

# Topic Integration

## *Syntax and Semantics of German ‘Split Topicalization’\**

Andreas Nolda

Humboldt-Universität zu Berlin

<http://www.linguistik.hu-berlin.de/~nolda/>

In this paper, I argue that German topic integration (generally known as “split topicalization”) is a syntactic topic-comment construction, where the topic is ‘integrated’ into the ‘prefield’ of the sentence. After discussing and rejecting prominent alternatives for the analysis of German topic integration instances that were proposed by other authors, I present a syntactic and semantic analysis of my own by the example of *Rotwein habe ich nur französischen*. This analysis presupposes the framework of Integrational Linguistics. Finally, I formulate a tentative definition of the construction name and show how the construction can be identified in German.

### 1 Introduction

The present paper outlines the syntax and semantics of the German *topic integration* construction, generally known as “split topicalization”.<sup>1</sup> (1) and (2) are typical instances of this construction:

- (1) *Rotwein habe ich nur französischen.*  
red wine have I only French  
‘As for red wine, I only have French.’
- (2) *Rotwein habe ich keinen.*  
red wine have I none  
‘As for red wine, I have none.’

In Nolda (2007), a comprehensive study of German topic integration, I argue that certain German idiolects also include topic integration instances such as (3) and (4):<sup>2</sup>

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<sup>1</sup> The term “split topicalization” was coined by Riemsdijk (1989). Further terms for this construction used in the literature include “split topic” (Haegeman 1995: sect. 4.1.1.2) and “DP split” (Besten and Webelhuth 1990).

In Nolda (2007), I propose the term “topic integration” as an alternative to them without derivational connotations. The motivation for this term is twofold. First, virtually all authors agree that one of the two characteristic expressions in topic integration instances (to be called “topic expression” below) functions as a ‘topic’ in some sense. Second, this expression is typically ‘integrated’ into the ‘prefield’ of the sentence (i.e. it immediately precedes the finite part of the predicate constituent); in particular, it is not dislocated into the ‘pre-prefield’.

<sup>2</sup> Examples of type (3) are also known as “pseudo-partitive splits” (Pafel 1995).

- (3) *Rotwein habe ich noch zwei Liter.*  
 red wine have I still two liters  
 ‘As for red wine, I still have two liters.’
- (4) *Rotwein habe ich nur Bordeaux.*  
 red wine have I only Bordeaux  
 ‘As for red wine, I only have Bordeaux wine.’

For a discussion of type (3) and (4) instances, the reader is referred to Nolda (2007).

I shall proceed as follows. Section 2 distinguishes several readings of the construction term “topic integration” and introduces related terms. In section 3, I shall discuss alternatives for the analysis of German topic integration instances proposed by other authors. My own syntactic and semantic analysis will be presented in section 4 by the example of (1). In section 5, I shall formulate a tentative definition of “topic integration” and show how the construction can be identified in German. The paper concludes with a summary and an outlook in section 6.

The presupposed theoretical framework for the analysis is that of Integrational Linguistics (Lieb 1983 b; an up-to-date introduction can be found in Sackmann 2006 and Nolda 2007: chap. 7; see also the overview on page vii, this volume). Familiarity with the framework, however, is not required. All framework-related notions will be introduced as we go along.

## 2 Terminological preliminaries

Construction terms like “topic integration” can be understood in at least three different ways:

1. as denoting a syntactic construction as a universal entity;
2. as denoting a syntactic construction in a given linguistic system;
3. as denoting a construction instance in a lexically and structurally disambiguated syntactic expression of a given system.

Using the framework of Integrational Linguistics, these readings of “topic integration” can be formally distinguished in the following way.

In Integrational Linguistics, systems of languages and their varieties are ultimately derived from *idiolect systems*. Commonly, idiolect systems are denoted by variables “*S*”. Every idiolect system *S* specifies the lexically and structurally disambiguated syntactic expressions that are ‘grammatical’ in *S*. A lexically and structurally disambiguated syntactic expression of *S* in turn is conceived as a *syntactic triple*  $\langle f, s, e \rangle$  where *f* is a *syntactic unit* of *S* (a sequence of phonological or graphematical words of *S*), *s* is a *syntactic structure* of *f* in *S* (consisting of a *constituent structure*, a *categorial marking structure*, and an *intonation structure*), and *e* is a *lexical interpretation* of *f* relative to *s* in *S*.

Given this conception, a *topic integration instance* in a syntactic triple  $\langle f, s, e \rangle$  of an idiolect system *S* can be identified with a proper or improper non-empty part of *f*. The *topic integration construction* in an idiolect system *S* (*topic integration* in *S*) can then be construed as the relation between all topic integration instances in syntactic triples  $\langle f, s, e \rangle$  of *S* and the corresponding syntactic triples themselves. In informal contexts, the topic integration constructions in German idiolect systems *S* will be collectively referred to as “the German topic integration construction” or “German topic integration” for short. Finally, the *topic integration construction* as a universal entity (*topic integration* without reference to

idiolect systems  $S$ ) will be taken to be a function  $c$  from idiolect systems  $S$  to the topic integration construction in  $S$ .<sup>3</sup>

All topic integration instances contain two characteristic subexpressions, which I shall call “topic expression” and “related expression”, respectively. In (1), for example, the topic expression is *Rotwein* and the related expression is *französischen*.<sup>4</sup> I shall assume that a topic integration instance  $f_1$  in a syntactic triple  $\langle f, s, e \rangle$  is the smallest constituent of  $f$  relative to the constituent structure component of  $s$  containing the topic expression as well as the related expression of  $f_1$ . In (1), I shall argue below,  $f_1$  equals  $f$ .

### 3 Alternative analyses in the literature

In this section, I shall briefly review three prominent alternatives for the analysis of German topic integration instances that were proposed by other authors: the analysis of the topic expression and the related expression as a discontinuous noun group, the analysis of the related expression as a secondary predicate, and the analysis of the topic expression as a syntactically incorporated predicate part. (A more complete discussion of analyses in the literature can be found in Nolda 2007: chap. 5 and 6.) For better comparability, the characteristics of the analyses will be presented in a more or less theory-neutral way below.

#### 3.1 The topic expression and the related expression as a discontinuous noun group

According to a common analysis of German topic integration instances, the topic expression and the related expression together form a discontinuous noun group with analogous syntactic function occurrences as in a continuous variant thereof (cf., *inter alia*, Brinker 1972: 121 f.; Riemsdijk 1989; Besten and Webelhuth 1990: 79 f.; Haegeman 1995: 173–176; Kniffka 1996: 56–67).<sup>5</sup> In particular, the related expression is, or includes, a determiner or adjectival modifier of the topic expression’s nucleus. Thus, *Rotwein* is modified by *französischen* in (1) as well as in (5) and is determined by *keinen* in (2) as well as in (6):

(5) *Ich habe nur französischen Rotwein.*  
I have only French red wine  
‘I have only French red wine.’

(6) *Ich habe keinen Rotwein.*  
I have no red wine  
‘I have no red wine.’

There are, however, topic integration instances without a (literal) continuous variant. For instance, the related expressions *keins* in (7 a) and *welchen* in (8 a) can be used as noun only (cf. Fanselow 1988: 99; “S 1” below refers to the list of sources):<sup>6</sup>

<sup>3</sup> If there is no topic integration construction in  $S$ ,  $c$  assigns the empty set to  $S$ .

<sup>4</sup> In informal contexts, object-language expressions in italics denote either (parts of) syntactic units or syntactic triples. In particular, German orthography is observed, including rules for capitalization and interpunctuation. In formal contexts, a convention of Integrational Linguistics will be applied according to which phonological words and the (parts of) syntactic units build from them are written using small letters only.

<sup>5</sup> The equivalent of a discontinuous noun group in a derivational framework like Generative Grammar that does not allow for direct representation of discontinuous constituents is the extraction of a proper part out of a continuous noun group.

<sup>6</sup> Note that there is a homonymous interrogative pronoun *welchen*, which can also be used adjectivally:

- (7) a. *Geld fehlte, wie gesagt, keins [...].* (S 1: 89)  
 money was missing as I said none  
 ‘As for money, nothing was missing, as I said before.’  
 b. \**Es fehlte, wie gesagt, keins Geld.*  
 it was missing as I said none money  
 c. *Es fehlte, wie gesagt, keins.*  
 it was missing as I said none  
 ‘None was missing, as I said before.’
- (8) a. *Schmuck hat er welchen gesehen.* (Moltmann 1992: 207)  
 jewelry has he some seen  
 ‘As for jewelry, he saw some.’  
 b. \**Er hat welchen Schmuck gesehen.*  
 he has some jewelry seen  
 c. *Er hat welchen gesehen.*  
 he has some seen  
 ‘He saw some.’

In addition, there are idiolects where a related expression with the meaning ‘one’ does not need to match the topic expression in number. Such topic integration instances do not have a continuous variant either:

- (9) a. *Hinweise auf den Täterkreis hat es bisher erst einen gegeben.*  
 clues PL on the culprits has it up to now only one SG existed  
 (Westdeutscher Rundfunk; quoted in Müller 1986: 39)  
 ‘As for clues to the culprits’ identity, only one was given up to now.’  
 b. \**Es hat bisher erst einen Hinweise auf den Täterkreis gegeben.*  
 it has up to now only one SG clues PL on the culprits existed

What is more, the continuous variant (5) of the topic integration instance (1) is not logically equivalent to the latter. Given a quantificational, non-scalar reading<sup>7</sup> of *nur* with scope over *französischen Rotwein*,<sup>8</sup> the proposition of (5) entails (10):

- (10) ‘Everything the speaker has is French red wine.’

From the proposition of (1), however, only the weaker entailment (11) can be derived:

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- (i) a. *Er hat welchen Schmuck gesehen?*  
 he has which jewelry seen  
 ‘Which jewelry did he see?’  
 b. *Er hat welchen gesehen?*  
 he has which seen  
 ‘Which did he see?’

<sup>7</sup> There is also a non-quantificational, scalar reading of *nur*, involving an ordered scale of ranks (cf. Altmann 1976: 101–107 und König 1991: 99–101). For the scalar reading of *nur* in (1) and (5), an analogous argument can be made (cf. Nolda 2007: sect. 3.1.1).

<sup>8</sup> I follow Lieb (1983 b: 136, 367–370) and others in assuming that a *nur*-occurrence—or rather the syntactic function occurrence connected with it—has not only a scope, but also a domain (here: *ich habe französischen Rotwein*; see section 4.1 below).

(11) ‘All red wine the speaker has is French red wine.’

Here the universal quantifier is restricted to the semantic content of topic expression *Rotwein*, setting the frame for the interpretation of the remaining part of (1).

To this argument, the following objection might be raised. Typically, though not obligatorily, (1) is realized with the accentuation in (12) (“˘” and “˙” denote occurrences of syntactic rise and fall accents, respectively):

(12) *Rótwein habe ich nur französischen.*

If (5) is realized with an analogous accentuation as in (13), the scope of *nur* includes *französischen* only (cf. Altmann 1976: 137):

(13) *Ích habe nur französischen Rotwein.*

In this case (11), but not (10), can be derived from its proposition. Thus, the frame-setting semantic effect appears to be a semantic effect of the accentuation.

This objection is based on a false empirical hypothesis, though. According to my view, the fall accent on *französischen* in (13) does *not* necessarily restrict the scope of *nur* to *französischen*—provided that there is a contrasting ‘non-French alternative’ to French red wine in the context:

(14) *Da wir gerade über Getränke sprechen: Háns hat nur Sèkt. Ótto hat nur*  
because we just about drinks speak Hans has only champagne Otto has only  
*spanischen Rótwein. (Und) Ích habe nur französischen Rotwein.*  
Spanish red wine and I have only French red wine  
‘Speaking about drinks: Hans only has champagne. Otto only has Spanish red wine. And I  
only have French red wine.’

By uttering (13) in (14), the speaker can indeed deny that he has any other drinks than French red wine. In other words: given the quantificational *nur*-reading with scope over *französischen Rotwein* as a whole, the proposition of (13) still entails (10).

### 3.2 The related expression as a secondary predicate

A further alternative for the analysis of German topic integration instances treats the related expression similarly to *ungekühlt* in (15) and the ‘floating quantifier’ *beide* in (16)—viz. as a secondary predicate (a ‘predicative modifier’) relative to the subject or object of the sentence (cf., for instance, Paul 1919: 310):

(15) *Der Weißwein wurde ungekühlt serviert.*  
the white wine was unchilled served  
‘The white wine was served unchilled.’

(16) *Ihr wart beide betrunken.*  
you PL were 2PS PL both drunk  
‘You were both drunk.’

Thus, according to that analysis, in the topic integration instances (1) and (2), *französischen* and *keinen* function as secondary predicates relative to the object constituent *Rotwein*.

Although this appears to be a natural analysis of topic integration instances, there are significant differences between (1) and (2) on the one hand and (15) and (16) on the other hand. For example, *ungekühlt* and *beide* can be interchanged with the constituent they are related to:

- (17) *Ungekühlt wurde der Weißwein serviert.*  
 unchilled was the white wine served  
 ‘The white wine was served unchilled.’
- (18) *Beide wart ihr betrunken.*  
 both were 2PS PL you PL drunk  
 ‘You were both drunk.’

In topic integration instances, however, the related expression must not precede the topic expression:

- (19) a. *\*(Nur) Französischen habe ich Rotwein.*  
 only French have I red wine
- b. *\*Keinen habe ich Rotwein.*  
 none have I red wine

In addition, it can be shown that the topic expression does *not* function as the relevant complement (subject, object, etc.) of the verb. It is well-known that in German, the predicate constituent agrees with a nominal subject constituent in person and number. Now, in (20 a), the predicate *ist* agrees in number with the related expression *eines* and not with the topic expression *Kopiergeräte*; the opposite agreement in (20 b) is clearly out (cf. Zifonun *et al.* 1997: Volume 2, 1619):<sup>9</sup>

- (20) a. *Kopiergeräte ist im Moment nur eines in Ordnung.*  
 photocopiers PL is SG at the moment only one SG in order  
 (utterance quoted in Müller 1986: 38)  
 ‘As for photocopiers, there is only one all right at the moment.’
- b. *\*Kopiergeräte sind im Moment nur eines in Ordnung.*  
 photocopiers PL are PL at the moment only one SG in order

It follows that the related expression, and not the topic expression, is to be considered as the complement of the verb in topic integration instances.

### 3.3 The topic expression as a syntactically incorporated predicate part

The third and last alternative for the analysis of topic integration instances to be discussed here assumes that the topic expression is syntactically incorporated into the predicate; the complex predicate then takes the related expression as a complement<sup>10</sup> (cf., *inter alia*, Haider 1985: 237 f.; Fanselow 1988; Geenhoven 1998).<sup>11</sup> Given this analysis, the topic expression in a topic integration instance is comparable to *Zeitung* in (21), where *Zeitung* is a part of the syntactic (i.e. analytic) verbal compound *Zeitung lesen*:

- (21) a. *Ich lese nie beim Frühstück Zeitung.*  
 I read never at the breakfast newspaper  
 ‘I never read the newspaper at breakfast.’

<sup>9</sup> This observation was confirmed by a questionnaire study of Nolda (2007: sect. 2.5.3; Appendix A). Note that in many German idiolect systems, neither topic integration instances of type (20 a) nor topic integration instances of type (20 b) are grammatical.

<sup>10</sup> I use the term “complement” in a broad sense, including subjects.

<sup>11</sup> Fanselow (1988) does not use the term “incorporation”, though.

- b. *Zeitung lese ich nie beim Frühstück.*  
 newspaper read I never at the breakfast  
 ‘I never read the newspaper at breakfast.’

There are several problems connected with an analysis along these lines. For instance, the nominal part in a German compound of this sort is, as a rule, a bare singular noun form. It is true that in topic integration instances such as (1) or (22), the topic expression is indeed a bare singular noun form:<sup>12</sup>

- (22) *Kompressor hatte er keinen* [...]. (S 2: 57; quoted in Kniffka 1986: 68)  
 compressor had he none  
 ‘As for compressors, he had none.’

In other topic integration instances, however, the topic expression is plural and/or extended by modifiers or complements (cf. (9 a) above). There are German idiolects where the topic expression may even include an indefinite determiner:

- (23) *Eine Anleitung gibt ’s keine* [...]. (S 3)  
 a instruction exists it none  
 ‘As for instructions, there are none.’

Another problem for this analysis is the fact that syntactically incorporated predicate parts in German normally cannot be modified, determined, quantified, or negated by an expression external to the complex predicate:<sup>13</sup>

- (24) \**Ich lese keine beim Frühstück Zeitung.*  
 I read none at the breakfast newspaper

In order to defend the incorporation analysis for German topic integration instances, one would have to assume that an external modification, determination, quantification, or negation is possible if, and only if, the syntactically incorporated predicate part is fronted:

- (25) *Zeitung lese ich keine beim Frühstück.*  
 newspaper read I none at the breakfast  
 ‘As for newspapers, I don’t read one at breakfast.’

From a theory-neutral point of view, this is not a plausible assumption.

#### 4 An integrational analysis of topic integration instances

Having rejected the analysis of the topic expression and the related expression as a discontinuous noun group, the analysis of the related expression as a secondary predicate, and the analysis of the topic expression as a syntactically incorporated predicate part, I shall now present my own analysis of topic integration instances by the example of (1), given the accentuation specified in (12). As already mentioned, this analysis presupposes the framework of Integrational Linguistics. I shall start with the syntax of (1), continue with the propositional and referential semantics of (1) and conclude with the (non-propositional) semantics of the accent occurrences in (12).

<sup>12</sup> Note that topic integration instances of type (22) are not grammatical in all German idiolect systems.

<sup>13</sup> In languages such as Mohawk or South-Tiwa morphologically (i.e. synthetically) incorporated predicate parts can indeed be externally modified, determined, or quantified (cf. Gerds 1998: 89 f.).





- “1Ps”: first person verb form of **S**;
- “Acc”: accusative noun form of **S**;
- “Masc”: masculine noun form of **S**;
- “Nom”: nominative noun form of **S**;
- “Pres”: present tense verb form of **S**;
- “Sg<sub>Nf</sub>”: singular noun form of **S**;
- “Sg<sub>Vf</sub>”: singular verb form of **S**;
- “Subst”: substantival noun form of **S**;
- “Unmp<sub>f</sub>”: unmarked particle form of **S**.

In *m*, the adjective form occurrence *französischen*<sub>5</sub> is marked by the unit category ‘substantival noun form of **S**’ because it can be—and in fact is—used as noun (see below).<sup>15</sup> Word categories in turn are categories of *lexical words* (‘lexemes’). Lexical words are conceived as pairs consisting of a *word form paradigm* and a *lexical meaning*. Abbreviations in (26) for word categories of **S** read as follows:

- “1PS”: first person substantival pronoun of **S**;
- “ADJ”: adjective of **S**;
- “MASC”: masculine substantival word of **S**;
- “MASS-N”: mass noun of **S**;
- “NOM + ACC”: verb of **S** governing an obligatory nominative expression and an obligatory accusative expression;
- “QUAL-W”: qualifier word of **S** (word of **S** that can be used as a qualifier; see below).

Categories such as ‘verb of **S** governing an obligatory nominative expression and an obligatory accusative expression’ are called “government categories”.

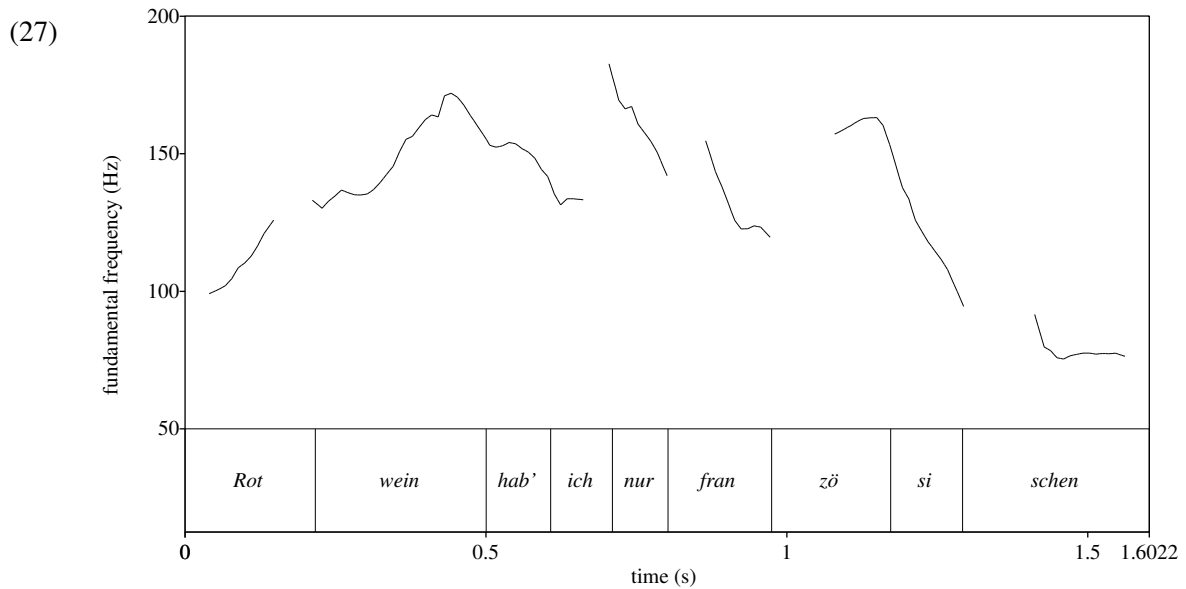
By the intonation structure *I*, the syllables in the members of *f* are annotated with phonological tones and other auditory values. In (26), only the tones are given, by using the following symbols:

- “H”: high in **S**;
- “H<sub>r</sub>”: high-rising in **S**;
- “L”: low in **S**;
- “L<sub>d</sub>”: low-descending in **S**;
- “L-H”: low to high in **S**.

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<sup>15</sup> In addition, *m* assigns to *französischen*<sub>5</sub> also a set containing the unit category ‘adjectival noun form of **S**’. As this set is not relevant for the present syntactic context, it is left out in (26).

The tone sequence of I has the form of a hat contour. It corresponds to the fundamental frequency curve displayed in (27):<sup>16</sup>



The lexical interpretation  $e$  assigns (*potential*) *concepts* to the primitive constituents of  $f$  in  $k$ . These concepts are the lexical meanings of relevant lexical words. By convention, concepts are denoted by names between dots. For instance,  $\cdot$ red wine $\cdot$  is a concept with an intension containing the property (28):<sup>17</sup>

(28) The property of being an  $x$  such that  $x$  is a ‘red wine quantity’.

Accordingly, the extension of  $\cdot$ red wine $\cdot$  is the set (29):

(29) The set of all  $x$  such that  $x$  has (28).

The extension of  $\cdot$ red wine $\cdot$  thus contains all ‘red wine quantities’. “ $b^0$ ” names the empty concept, to which the notions of intension and extension do not apply.

*Syntactic quadruples*—i.e. syntactic triples together with the corresponding idiolect system—are the arguments of *syntactic functions* such as nucleus (“nuc” for short). The values assigned to syntactic quadruples  $\langle f, s, e, S \rangle$  by a syntactic function are *syntactic relations* on  $f$ ,  $s$ ,  $e$ , and  $S$ . The value of  $\text{nuc}(f, s, e, S)$ , for instance, is the syntactic relation in (30):

(30)  $\{ \langle \text{rotwein}_1, \text{rotwein}_1 \rangle,$   
 $\langle \text{ich}_3, \text{ich}_3 \rangle,$   
 $\langle \text{französischen}_5, \text{französischen}_5 \rangle,$   
 $\langle \text{habe}_2, \text{habe}_2 \text{ ich}_3 \text{ französischen}_5 \rangle,$   
 $\langle \text{habe}_2 \text{ ich}_3 \text{ französischen}_5, \text{habe}_2 \text{ ich}_3 \text{ nur}_4 \text{ französischen}_5 \rangle,$   
 $\langle \text{habe}_2 \text{ ich}_3 \text{ nur}_4 \text{ französischen}_5, f \rangle \}$

<sup>16</sup> (27) was derived, using the phonetics program Praat, from the speech signal of an utterance produced by a native German speaker, who was instructed to read (i) aloud while stressing the underlined syllables:

(i) Sie möchten spanischen Rotwein? Rotwein hab' ich nur französischen. Aber Weißwein hätt' ich auch anderen.

Note that (27) is primarily intended for illustrative purposes.

<sup>17</sup> For the presupposed notion of ‘quantity’, cf. Nolda (2007: Appendix B).

The elements of (30) are the *nucleus occurrences* in *f*, *s*, *e*, and **S**. The first component of a nucleus occurrence is a *nucleus constituent*; the second component is the *related constituent*. In (26), the occurrences of syntactic functions are represented by arrows with the following labels:

“ant”: (syntactic) antecedent;

“comp<sup>2</sup>”: two-place complement (complement pair);

“nuc”: (one-place) nucleus;

“qual”: qualifier;

“top”: (syntactic) topic.

Qualifier values are three-place syntactic relations between a *qualifier constituent*, a *qualifier domain*, and a *qualifier scope*. The qualifier domain and the qualifier scope of the qualifier occurrence in *f*, *s*, *e*, and **S** are *habe<sub>2</sub> ich<sub>3</sub> französischen<sub>5</sub>* and *französischen<sub>5</sub>*, respectively.

The values of two-place complement are again three-place syntactic relations, here between a first *complement constituent*, a second complement constituent and a common related constituent. In the two-place complement occurrence in *f*, *s*, *e*, and **S**, *ich<sub>3</sub>* is the first complement constituent and *französischen<sub>5</sub>* is the second complement constituent.

The use-as-noun of *französischen<sub>5</sub>* in *f*, *s*, *e*, and **S** corresponds to the following properties of *französischen<sub>5</sub>*:

1. In *m*, the nucleus of *französischen<sub>5</sub>* in *f*, *s*, *e*, and **S** (i.e. *französischen<sub>5</sub>* itself) is marked by the word category ‘adjective of **S**’ and by the unit category ‘substantival noun form of **S**’.
2.  $\langle ich_3, französischen_5, habe_2 \rangle$  is a two-place complement occurrence in *f*, *s*, *e*, and **S**.
3. In *m*, *habe<sub>2</sub>* is marked by the government category ‘verb of **S** governing an obligatory nominative expression and an obligatory accusative expression’.

Put differently: *französischen<sub>5</sub>*, the nucleus of which is a substantival form of an adjective, functions as the direct object of *habe<sub>2</sub>* in *f*, *s*, *e*, and **S**.

Note that there is a semantic constraint for the use-as-noun of *französischen<sub>5</sub>* in *f*, *s*, *e*, and **S**. As *französischen<sub>5</sub>* is used as noun in *f*, *s*, *e*, and **S** without a determiner and is marked by *m* as ‘singular noun form in **S**’ and ‘masculine noun form in **S**’, any entity denoted by *französischen<sub>5</sub>* has to be denotable by a nominal expression with a form of a masculine mass noun as its nucleus. Given the antecedent occurrence between *rotwein<sub>1</sub>* and *französischen<sub>5</sub>* in *f*, *s*, *e*, and **S**, that nominal expression is to be identified with *rotwein<sub>1</sub>* (cf. section 4.2 below).<sup>18</sup>

Two alternatives to the use-as-noun analysis of *französischen<sub>5</sub>* in *f*, *s*, *e*, and **S** may be considered. First, (1) could be taken as an ellipsis of (31), resulting from *phonological reduction* (Klein 1993: 790) of the second occurrence of *Rotwein*:

(31) *Rotwein habe ich nur französischen Rotwein.*  
 red wine have I only French red wine

Topic integration instances of type (31), however, are ungrammatical in many German idiolect systems (cf. Nolda 2007: sect. 2.2.3). What is more, the related expression in a German topic integration instance cannot consist of an uninflected adjective form such as *rosa* (cf. Hoof 1997: 11):

<sup>18</sup> For the discussion of a different, though untenable, conception of use-as-noun in Integrational Linguistics, cf. Nolda (2007: sect. 8.2.1).

- (32) a. *Stoff habe ich nur rosanen gekauft.*  
 cloth have I only pink INFL bought  
 ‘As for cloth, I’ve only bought pink.’  
 b. \**Stoff habe ich nur rosa.*  
 cloth have I only pink UNINFL

In an ellipsis, inflectedness is not required, though (cf. Klein 1993: 776):

- (33) a. *Peter sagt, dass Hans rosa Stoff gekauft hat und Otto blauen Stoff gekauft hat.*  
 Peter says that Hans pink cloth bought has and Otto blue cloth bought has  
 ‘Peter says that Hans has bought pink cloth and that Peter has bought blue cloth.’  
 b. *Peter sagt, dass Hans rosa und Otto blauen Stoff gekauft hat.*  
 Peter says that Hans pink and Otto blue cloth bought has

Second, *französischen*<sub>5</sub> in f, s, e, and **S** could be analyzed as a form of a masculine nominalized adjective. As a rule, the lexical meaning of a German masculine nominalized adjective involves the natural gender features ‘person’ or ‘male person’ (cf., *inter alia*, Fleischer and Barz 1995: 214–216 and Nolda 2007: sect. 2.1.3). These features, however, are incompatible with the lexical meaning of the topic expression *rotwein*<sub>1</sub> in f, s, e, and **S**.

The values of the topic function are two-place syntactic relations between a *topic constituent* and a *comment constituent*. The topic occurrence in f, s, e, and **S** therefore induces a syntactic ‘topic-comment articulation’ of f into the topic constituent *rotwein*<sub>1</sub> and the comment constituent *habe*<sub>2</sub> *ich*<sub>3</sub> *nur*<sub>4</sub> *französischen*<sub>5</sub>. In German topic integration instances, the topic constituent is typically ‘integrated’ into the ‘prefield’ of the sentence (i.e. it immediately precedes the finite part of the predicate constituent).<sup>19</sup> In instances of German left dislocation such as (34), the topic constituent occupies the ‘pre-prefield’ instead (for the analysis of instances of left dislocation and related constructions, cf. Nolda 2004):

- (34) *Den Rotwein, den habe ich gekauft.*  
 the red wine that have I bought  
 ‘As for the red wine, I have bought it.’

In (34), the topic constituent is a definite expression. There are also left dislocation instances with non-definite, or even non-nominal, topic constituents:

- (35) *Einen Spion, den erkennst du an seinem Hut.* (Altmann 1981: 108)  
 a spy that recognize you by his hat  
 ‘A spy you can recognize by his hat.’  
 (36) *So ständig jemanden so um sich haben, das könnt’ ich auch nicht.*  
 so constantly someone so around oneself have that could I also not  
 (utterance quoted in Selting 1993: 296; orthography and punctuation adapted)  
 ‘Always someone being around, I couldn’t stand that either.’

Semantically, the syntactic ‘topic-comment articulation’ is mirrored by a partition of the corresponding part of the proposition (see section 4.2 below). Note that I neither assume a constraint to the effect

<sup>19</sup> Oppenrieder (1991: 72), Zifonun *et al.* (1997: Volume 1, 518), and Eroms (2000: 365) share the view that in German topic integration instances, the topic expression is a topic constituent that is ‘integrated’ into the ‘prefield’.

that a topic constituent always co-occurs with a certain accentuation of the sentence nor a constraint requiring that, in an utterance of the sentence, the speaker always refers by the topic constituent to a discourse topic (for the semantic effects of typical accent occurrences in (1), see section 4.3; reference to discourse topics by the topic expression of German topic integration instances is discussed in Nolda 2007: sect. 4.3).

The values of the antecedent function are again two-place syntactic relations. In German, the antecedent constituent and the related constituent agree in certain syntactic properties. In *f*, *s*, *e*, and *S*, the antecedent constituent *rotwein*<sub>1</sub> and the related constituent *französischen*<sub>5</sub> agree in case, number, and gender. The same holds for the antecedent occurrence in (34) between *den Rotwein* and the following *den*. In general, the related constituent is semantically dependent on the antecedent constituent. Prototypically, the semantic dependency is a co-reference relation as in the case of (34). In other cases, one or both of the constituents may be non-referential expressions such as *so ständig jemanden so um sich haben* in (36). (For the semantic dependency between *französischen*<sub>5</sub> and *rotwein*<sub>1</sub>, see section 4.2 below.)<sup>20</sup>

## 4.2 Propositional and referential semantics

The propositional and referential semantics I propose for (1), given a non-referential reading of *französischen* and a quantificational reading of *nur*, can be paraphrased as follows:

(37) Let *y* be the set of all ‘red wine quantities’ the speaker generically refers to by *Rotwein* in his utterance. Then the following holds:

1. The speaker has some French element of *y*.
2. Every element of *y* the speaker has is French.

In addition, there is also a non-propositional meaning related to *nur*:

(38) The speaker believes: the speaker has something French.

These meanings will now be formulated in the framework of Integrational Linguistics.

Integrational Linguistics assumes three parts of *sentence meanings*:

1. a *referential part*, consisting of *referential meanings*;
2. a *propositional part*, consisting of a hearer-oriented propositional attitude (e.g. assertion) and a *proposition* as its content;
3. a *propositional background*, consisting of pairs of speaker-oriented propositional attitudes (e.g. believe) and their contents.

Referential meanings, the contents of propositional attitudes, and sentence meanings as a whole are conceived as intensional relations between utterances and speakers, representing conditions for *normal utterances* of the sentence in question.

The referential meaning of the topic constituent *rotwein*<sub>1</sub> in *f*, *s*, *e*, and *S* is a generic-distributive one (cf. also Moltmann 1992: 207 f.):<sup>21</sup>

<sup>20</sup> Comparable antecedent relations in German topic integration instances are assumed by Fanselow (1993: 58–65, 70 f.), Pafel (1995: 169 f.), Hoof (1997: 42–46), and others.

<sup>21</sup> Note that the topic constituent *einen Spion* in (35) is interpreted generic-distributively, too.

- (39) The intensional relation between  $V$  and  $V_1$  such that, for every  $x$ :  
 $V_1$  refers by *rotwein*<sub>1</sub> in  $V$  to  $x$  iff ‘ $x$  is red wine’.

“‘ $x$  is red wine’” abbreviates the following conjunction:

- (40) 1.  $x$  is in the reference basis for *rotwein*<sub>1</sub> relative to  $V$ ,  $V_1$ , and ·red wine<sub>1</sub>· and  
 2.  $x$  is in the extension of ·red wine<sub>1</sub>·.

The reference basis for *rotwein*<sub>1</sub> relative to  $V$ ,  $V_1$ , and ·red wine<sub>1</sub>· in turn is the following set:

- (41) The set of all  $x$  such that  $V_1$  is willing at the part of  $V$  corresponding to *rotwein*<sub>1</sub>  
 – to assume that  $x$  has the property (28) or  
 – to assume that  $x$  does *not* have the property (28).

Thus, the reference basis for *rotwein*<sub>1</sub> relative to  $V$ ,  $V_1$ , and ·red wine<sub>1</sub>· contains all contextually relevant ‘red wine quantities’ as well as contextually relevant ‘alternatives’ to ‘red wine quantities’.

Other topic expressions consisting of a mass noun form have a generic-distributive referential meaning, too. Consider, for example, *Geld* in the topic integration instance (7 a): in an utterance of (7 a), the speaker refers by *Geld* to all (contextually relevant) ‘money quantities’ in a distributive way. Outside topic integration instances, *Geld* can have an analogous generic-distributive interpretation:<sup>22</sup>

- (42) *Geld können Sie hier wechseln.*  
 money can you here change  
 ‘For any ‘money quantity’ usually holds: you can change it here.’

As a consequence of the distributive way of referring, ‘total predicates’ involving a (maximal) kind or the totality of specimen of a kind cannot be applied to *Geld* in generic interpretation:<sup>23</sup>

- (43) a. #*Die Phönizier haben Geld erfunden.*  
 the Phoenicians have money invented  
 b. *Die Phönizier haben das Geld erfunden.*  
 the Phoenicians have the money invented  
 (Johann N. Nestroy; quoted at <http://de.wikiquote.org>)  
 ‘The Phoenicians invented the money.’

Note that there are also topic integration instances such as (22) with a non-referential topic expression (for their interpretation, cf. Nolda 2007: sect. 9.1.3).

The proposition of a sentence meaning of  $f$  relative to  $f$ ,  $s$ ,  $e$ , and  $S$  with a non-referential reading of *französischen*<sub>5</sub> and a quantificational reading of *nur*<sub>4</sub> is given in (44):<sup>24</sup>

<sup>22</sup> The adverb “usually” in the meaning paraphrase in (42) accounts for to the fact that the generic-distributive interpretation of *Geld* here co-occurs with a characterizing or habitual generic interpretation of the sentence as a whole. In (7 a), however, the generic-distributive interpretation of *Geld* is compatible with an episodic, non-generic reading of the sentence. (For the distinction between episodic readings, characterizing generic readings, and habitual generic readings of sentences, cf. Krifka *et al.* 1995.)

<sup>23</sup> This holds at least for Standard German (for English, cf. Krifka *et al.* 1995: 10).

<sup>24</sup> (44) corresponds to the episodic, non-generic reading of (1) (cf. note 22). For the interpretation of topic integration instances with a referential reading of the related expression, cf. Nolda (2007: sect. 8.3.2).

- (44) The intensional relation between  $V$  and  $V_1$  such that, for every  $y$ :  
 if  $y =$  the set of all  $x_0$  such that  $V_1$  refers by *rotwein*<sub>1</sub> in  $V$  to  $x_0$ ,  
 then:
1. for every  $x_1$ , if  $V_1$  refers by *ich*<sub>3</sub> in  $V$  to  $x_1$ , then there is an *element*  $x_2$  of  $y$  such that:
    - a. ‘ $x_2$  is French’ and
    - b. ‘ $x_1$  has  $x_2$ ’,
 and
  2. for every *element*  $x_2$  of  $y$ , if there is an  $x_1$  such that:
    - a.  $V_1$  refers by *ich*<sub>3</sub> in  $V$  to  $x_1$ , and
    - b. ‘ $x_1$  has  $x_2$ ’,
 then ‘ $x_2$  is French’.

In (44), “‘ $x_2$  is French’” stands for (45) and “‘ $x_1$  has  $x_2$ ’” for (46):

- (45)
  1.  $x_2$  is in the reference basis for *französischen*<sub>5</sub> relative to  $V$ ,  $V_1$ , and  $\cdot$ French<sub>1</sub> $\cdot$  and
  2.  $x_2$  is in the extension of  $\cdot$ French<sub>1</sub> $\cdot$ .
- (46) There is an  $x$  such that:
1.  $\langle x, x_1, x_2 \rangle$  is in the reference basis for *habe*<sub>2</sub> relative to  $V$ ,  $V_1$ , and  $\cdot$ have<sub>1</sub> $\cdot$ ,
  2.  $\langle x, x_1, x_2 \rangle$  is in the extension of  $\cdot$ have<sub>1</sub> $\cdot$ , and
  3.  $x$  is not earlier than the *habe*<sub>2</sub>-part of  $V$ .

The intensions of  $\cdot$ French<sub>1</sub> $\cdot$  and  $\cdot$ have<sub>1</sub> $\cdot$  contain (47) and (48), respectively:

- (47) The property of being an  $x$  such that  $x$  ‘comes from France’.
- (48) The intensional relation between  $x$ ,  $x_1$ , and  $x_2$  such that  $x$  is a ‘state of possession’ with  $x_1$  as ‘possessor’ and  $x_2$  as ‘possessed entity’.

Mirroring the syntactic ‘topic-comment articulation’, the proposition (44) is partitioned into a *topic part* (i.e. the antecedent of the outer implication) and a *comment part* (the consequent of that implication). This is a semantic effect of the topic occurrence in  $f$ ,  $s$ ,  $e$ , and  $\mathbf{S}$  between the topic constituent *rotwein*<sub>1</sub> and the comment constituent *habe*<sub>2</sub> *ich*<sub>3</sub> *nur*<sub>4</sub> *französischen*<sub>5</sub>. The comment part—an open sentential formula with the free variables “ $y$ ”, “ $V$ ”, and “ $V_1$ ”—functions as a non-lexical predication over the entity  $y$  introduced into the topic part (cf. Budde 1996: 52; for the connection between topic and predication, cf. also Jacobs 2001: 657 f.). The predication is non-lexical because  $y$  is not (a component of) an element of the lexical meaning  $\cdot$ have<sub>1</sub> $\cdot$ , that  $e$  assigns to the predicate constituent *habe*<sub>2</sub> in  $f$ ,  $s$ ,  $e$ , and  $\mathbf{S}$ .

The comment part in turn is bipartite, too. The *predicational part* in clause 1 contains the lexical predication (46); it is a semantic effect of the nucleus occurrence in  $f$ ,  $s$ ,  $e$ , and  $\mathbf{S}$  between *habe*<sub>2</sub> and *habe*<sub>2</sub> *ich*<sub>3</sub> *französischen*<sub>5</sub>. The *non-predicational part* in clause 2, on the other hand, is a semantic effect of the qualifier occurrence in  $f$ ,  $s$ ,  $e$ , and  $\mathbf{S}$  between the qualifier constituent *nur*<sub>4</sub>, the qualifier domain *habe*<sub>2</sub> *ich*<sub>3</sub> *französischen*<sub>5</sub> and the qualifier scope *französischen*<sub>5</sub>.<sup>25</sup> Following Lieb (1983 a: 30), I assume that the qualifier occurrence has an additional semantic effect in the propositional background of the sentence meaning, viz. the pair  $\langle$ believe, (49) $\rangle$ :

<sup>25</sup> The existential quantifier “there is an  $x_1$ ” in the non-predicational part in (44) is justified by the analogy with (i):

- (49) The intensional relation between  $V$  and  $V_1$  such that, for every  $x_1$ :  
 if  $V_1$  refers by  $ich_3$  in  $V$  to  $x_1$ , then there is an  $x_2$  such that:
1. ‘ $x_2$  is French’ and
  2. ‘ $x_1$  has  $x_2$ ’.

The restriction of the quantifiers “there is an  $x_2$ ” in the predicational part and “for every  $x_2$ ” in the non-predicational part to elements of  $y$  is a semantic effect of the antecedent occurrence between  $rotwein_1$  and  $französischen_5$ . As a consequence of the former quantifier restriction,  $französischen_5$  is semantically dependent on  $rotwein_1$  in  $f$ ,  $s$ ,  $e$ , and  $\mathbf{S}$ . Assume that a speaker  $V_1$  asserts (44) in a normal utterance  $V$  of  $f$  in  $s$ ,  $e$ , and  $\mathbf{S}$ . Then it holds for every French  $x$ : if  $V_1$  asserts in  $V$  that  $V_1$  (i.e. everyone  $V_1$  refers to by  $ich_3$  in  $V$ ) has  $x$ , then  $V_1$  refers by  $rotwein_1$  in  $V$  to  $x$ . Put differently: in a normal utterance of the topic integration instance (1), the speaker can only assert that he has some entity  $x$  denoted by the related expression  $französischen$  if he refers by the topic expression  $rotwein_1$  to  $x$ . As a consequence, any such French entity has to be red wine. Note that due to the semantic dependency of  $französischen_5$  on  $rotwein_1$  in  $f$ ,  $s$ ,  $e$ , and  $\mathbf{S}$ , the semantic constraint for the use-as-noun of  $französischen_5$ , mentioned in section 4.1 above, is observed in any normal utterance of  $f$ .

The restriction of the universal quantifier in the non-predicational part accounts for the frame-setting effect of the topic constituent  $rotwein_1$  in  $f$ ,  $s$ ,  $e$ , and  $\mathbf{S}$ , that was identified in section 3.1. From (44), one can indeed derive the entailment (11), but not the stronger entailment (10). Chafe (1976: 50 f.) describes a comparable frame-setting effect of ‘Chinese-style topics’:

What the [Chinese-style; A. N.] topics appear to do is to limit the applicability of the main predication to a certain restricted domain. [...] ‘real’ topics (in topic-prominent languages) are not so much ‘what the sentence is about’ as ‘the frame within which the sentence holds’.

### 4.3 Semantics of accent occurrences

From the Integrational Linguistics point of view, occurrences of syntactic accents typically have semantic effects in the propositional background of the sentence meaning. Syntactic accents, in turn, are conceived as syntactic functions of a special type. The value of the fall accent for  $f$ ,  $s$ , and  $\mathbf{S}$ , for instance, is the following relation:

- (50)  $\{\langle französischen_5, 5, 2, rotwein_1\ hab_e_2\ ich_3\ französischen_5 \rangle,$   
 $\langle französischen_5, 5, 2, f \rangle\}$

The elements of (50) are the *fall accent occurrences* in  $f$ ,  $s$ , and  $\mathbf{S}$ . The first three components determine the accented syllable: it is the second syllable in the member at ‘position 5’ of the primitive constituent  $französischen_5$ .<sup>26</sup> The last component specifies the semantically relevant *accent domain*. In what follows, I shall discuss only semantic effects of accent occurrences with a narrow domain in  $f$ ,  $s$ , and  $\mathbf{S}$ , i.e. the fall accent occurrence (51) and the rise accent occurrence (52):<sup>27</sup>

- (i) *Jeder hat nur französischen Rotwein.*  
 everyone has only French red wine  
 ‘Everyone has only French red wine.’

Here, the non-predicational part of the proposition has to be paraphrased as follows:

- (ii) ‘Everything that *someone* has the speaker refers to by *jeder* is French red wine.’

<sup>26</sup> This conception takes into account that primitive constituents may have more than one member.

<sup>27</sup> For the phonological *manifestations* of the accent occurrences in the intonation structure of  $f$  in  $\mathbf{S}$ , cf. Nolda (2007: sect. 4.1).



(51)  $\langle \text{französischen}_5, 5, 2, \text{rotwein}_1 \text{ habe}_2 \text{ ich}_3 \text{ französischen}_5 \rangle$

(52)  $\langle \text{rotwein}_1, 1, 1, \text{rotwein}_1 \text{ habe}_2 \text{ ich}_3 \text{ französischen}_5 \rangle$

In addition, I shall restrict my attention to those semantic accent effects occurring in the propositional background of a *contrastive* sentence meaning of *f* relative to *f*, *s*, *e*, and **S**, suitable for a contrastive use of the sentence.<sup>28</sup>

As far as I can see, the accent occurrences (51) and (52) have two alternative semantic effects in the propositional background of contrastive sentence meanings of *f* relative to *f*, *s*, *e*, and **S**. Each of the semantic effects involves three pairs consisting of a propositional attitude and a content of the attitude. The first semantic effect may be paraphrased as in (53):<sup>29</sup>

- (53) a. The speaker believes: there is ‘non-French’ red wine of which every hearer considers that the speaker has it.  
b. The speaker believes: there is *no* ‘non-French’ red wine the speaker has.  
c. The speaker believes: there is ‘non-French’ ‘non-red-wine’ the speaker has.

The pairs  $\langle \text{believe}, (54) \rangle$ ,  $\langle \text{believe}, (55) \rangle$ , and  $\langle \text{believe}, (56) \rangle$  are formal versions of (53 a), (53 b), and (53 c), respectively:

(54) The intensional relation between *V* and *V*<sub>1</sub> such that there is an *x*<sub>2</sub> such that:

1. ‘*x*<sub>2</sub> is *not* French’,
2. ‘*x*<sub>2</sub> is red wine’, and
3. every hearer of *V* considers: for every *x*<sub>1</sub>, if *V*<sub>1</sub> refers by *ich*<sub>3</sub> in *V* to *x*<sub>1</sub>, then ‘*x*<sub>1</sub> has *x*<sub>2</sub>’.

(55) The intensional relation between *V* and *V*<sub>1</sub> such that there is *no* *x*<sub>2</sub> such that:

1. ‘*x*<sub>2</sub> is *not* French’,
2. ‘*x*<sub>2</sub> is red wine’, and
3. for every *x*<sub>1</sub>, if *V*<sub>1</sub> refers by *ich*<sub>3</sub> in *V* to *x*<sub>1</sub>, then ‘*x*<sub>1</sub> has *x*<sub>2</sub>’.

(56) The intensional relation between *V* and *V*<sub>1</sub> such that there is an *x*<sub>2</sub> such that:

1. ‘*x*<sub>2</sub> is *not* French’,
2. ‘*x*<sub>2</sub> is *not* red wine’, and
3. for every *x*<sub>1</sub>, if *V*<sub>1</sub> refers by *ich*<sub>3</sub> in *V* to *x*<sub>1</sub>, then ‘*x*<sub>1</sub> has *x*<sub>2</sub>’.

Here, “‘*x*<sub>2</sub> is not French’” stands for (57) and “‘*x*<sub>2</sub> is not red wine’” for (58):

- (57) 1. *x*<sub>2</sub> is in the reference basis for *französischen*<sub>5</sub> relative to *V*, *V*<sub>1</sub>, and ·French<sub>1</sub>· and  
2. *x*<sub>2</sub> is *not* in the extension of ·French<sub>1</sub>·.

- (58) 1. *x*<sub>2</sub> is in the reference basis for *rotwein*<sub>1</sub> relative to *V*, *V*<sub>1</sub>, and ·red wine<sub>1</sub>· and

<sup>28</sup> Note that *morphologically contrastive* sentence meanings of *f* relative to *f*, *s*, *e*, and **S** are not considered here. Given such a meaning, the sentence can be used to contrast, for instance, red wine with white wine (for details, cf. Nolda 2007: sect. 7.5.1).

<sup>29</sup> I am not sure whether believe is indeed the only permissible propositional attitude for (53 c).

2.  $x_2$  is *not* in the extension of  $\cdot\text{red wine}_1\cdot$ .

Semantic accent effects are justified in Integrational Linguistics by reference to *dialogue schemes* such as (59), where (59 B) is intended as a *proper response* to (59 A) (for details on the dialogue schema method, cf. Lieb 1984):<sup>30</sup>

- (59) A:  $Ich \left\{ \begin{array}{l} \text{glaube, dass} \\ \text{bin neugierig, ob} \\ \text{bezweifle, dass} \end{array} \right\} \text{ du spanischen Rotwein hast.}$   
 ‘I  $\left\{ \begin{array}{l} \text{believe that} \\ \text{wonder whether} \\ \text{doubt that} \end{array} \right\}$  you have Spanish red wine.’
- B:  $R\acute{o}twein \text{ habe ich nur franz\ddot{o}sischen} \left( \left( \begin{array}{l} \text{keinen sp\ddot{a}nischen} \\ \text{und sonst k\ddot{e}inen} \\ \text{aber S\acute{e}kt habe ich auch \ddot{a}nderen} \end{array} \right) \right).$   
 ‘As for red wine, I only have French  $\left( \left( \begin{array}{l} \text{no Spanish} \\ \text{and no other} \end{array} \right) \right)$ ,  
 (but as for champagne, I also have other)’

(60) is a dialogue schema corresponding to the second semantic effect the accent occurrences (51) and (52) can have in the propositional background of contrastive sentence meanings of  $f$  relative to  $f$ ,  $s$ ,  $e$ , and  $S$ :

- (60) A:  $Ich \left\{ \begin{array}{l} \text{glaube, dass} \\ \text{bin neugierig, ob} \\ \text{bezweifle, dass} \end{array} \right\} \text{ du spanische Getr\ddot{a}nke hast.}$   
 ‘I  $\left\{ \begin{array}{l} \text{believe that} \\ \text{wonder whether} \\ \text{doubt that} \end{array} \right\}$  you have Spanish drinks.’
- B:  $R\acute{o}twein \text{ habe ich nur franz\ddot{o}sischen} \left( \left( \left( \begin{array}{l} \text{keinen sp\ddot{a}nischen} \\ \text{und sonst k\ddot{e}inen} \end{array} \right) \right) \left( \text{was ich auch sonst immer an ‚Nicht-Franz\ddot{o}sischem‘ haben mag} \right) \right).$   
 ‘As for red wine, I only have French  $\left( \left( \begin{array}{l} \text{no Spanish} \\ \text{and no other} \end{array} \right) \right)$ ,  
 (whatever ‘non-French’ I may have or not)’

Provided that (60 B) is a proper response to (60 A), (60) establishes the following semantic effect:<sup>31</sup>

- (61) a. The speaker believes: there is ‘non-French’ ‘non-red-wine’ of which every hearer considers that the speaker has it.  
 b. The speaker believes: there is *no* ‘non-French’ red wine the speaker has.  
 c. The speaker leaves it open whether there is ‘non-French’ ‘non-red-wine’ the speaker has.

(61 a), (61 b), and (61 c) paraphrase the pairs ⟨believe, (62)⟩, ⟨believe, (55)⟩, and ⟨leave open, (56)⟩, respectively:

<sup>30</sup> The paraphrases in English are not part of the dialogue schema.

<sup>31</sup> I am again unsure about the propositional attitude in (61 c).

- (62) The intensional relation between  $V$  and  $V_1$  such that there is an  $x_2$  such that:
1. ‘ $x_2$  is *not* French’,
  2. ‘ $x_2$  is *not* red wine’, and
  3. every hearer of  $V$  considers: for every  $x_1$ , if  $V_1$  refers by *ich*<sub>3</sub> in  $V$  to  $x_1$ , then ‘ $x_1$  has  $x_2$ ’.

## 5 The topic integration construction

Given a syntactic and semantic analysis of German topic integration instances along the lines of the analysis presented in section 4, a tentative definition of the construction name now can be formulated. In addition, the construction will be identified in German.

### 5.1 Definition of “topic integration”

In the theory of language, the construction name “topic integration” can be defined as in (63):

- (63) *Definition (tentative)*  
*Topic integration* = that function  $c$  such that, for every  $S$ :  
the value of  $c$  for  $S$  is the set of all  $\langle f_1, f, s, e \rangle$  such that:
1.  $\langle f, s, e \rangle$  is a syntactic triple of  $S$  and
  2. there is an  $f_2, f_3$ , and  $f_4$  such that:
    - a.  $\langle f_2, f_1 \rangle$  is a nucleus occurrence in  $f, s, e$ , and  $S$ ,
    - b.  $\langle f_3, f_2 \rangle$  is a topic occurrence in  $f, s, e$ , and  $S$ ,
    - c.  $\langle f_3, f_4 \rangle$  is an antecedent occurrence in  $f, s, e$ , and  $S$ , and
    - d. [semantic criteria].

According to clause 2 d, topic integration is a syntactic topic-comment construction: it involves a topic occurrence with a topic constituent and a comment constituent. The criteria in clause 2 d specify the semantic effects of topic and antecedent occurrences that are specific for the construction. These effects include:

- the partition of the proposition into a topic part and a comment part;
- the introduction into the topic part of the set of all entities that can be denoted by the topic constituent;
- the restriction of quantifiers in the comment part to elements of that set.

### 5.2 Identification of topic integration in German

Through the identification of topic integration in German—i.e. in German idiolect systems  $S$ —the value of topic integration for  $S$  will be determined. Recall from section 2 that this value is the relation between all topic integration instances in syntactic triples  $\langle f, s, e \rangle$  of  $S$  and the syntactic triples themselves. In other words: the value is a set of quadruples  $\langle f_1, f, s, e \rangle$  of  $S$ . While the definition of the construction name above partly involves semantic criteria, the identification of the construction will use syntactic criteria only. As all syntactic triples of  $S$  are *per definitionem* grammatical in  $S$ , it is not necessary to list *all* of the syntactic properties of German topic integration instances. Rather, a German

grammar can identify topic integration in German idiolect systems by a sentence such as (64), that should be derivable from other sentences of the grammar and the theory of language:

(64) *Theorem*

For every  $S$ :

if  $S$  is a system of an idiolect of present German, then the value of topic integration for  $S$  is the set of all  $\langle f_1, f, s, e \rangle$  such that:

1.  $\langle f, s, e \rangle$  is a syntactic triple of  $S$  and
2. there is an  $f_2, f_3$ , and  $f_4$  such that:
  - a.  $\langle f_2, f_1 \rangle$  is a nucleus occurrence in  $f, s, e$ , and  $S$ ,
  - b.  $\langle f_3, f_2 \rangle$  is a topic occurrence in  $f, s, e$ , and  $S$ ,
  - c.  $\langle f_3, f_4 \rangle$  is an antecedent occurrence in  $f, s, e$ , and  $S$ ,
  - d.  $f_3$  precedes  $f_4$  in  $f_1$ , and
  - e. ' $f_3$  is not dislocated into the 'pre-prefield' in  $f, s, e$ , and  $S$ '.

Clauses 1 and 2 a–2 c select those quadruples  $\langle f_1, f, s, e \rangle$  of  $S$  where  $f_1$  has a part that is a topic constituent as well as an antecedent constituent in  $f, s, e$ , and  $S$ . As far as I can see, this applies only to topic integration or dislocation instances and their corresponding syntactic triples. Quadruples with right dislocation instances are excluded by clause 2 d. Clause 2 e, finally, eliminates quadruples with left dislocation instances: here, the topic constituent is not an 'integrated' one as far as its position is concerned.

## 6 Summary and outlook

This paper dealt with the syntax and semantics of the German topic integration construction, generally known as "split topicalization". In Section 2, three different readings of construction names such as "topic integration" were distinguished; in addition, the terms "topic expression" and "related expression" were introduced for the two characteristic subexpressions of topic integration instances. Section 3 discussed and rejected prominent alternatives for the analysis of German topic integration instances that were proposed by other authors. In Section 4, I presented a syntactic and semantic analysis of my own of German topic integration instances by the example of (1). Presupposing the framework of Integrational Linguistics, I argued that the topic expression simultaneously functions as a syntactic topic of the remaining part of the topic integration instance and as a syntactic antecedent of the related expression. As for the semantics of topic integration, I identified a frame-setting semantic effect of the topic expression as well as semantic effects of accent occurrences. In Section 5, finally, I provided a tentative definition of the construction name as a name for a topic-comment construction with specific semantics and an identification of the construction in German, where the topic expression is typically 'integrated' into the 'prefield' of the sentence.

In this paper, topic integration instances other than (1) were not analyzed in any detail. In Nolda (2007: chap. 9), however, I show that the analysis of (1) can be generalized to topic integration instances such as (2)–(4) as well.

## References

Altmann, Hans (1976). *Die Gradpartikeln im Deutschen: Untersuchungen zu ihrer Syntax, Semantik und Pragmatik*. Linguistische Arbeiten 33. Tübingen: Niemeyer.

- Altmann, Hans (1981). *Formen der ‚Herausstellung‘ im Deutschen: Rechtsversetzung, Linksversetzung, freies Thema und verwandte Konstruktionen*. Linguistische Arbeiten 106. Tübingen: Niemeyer.
- Besten, Hans den and Gert Webelhuth (1990). Stranding. In *Scrambling and Barriers*, ed. by Günther Grewendorf and Wolfgang Sternefeld, Linguistik aktuell/Linguistics Today 5, Amsterdam: Benjamins, 77–92.
- Brinker, Klaus (1972). *Konstituentenstrukturgrammatik und operationale Satzgliedanalyse: Methodenkritische Untersuchungen zur Syntax des einfachen Satzes im Deutschen*. Frankfurt on Main: Athenäum.
- Budde, Monika (1996). Non-reducible grammatical relations without semantic content: The German prefield-*es* as a problem of general syntax. In *Theoretical Linguistics and Grammatical Description: Papers in Honour of Hans-Heinrich Lieb: On the Occasion of His 60th Birthday*, ed. by Robin Sackmann and Monika Budde, Current Issues in Linguistic Theory 138, Amsterdam: Benjamins, 45–64.
- Chafe, Wallace L. (1976). Givenness, contrastiveness, definiteness, subjects, topics, and point of view. In *Subject and Topic*, ed. by Charles N. Li, New York: Academic Press, 25–56.
- Eroms, Hans-Werner (2000). *Syntax der deutschen Sprache*. Berlin: de Gruyter.
- Fanselow, Gisbert (1988). Aufspaltung von NPn und das Problem der ‚freien‘ Wortstellung. *Linguistische Berichte* 114, 91–113.
- Fanselow, Gisbert (1993). Die Rückkehr der Basisgenerierer. *Groninger Arbeiten zur germanistischen Linguistik* 36, 1–74.
- Fleischer, Wolfgang and Irmhild Barz (1995). *Wortbildung der deutschen Gegenwartssprache*. 2nd ed. Tübingen: Niemeyer.
- Geenhoven, Veerle van (1998). *Semantic Incorporation and Indefinite Descriptions: Semantic and Syntactic Aspects of Noun Incorporation in West Greenlandic*. Stanford: CSLI Publications.
- Gerds, Donna B. (1998). Incorporation. In *The Handbook of Morphology*, ed. by Andrew Spencer and Arnold M. Zwicky, Oxford: Blackwell, 84–99.
- Haegeman, Liliane (1995). *The Syntax of Negation*. Cambridge: Cambridge University Press.
- Haider, Hubert (1985). Über *sein* oder nicht *sein*: Zur Grammatik des Pronomens *sich*. In *Erklärende Syntax des Deutschen*, ed. by Werner Abraham, Studien zur deutschen Grammatik 25, Tübingen: Narr, 221–252.
- Hoof, Hanneke van (1997). Split topicalization and ellipsis. Arbeitspapiere des Sonderforschungsbereichs 340 112. Universität Stuttgart, Universität Tübingen, and Heidelberg: IBM.
- Jacobs, Joachim (2001). The dimensions of topic-comment. *Linguistics* 39, 641–681.
- Klein, Wolfgang (1993). Ellipse. In *Syntax: Ein internationales Handbuch zeitgenössischer Forschung/An International Handbook of Contemporary Research*, ed. by Joachim Jacobs *et al.*, Handbücher zur Sprach- und Kommunikationswissenschaft 9, Berlin: de Gruyter, vol. 1, 763–799.
- Kniffka, Gabriele (1986). Zur Distanzstellung von Quantoren und Qualifikatoren. In Vater (1986), 57–82.
- Kniffka, Gabriele (1996). *NP-Aufspaltung im Deutschen*. Kölner linguistische Arbeiten – Germanistik 31. Hürth: Gabel.
- König, Ekkehard (1991). *The Meaning of Focus Particles: A Comparative Perspective*. London: Routledge.
- Krifka, Manfred *et al.* (1995). Genericity: An introduction. In *The Generic Book*, ed. by Gregory N. Carlson and Francis J. Pelletier, Chicago: The University of Chicago Press, 1–124.
- Lieb, Hans-Heinrich (1983 a). Akzent und Negation im Deutschen: Umriss einer einheitlichen Konzeption (Teil A). *Linguistische Berichte* 84, 1–32.

- Lieb, Hans-Heinrich (1983 b). *Integrational Linguistics*. Current Issues in Linguistic Theory 17. Amsterdam: Benjamins. Vol. 1: *General Outline*.
- Lieb, Hans-Heinrich (1984). A method for the semantic study of syntactic accents. In *Intonation, Accent and Rhythm: Studies in Discourse Phonology*, ed. by Dafydd Gibbon and Helmut Richter, Research in Text Theory 8, Berlin: de Gruyter, 267–282.
- Moltmann, Friederike (1992). *Lokalität und Individuation: Studien zur Ereignis- und Nominalphrasen-semantik*. Studien zur Theoretischen Linguistik 12. Munich: Fink.
- Müller, Michael (1986). Zur Verbindbarkeit der Determinantien und Quantoren. In Vater (1986), 33–55.
- Nolda, Andreas (2004). Topics detached to the left: On ‘left dislocation’, ‘hanging topic’, and related constructions in German. *ZAS Papers in Linguistics* 35, 423–448. [http://www.zas.gwz-berlin.de/papers/zaspil/articles/zp35/Nolda\\_6\\_12.pdf](http://www.zas.gwz-berlin.de/papers/zaspil/articles/zp35/Nolda_6_12.pdf) [Sep. 7, 2005].
- Nolda, Andreas (2007). *Die Thema-Integration: Syntax und Semantik der ‚gespaltenen Topikalisierung‘ im Deutschen*. Studien zur deutschen Grammatik 72. Tübingen: Stauffenburg.
- Oppenrieder, Wilhelm (1991). *Von Subjekten, Sätzen und Subjektsätzen*. Linguistische Arbeiten 241. Tübingen: Niemeyer.
- Pafel, Jürgen (1995). Kinds of extraction from noun phrases. In *On Extraction and Extraposition in German*, ed. by Ulrich Lutz and Jürgen Pafel, Linguistik aktuell/Linguistics Today 11, Amsterdam: Benjamins, 145–177.
- Paul, Hermann (1919). *Deutsche Grammatik*. Halle: Niemeyer. Vol. 3: *Syntax (Erste Hälfte)*.
- Riemsdijk, Henk van (1989). Movement and regeneration. In *Dialect Variation and the Theory of Grammar*, ed. by Paola Benincà, Dordrecht: Foris, 105–136.
- Sackmann, Robin (2006). Integrational Linguistics (IL). In *The Encyclopedia of Language and Linguistics*, ed. by Keith Brown *et al.*, 2nd ed., Amsterdam: Elsevier, vol. 5, 704–713.
- Selting, Margret (1993). Voranstellungen vor den Satz: Zur grammatischen Form und interaktiven Funktion von Linksversetzung und Freiem Thema im Deutschen. *Zeitschrift für germanistische Linguistik* 21, 291–319.
- Vater, Heinz (ed.) (1986). *Zur Syntax der Determinantien*. Studien zur deutschen Grammatik 31. Tübingen: Narr.
- Zifonun, Gisela *et al.* (1997). *Grammatik der deutschen Sprache*. Schriften des Instituts für deutsche Sprache 7. Berlin: de Gruyter. 3 vols.

### List of sources

- S 1 Dürrenmatt, Friedrich (1955). *Der Richter und sein Henker*. Hamburg: Rowohlt-Taschenbuch-Verlag.
- S 2 Plenzdorf, Ulrich (2002). *Die neuen Leiden des jungen W. und andere Stücke: Stücke und Materialien*. Frankfurt on Main: Suhrkamp.
- S 3 Schmid, Patrick (2003). Schnelle Hüpfen: 3 USB-Speichersticks. [http://tomshardware.thgweb.de/2003/04/26/schnelle\\_huepfer\\_3\\_usb\\_speichersticks/page3.html](http://tomshardware.thgweb.de/2003/04/26/schnelle_huepfer_3_usb_speichersticks/page3.html) [Sep. 13, 2006].