically accounts for this intuition. His analysis is cited here.

In a left dislocation construction, the left-dislocated phrase is considered the sentence topic:

\[(18) \text{[Frey, 2005]} \]

\[
\begin{array}{c}
\text{Den} \text{ Hans}, \rightarrow \text{ den } \text{ mag jeder.} \\
\text{the-ACC H.} \text{ RP-ACC likes everyone}
\end{array}
\]

‘Hans everyone likes.’

Altmann (1981) has noted the following characteristics of German left dislocation (I added amendments made by Frey (2004a)):

i) progrenient intonation of the dislocated phrase, no pause between it and the rest of the clause (indicated by the ‘→’)

ii) the resumptive pronoun (RP) that appears in the construction is a weak \textit{d}-pronoun (e.g. \textit{der, den})

iii) if the dislocated phrase is an NP, then it has the same case as the RP

iv) an operator may bind a pronoun inside the dislocated phrase

v) the RP occurs either in the prefield of the clause or in the topic position of the middle field

As support of the last two points, consider (19).

\[(19) \text{[Frey, 2005]} \]

\[
\begin{array}{c}
a. \text{Seinem}_1 \text{ Doktorvater, } \rightarrow \text{ jeder Linguist}_1 \text{ wird dem } \text{ zum Glück Geld ausleihen.} \\
\text{his supervisor-DAT every linguist will RP-DAT luckily money lend}
\end{array}
\]

‘His supervisor luckily everyone will lend money.’

\(^{26}\text{Cf. eg. [Altmann, 1981], [Jacobs, 2001] and [Frey, 2004a].}\)
b. *Seinem_Doktorvater,  → jeder_Linguist1 wird zum Glück dem RP-DAT
   Geld ausleihen.
   money lend
   ‘His supervisor luckily everyone will lend money.’

As can be seen, the RP in left dislocation constructions may occur in topic position ((19a)),
and may not occur outside the topic position ((19b)); moreover, it may occur in the pre-
field ((18)), a position not reserved for, but preferred by topical phrases. Premising that
Frey’s (2000) predictions about the topic position in the German middle field are correct,
Frey (2004a) thus infers from v) that the RP in a German left dislocation construction
marks a topic.

Confirmatory examples like (20) show that common non-topics may not be left-dislocated.

(20)  a. *Höchstens drei Bücher, → die werde ich diesen Sommer lesen.
   At most three books RP-ACC will I this summer read
   
   b. *Fast alle Kinder, → die haben ein Schaukelpferd bekommen.
   Almost all children RP-NOM have a rocking horse got

Still, there are some restricting properties of German left dislocation which are important
to note.

• First, it has been observed that left-dislocated phrases only introduce new topics,
  which means that a left-dislocated topic expression cannot have the same referent
  as an expression which was topical already in the preceding sentence\(^\text{27}\). Consider
  (21)\(^\text{28}\):

  (21)  /Peter/topic mag alle Tiere im Zoo.
         P. likes all animals in the-DAT zoo
         ‘Peter likes all animals in the zoo.’
    
    a. #Der Peter, der  liebt die Eichhörnchen besonders.
       the P. RP-NOM loves the squirrels above all
       ‘Peter above all loves the squirrels.’
    
    b. Die Eichhörnchen, die  liebt er besonders.
       the squirrels RP-ACC loves he above all
       ‘The squirrels he loves above all.’

From (21) it is clear that context-setting and German left dislocation are incompatible
tests, because the topic marked via German left dislocation must be ‘new’.

On the other hand, the referents of left-dislocated phrases are discourse-familiar
entities: Left dislocation picks up a referent which either “has been introduced in

\(^{27}\)Cf. e.g. [Reinhart, 1981] and [Frey, 2004a], who called this effect “topic promotion ([Frey, 2004a], p.
16)”.

\(^{28}\)I will omit the ‘→’ in my examples henceforth. The reader is asked to keep the characteristic intonal-
ational pattern of left dislocation in mind.
previous discourse or stands in a cognitive salient relation to an already introduced
discourse referent\textsuperscript{29}. In (21), for example, ‘die Eichhörnchen’ (‘the squirrels’) as a
specific set have been picked out of the previously mentioned set of ‘alle Tiere im
Zoo’ (‘all animals in the zoo’). It would be rather inappropriate to utter (22) instead,
because ‘das Futter’ (‘the fodder’) does not stand in a sufficiently salient relation to
animals in a zoo.

\begin{equation}
\text{(22) } \quad \text{\{Peter\}_{\text{topic}} \text{ mag alle Tiere im Zoo.}}
\end{equation}

\begin{align*}
\text{P.} & \quad \text{likes all animals in the zoo} \\
\text{‘Peter likes all animals in the zoo.’}
\end{align*}

\begin{enumerate}
\item \text{a. ?Das Futter, das erscheint ihm auch sehr nahrhaft.}
\end{enumerate}

\begin{align*}
\text{the fodder RP-NOM appears him too very nourishing} \\
\text{‘Also, the fodder appears very nourishing to him.’}
\end{align*}

- Second, left dislocation is contrast-sensitive. If a common non-topic is interpreted
contrastively, it may be left-dislocated\textsuperscript{30}:

\begin{equation}
\text{(23) } \quad \text{Zu Weihnachten hat so gut wie jeder ein Schaukelpferd bekommen.}
\end{equation}

\begin{align*}
\text{for christmas has practically everybody a rocking horse got} \\
\text{‘Practically everybody got a rocking horse for christmas.’}
\end{align*}

\begin{enumerate}
\item \text{a. Naja. Fast alle KINDer, DIE haben eins bekommen.}
\end{enumerate}

\begin{align*}
\text{well almost all children RP-NOM have one got} \\
\text{‘Well. Almost all children, THEY got one.’}
\end{align*}

‘Fast alle Kinder’ (‘almost all children’) in (23b) is a non-specific DP and thus cannot
function as topic. Nevertheless it can be left-dislocated. The strong accent on the
dislocated element and the RP is accompanied by a contrastive flavor: ‘Fast alle
Kinder’ seems to be opposed to some other group the speaker has in mind, maybe
‘die Erwachsenen’ (‘the adults’). After all this context-sensitivity is unproblematic,
because from (20) it is clear that \textit{without} the contrastive context and the additional
accents the contrastive reading is ruled out. Therefore, if a left-dislocated element is
not \textit{contrastively marked} by the characteristic stress pattern, it can fairly be assumed
to be topical\textsuperscript{31}.

\begin{footnotes}
\footnote{\textsuperscript{29}[Frey, 2004a], p. 15.}
\footnote{\textsuperscript{30}Cf. e.g. [Endriss, 2008].}
\footnote{\textsuperscript{31}Interestingly, parallels between contrast-marking and topic-marking have been observed for various
languages other than German, too. For example, the Japanese morphological marker -\text{wa} marks topicality
as well as contrast: Yamato (2008) observes that “usually a -\text{wa}-marked element is interpreted as a topic
when it is fronted (as in \text{b.} \text{[below]}), and it is interpreted with a contrast when it is in situ (as in
\text{c.}))(\text{Yamato, 2007}, p. 5.).” \textit{Contrastive} -\text{wa}-marked elements, and only those, get a non-obligatory stress
in addition (indicated here by capital letters).}
\begin{enumerate}
\item \text{a. Taroo-ga keeki-o tabe-ta.}
\end{enumerate}

\begin{align*}
\text{T.-NOM cake-ACC eat-PAST} \\
\text{‘Taroo ate cakes.’}
\end{align*}

\begin{enumerate}
\item \text{b. Keeki-wa Taroo-ga tabe-ta.}
\end{enumerate}

\begin{align*}
\text{cake-TOP T.-NOM eat-PAST} \\
\text{‘As for cakes, Taroo ate them.’}
\end{align*}
• Third, according to Hooper and Thompson (1973), all root phenomena have an “emphasizing function”\(^{32}\), which means that in each case a root transformation (RT) is applied to a sentence, the result is a more emphatic sentence. Hooper and Thompson (1973) state that root transformations “emphasize one NP of the sentence by moving it into one of the prominent sentence positions, either sentence-initial or sentence-final position. […] The function of all the RTs is to emphasize some particular element in the sentence”\(^{33}\). For example, ‘seinen Hund’ (‘his dog’) is considered more emphatic in (24b) than in (24a):

\[
\begin{align*}
(24) & \quad a. \quad & \text{T. should his dog better at home leave} \\
& \quad & \text{‘Tom should better leave his dog at home.’}
\end{align*}
\]

\[
\begin{align*}
& b. \quad & \text{Seinen Hund, den sollte Tom besser zu Hause lassen.} \\
& \quad & \text{His-ACC dog RP-ACC should T. better at home leave} \\
& \quad & \text{‘His dog Tom should better leave at home.’}
\end{align*}
\]

As this applies to all RTs, also left dislocation, which is a root phenomenon according to e.g. Heycock (2005), Hooper and Thompson (1973) and Frey (2004a), is an emphasizing construction.

This last fact will be of importance in the remainder of this thesis. I will come back to it in section 4.3, where I argue that German left dislocation, precisely because it emphasizes the left-dislocated phrase, is not a valid test for embedded topichood. Roughly speaking, left dislocation because of its emphasizing function is not applicable to arbitrary referential topic-expressions, but it is applicable only to an ‘emphasizable subset’ of the set of referential topic-expressions. German left dislocation as a generally valid topic-test will therefore eventually be abandoned.

### 2.4 Other left-peripheral constructions in German

It has often been proposed that in fact all English and German left-peripheral constructions are topic-constructions, which would mean that every expression moved into sentence-initial position is a topic. This assumption takes its start from topic-prominent languages, which often have a designated topic position in the left-periphery\(^{34}\). However, Frey’s (2005) in-depth analysis of English and German left-peripheral constructions shows that most constructions commonly considered topic-markers actually are not.

One example of such a left-peripheral movement is the German preposing construction,

\[
\begin{align*}
& c. \quad & \text{Taroo-ga keeki-WA tabe-ta.} \\
& \quad & \text{T.-NOM cake-CONTR eat-PAST} \\
& \quad & \text{‘Taroo ate cakes, but not anything else.’}
\end{align*}
\]

Though it remains unclear what connects the two phenomena, it is obviously very unlikely that they are unrelated.

\(^{32}\) Hooper and Thompson, 1973, p. 471.

\(^{33}\) Hooper and Thompson, 1973, p. 470f.

\(^{34}\) I mentioned a few examples in the beginning of section 2.
often referred to as ‘topicalization’:\footnote{\footnotesize Cf. e.g. [Müller and Sternefeld, 1993].}

\begin{equation}
\text{Den Hans wird Maria morgen treffen.}\tag{25}\text{ [Frey, 2005]}
\end{equation}

\begin{align*}
\text{the-ACC H. will M. tomorrow meet}
\end{align*}

‘Tomorrow Mary will meet Hans.’

The accusative object ‘den Hans’ in (25) in all likelihood is the sentence’s topic-expression. However, as shown in (26), it is not only topics that may be moved to the prefield of a German clause.

\begin{equation}
\text{a. Keinen mag ich so gern wie dich.}\tag{26}\text{ [Frey, 2005]}
\end{equation}

\begin{align*}
\text{no one like I as much as you}
\end{align*}

‘No one I like as much as you.’

\begin{equation}
\text{b. Wen hat Maria heute gesehen?}\tag{26}\text{ [Frey, 2005]}
\end{equation}

\begin{align*}
\text{whom has M. today seen}
\end{align*}

‘Whom has Maria seen today?’

The German prefield obviously may host all different types of phrases, including moved quantifiers and question words. Hence, the German preposing construction is not a topic-construction.

A second non-topic-marking left-peripheral construction is the German Hanging Topic construction (‘Freies Thema’ in German). This one is important to be mentioned in this context because it has many of its characteristics in common with German left dislocation.

\begin{equation}
\text{a. Hans, ↓ jeder mag ihn.}\tag{27}\text{ [Frey, 2005]}
\end{equation}

\begin{align*}
\text{H. everyone likes him}
\end{align*}

‘Hans, everyone likes him.’

\begin{equation}
\text{b. Den/Der Hans, ↓ heute will anscheinend keiner ihn unterstützen.}\tag{27}\text{ [Frey, 2005]}
\end{equation}

\begin{align*}
\text{the-ACC/NOM H. today wants apparently no one him support}
\end{align*}

‘Hans, apparently no one wants to support him today.’

\begin{equation}
\text{c. *Seinen Doktorvater, ↓ jeder Linguist} \text{1 verehrt ihn.}\tag{27}\text{ [Frey, 2005]}
\end{equation}

\begin{align*}
\text{his supervisor, every linguist admires him}
\end{align*}

The characteristics of German Hanging Topic constructions are, following Altmann (1981) again, the following:
i) there is a pause between the ‘hanging topic’ phrase and the rest of the clause (indicated by the ‘↓’)

ii) the resumptive element that appears in the construction is a $d$-pronoun or a pronoun (e.g. der, dieser, ihn)

iii) if the dislocated phrase is an NP, then it is in the nominative or it has the same case as the resumptive element

iv) there is no binding into the dislocated phrase

v) the resumptive element occurs in the prefield or in a low position of the clause

Comparing Altmann’s list for German Hanging Topic characteristics to the one he gives for German left dislocation properties, it is clear that in written language it is not possible to clearly distinguish the former construction from the latter one by means of i) - iii) and v). Every left dislocation construction could also be a Hanging Topic construction, because the properties of Hanging Topic constructions are the more general ones. The decisive point is iv): Binding effects, as seen in (19a), occur in left-dislocation constructions, but not in Hanging Topic constructions (as (27c) shows). Therefore, if a written German left-peripheral construction shows binding effects, it can only be a left dislocation construction.

The reason for being so particular about this distinction is that, as Frey (2004a) notes, it follows from Hanging Topic property v) that the resumptive element of the construction in question does not necessarily mark a topic. This is illustrated in (27b): The resumptive element here is ‘ihn’ (‘him’), and it occurs after the sentence adverbial ‘anscheinend’ (‘apparently’), thus outside the designated topic position in the middle field. This implies that the Hanging Topic construction is not a topic-marking construction.

Having introduced the tools I’m going to work with, I will now turn to the qualitative problems the issue of topicality raises. First I am going to shortly address the question how many topics are possible per clause, and then continue with the problem of topics in embedded clauses.

### 3 Multiple Topics

An old and widespread assumption about topichood is that **there can only be one topic per clause**\(^{36}\). Presumably this claim, which can often be found in early literature as a tacit assumption or in the form of a mere guess, bases on simple intuitions like the one expressed by Reinhart’s *file card metaphor*\(^{37}\): Each sentence adds (at most) one file card to the Common Ground, and each file card holds one prominent entry the rest of the

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\(^{36}\)Originalzitat: „In einem Satz gibt es nur ein Topik“, [Steube and Späth, 2004], p. 237.

\(^{37}\)See section 1.2.
sentence is about.
For German, singular topics have been assumed e.g. by Haftka (1995), Steube and Späth (2004), Gross (2001) and Jacobs (2001). They have also been acknowledged for English, Finnish, Hungarian and Japanese, by Reinhart (1981), Zimmermann (1999), Molnár (1991) and Vermeulen (2007), respectively.
In the following I will cite some of the references arguing for multiple topics in different languages. I will start with Frey (2004b), who shows that there is more than one topic possible in a simple German clause. All the subsequent proposals concerning languages other than German are outlined here for the limited purpose of a cross-linguistic overview, a full presentation of arguments is not given. The interested reader is referred to the corresponding articles.

As demonstrated in 2.2, German topics precede sentence adverbials (SADVs). For the simple reason that more than one phrase may precede an SADV in the middle field, Frey (2004b) concludes that there can be more than one topic per sentence (topics are printed in bold font):

(28) [Frey, 2004b]

\[ Da \ sie_1 \ ihn_2 \ mag, \ wird \ Maria_1 \ Hans_2 \ wahrscheinlich \ helfen. \]

as she him likes will M. H. probably help

‘As she likes him, Mary will probably help Hans.’

Both ‘Maria’ and ‘Hans’ precede the SADV ‘wahrscheinlich’ (‘probably’). Furthermore, they are bound by the cataphoric pronouns ‘sie’ (‘she’) and ‘ihn’ (‘him’). Cataphoric pronouns, as mentioned earlier, only corefer with phrases which are topical. Hence, both ‘Maria’ and ‘Hans’ are topics.

Rough proposals concerning multiple topics can actually be found quite early in the literature: E.g. Van Dijk (1977) claims that an English main clause may have an unlimited number of topics, depending on its context. According to him, it even is the most natural (the unmarked) case that the topic of (29) is the ordered triple <‘the boy’, ‘the girl’, ‘the cinema’>.

(29) [van Dijk, 1977]

\[ \text{The boy went with the girl to the cinema.} \]

If it is used as to answer the question What did the boy do with the girl?, the topic of (29) becomes the ordered pair <‘the boy’, ‘the girl’>, and correspondingly the question What did the boy do? identifies ‘the boy’ as the topic.

\[38\text{Cf. [van Dijk, 1977], p. 123.}\]
4 EMBEDDED TOPICS

In Hungarian, Italian and Turkish, sentence-topics usually occur sentence-initially. According to Kiss (1995) and contrarily to Molnár (1991), the sentence structure of Hungarian allows more than one phrase to occupy the topic-position in simple clauses:

(30) [Kiss, 1995]

\[
\text{János, Évával, tavaly ismerkedett meg t}_1 \ t_2 \text{ egy konferencián.}
\]

J. E. with last year got acquainted a conference on

‘With Eve, John got acquainted at a conference last year.’

Rizzi (1997) assumes that an Italian clause can contain “as many topics as are consistent with its arguments”:

(31) [Rizzi, 1997]

\[
\text{Il libro, a Gianni, domani, glielo darò senz’altro.}
\]

the book to J. tomorrow him I’ll give for sure

‘The book, to John, tomorrow, I’ll give it to him for sure.’

Finally, Kornfilt (1997) gives an example for multiple topics in Turkish:

(32) [Kornfilt, 1997]

\[
\text{Kitab -ı Ali -ye Hasan d’ün ver -di.}
\]

book -ACC A. -DAT H. yesterday give -PAST

‘As for the book, and as for Ali, Hasan gave (it) (to him) yesterday.’

To summarize, the possibility of multiple topics has been proposed for discourse configurational as well as for subject prominent languages. They seem to occur in very different families of languages. The old statement that each sentence is generally only about one entity thus turns out to be doubtful.

4 Embedded Topics

The question whether there are sentence topics in embedded clauses has evolved into a matter of linguistic research only quite recently. For a long time it has been tacitly assumed that topics are main clause phenomena, i.e. that they don’t occur in subordinated clauses, because this seems plausible against the background of the ‘aboutness’-concept. Jacobs (1984) argues that by uttering a categoric sentence the speaker performs two illocutionary acts: One by expressing the topic and one by expressing the comment. Since it has been

---

39[Rizzi, 1997], p. 290.
40Cf. [Jacobs, 1984], p. 47f.
widely acknowledged for many years that speech acts can’t be embedded, also considering Jacobs (1984) there was no reason to assume topics to occur in embedded clauses. By now it has been shown that in many languages topics can in fact be embedded by certain verbs. For example, Lasnik and Saito (1992) discuss the following English example:

(33) [Lasnik and Saito, 1992]
I believe that this book you should read t₁.

Example (33) involves a left peripheral construction called ‘English topicalization’ which Lasnik and Saito assume to be topic-marking. The resulting sentence topic (‘this book’) may be embedded, as it is here by the verb ‘believe’.

For Turkish, Kornfilt (1997) gives an example for embedded topics in nonfinite subordinate clauses, embedded by ‘know’:

(34) [Kornfilt, 1997]
Herkes kitab -ı Hasan -m al -daği -m -ı bil -iyor.
everybody book -ACC H. -GEN buy -FNOM -3SG -ACC know -PR.PROG

‘Everybody knows that as for the book, Hasan bought (it).’

Rizzi (1997) states that also in Italian, “nothing excludes that a comment (the complement of the topic head) may be articulated in turn as a topic-comment structure, so that the topic phrases can undergo free recursion.”

Finally, Japanese allows topic-wa-marked phrases to occur in embedded clauses:

(35) [Maki et al., 1999]
a. John-wa kono hon-wa/o Mary-ga yonda to / sinziteiru.
   J.-TOP this book-TOP/ACC M.-NOM read COMP believe
   ‘John believes that this book, Mary read.’
b. John-wa Mary-wa/ga kono hon-o yonda to / sinziteiru.
   J.-TOP M.-TOP/NOM this book-ACC read COMP believe
   ‘John believes that Mary read this book.’

From the examples above, it is fair to conclude that in principle topics may occur in embedded clauses. Recent studies, primarily Japanese ones (e.g. Kuroda (2005), Hara (2006), Yamato (2007) and Tomioka (2007)), adopt this position and now focus on the remaining question whether the possibility of topic-embedding depends on the matrix verb type: It

41In fact, also speech acts have been shown to be embeddable, e.g. by [Krifka, 2002].
42[Rizzi, 1997], p. 297.
is examined whether only verbs possessing special properties can embed topics, and, if so, which properties are relevant. The results of those studies suggest a tight relationship between topicality and assertionhood: Only predicates whose complements are assertions seem to allow topic-wa-marked phrases in their complements. This implies that topics may be embedded by verbs like ‘say’ and ‘think’ in Japanese, but not by verbs like ‘regret’ or ‘resent’.

I am going to show in this section that, contrarily to the Japanese findings, for German there is no matrix verb type restriction on embedded topicality. German topics, as I will show, may be embedded by any predicate taking a sentential complement, regardless of its assertive or non-assertive character.

To support my claim I will first have to specify a verb type classification to work with. A popular classification is the one proposed by Hooper and Thompson (1973), which distinguishes five verb classes that take sentential complements with respect to their factivity and assertionhood. It will be introduced in the following section. Having provided a verb classification to base my argumentation on, I will present examples from Japanese which demonstrate restricted topic-wa-embedding in the Japanese language. The distribution of embedded topics with respect to the Hooper and Thompson (1973) verb classes which is suggested by these examples will be presented, too. Thereafter I will provide a detailed empirical survey on embedded topics in German, showing that in German there is no evidence for a restriction of topic-embedding to assertive verbs like ‘say’ and ‘think’.

### 4.1 Verb classification following Hooper and Thompson (1973)

Hooper and Thompson (1973) in their famous study on the applicability of root transformations distinguish five verb classes A-E, two of which are factive and three non-factive. The table below gives examples.

<table>
<thead>
<tr>
<th>Non-Factive</th>
<th>Factive</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Strongly assertive</td>
<td>B: Weakly assertive</td>
</tr>
<tr>
<td>say</td>
<td>suppose</td>
</tr>
<tr>
<td>report</td>
<td>believe</td>
</tr>
<tr>
<td>exclaim</td>
<td>think</td>
</tr>
<tr>
<td>assert</td>
<td>guess</td>
</tr>
<tr>
<td></td>
<td>D: Factive</td>
</tr>
<tr>
<td></td>
<td>resent</td>
</tr>
<tr>
<td></td>
<td>regret</td>
</tr>
<tr>
<td></td>
<td>be sorry</td>
</tr>
<tr>
<td></td>
<td>be surprised</td>
</tr>
</tbody>
</table>

### 4.1.1 Class A: Strongly assertive predicates

All verbs of class A are verbs of *saying*, and their complements are therefore reported discourse. The difference between the sentences in (36) and those in (37) is that the former are plain assertions, while latter are *cited* or *reported* assertions.

(36) a. Peter is going to leave on Sunday.
b. The problem is not fixed yet.

(37)  

a. John reported that Peter is going to leave on Sunday.

b. Emma said that the problem is not fixed yet.

What characterizes a predicate as ‘assertive’ according to Hooper and Thompson (1973) is not only that its sentential complement is an assertion, but particularly that there is a reading in which the verb’s sentential complement is the *speaker assertion*. Note that there are two readings of e.g. (37b), one in which it is the main proposition that ‘the problem is not fixed yet’, and one in which it is the main proposition that ‘Emma said (that the problem is not fixed yet)’.

In the first reading the embedded assertion is the speaker assertion, and the main clause undergoes “semantic bleaching”, which means that it has a semantically reduced content as compared to the speaker assertion. As noted by e.g. Simons (2007), the embedding main clause then serves as *evidence for what is expressed by the speaker assertion*. Under this reading of (37b), for example, ‘Emma said’ is designated as the more or less reliable *source of the central information* that ‘the problem is not fixed yet’. This reading is called the ‘parenthetical’ reading (following Urmson (1963)), because in order to yield this interpretation the sentence can be restructured as in (38), in which the main clause is used as “syntactic parenthetical”:

(38)  

A: Why are the machines still off?

B: The problem is not fixed yet, Emma said.

Evidence for the reduced semantic content of the main clause in the syntactic parenthetical is given by the fact that it cannot be negated, which suggests that it is actually not being asserted:

(39)  

*The problem is not fixed yet, Emma didn’t say.*

The second reading, where the speaker assertion is ‘Emma said (that the problem is not fixed yet)’, I will correspondingly call the ‘non-parenthetical’ reading. In this reading, the main clause is the main predication, and the sentential complement is a subordinated assertion made by the subject of the main clause. For example, under the non-parenthetical use of (37b), ‘Emma said X’ is the central information, and what (X) Emma said is then reported, but the speaker is not necessarily committed to its truth, i.e. s(he) is not asserting X.

According to Hooper and Thompson (1973), the non-parenthetical reading is the only reading possible when the sentential complement occupies the subject position in surface structure as in (40).

---

43[Simons, 2007], p. 11.

44This is a term coined by [Simons, 2007], p. 2.
A: Who told you that we still can’t switch the machines on again?

B: That the problem is not fixed was said by Emma.

The non-parenthetical reading is generally licensed by any type of verb. A predicate which also has a parenthetic use is an assertive predicate according to Hooper and Thompson (1973).

4.1.2 Class B: Weakly assertive predicates

Class B verbs, as well as class A verbs, embed assertions. They also allow both the parenthetical and the non-parenthetical reading, as shown in (41).

(41) a. John thinks that Peter is going to leave on Sunday.
    b. Peter is going to leave on Sunday, John thinks.
    c. That Peter is going to leave on Sunday is thought by John.

Under their parenthetic use, class-B-verb-embedded assertions like (42b) differ from plain assertions like (42a) in that “the speaker is indicating that he is not fully committed to the truth of the assertion”.

(42) a. We should not have bought the car.
    b. I suppose that we should not have bought the car.

4.1.3 Class C: Non-assertive predicates

Complements of class C verbs are “neither asserted nor presupposed”.

(43) a. It is likely that the German team is going to beat the Spanish.
    b. I doubt that Peter is going to leave on Sunday.

It is easily accepted that in (43a) ‘the German team is going to beat the Spanish’ is not presupposed, i.e. this is not required to be Common Ground for the whole sentence to be true. But furthermore, in (43a) it is not asserted that ‘the German team is going to beat the Spanish’ either. It rather is asserted that the truth of sentential complement X is probable, or in other words, that it is likely that X. This is confirmed by (44), where it is shown that there is no reading which makes the embedded clause the main assertion of the sentence.

(44) a. *The German team is going to beat the Spanish, it is likely.
    b. *Peter is going to leave on Sunday, I doubt.

\[\text{[Hooper and Thompson, 1973], p. 477.}\]
\[\text{[Hooper and Thompson, 1973], p. 478.}\]
4.1.4 Class D: Factive predicates

Class D verbs “express some emotion or subjective attitude about a presupposed complement." They belong to the family of factive verbs. Consider (45):

\[(45) \begin{align*}
  &a. \text{John regrets that he didn’t buy the BMW.} \\
  &b. \text{I am sorry about not having told you the truth.}
\end{align*}\]

In (45a), ‘he didn’t buy the BMW’ is presupposed and cannot carry the main predication of the sentence. In (45b) the same holds for ‘not having told you the truth’. Correspondingly, the syntactic parenthetical is ruled out, while the complement-in-subject-position construction is licensed:

\[(46) \text{John didn’t buy the BMW, he regrets.}\]

\[(47) \text{That he didn’t buy the BMW is regretted by John.}\]

4.1.5 Class E: Semifactive predicates

Predicates of class D and class E together form the group of factive predicates. Still, there are reasons to treat them as different verb types. One is the qualitative difference that “unlike class D verbs, which express a subjective attitude about the presupposed complement, [...] [class E] verbs assert the manner in which the subject came to know that the complement proposition is true.”

\[(48) \begin{align*}
  &a. \text{I notice that Bill is in a quite good mood today.} \\
  &b. \text{Anne found out that her dog has eaten all the biscuits.}
\end{align*}\]

‘Her dog has eaten all the biscuits’ in (48b) clearly is a fact, just like ‘he didn’t buy the BMW’ is in (45). But in contrast to class D verbs, class E verbs are known to loose their facticity in questions and conditionals, which is the reason why Karttunen (1971) calls them ‘semifactives’. Compare (49a) and (49b).

\[(49) \begin{align*}
  &a. \text{If I regret later that I have not told the truth, I will confess it to everyone.} \\
  &b. \text{If I discover later that I have not told the truth, I will confess it to everyone.}
\end{align*}\]

‘Regret’ is a factive verb, while ‘discover’ is semifactive. As pointed out by Karttunen (1971), in (49a) the complement is necessarily true, while this is not the case for (49b). Furthermore, astonishingly it is possible to use main clauses containing class E verbs as syntactic parentheticals. This clearly indicates that their sentential complement may be a speaker assertion, even though they are factive.

\[\text{[Hooper and Thompson, 1973], p. 479.}\]

\[\text{[Hooper and Thompson, 1973], p. 480.}\]
(50) a. Bill is in a quite good mood today, I notice.
    b. Anne’s dog has eaten all the biscuits, she found out.

Here the speaker is indeed committed to the truth of the complement proposition, but neither does he take the complement to be Common Ground, nor is it “necessary for the hearer to accept the complement proposition prior to accepting or rejecting the main point proposition: this precisely is the main point proposition49”.

Hooper and Thompson (1973) (as well as Simons (2007)) conclude that there is a parenthetic reading of main clauses containing semifactive verbs, and that in this reading their sentential complement is not presupposed, but asserted and factive.

4.1.6 Summary

To summarize, we saw that among the five Hooper and Thompson (1973) verb classes two are factive and three are non-factive, and three are assertive and two are non-assertive:

<table>
<thead>
<tr>
<th></th>
<th>Non-factive</th>
<th>Factive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assertive</td>
<td>A, B</td>
<td>E</td>
</tr>
<tr>
<td>Non-Assertive</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

4.2 Embedded Topics in Japanese

There are several recent articles arguing for the possibility of topic-embedding in Japanese50. They all detect a crucial relationship between the general possibility of topic marking and the act of asserting. Particularly it can be extracted that topic-wa-marked phrases can only be embedded by class A, B and E predicates, but not by class C and D predicates. It was already briefly mentioned in section 1.2 that by Kuroda’s (2005) account, making an utterance which contains a topic is making a statement. He assumes asserting to be the act of “associating an attribute to a subject51”, and hence according to him all and only assertions contain topics. Compare (51) and (52).

(51) [Kuroda, 1972]

    Inu wa hasitte iru.
    dog TOP running is

    ‘The dog is running.’

(52) [Kuroda, 2005]

[Simons, 2007], p. 20.
50Cf. e.g. [Kuroda, 2005], [Hara, 2006], [Yamato, 2007] and [Tomioka, 2007].
51[Kuroda, 2005], p. 29.
Either the earth revolves around the sun or the sun revolves around the earth.

Example (51) is an assertion. Kuroda (1972) states that in this sentence, ‘inu wa’ (‘the dog’) is most naturally understood as the topic phrase, without receiving a contrastive interpretation. By contrast, in (52) no predication of a “form conforming to the classical Aristotelian logic” (attributing a predicate to a subject) is made. In this sentence, according to Kuroda (2005) ‘tikyuu wa’ (‘the earth’) is not interpretable as the topic phrase, but it is obligatorily put in contrast with “some other things which do not revolve around the sun”. Since it is “hard to imagine what kind of discourse context would license such a contrast”, (52) is odd. He concludes that topic-wa-marked phrases do only occur in assertions.

Plausibly, by Kuroda’s (2005) account embedded topics only occur in embedded assertions. The verb ‘believe’, for example, in Kuroda’s terminology introduces an “indirect speech context (IDSC)”. In IDSCs, topic-wa-marked phrases are generally allowed according to Kuroda (2005), and hence a -wa-marked phrase embedded by ‘believe’ may be interpreted as topical. On the other hand, the complement of ‘regret’ is not considered an IDSC. Correspondingly, -wa-marked phrases embedded by ‘regret’ can only receive a contrastive interpretation according to Kuroda (2005).

(53) [Kuroda, 2005]

a. John wa Moris-san wa Toyota no syain de aru to omotte iru.
   J. -TOP M. -TOP T. employee is that think be
   ‘John believes that Moris-san is an employee of Toyota.’

b. John wa Moris-san wa Toyota no hira-syain de aru koto o zannen ni
   J. M. T. flat employee be that regret
   omotte iru.
   think be
   ‘John regrets that Moris-san is a mere employee of Toyota.’

c. John wa Moris-san ga Toyota no hira-syain de aru koto o zannen ni
   J. -TOP M. -NOM T. flat employee be that regret
   omotte iru.
   think be
   ‘John regrets that Moris-san is a mere employee of Toyota.’

---

\[52\] Kuroda, 2005, p. 25.
\[54\] Kuroda, 2005, p. 18.
The sentence in (53a) is an example for embedded topicality. Both ‘John’ and ‘Mori-san’ are topic-
wa-marked and fronted. By contrast, (53b) according to Kuroda (2005) is ill-formed without a contrastive context. If ‘Mori-san’ is assigned the nominative non-topic -ga-marker as in (53c), the sentence is fine.

Yamato (2007) has studied the distributions of Japanese topic-wa and contrastive -WA in sentential verb complements in more detail. Using the very same verb classification I introduced in 4.1, he constructs sentences with -wa-marked elements in the sentential verb complement for each predicate type. He finds that the aboutness-topic-wa occurs in clauses embedded by strongly assertive predicates, weakly assertive predicates and semifactives, but not in clauses embedded by non-assertive predicates and factives.

In (54) I cite Yamato’s (2007) core-examples. The '*' here means that the sentence at hand is not interpretable if one insists on that the embedded -wa-phrase is a topic-wa-phrase.

(54) [Yamato, 2007]

a. *Jiroo-wa Taroo-wa Hanako-o but-ta to it-ta.  
   J.-TOP T.-TOP H.-ACC hit-PAST that say-PAST  
   ‘Jiroo said that Taroo hit Hanako.’

b. *Jiroo-wa Taroo-wa Hanako-o but-ta to omot-ta.  
   J.-TOP T.-TOP H.-ACC hit-PAST that think-PAST  
   ‘Jiroo thought that Taroo hit Hanako.’

c. *Jiroo-wa Taroo-wa Hanako-o but-ta to utagat-teiru.  
   J.-TOP T.-TOP H.-ACC hit-PAST that doubt-PAST  
   ‘Jiroo doubts that Taroo hit Hanako.’

d. *Jiroo-wa Taroo-wa Hanako-o but-ta to zannen-ni omot-teiru.  
   J.-TOP T.-TOP H.-ACC hit-PAST that regret-at think-PROG  
   ‘Jiroo regrets that Taroo hit Hanako.’

e. *Jiroo-wa Taroo-wa Hanako-o but-ta to hakkent-shi-ta.  
   J.-TOP T.-TOP H.-ACC hit-PAST that discovery-do-PAST  
   ‘Jiroo discovered that Taroo hit Hanako.’

Yamato’s (2007) results are summarized in the table below. Only clauses embedded by assertive predicates allow embedded topicality in Japanese.

<table>
<thead>
<tr>
<th>Embedded Topic-wa</th>
<th>Class A</th>
<th>Class B</th>
<th>Class C</th>
<th>Class D</th>
<th>Class E</th>
</tr>
</thead>
</table>

Interestingly, the distribution of embedded topics in Japanese patterns with the distribution of embedded V2 in e.g. English and Scandinavian. Embedded V2 has frequently been related to assertionhood in the literature for various languages\(^{56}\). For example, a study

\(^{56}\)Cf. e.g. [Hooper and Thompson, 1973] for English and [Bentzen et al., 2006] for Swedish, Norwegian and Icelandic.
by Bentzen et al. (2006) reveals that embedded V2 as well as embedded topicalization of non-subjects is licensed if the sentence’s matrix verb is a class A, B or E predicate, but not if it is of type C or D. Following Hooper and Thompson (1973) they conclude that “the two sets of predicates differ with respect to the size of their complement”\(^{57}\): Those sentential complements in which V2 and topicalization of non-subjects are allowed according to them have a bigger structure: They contain TopicP, FocusP and ForceP. In contrast, those sentential complements in which V2 and topicalization of non-subjects are not allowed are assumed to have a smaller structure (they lack TopicP, FocusP and ForceP), because they lack assertionhood. A topical phrase in a sentential complement of a non-assertive verb would then be ruled out.

The next section will reveal that there is no evidence for a reduced complement structure of non-assertive predicates in German. I will show that topics may actually be embedded by all types of verbs based on the Hooper and Thompson (1973) classification. I will start with existing data demonstrating topic-embedding in German, which will dispose me to draw a further terminological distinction between *truly embedded topics* and *matrix-topics in embedded clauses*. Then I will systematically develop my argument using my own data.

### 4.3 Embedded Topics in German

It has already been shown by Frey (2000) that in principle German topics may be embedded.

\[(55) \quad [\text{Frey, 2000}]\]

\[
\text{Erzähl mal, was Maria über Hans denkt.}
\]

‘Tell me what Maria thinks about Hans.’

\[a. \quad \text{Maria denkt, dass Hans glücklicherweise den Auftrag bekommen wird.}
\]

‘Maria thinks that Hans will luckily receive the order.’

\[b. \quad \text{Maria bedauert, dass Hans anscheinend den Auftrag bekommen wird.}
\]

‘Maria regrets that Hans will obviously receive the order.’

In (55), ‘Hans’ is located in the designated topic position in the middle field above the SADV ‘glücklicherweise’ (‘luckily’). Accordingly, ‘Hans’ is an embedded topic in (55a,b). It can be inferred that (56):

\[(56) \quad \text{There are embedded topics in German.}\]

Frey (2000) also notes that varying the context in a way that only the embedded subject is pre-established as topical leads to data which is not consistent with (55).

\[^{57}\text{[Bentzen et al., 2006], p. 16.}\]
Erzähl mal etwas von Hans!
Tell something about H.
‘Tell me something about Hans!’

a. Maria denkt, dass Hans glücklicherweise den Auftrag bekommen wird.
M. thinks that H. luckily the-ACC order receive will
‘Maria thinks that Hans will luckily receive the order.’

b. #Maria bedauert, dass Hans anscheinend den Auftrag bekommen wird.
M. regrets that H. obviously the-ACC order receive will
‘Maria regrets that Hans will obviously receive the order.’

The interesting point here is that (55b) is fine, indicating that topic-embedding by ‘bedauern’ (‘regret’) is possible, whereas (57b) is odd, indicating that topic-embedding by ‘bedauern’ is not possible.

My suggestion concerning this discrepancy is that the request Erzähl mal etwas von Hans, as opposed to Erzähl mal, was Maria über Hans denkt, contextually enforces ‘Hans’ to be the sentence’s matrix-topic. Hence a parenthetic interpretation of the main clause of the succeeding sentence is triggered. It does that by explicitly demanding the speaker assertion to concern the embedded ‘Hans’, rather than ‘Maria’s opinion about Hans’. This means that only in a context similar to (55), where a non-parenthetic interpretation is induced, ‘Hans’ is a subordinated topic, i.e. embedded in the correct sense.

Now, as already worked out, a parenthetic interpretation with the main assertion lying in the sentential complement is of course only possible if the complement is asserted in the first place, which means that such a reading is only available to clauses containing class A, B or E verbs. Sentence (57b), which contains a class D verb, is thus infelicitous not because it is impossible to embed a topic under ‘bedauern’, but because it is impossible to use ‘bedauern’ parenthetically.

If I am on the right track with this suggestion, (57) shows nothing but that a parenthetical reading is only available to assertive predicates, and (56) should be maintained. In the remainder of this section it will be shown that this hypothesis is actually borne out. That in (57a) ‘Hans’ is the matrix-topic of the entire sentence is a reasonable hypothesis, although of course not proven. There is simply no motivation to consider the topic in a verb’s sentential complement a ‘truly embedded’, subordinated topic, if the sentential complement is the speaker assertion, carrying the main predication of the sentence. The two examples below illustrate this point (‘SA’ = Speaker Assertion).

Was glaubt eigentlich Tom₁, warum Lisaₜ₂ₙₘᵢᵣₜ₁ nicht zur Hochzeit gekommen ist?
What thinks actually Tom why L. not to the wedding come is
‘By the way, what does Tom₁ think why Lisaₜ₂ₙₘᵢᵣₜ₁ didn’t come to the wedding?’
In both (58) and (59), the topical status of the embedded subject is confirmed by its occupying the middle field topic position. Example (58) provides a context which I assume forces the use of the sentence to be non-parenthetical: The main predication of B’s utterance is ‘Tom thinks that X’, while ‘she perhaps never received the invitation’ covers the subordinated predication. Correspondingly I interpret ‘she’ as an embedded topic. In (59), the very same sentence is used parenthetically due to a variation in context. The main predication of B’s utterance here is ‘she perhaps never received the invitation’, while the function of ‘Tom thinks that X’ is just to express that this information is second-hand and not fully reliable. In other words, the sentential complement is the speaker assertion, and the main clause is of reduced semantic content. It appears justifiable to assume that the topic in the speaker assertion of (59a) is the matrix-topic of (59a) rather than a subordinated topic phrase. I will accept this as a reasonable hypothesis and for the course of my thesis work on hypothesis (60):

> (60) Topics in embedded speaker assertions, where the main clause is used parenthetically, are matrix-topics.

In the next subsections, it is systematically verified that indeed German topics may be embedded by all five predicate classes elaborated in section 4.1 if these predicates are used non-parenthetically. Matrix-topics in sentential complements, as in (59), will be shown to be only possible if those predicates are assertive predicates.

For each verb class, I will provide a context which forces the sentential verb complement to be the speaker assertion in the first step. I’ll confirm this pre-contextual triggering with the help of Simons’ (2007) ‘syntactic parenthetical’ and the Hooper and Thompson complement-in-subject-position construction: If the former construction is licensed and

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58 Whether or not in such a case the subject in the main clause may be topical, too, is an independent question I won’t address here. Just note that (58) suggests that at least it is licensed in principle to have both the main clause subject and the embedded subject being topics. The same holds for Japanese, which can be inferred from (35). Here, both the main clause subject and the embedded subject are topic-woo-marked.
the latter is ruled out in the given context, it is ensured that the context enforces a paren-
thetical use of the sentence. If under these conditions the embedded subject may be located
in middle field topic position, it is shown that the given predicate allows topics to be
embedded under its parenthetic use.

In the second step I will provide a context which triggers a non-parenthetic interpretation
of the main clause of the succeeding sentence. Again, this is confirmed using the two
above syntactic constructions. This time, to be sure that the context does the desired job
the syntactic parenthetical is expected to be suppressed, while the complement-in-subject-
position construction should be licensed. If under these conditions the embedded subject
may be located in middle field topic position, it is shown that the given predicate allows
topics to be embedded under its non-parenthetic use.

I start with strongly assertive predicates (class A) and then go on with weakly assertive
predicates (class B), non-assertive predicates (class C), factives (class D) and finally semi-
factives (class E).

4.3.1 German topics embedded by class A predicates

Class A predicates embed topics under their parenthetical as well as under their non-
parenthetical use. Example (61) shows the parenthetic use:

(61) **Wieso wurden der Archivar und seine Kollegen denn verhaftet?**
Why were the archivist and his colleagues arrested

‘Why were the archivist and his colleagues arrested?’

a. *Tom* hat geheime Dokumente entwendet, behauptet seine1 Chefin.
T. has secret documents stolen claims his boss

‘Tom has stolen secret documents, his boss claims.’

b. *#Dass Tom*1 geheime Dokumente entwendet hat, wird von seiner1 Chefin
that T. secret documents stolen has is by his boss

claimed

‘That Tom has stolen secret documents is claimed by his boss.’

c. *Seine1 Chefin behauptet, dass Tom1 vermutlich geheime Dokumente*
his boss claims that T. assumedly secret documents

entwendet hat.
stolen has

‘His boss claims that Tom has assumedly stolen secret documents.’

Examples (61a) (the syntactic parenthetical) and (61b) (the complement-in-subject-position
construction) confirm that in (61c) the speaker assertion is embedded, as enforced by the
context. Further, ‘Tom’ is in topic position in (61c). Hence, class A predicates embed
topics under their parenthetical use.

Example (62) shows the non-parenthetic use:
Glauben manche der anderen Angestellten, dass Tom zu Unrecht
verantwortlich gemacht wird?

‘Do some of the other employees believe that Tom is wrongly hold
responsible?’

a. #Ja, Tom1 ist vollkommen unschuldig, behauptet seine1 Sekretärin.
   Yes T. is completely innocent claims his secretary
   ‘Yes, Tom is completely innocent, his secretary claims.’

b. Ja, dass Tom1 vollkommen unschuldig ist, wird von seiner1 Sekretärin
   claimed
   ‘Yes, that Tom is completely innocent is claimed by his secretary.’

c. Ja, seine1 Sekretärin behauptet, dass Tom1 höchstwahrscheinlich vollkommen
   innocent is
   ‘Yes, his secretary claims that in all likelihood Tom is completely innocent.’

Examples (62a) (the syntactic parenthetical) and (62b) (the complement-in-subject-position
construction) confirm that in (62c) the main assertion is in the main clause, as enforced by
the context. The passive construction to me generally sounds somewhat overblown, but
not ungrammatical. ‘Tom’ is in topic position in (62c). Hence, class A predicates embed
topics also under their non-parenthetical use.

4.3.2 German topics embedded by class B predicates

Class B predicates also embed topics under their parenthetical as well as under their
non-parenthetical use.

Wieso wurden der Archivar und seine Kollegen denn verhaftet?

‘Why were the archivist and his colleagues arrested

a. Tom1 hat geheime Dokumente entwendet, glaubt seine1 Chefin.
   T. has secret documents stolen believes his boss
   ‘Tom has stolen secret documents, his boss believes.’

b. #Dass Tom1 geheime Dokumente entwendet hat, wird von seiner1 Chefin
   that T. secret documents stolen has is by his boss
   geglaubt.
   believed
   ‘That Tom has stolen secret documents is believed by his boss.’
c. Seine Chefin glaubt, dass Tom vermutlich geheime Dokumente entwendet hat. 
   ‘His boss believes that Tom has assumedly stolen secret documents.’

Examples (63a) and (63b) confirm that in (63c) the speaker assertion is embedded. ‘Tom’ is in topic position in (63c). Hence, class B predicates embed topics under their parenthetical use.

(64) Glauben manche der anderen Angestellten, dass Tom zu Unrecht verantwortlich gemacht wird? 
   ‘Do some of the other employees believe that Tom is wrongly hold responsible?’

a. Ja, Tom ist vollkommen unschuldig, glaubt seine Sekretärin. 
   ‘Yes, Tom is completely innocent, his secretary believes.’

b. Ja, dass Tom vollkommen unschuldig ist, wird von seiner Sekretärin geglaubt. 
   ‘Yes, that Tom is completely innocent is believed by his secretary.’

c. Ja, seine Sekretärin glaubt, dass Tom höchstwahrscheinlich vollkommen unschuldig ist. 
   ‘Yes, his secretary believes that in all likelihood Tom is completely innocent.’

Examples (64a) and (64b) confirm that in (64c) the main assertion is in the main clause. ‘Tom' is in topic position in (64c). Hence, class B predicates embed topics also under their non-parenthetical use.

4.3.3 German topics embedded by class C predicates

Class C predicates embed topics under their non-parenthetical use. They cannot be used parenthetically.

(65) Wieso wurden der Archivar und seine Kollegen dann verhaftet? 
   ‘Why were the archivist and his colleagues arrested?’

   T. has secret documents stolen doubts his boss
b. #Dass Tom₁ geheime Dokumente entwendet hat, wird von seiner₁ Chefin that T. secret documents stolen has is by his boss
doubted.
‘That Tom has stolen secret documents is doubted by his boss.’

c. #Seine₁ Chefin bezweifelt, dass Tom₁ wohl geheime Dokumente entwendet his boss doubts that T. perhaps secret documents stolen
   has
   ‘His boss doubts that Tom perhaps has stolen secret documents.’

Example (65b) suggests that the context enforces the speaker assertion to be embedded, but (65a) shows that this interpretation is ruled out for class C verbs. Consequently, (65c) is infelicitous. There is no parenthetical use of class C predicates.

(66) Glauben manche der anderen Angestellten, dass Tom zu Unrecht believe some of the other employees that T. wrongly
   verantwortlich gemacht wird? responsible hold is
   ‘Do some of the other employees believe that Tom is wrongly hold
   responsible?’

a. Ja, dass Tom₁ tatsächlich schuldig ist, wird von seiner₁ Sekretärin bezweifelt. yes that T. really guilty is is by his secretary doubted
   ‘Yes, that Tom really is guilty is doubted by his secretary.’

b. Ja, seine₁ Sekretärin bezweifelt, dass Tom₁ tatsächlich schuldig ist. yes his secretary doubts that T. really guilty is
   ‘Yes, his secretary doubts that Tom really is guilty.’

Example (66a) confirms that in (66b) the main assertion is in the main clause. Under these conditions, ‘Tom’ may occupy the topic position in (66b). Hence, class C predicates embed topics under their non-parenthetical use.

4.3.4 German topics embedded by class D predicates

Class D predicates embed topics under their non-parenthetical use. As with class C verbs, class D verbs don’t allow a parenthetical use.

(67) Wieso wurden der Archivar und seine Kollegen denn verhaftet? why were the archivist and his colleagues arrested
   ‘Why were the archivist and his colleagues arrested?’

a. *Tom₁ hat geheime Dokumente entwendet, bedauert seine₁ Chefin. T. has secret documents stolen regrets his boss

T. has secret documents stolen regrets his boss
b. #Dass Tom₁ geheime Dokumente entwendet hat, wird von seiner₁ Chefin that T. secret documents stolen has is by his boss 
bedauert.
regretted
‘That Tom has stolen secret documents is regretted by his boss.’

c. #Seine₁ Chefin bedauert, dass Tom₁ vermutlich geheime Dokumente his boss regrets that T. assumedly secret documents 
entwendet hat.
stolen has
‘His boss regrets that Tom has assumedly stolen secret documents.’

Again, (67b) suggests that the context enforces the speaker assertion to be embedded, but (67a) shows that this interpretation is ruled out for class D verbs. Consequently, (67c) is infelicitous. There is no parenthetical use of class D predicates.

(68) Gibt es unter den anderen Angestellten irgendeinen, der ihn vermissen exist among the other employees anyone who him miss 
wird?
will
‘Is there anyone among the other employees who will miss him?’

a. Ja, dass Tom₁ wohl ersetzt werden wird, wird von seiner₁ Sekretärin yes that T. assumedly replaced be will is by his secretary 
bedauert.
regretted
‘Yes, that Tom assumably will be replaced is regretted by his secretary.’

b. Ja, seine₁ Sekretärin bedauert, dass Tom₁ wohl ersetzt werden wird. yes his secretary regrets that T. assumedly replaced be will
‘Yes, his secretary regrets that Tom will assumably be replaced.’

Example (68a) confirms that in (68b) the main assertion is in the main clause. ‘Tom’ may occupy the topic position in (68b) under these conditions. Hence, class D predicates embed topics under their non-parenthetical use.

4.3.5 German topics embedded by class E predicates

Class E predicates embed topics under their parenthetical as well as under their non-parenthetical use.

(69) Wieso wurden der Archivar und seine Kollegen denn verhaftet?
why were the archivist and his colleagues arrested
‘Why were the archivist and his colleagues arrested?’

a. Tom₁ hat geheime Dokumente entwendet, hat seine₁ Chefin herausgefunden. T. has secret documents stolen has his boss discovered
‘Tom has stolen secret documents, his boss discovered.’
b. #Dass Tom₁ geheime Dokumente entwendet hat, hat seine₁ Chefin that T₁ secret documents stolen has has his boss herausgefunden.

‘That Tom has stolen secret documents was discovered by his boss.’

c. Seine₁ Chefin hat herausgefunden, dass Tom₁ wohl geheime Dokumente his boss has discovered that T₁ assumedly secret documents entwendet hat.

‘His boss discovered that Tom has assumedly stolen secret documents.’

Examples (69a) and (69b) confirm that in (69c) the speaker assertion is embedded. ‘Tom’ is in topic position in (69c). Hence, class E predicates embed topics under their parenthetical use.

(70) Welche der anderen Angestellten hat ihn noch mal vor Gericht entlastet?

‘Again, who of the other employees exculpated him on trial?’

a. #Tom₁ ist tatsächlich vollkommen unschuldig, hat seine₁ Sekretärin T₁ is in fact completely innocent has his secretary herausgefunden.

‘Tom is completely innocent, his secretary discovered.’

b. Dass Tom₁ tatsächlich vollkommen unschuldig ist, wurde von seiner₁ that T₁ in fact completely innocent is was by his Sekretärin herausgefunden.

‘That Tom is in fact completely innocent was discovered by his secretary.’

c. Seine₁ Sekretärin hat herausgefunden, dass Tom₁ tatsächlich vollkommen his secretary has discovered that T₁ in fact completely unschuldig ist.

‘His secretary discovered that in fact Tom is completely innocent.’

Example (70a) and (70b) confirm that in (70c) the main assertion is in the main clause. ‘Tom’ is in topic position in (70c). Hence, class E predicates embed topics also under their non-parenthetical use.

4.3.6 Summary and discussion

The following pattern emerges from the above survey: German topics may be embedded by main clause predicates of all five classes A, B, C, D, E if the main clause is used non-parenthetically. Topic-embedding under parenthetical use of the main clause is allowed for class A, B and E verbs (class C and D verbs cannot be used parenthetically, as we
already learned from the Hooper and Thompson (1973) verb classification). The table below summarizes the findings graphically. ‘Yes’ means that the embedded subject may be a topic with given matrix verb class and main clause use. ‘-’ means that the given use is not available to the given verb class.

<table>
<thead>
<tr>
<th></th>
<th>Class A</th>
<th>Class B</th>
<th>Class C</th>
<th>Class D</th>
<th>Class E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parenthetical</td>
<td>yes</td>
<td>yes</td>
<td>-</td>
<td>-</td>
<td>yes</td>
</tr>
<tr>
<td>Non-Parenthetical</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

First of all I conclude (71).

(71) There is no matrix verb type restriction on German embedded topics.

In the beginning of section 4.3 I hypothesized that topics embedded by parentheticals are matrix-topics rather than truly embedded, subordinated topics. This hypothesis in mind I extract (72) from the above table (and hypothesis (73) is repeated from (60) above for completeness).

(72) Topics may be truly embedded by assertive matrix predicates in their non-parenthetical use.

(73) Topics in embedded speaker assertions, where the main clause is used parenthetically, are matrix-topics.

My findings contradict the results of many hitherto existing studies on embedded topics, some of which I introduced in section 4.2. Whereas e.g. Yamato’s (2007) and Kuroda’s (2005) Japanese data suggest a restriction of embedded topics to main clauses containing the assertive verb types A, B and E, my data indicates that at least in German there is no such verb type restriction of embedded topicality. The general possibility of topic-embedding in German turns out to be independent of the assertive or non-assertive character of the main clause predicate.

4.3.7 Remarks on German left dislocation

In order to substantiate or falsify the above claims one could fairly try to apply other tests to the same problem. For example, it is possible to construct sentences containing embedded left dislocation as in (74)\(^59\). They tend to sound somewhat untypical, but are tolerated by native speakers. Interestingly, using embedded left dislocation as a test for embedded topics leads to data conflicting with (71).

\(^{59}\)This has also been done by [Frey, 2004a].
(74)  a. Anna behauptet, seine\textsubscript{1} Schwiegemutter, dass die jeder\textsubscript{1} mag.
   A. claims his mother-in-law that RP-ACC everybody likes
   ‘Anna claims that his mother-in-law everybody likes.’

   b. Anna glaubt, seine\textsubscript{1} Schwiegemutter, dass die jeder\textsubscript{1} mag.
   A. thinks his mother-in-law that RP-ACC everybody likes
   ‘Anna thinks that his mother-in-law everybody likes.’

   c. *Anna bezweifelt, seine\textsubscript{1} Schwiegemutter, dass die jeder\textsubscript{1} mag.
   A. doubts his mother-in-law that RP-ACC everybody likes

   d. *Anna bedauert, seine\textsubscript{1} Schwiegemutter, dass die jeder\textsubscript{1} mag.
   A. regrets his mother-in-law that RP-ACC everybody likes

   e. Anna hat festgestellt, seine\textsubscript{1} Schwiegemutter, dass die jeder\textsubscript{1} mag.
   A. has discovered his mother-in-law that RP-ACC everybody likes
   ‘Anna discovered that his mother-in-law everybody likes.’

In the above test I included a pronoun which binds an element inside the dislocated clause, to ensure that it really is left dislocation and not a Hanging Topic construction I am working with\textsuperscript{60}. Nevertheless this test clearly produces ungrammatical sentences in (74c,d) and thereby predicts that topics can’t be embedded by the non-assertive verb classes C and D. It is important to note that these predictions are false. The reason for their coming out is the fact that left dislocation is a root transformation and that, as Hooper and Thompson (1973) note, “root transformations may apply only in asserted clauses\textsuperscript{61}.”

As already mentioned before, Hooper and Thompson point out that all root transformations emphasize the dislocated element\textsuperscript{62}. In (74c,d), ‘seine Schwiegemutter’ (‘his mother-in-law’) occurs in a subordinated sentence which is not asserted. Now, to emphasize an element which is not part of an assertion generally is odd in a non-contrastive context, consider, for example, (75):

(75)  When did Mr. Smith leave today?
   a. Mr. Smith left at TEN.
   b. #Mr. Smith LEFT at ten.

In accordance with the question in (75), an answer is expected which presupposes There is Mr. Smith and he left, while it asserts something of the form (He left) at time t. It is acceptable to put emphasis on asserted elements as in (75a), but unacceptable to put emphasis on presupposed and non-asserted elements as in (75b). Likewise, (74c,d) are infelicitous because in both sentences emphasis is put on an element which, since it is not part of an assertion, cannot be emphasized. Obviously, only those phrases can be left-dislocated which are both possible topics and possible bearers of emphasis. Since this section revealed that there are referential expressions which are possible

\textsuperscript{60}See section 2.3 for an explanation why this is important.

\textsuperscript{61}[Hooper and Thompson, 1973], p. 484.

\textsuperscript{62}Cf. section 2.3.
topics, but not possible bearers of emphasis (e.g. topical phrases embedded by factive verbs), I conclude (76).

(76) German left dislocation is not a valid topic-test for embedded topics.

There is an argument in Hooper and Thompson (1973) which at first glance restricts the applicability of German left dislocation even further (although in the end of this section it will turn out to be harmless): Hooper and Thompson (1973) hold the view that embedded root transformations are actually not applicable to all asserted verb complements, but only to asserted verb complements under parenthetic use of the main clause. In other words, they claim that only if a main clause predicate is interpreted parenthetically, i.e. it is located in the speaker assertion, its complement may contain a root phenomenon. The claim that root phenomena only occur in speaker assertions implies that also German left dislocation, which is a root phenomenon, only occurs in speaker assertions. For example, according to Hooper and Thompson (1973) only under the parenthetic use of (77) may ‘die Schwiegermutter’ (‘the mother-in-law’) be dislocated as in (74) (repeated here as (78)).

(77) Anna behauptet, dass jeder1 seine1 Schwiegermutter mag.
A. claims that everybody his mother-in-law likes
   ‘Anna claims that everybody likes his mother-in-law.’

(78) Anna behauptet, seine1 Schwiegermutter, dass die jeder1 mag.
A. claims his mother-in-law that RP-ACC everybody likes
   ‘Anna claims that his mother-in-law everybody likes.’

Given that all topics in speaker-assertions are matrix-topics, as I hypothesized in the beginning of section 4.3, it follows from the above that German left dislocation only marks matrix-topics (because it only occurs in speaker-assertions). Due to its simplicity this conclusion would be in a way attractive. However, In this section I will provide evidence for the applicability of German left dislocation to speaker assertions as well as subordinated assertions.

The argument given by Hooper and Thompson (1973) is simple: They point out that root transformations are applicable to syntactic parentheticals, which are the equivalents of the parenthetical reading, but not to the complement-in-subject-position construction, which induces the non-parenthetical reading. This is shown in (79), using English topicalization as example.

(79) a. John said that this book you should read.
   b. This book you should read, John said.
   c. *That this book you should read was said by John.
Their conclusion is given in (80):

(80) Root transformations are only applicable to sentences whose main clauses are used as parenthetics.

Actually, from the fact that root transformations are not applicable to passives with a sentential verb complement in subject position it is not legitimate to infer (80). That English topicalization is suppressed in (79c) is, I claim, purely a property of this specific construction.

To disprove (80) I again encapsulated assertive sentences in contexts that enforce either a parenthetic or a non-parenthetic use. I reused examples from the beginning of this section to do this, because they are already validated with respect to their contextual effects.

First, the context in (81) enforces a parenthetic use of (81a). Left dislocation of the topic is clearly licensed under these conditions, as expected.

(81) Wieso wurden der Archivar und seine Kollegen denn verhaftet?

Why were the archivist and his colleagues arrested?

‘Why were the archivist and his colleagues arrested?’

a. Seine Chefin behauptet, [ der Tom\textsub{1}, dass der geheime Dokumente entwendet hat ]\textsub{MainPred}.

His boss claims that [Tom\textsub{1} has stolen secret documents ]\textsub{MainPred}.

Example (81) thus verifies that German left dislocation is applicable to sentences whose main clauses are used as parentheticals.

Now, (82) provides a context in which the main clause of (82a) can only be used non-parenthetically. The left dislocation construction is licensed also under these conditions, which disproves (80).

(82) Glauben manche der anderen Angestellten, dass die Angeklagten believe some of the other employees that the accused zu Unrecht verantwortlich gemacht werden?

wrongly responsible hold are

‘Do some of the other employees believe that the accused are wrongly hold responsible?’

a. [ Ja, seine Sekretärin\textsub{1}, glaubt, der Tom\textsub{Sub}, dass der vollkommen unschuldig ist ]\textsub{MainPred}.

Yes, his secretary believes that Tom\textsub{Sub} is completely innocent.

‘Yes, his secretary\textsub{1} believes that Tom\textsub{Sub} is completely innocent.’

\textsuperscript{63}I only commuted ‘Tom’ into ‘die Angeklagten’ in (82), because left-dislocated phrases must not have been topical in the previous sentence, cf. 2.3.
I have shown with these examples that there is at least one root transformation which is applicable to assertive sentences with parenthetic as well as with non-parenthetic main clause interpretation. It follows for German left dislocation that it marks topics in assertive sentences, no matter which interpretation those sentences receive. Nevertheless, as a thoroughly valid test for topichood it should be abandoned, because it is not applicable to embedded constructions containing verbs of class C and D.

5 Conclusion

In this thesis, four central propositions were supported and one was hypothesized:

(83) There are embedded topics in German.

(84) There is no verb type restriction on German embedded topics.

(85) Topics may be truly embedded by assertive matrix predicates in their non-parenthetical use.

(86) German left dislocation is not a valid topic-test for embedded topics.

(87) Topics in embedded speaker assertions, where the main clause is used parenthetically, are matrix-topics.

Propositions (83) and (84) follow from tests using the middle field topic position found by Frey (2000). These tests revealed that embedded subjects may be located in the German designated topic position regardless of the type of the main clause predicate. Proposition (85) then is a careful conclusion drawn from tests which consider the different uses assertive predicates have: All assertives, i.e. predicates of class A, B and E, can be used either parenthetically or non-parenthetically. Under both uses they allow the subject in their sentential complement to be located in topic-position. I consider it unlikely that under their parenthetic use, assertives are truly embedding predicates, because under this use their function is not to introduce a subordinated assertion, but to parenthesize the main assertion. It is more probable that under their parenthetic use, assertive main clause predicates have the sentence’s matrix-topic in their sentential complement. For this reason I deliberately only conclude (85) and hypothesize (87).

Finally, (86) follows from the fact that German left dislocation is not applicable to all referential expressions which can be topical, but it is only applicable to referential expressions which can be topical and emphasized at the same time. As there can be shown to exist topic-expressions which are not emphasizable (e.g. topics in presuppositions), German left dislocation as a topic-test is incomplete. It has to be inferred that (86).
Proposition (84) obviously conflicts with the results of many studies on Japanese embedded topics. While I show German to have no matrix verb type restriction on embedded topics, in Japanese embedded topics seem to be limited to assertive verbs.

It is beyond the means for me to get into the study of Japanese topic-marking so deeply I can analyze these cross-linguistic differences myself. This has to be left for future research. However, one way to approach the problem might be to examine whether a phenomenon similar to the ‘parenthetic use’ German and English embedding clauses can undergo also applies to Japanese matrix predicates. It might be the case, for example, that in Japanese the parenthetic interpretation of main clause predicates is their unmarked use. The ‘positive examples’ included in the Japanese studies would then be instances of parenthetically used assertives, and the ‘negative examples’ would demonstrate the non-availability of a parenthetic interpretation for non-assertives. If this was the case, the suppression of topic-embedding in sentences containing matrix verbs of class C and D in Japanese would be solely a consequence of this specific usage of the main clause, just as this is the case in German.

I conclude my study by highlighting again that at least the German data suggest the general possibility of topic-embedding to be entirely independent of assertionhood. Embedded topicality in German is not restricted by any of the properties covered by the Hooper and Thompson (1973) predicate classification.
References


