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On properties differentiating constructions with inner-sentential pro-forms for clauses*

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The paper discusses various syntactic properties of different constructions featuring a dependent clause associated with a pro-form. The paper adopts the thesis of Pütz (1986[2]) and Sudhoff (2003) that the pro-form construction with verbs of the class to which *bedauern* ('to regret') belongs and the pro-form construction with verbs of the class which contains *behaupten* ('to claim') have to be differentiated. With regard to the former it is argued that contrary to standard assumptions, the presence of the pro-form makes a syntactic and a semantic difference. Regarding the construction in which the pro-form has the function of a prepositional object the argumentation is different in that the very same syntax is present independent of whether the pro-form is lexically realised or not, whether the pro-form is unstressed or stressed, or whether it is reduced or not. However, a special interpretation – narrow focus on the dependent clause – arises when the prepositional part of the pro-form is stressed. For the construction with a dependent adverbial clause the presence or absence of a lexically realised pro-form is again crucial. Finally and most importantly, it is demonstrated that a further construction has to be distinguished. It features a psych-verb with an experiencer-object, *es* and a clausal argument. In this construction, *es* is not a pro-form for the clausal argument as such but an independent argument which is co-referential with the clause and encodes the causer of the emotion.

1. Various constructions with an inner-sentential clausal pro-form

German is known for having different constructions with a pronominal element relating to a sentence-internal dependent clause; cf. (1). The term 'clausal pro-form'

will be used to refer to such pronominal elements. (1) lists the constructions considered in the present paper.

(1) a. *Maria hat es stets   bedauert, dass Peter berühmt ist.*
         Maria has it always regretted that Peter famous is
         'Maria has always regretted that Peter is famous.'

     b. *Maria hat es behauptet, dass Peter berühmt ist.*
         Maria has it claimed   that Peter famous is
         'Maria claimed that Peter is famous.'

     c. *Maria hat sich darüber   gewundert, dass Peter berühmt ist.*
         Maria has REFL about-that wondered that Peter famous is
         'Maria was surprised that Peter is famous.'

     d. *Maria ist darum   der Einladung gefolgt,   weil   der*
         Maria is therefore the invitation followed because the
         Gastgeber berühmt ist.
         host   famous is
         'Maria accepted the invitation because the host is famous.'

     e. *Maria   hat es überrascht, dass Peter berühmt ist.*
         Maria.ACC has it surprised   that Peter famous is
         'It surprised Maria that Peter is famous.'

It is an important insight of Pütz (1986[2]) and Sudhoff (2003, this volume) that there is a crucial difference between the pro-form construction illustrated in (1a) and the one in (1b). Terminologically, Sudhoff differentiates between the type in (1a) as a pro-form construction with a verb of the *bedauern*-class and the type in (1b) as a pro-form construction with a verb of the *behaupten*-class. The central observation of these authors is exemplified in (2). The question in (2) induces an all-focus answer. The examples (2a, b) contain the verb *bedauern* 'regret'. In the given contexts, (2a) with *es* and (2b) without *es* are both grammatical. The Examples (2c, d) contain the verb *behaupten*. Here, the example with the pro-form is ungrammatical, (2c); only the example without the pro-form is possible, (2d).

   i. *Occurrence in an all-focus clause*
(2) *Was ist los?*
     'What's the matter?'
     a. *Maria bedauert es, dass Peter berühmt ist.*
         Maria regrets it that Peter famous is
         'Maria regrets that Peter is famous.'

     b. *Maria bedauert, dass Peter berühmt ist.*

     c. **Maria behauptet es, dass Peter berühmt ist.*
          Maria asserts   it that Peter famous is
         'Maria asserts it that Peter is famous.'

     d. *Maria behauptet, dass Peter berühmt ist.*

The previously mentioned authors infer from the difference between (2a) and (2c) that the predicates of the *bedauern*-class may take a correlate[1] as pro-form whereas verbs of the *behaupten*-class may only take an anaphoric pronoun as pro-form.

The anaphoric nature of the pro-form occurring with verbs of the *behaupten*-class leads Pütz (1986[2]) and Sudhoff (2003, this volume) to analyse an example like (1b) (= (2c)) as an instance of the right dislocation construction. A standard example of right dislocation appears in B's statement in (3).

(3)   A: *Ich habe Karl   lange   nicht mehr   gesehen.*
         I   have   Karl.ACC for a long time not   anymore   seen
         'I have not seen Karl anymore for a long time.'

   B: *Maria hat ihn   heute getroffen, den Karl.*
         Maria has him.ACC today met   the Karl.ACC
         'Today Maria ran into him, Karl.'

Note that the right dislocation construction in (3) is not possible in an all-focus inducing context:

(4)   A: *Was ist los?*
         'What's happened?'

   B: #*Maria hat ihn getroffen, den Karl.*
          Maria has him met   the Karl

The pronominal element of the right dislocation construction has to be given, i.e., it has to find its antecedent in the preceding context. Thus, the assumption that (2c) is an instance of the right dislocation construction accounts for its inappropriateness in the context established in (2).

The present paper builds on the basic distinction between the constructions in (1a) and (1b) made by Pütz and Sudhoff and the criterion on which it is based. The new insights into the constructions listed in (1) which the paper has to offer mainly consist of the following three theses.

First, it will be argued that a clause featuring a verb of the *bedauern*-class and a correlate, (5a), and a clause featuring such a verb but no correlate, (5b), have to receive different syntactic analyses (contra Sudhoff 2003, this volume).

(5)   a. *Maria bedauert es, dass Peter berühmt ist.*
            Maria regrets   it   that Peter famous   is

   b. *Maria bedauert, dass Peter berühmt ist.*

It also can be shown that in addition, (5a, b) differ in meaning. Thus, it is argued that the interpretative difference between the two forms is reflected syntactically.

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1. Standardly, a correlate is defined as a placeholder for a dependent clause which is removed from its host clause; cf., e.g., Bußmann (2002).

Second, regarding the construction with an argumental prepositional adverb as the pro-form for the dependent clause, (1c), it is argued that whether the prepositional adverb is stressed, (6a), or not stressed, (6b), whether it is reduced, (6c), or whether it is not realised lexically, (6d), does not affect the basic analysis. In all these cases, the prepositional pro-form is an argument of the verb and the dependent clause is an argument of the – potentially empty – pro-form.

(6) a. Maria *hat sich daRÜber gewundert, dass Peter berühmt ist.*
         Maria has REFL about-that wondered that Peter famous is
         'Maria was wondering about the fact that Peter is famous.'

     b. *Maria hat sich darüber gewundert, dass PEter berühmt ist.*

     c. *Maria hat sich drüber gewundert, dass Peter berühmt ist.*

     d. *Maria hat sich gewundert, dass Peter berühmt ist.*

The situation is different if the prepositional adverb is the pro-form of an adverbial clause, (1d); cf. Section 4. In contrast to the situation with an argumental prepositional adverb, the adverbial pro-form has to be accented on its pronominal part. This goes together with an interpretational difference between the construction with a pro-form for the adverbial clause and the construction with just the adverbial clause. When the pro-form is present, the content of the matrix clause is understood as given and the adverbial clause is narrowly focussed. In the case of the construction without the pro-form the matrix clause does not have to be given.

The third thesis, and perhaps the most crucial one, consists in the claim that a further construction containing a sentential pro-form has to be distinguished; cf. Section 5. It contains a psychological verb with an experiencer-object, the pro-form *es* and a clausal argument; cf. (1e). It will be argued that, on the one hand, its properties call for an analysis according to which *es* is an argument generated independently of the clausal argument. On the other hand, the fact that, as with the other constructions considered in the paper, *es* cannot appear when the dependent clause is positioned in the prefield (cf. (7)), shows that also in this construction there exists some kind of relationship between the pro-form *es* and the clause. It will be argued that the pro-form and the dependent clause constitute independent but co-referential arguments of the verb.

(7) *Dass Peter berühmt ist, hat* (**es*) *Maria überrascht.*

2. The construction of the *bedauern*-class

For the syntactic analysis of a sentence like (1a), Sudhoff (2003, this volume) proposes that its pro-form, the correlate *es*, in his terms, is analysed as a determiner. The embedded clause is generated as the complement of the correlate. The

complex DP consisting of *es* and the embedded CP serves as the argument of the matrix predicate, (8). On the surface, the clause of the correlative construction is extraposed, i.e., it is positioned in the 'Nachfeld' (postfield).[2]

(8) $[_{DP} [_{D'} [_D es] CP]]$

In the following, the pro-form-construction with a verb of the *bedauern*-class will be called 'the correlative construction'. Note, however, that given the analysis in (8) this construction is not a correlative construction in the strict sense because according to Sudhoff's proposal, which will be adopted here, *es* takes its associated clause as a complement.

   Sudhoff observes that with the correlative construction the embedded clause cannot stay with the pro-form and obligatorily extraposes, (9). He accounts for this need with rules of phonology. The obligatory extraposition of clauses associated with correlate *es* is described as a consequence of the fact that no stress can be assigned to the syntactic head of the DP-shell. Thus, Sudhoff assumes that the head of a phrase hosting a clause necessarily receives stress. That the item *es* cannot be stressed is a standard assumption.

   ii.   *Joint appearance of pro-form and dependent clause in the middle field*
(9)   What's the matter?
   a.   **Maria hat es, dass Peter berühmt ist, sehr bedauert.*
         Maria has it   that Peter famous   is   very regrets

   b.   **Maria hat es, dass wir Peter einladen, entschieden abgelehnt.*
         Maria has it   that we Peter invite   firmly   rejected
         intended: 'Maria has firmly rejected inviting Peter.'

It is also impossible for the correlate and its complement clause to be placed together in the prefield:

(10)   **Es, dass Peter berühmt ist, hat Maria stets bedauert.*

The pro-form would necessarily have to carry a strong accent.[3]

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2.   The standard terms in German grammar books to refer to the different parts of a German clause are also used in the present paper:

Maria	*hat*	*es oft*	*bedauert*	*dass Peter berühmt ist*
Vorfeld	linke Satzklammer	Mittelfeld	rechte Satzklammer	Nachfeld
prefield	left sentence boundary	middle field	right sentence boundary	postfield

3.   The verbs of the *bedauern*-class may also appear with the pro-form *das*. As an anonymous reviewer points out, if *es* is replaced by *das*, (9) and (10) become quite good. In this case, *das* would get stressed, which it allows readily, in contrast to *es*, and the clause would be

Let us now consider the occurrence of a verb of the *bedauern*-class without a correlate as in (2b), repeated here:

(2)   b.   *Maria bedauert, dass Peter berühmt ist.*

Sudhoff (2003, this volume) assumes that syntactically, (2b) is to be treated in the same way as (2a). In (2a) the D^0-head which takes the clause as its complement is lexicalised as *es*; in (2b) this head is an empty D^0-element. Recently, Holler (2013) adopted Sudhoff's analysis, just couched in terms of the framework of Head-Driven Phrase Structure Grammar.

I mainly see two problems here. The first concerns the positioning in the prefield. We have just seen that a correlate cannot appear together with the clause in the prefield; cf. (10). However, it is a very well-known fact that the dependent clause may appear in the prefield if the sentence does not contain a correlate:

(11)   *Dass Peter berühmt ist, hat Maria stets bedauert.*

Under Sudhoff's assumption the well-formedness of (11) is somewhat surprising. (10) is ruled out by Sudhoff in the same way as he wants to rule out sentences like (9). In (10) *es*, the syntactic head of the DP-shell, receives stress, but *es* cannot be stressed. According to Sudhoff, in (11) the DP in the prefield has an empty D^0-element. We would expect that an empty head would reject stress at least as strongly as *es* does (cf. also Schwabe 2013). Thus, it seems that Sudhoff has to assume quite different rules for the assignment of stress to the DPs in the prefields of (10) and (11). However, it is not clear why these rules should be different.

The second problem for the assumption that in sentences like (2b) the base position of the dependent clause is inside a DP headed by an empty D^0-element I see in the fact that there is an interpretative difference between sentences like (2a) and sentences like (2b). This difference is brought forth in (12).

(12)   a.   *Maria hat heute bedauert, dass Peter berühmt ist,*
            Maria has today regretted that Peter famous is
            obwohl   der   gar nicht berühmt ist.
            although this-one not at all famous   is

       b.   #*Maria hat es heute bedauert, dass Peter berühmt ist,*
            Maria has it today regretted that Peter famous is
            obwohl   der   gar nicht berühmt ist.
            although this-one not at all famous   is

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intonationally separated from *das* like an apposition. Note that *das* is not just a counterpart of *es* which can be accented. If in (2a) *es* is replaced by *das*, the sentence becomes ungrammatical. The observations indicate that *das* with a verb of the *bedauern*-class is an anaphoric pro-form. Thus, if in (9) and (10) *es* is replaced by *das*, we get a 'narrow right dislocation' (Altmann 1981:54f); cf. Section 3.

As Sudhoff (2003:119) himself notes, if a verb of the *bedauern*-class is accompanied by a correlate, the dependent clause necessarily gets a factive reading, (12b). Some verbs of the *bedauern*-class are factive independent of the presence of the correlate (e.g., *verdanken* 'owe'). However, others, like *bedauern*, may be interpreted as non-factive if the correlate is absent. Under Sudhoff's assumption this circumstance is not expected. Why should it induce such an interpretative difference whether D^0 is realised by the semantically empty *es* or by a semantically and phonetically empty element?

Therefore, I would like to suggest that the lexical entry of a verb of the *bedauern*-class allows two options for selecting an object. Either such a verb selects for a DP headed by the correlate *es*, which in turn selects a clause, or it selects directly for a clause. I assume that the base position of the clause directly selected by a *bedauern*-class verb is also to the left of the verb:

(13)   *Maria hat, dass Peter berühmt ist, stets bedauert.*

Starting from its base position in the middle field this clause may be, and regularly is, extraposed. Note that the well-formedness of (13) contradicts the statement often to be found in the literature (among many others Büring & Hartmann 1995; Sudhoff 2003; Inaba 2007) that finite clauses cannot appear in the middle field and necessarily have to be extraposed or moved to the prefield. (13) also contradicts the assumption of Haider (2010) that in German complement clauses are generally base generated in the postfield. Under the assumptions of Haider, (13) could not be derived since movement of a constituent from a position in the postfield to a position in the middle field is not foreseen.

Given that in a sentence like (13) the dependent clause is base generated without a dominating empty DP-shell, it is not surprising that the clause can be moved to the prefield as in (11).

Let us now turn to the question of why the presence of the correlate necessarily triggers a factive reading of the dependent clause. I would like to relate the obligatory factivity to the definite character of *es*. Definite DPs come along with the presupposition that they have a non-empty extension in the actual world; compare (14), which presupposes that at least one unicorn exists.

(14)   *Max bedauert das Einhorn.*
        Max regrets   the unicorn
        'Max feels sorry about the unicorn.'

Thus, it is reasonable to assume that if a verb like *bedauern* takes a DP headed by *es* as its object, which in turn takes a clause, it is presupposed that the denotation of this DP is not empty in the actual world. We may assume that *es* existentially binds the eventuality variable introduced by the verb of the dependent clause and introduces the existential presupposition. If, in contrast, *bedauern* takes just a clause as

its object, this DP-shell with its definite D-head is missing and *bedauern* directly absorbs the eventuality variable of the dependent clause. In this case, no existential presupposition arises.

Let us now consider some further properties of the dependent clause of the correlative construction, starting with VP-preposing containing the extraposed dependent clause. Such a VP-preposing is not possible if the correlate is present in the middle field, (15a); it is only possible if the correlate also appears inside the preposed constituent, (15b), or if there is no correlate, (15c).

   iii.   *VP-preposing containing the dependent clause but not the pro-form*

(15)   a.   *[Abgelehnt [dass Maria mitkommt]$_1$] haben [es t$_1$] fast   alle.*
           rejected   that Maria comes-along have   it   nearly all

      b.   *Es abgelehnt, dass Maria mitkommt, haben fast alle.*
          'Nearly everybody has rejected it that Maria may come along.'

      c.   *Abgelehnt, dass Maria mitkommt, haben fast alle.*

Note that in general if a complement clause belonging to a DP is part of VP-preposing and the licensing DP is left behind in the middle field, we find ungrammaticality.

(16)   *[Zurückgewiesen [dass Maria kommt]$_1$], hat Max*
      rejected   that Maria comes   has Max

      [die Behauptung t$_1$] sehr nachdrücklich.
      the claim   very emphatically

      Intended: 'Max has very emphatically rejected the claim that Maria will come.'

What is the reason for the ungrammaticality of (15a) and (16)? The explanation depends on the theory of extraposition one adopts. According to the standard view, extraposition is movement to the right (e.g., Büring & Hartmann 1995). Given this assumption, the ungrammaticality of (15a) and (16) could be explained in the framework of Fox and Pesetsky (2004) as follows. According to Fox and Pesetsky (2004) the linearisation between two elements which is established in the original spell-out domain has to be maintained in later spell-out domains, spell-out domains being DP, VP and CP. In (15a) and (16), the original linearisation is such that the dependent clause follows its licensing head, i.e., *es* and *Behauptung*, respectively, precede the dependent clauses. There is no left edge position in the DP spell-out domain which the clause could be moved to such that it would be to the left of its licensing head. Thus, in later spell-out domains of the derivation the linearisation '*es*/*Behauptung* < dependent clause' has to be maintained. By extraposition to the clause final position this linearisation requirement would be respected. However, by extraposition plus VP-preposing as in (15a) and (16) this linearisation has been changed in the course of the derivation. Here, the dependent clause

precedes its licensing head, which does not respect the linearisation established in the original spell-out domain.

There are other analyses of extraposition. For example, if one assumes, as for example Frey (2015) does, that extraposition of an attributive clause is due to a post-syntactic linearisation of this clause to the right edge of the maximal projection containing the clause's DP-host, the ungrammaticality of (15a) and (16) and the grammaticality of (15b) follow immediately. (15a) and (16) cannot arise since at the point in syntax at which VP-preposing happens extraposition of the attributive clause has not yet occurred. (15b) can be generated. Here the attributive clause can be placed at the end of the preposed constituent after the syntactic derivation has been completed.

The next property to be considered concerns the fact that the complement clause of the correlate-*es* cannot be moved to the left; the same is true for the embedded clause of a full nominal element:

> iv.   *Movement of the dependent clause across the pro-form*
> (17)   a.   *[*Dass Peter berühmt ist*]$_1$, *bedauert* [*es* t$_1$] *Maria.*
>   b.   *[*Dass Maria kommt*]$_i$ *hat Max* [*die Behauptung* t$_i$] *zurückgewiesen.*

The ungrammaticality of (17a) is captured straightforwardly by Sudhoff's proposal in (8). In German, no leftward movement out of a DP is possible. In the framework of Fox and Pesetsky (2004) the reason for this restriction is again that there is no left edge position in the German DP to which the dependent clause could move.

The following property concerns the fact that it is not possible to extract a constituent out of the dependent clause of the correlative construction:

> v.   *Extraction out of the dependent clause*
> (18)   **Wohin*$_i$ *lehnt   es Maria ab,   dass wir* t$_i$ *gehen.*
>   where-to rejects it Maria PART that we   go

Given the structure in (8), one might blame a violation of the complex-NP constraint for the ungrammaticality of (18). However, since extraction out of the dependent clause of a verb of the *bedauern*-class is ungrammatical independent of the presence of the correlate, (19), it is likely that it is a property of the dependent clause per se which makes it impossible to extract out of it. In Section 7 it will be argued that a clause dependent on a verb of the *bedauern*-class has a reduced structure and that this property prohibits extraction out of it.

> (19)   **Wohin*$_i$ *lehnt Maria ab, dass wir* t$_i$ *gehen.*

The very same property will be made responsible for the following feature of the construction, which again holds independently of the presence of the correlate: the dependent clause may not exhibit any of the so-called root phenomena. With

the notion 'root phenomena' one refers to phenomena which only occur in root clauses and in a restricted set of root-like dependent clauses. The dependent clauses which may show root phenomena are called 'root-like dependent clauses' and are said to have some illocutionary potential; see Section 7. The classic examples of root-like dependent clauses are the object clauses of verbs of saying, of verbs expressing a doxastic attitude (*believe*, *hope*), and of verbs of perception (*find out*, *feel*). Standard German examples of non-root-like dependent clauses are the object clauses of the predicates of the *bedauern*-class and of predicates which are inherently negative (*leugnen* 'to gainsay', *unmöglich sein* 'to be impossible') and adverbial clauses like temporals.[4]

   The occurrence of a modal particle (MP) belongs to the root phenomena (Thurmair 1989; Bayer 2001; Coniglio 2011). This is shown by the fact that a MP may occur in a root-like dependent clause but not in a non-root-like one:

(20) a. *Maria   fiel   ein, dass Hans (ja) längst hier sein müsste.*
          to-Maria occurred that Hans MP   by now here be   should
          'It occurred to Maria that after all Hans should be here by now.'

      b. *Er leugnete, dass er die Zeugin (*ja) unter Druck*
          he denied   that he the witness MP   under pressure

          gesetzt habe.   (Thurmair 1989: 109)
          put   have-SUBJ

      c. *Als   Hans (*ja) in Paris war, ging er natürlich in*
          when Hans   MP   in Paris was went he of course to

          den Louvre.
          the Louvre

(21) demonstrates that a MP may not occur in the complement clause of verbs of the *bedauern*-class regardless of whether a correlate occurs or not.

   vi. *Root phenomena in the dependent clause*
(21) a. **Maria lehnt   (es) ab, dass wir Peter halt doch einladen.*
          Maria refuses it   PRT that we Peter MP   MP   invite

      b. **Maria bedauert (es), dass Peter nun eben berühmt ist.*
          Maria regrets   it   that Peter now MP   famous is

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4. Standard examples of so-called root phenomena are English topicalisation and Germanic V2.

   (i) a. John thinks that this book, he has read.
        b. *John gainsays that this book, he has read.
        c. Max glaubt, er hat dieses Buch gelesen.
        d. *Max leugnet, er hat dieses Buch gelesen.

The other root phenomenon which is considered in this paper concerns the marking of an aboutness topic. The particle *jedenfalls* indicates such a topic. The examples in (22) demonstrate that the marking of an aboutness topic with *jedenfalls* is a root phenomenon:

(22) a. *Maria dachte, dass [Fritz jedenfalls] kommen wird.*
        Maria thought that Fritz for-one   come   will
        'Maria thought that Fritz for one will come.'

     b. **Maria wies zurück, dass [Fritz jedenfalls] kommen wird.*
         Maria rejected   that Fritz for-one   come   will

     c. **Maria wurde ruhig, als   [Fritz jedenfalls] wieder*
         Maria got   calm   when Fritz for-one   again
         erreichbar war.
         reachable was

The verb of the matrix clause in (22b) belongs to the *bedauern*-class. (23) shows that topic marking with *jedenfalls* may not occur in the complement clause of further verbs of this class, independent of whether a correlate occurs:

(23) a. **Maria lehnt (es) ab, dass Max jedenfalls eingeladen wird.*
         Maria rejects it PRT that Max for-one   invited   is

     b. **Maria bedauert (es), dass Peter jedenfalls fehlen   wird.*
         Maria regrets   it   that Peter for-one   absent-be will

3. The construction of the *behaupten*-class

As already mentioned in the introduction, the present paper adopts the proposal of Pütz (1986[2]) and Sudhoff (2003, this volume) that the construction exhibiting a verb of the *behaupten*-class, the pro-form *es* and a clause constitutes an instance of right dislocation. That is, the pro-form is a pronominal DP which is associated with a right-dislocated clause. Therefore, in the following, this construction will be called the 'right dislocation construction' (RDc).

As for the syntactic analysis of right dislocation, there are very different proposals on the market. These days, a deletion analysis of German right dislocation is being developed (Ott & de Vries 2016; Truckenbrodt this volume). According to this, the dislocated constituent originates in an independent second clause. The rest of this second clause is deleted under identity with material of the first clause. Alternative proposals are the base generation of the right-dislocated constituent at the right edge of the clause containing the pro-form (cf. Culicover & Jackendoff 2005 for English), its movement to the right edge from a position

adjoined to the pro-form (cf. Ross 1967), and the assumption that a right dislocation structure is derived from an underlying left dislocation structure by leftward movement of the clause (Kayne 1994). As far as I can see, the RDc does not give any additional evidence to help decide between the different options for analysing right dislocation, so I will not try to argue seriously in favour of a certain syntactic analysis of this construction.

In the following the same constructional variations as in the last section will be considered. Thus, let us first see whether with a verb of the *behaupten*-class the pronominal and the associated phrase may appear together in the middle field. This is only possible if the associated phrase is clearly marked prosodically as an apposition (i.e., we get what Altmann 1981: 54f calls 'narrow right dislocation'):

ii.   *Joint appearance of pro-form and dependent clause in the middle field*

(24)   a.   *Maria hat es↓, (nämlich) dass Karl berühmt ist,*
            Maria has   it   namely   that Karl famous   is

            stets   behauptet.
            always claimed

       b.   *Maria hat ihn↓, (nämlich) den Karl, heute getroffen.*
            Maria has him   namely   the Karl today met

       c.   **Maria hat ihn, → den Karl, heute getroffen.*

       d.   **Maria hat es, → dass Karl berühmt ist, immer wieder behauptet.*

Note the difference in acceptability between the examples in (24a) on the one hand and in (9) and (24d) on the other. Thus, if one envisages an analysis of the RDc in terms of base generation of the clause in the middle field and its subsequent movement to the right, the base position of the clause would have to be the position of an apposition to the pronominal. Hence the resulting complex DP would be quite different to the complex DP generated in the middle field in the case of the correlative construction as depicted in (8).

The next property concerns the behaviour of the RDc if the dependent clause participates in VP-fronting while the pro-form stays behind. This yields an ungrammatical structure, (25a); the same is true for right dislocations in general, (25b).

iii.   *VP-preposing containing the dependent clause but not the pro-form*

(25)   a.   **Behauptet, dass Peter berühmt ist, hat es Maria stets.*
            claimed   that Peter famous   is   has it Maria always

       b.   **Getroffen, den Max, hat ihn Maria heute.*
            met   the Max has him Maria today

In a deletion account of right dislocation the ungrammaticality of (25) follows because to derive it one would need as the underlying source the ungrammatical (26). However, the input to a deletion process arguably has to be grammatical.

(26)   *Getroffen, [getroffen hat den Max Maria heute], hat ihn Maria heute.

Although it is not always very clear what in a Kaynian style analysis is possible and what is not, it can be safely assumed that in a Kaynian analysis of right dislocation examples like in (25) cannot be derived. If one assumes that the right-dislocated constituent is base generated in the postfield, the examples in (25) would have to be ruled by the assumption that the dislocated constituent has to c-command the resumptive pronoun on the surface. Such a constraint might be seen as being too weak to account for the strong ungrammaticality of the examples in (25). If the right-dislocated constituent is base generated as an apposition of the resumptive pronoun, one could again adopt the system of Fox and Pesetsky (2004) (cf. Section 2) to capture the ungrammaticality of (25). In the spell-out domain in which the right dislocation construction originates, the DP containing the pronoun and the appositive clause, the linearisation statement will demand that the right-dislocated phrase follows the pronominal. This statement has to be respected in every later spell-out domain. However, it is not adhered to by the VP-preposing in (25).

    We also should consider the RDc correspondent to the correlative construction in (17a), which concerns the movement of the clause across the proform. We again find ungrammaticality; the right-dislocated clause cannot be moved to the prefield. Note that other cases of right dislocation behave correspondingly, (27b).

   iv.   *Movement of the dependent clause across the pro-form*
  (27)   a.   *Dass Peter berühmt ist, behauptet es Maria.*
             that Peter famous is   claims   it Maria

         b.   *Den Boss   hat ihn Maria heute getroffen.*
             the chief.ACC has him Maria today met

In a deletion account of right dislocation these sentences correctly cannot be derived. The derivation of these sentences would involve deletion procedures too far removed from any known deletion processes. If right dislocations are derived from underlying left dislocations, examples like (27) cannot be generated either. In this analysis, the prefield is necessarily already filled by an element different from the dependent clause. If one assumes that the right-dislocated constituent is base generated at the right edge, it is harder to rule out these sentences. One would have to resort to a crossing violation induced by the movement of the right-dislocated element across the co-indexed pronoun. However, this should only result in weak ungrammaticality. Alternatively, one would have to stipulate that the position of the base-generated right-dislocated constituent in the postfield is too high to allow its movement to the prefield, a stipulation which is

because of binding facts highly implausible (cf. *Sie₁ hat ihn mit einer anderen gesehen, Marias₁ neuen Freund. – '*She₁ has seen him with another one, Maria's₁ new friend.'). The approach according to which the right-dislocated element is base generated as an apposition accompanying the pro-form fares better in explaining (27). Under this assumption, the ungrammaticality of the examples in (27) could again be captured in the system of Fox and Pesetsky (2004). The movement of the right-dislocated phrase to the prefield in (27a, b) does not respect the linearisation between the right-dislocated phrase and the pro-form which is established in the spell-out domain constituted by the DP in which the pro-form and the apposition originate.

Let us next consider extraction out of the dependent clause. In principle, it is possible to extract out of the complement clause of a verb of the *behaupten*-class, (28a). However, extraction out of the dependent clause is no longer possible if the clause is part of a RDc, (28b).

> v.   *Extraction out of the dependent clause*
> (28)   a.   *Wohin   hat Maria behauptet, dass Max gefahren ist.*
>   where-to has Maria claimed   that Max went   is
>
>   b.   **Wohin hat es Maria behauptet, dass Max gefahren ist.*

One might try to account for (28b) by referring to the special phrase structural position of the dependent clause of the RDc or, in the deletion analysis, to the fact that (28b) would not constitute an across-the-board extraction. However, I believe that the next property of the dependent clause of the RDc to be considered has the same source as the ungrammaticality of (28b). This property is its inability to host any root phenomena. Therefore, I will not pursue this line of reasoning. Rather, in Section 7 it will be argued that, like the dependent clause of a verb of the *bedauern*-class, the dependent clause of a RDc has a reduced structure, which is in conflict with extraction out of the clause and with any root phenomena occurring in the clause.

That in principle the object clause of a verb of the *behaupten*-class may host root phenomena is illustrated in (20a) and (22a). The clause of the RDc-variant does not have this option. This is illustrated in (29) with the representatives of root phenomena in the present paper, MPs and the marking of an aboutness topic.

> vi.   *Root phenomena in the dependent clause*
> (29)   a.   **Maria behauptet es, dass wir Peter halt doch einladen.*
>   Maria claims   it that we Peter MP MP invite
>
>   b.   **Maria dachte es, dass [Fritz jedenfalls] kommen wird.*
>   Max   thinks it that Fritz for one   come   will

4.   The constructions with a prepositional adverb

In German, the clausal pro-form may be what in the German grammar tradition is called a 'Präpositionaladverb' (prepositional adverb). One has to differentiate between the construction in which the pro-form and the dependent clause constitute an argument of the verb, (30a), and the construction in which the pro-form and the dependent clause have the function of an adverbial, (30b).

(30)   a.   *Maria hat sich darüber   gewundert, dass wir Peter einladen.*
            Maria has REFL about-that wondered   that we Peter invite

       b.   *Hans ist darum   gekommen, weil   Maria kommen wollte.*
            Hans is therefore come   because Maria to-come wants

Here the former construction will be called the clausal prepositional object construction (POc), and it will be considered first. In the introduction it was mentioned that the pro-form of the POc may be stressed, it may be unstressed, and, depending on whether the given pro-form allows it, it may be reduced; cf. (6a–c). As shown in (6d), there is also a variant without the appearance of a lexicalised pro-form.

First we have to differentiate between two different options to stress the pro-form. The pro-form can be stressed on its pronominal part, or it can be stressed on its prepositional part. The second strategy is the unmarked one, and it will be considered first here. The stress on the prepositional part can just be the realisation of the word accent of the prepositional adverb. We find the following characteristics.

   i.   *Occurrence in an all-focus clause*
(31)   Was ist los? ('What's the matter?')
       Maria hat sich daRÜber   gewundert, dass wir Peter einladen.
       Maria has REFL about-that wondered   that we Peter invite
       'Maria was surprised about our inviting Peter.'

   ii.   *Joint appearance of pro-form and dependent clause in the middle field*
(32)   *Maria hat sich daRÜber,   dass wir Peter einladen, sehr gewundert.*
       Maria has REFL about-that that we Peter invite   a-lot wondered
       'Maria was very surprised about our inviting Peter.'

   iii.   *VP-preposing containing the dependent clause but not the pro-form*
(33)   **Gewundert, dass wir Peter einladen, hat sich Maria daRÜber.*

   iv.   *Movement of the dependent clause across the pro-form*
(34)   **Dass wir Peter einladen hat sich Maria daRÜber gewundert.*

v. *Extraction out of the dependent clause*

(35)   **Wen₁ hat sich Maria daRÜber gewundert, dass wir t₁ einladen?*
         Who   has REFL Maria about-that wondered that we   invite

vi. *Root phenomena in the dependent clause*

(36)   a.   *Maria hat sich daRÜber gewundert, dass wir Peter halt doch einladen.*

         b.   *Karl hat sich daRÜber gewundert, dass Peter jedenfalls nicht*
                Karl has REFL about-that wondered that Peter for one   not

                kommen wird.
                come   will

According to a standard analysis of the POc, the dependent clause is base gener-
ated inside the projection generated by the pro-form as a complement of *da*, cf. e.g.
Müller (1995). That the clause belongs to the PP is already shown by the fact that
the pro-form and clause can occur together in the prefield:

(37)   *DaRÜber, dass wir Peter einladen, hat sich Maria sehr gewundert.*
         about-that that we Peter invite   has REFL Maria a-lot wondered
         'Mary was very surprised about our inviting Peter.'

Furthermore, the analysis that the clause belongs to the PP makes the properties
illustrated in (31)–(35) plausible. First, the POc is not an anaphoric construction
and it therefore is not dependent on a special context; it just contains a complex
prepositional object hosting a clause. Therefore, the construction is possible in an
all-focus environment, (31). Next, it is clear that the pro-form and the dependent
clause can occur together in the middle field, (32).[5] In the framework of Fox and
Pesetsky (2004) the reason for the ungrammaticality of (33) is the same as for
(15a) and (16). The linearisation of *da* and the clause is established in the spell-
out domain which hosts *da*. In this domain the order has to be '*da* < clause'. This
order has to be preserved at any later stage of the derivation. This requirement
is not respected in (33). That the clause of the POc cannot be moved to the pre-
field without the pro-form, (34), follows from the fact that no movement to the
left is possible for an item included in a DP. Equally, it follows that a constituent

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5.   Breindl (1989) takes sentences like (32) to be ungrammatical. She assumes that the adjacent
occurrence of the pro-form and the dependent clause of a POc requires that the pronominal
part of the pro-form carry stress, like in (40) below. The putative difference in grammaticality
between (32) and (40) leads Breindl to sharply distinguish between a construction which has
the pronominal part of the pro-form accented and the construction which has the preposi-
tional part of the pro-form accented or has the pro-form de-accented. I do not follow her in
this principled discrimination, since my informants and I fully accept examples like (32).

originating in the clause of the POc cannot be moved to the prefield, (35). In Fox & Pesetsky's (2004) approach the explanation for both (34) and (35) is the fact that inside the DP spell-out domain there is no left edge position for an element to be dislocated.

The sentences in (36) illustrate that root phenomena are possible in the dependent clause. In (36), the clause is the argument of *sich wundern* 'wonder', a verb which can assign illocutionary potential to its complement clause. Obviously, the prepositional adverb covering the complement clause does not interfere with this relationship.

Let us now consider the variant with a de-accented pro-form. It is evident that this variant may not appear in an all-focus context since de-accenting of the pro-form implies that the content of its associated clause is given. Furthermore the de-accented pro-form may not appear together with the dependent clause, be it in the middle field, prefield or postfield, the reason being that the pro-form needs to be accented if the clause occurs inside the PP generated by the pro-form on the surface (cf. Schwabe 2013).

(38)   a.   *Maria hat sich daRÜber, dass wir Peter einladen, sehr gewundert.*
      b.   *DaRÜber, dass wir Peter einladen, hat sich Maria sehr gewundert.*
      c.   **Maria hat sich darüber, dass wir Peter einladen, sehr gewundert.*
      d.   **Darüber, dass wir Peter einladen, hat sich Maria sehr gewundert.*

With regard to the other properties considered here, the construction with a de-accented pro-form behaves like the construction with the pro-form with an accent on its prepositional part.

Some prepositional adverbs occurring as pro-forms are allowed to be reduced; cf. (6c). With regard to all the properties considered here, the construction with the reduced pro-form behaves like the construction with the de-accented pro-form.

Let us next consider the POc without the prepositional adverb. With a verb like *sich wundern* we find the pattern in (39).

(39)   a.   *Was ist los?*
        'What happened?'
        Maria hat sich   sehr   gewundert, dass wir Peter   einladen.
        Maria has   REFL a-lot wondered   that we   Peter invite
      b.   **Maria hat sich, dass wir Peter einladen, sehr gewundert.*
      c.   *Gewundert, dass wir Peter einladen, hat sich Maria sehr.*
      d.   **Dass wir Peter einladen hat sich Maria sehr gewundert.*
      e.   **Wen₁ hat sich Maria sehr gewundert, dass wir t₁ einladen?*
      f.   *Maria hat sich sehr gewundert, dass wir Peter halt doch einladen.*

Let us first consider (39b) and (39d). (39b) shows that the embedded clause cannot be positioned in the middle field and (39d) demonstrates that it cannot be moved to the prefield. It seems that primarily the fact demonstrated in (39d) has motivated a popular assumption about this construction (e.g., Büring & Hartmann 1995; Müller 1995), according to which here too the dependent clause is embedded inside a PP. Note, however, that this PP-shell can remain silent only if the dependent clause is extraposed. Although the proponents of such an empty PP-shell do not discuss why the covering PP can remain empty only if the clause is extraposed, this assumption is highly appealing since it explains the ungrammaticality of (39d): the PP-shell prohibits the movement of the clause to the prefield. So we should ask what might be the reason for the fact that the PP-shell can remain empty only if the clause is extraposed? As demonstrated in (38) the pro-form needs to be accented if the clause occurs inside the PP generated by the pro-form on the surface. A PP-shell which is not lexically realised cannot be accented. Only if the clause is not adjacent to the PP-shell can the shell remain without stress. It follows that (39b) is ungrammatical. Note that (39d) is bad because either on the surface the clause is inside the empty PP-shell, which cannot be accented, and therefore ungrammaticality results, or the clause has undergone movement to the left of the shell, which is forbidden.

(39a) shows that the construction may be an all-focus clause. (39e) demonstrates that no extraction out of the dependent clause is possible. (39f) makes it clear that root phenomena are possible in the dependent clause. These properties are to be expected. They hold irrespective of whether the PP-shell is lexically realised or not. Finally, as shown in (39c), VP-preposing with the extraposed dependent clause is possible. This again is to be expected. In this example the empty PP-shell is part of the VP in the prefield.[6]

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6. If the matrix predicate subcategorises for a clausal genitive object, one finds the same pattern as we have seen in the case of a prepositional object clause in (31)–(39). The explanation for the examples in (i) is the same as for (31)–(39).

(i)   a.   *Was ist los?*
          Maria ist sich (dessen) bewusst, dass wir Peter einladen.
          Maria is   REFL   of-it   aware   that   we   Peter   invite
          'Maria is aware that we will invite Peter.'

       b.   *Maria ist sich *(dessen), dass wir Peter einladen, bewusst.*
       c.   *Bewusst, dass wir Peter einladen, ist sich Maria (*dessen).*
       d.   **Dass wir Peter einladen, ist sich Maria (dessen) bewusst.*
       e.   **Wohin ist sich Maria (dessen) bewusst, dass Max t gefahren ist?*
       f.   *Maria ist sich (dessen) bewusst, dass wir Peter halt doch einladen.*

In sum, the data show that the observed syntactic differences between the POc with a pro-form accented on the prepositional part, the POc with an unaccented pro-form, the POc with a reduced pro-form and the POc without a lexicalised pro-form are just due to a surface restriction. This surface restriction demands that if the dependent clause occurs adjacent to the pro-form, the pro-form has to be the full form carrying an accent.

There is also the option of heavily stressing the pronominal part of the pro-form of a POc (cf. Breindl 1989).

(40)   *Maria hat sich DArüber, dass wir Peter einladen, sehr gewundert.*

If this option is taken, the stress on the pronominal part of the pro-form necessarily will become the sentence stress of the POc. The prepositional object will be narrowly focussed. As a result, the dependent clause either constitutes a narrow information focus or it is interpreted contrastively/emphatically. An obvious consequence of this is that under this stress pattern the POc may not occur in an all-focus context. With regard to the other properties considered here, a POc with stress on the pronominal part of its pro-form behaves like a POc with stress on the pro-form's prepositional part.

We can conclude that a POc with stress on the pronominal part of its pro-form should receive the same syntactic analysis as the POc with stress on the prepositional part of its pro-form. The difference between the two forms is just the result of the fact that the latter exhibits the unmarked form of stress assignment on the pro-form whereas the former constitutes the marked option. The marked option leads to the marked interpretation of the dependent clause as being narrowly focussed.

At first glance the following examples are very surprising. They demonstrate that some verbs allow extraction out of their complement clauses with the function of a prepositional object.

(41)   a.   *Wen hat man ihn gezwungen zu heiraten?*
            Who has one him forced   to marry   (Berman 2003)
            'Who did they force him to marry?'

       b.   *Wen hat sich Maria entschieden, nächstes Jahr zu heiraten?*
            who has REFL Maria decided   next   year to marry
            "Who has Mary decided to marry next year?'

Since extraction out of a clause base generated inside a PP is not possible, the examples suggest that the complement clauses are not covered by a silent PP-shell. The assumption that no empty PP-shell is involved in the examples in (41) leads to the expectation that, in contrast to what we found in (39b, d), it should be possible for the dependent clause to occur in the middle field and in the prefield.

(42) a. *Man hat ihn Natalie Portman zu heiraten gezwungen.*
      one   has him Natalie Portman to   marry   forced
      'They have forced him to marry Natalie Portman.'

     b. *Natalie Portman zu heiraten hat man ihn gezwungen.*

     c. *Maria hat sich im   nächsten Jahr André zu heiraten nun*
      Maria has REFL in-the next   year André to   marry   now

      endgültig entschieden.
      finally   decided

      'Maria has now once and for all decided to marry André next year.'

     d. *Im nächsten Jahr André zu heiraten hat sich Maria nun endgültig entschieden.*

The sentences in (42) are grammatical. This confirms our assumption that the main verbs in (41) may directly subcategorise for a clausal complement and do not need to subcategorise for a PP which takes a clausal complement. Thus, the examples in (41) do fit in.

To conclude this section, let us now consider the construction in which the prepositional pro-form has the function of an adverbial. This construction is called ADVc here. In (43a, b) it can be observed that the pro-form of an ADVc needs to be stressed. The stress has to be on the pronominal part of the pro-form, (43c).

(43) a. *Maria ist DArum   der Einladung gefolgt,   weil   der*
      Maria is therefore the invitation followed because the

      Gastgeber berühmt ist.
      host   famous   is

      'The reason why Maria accepted the invitation was that the host
      is famous.'

     b. **Maria ist darum der Einladung gefolgt, weil der Gastgeber berühmt ist.*

     c. **Maria ist daRUM der Einladung gefolgt, weil der Gastgeber berühmt ist.*

The obligatory stress on the pro-form of the ADVc constitutes an important difference to the POc. That such a difference should exist makes some sense. Whereas in the case in which the pro-form and the dependent clause realise a prepositional object the pronominal adverb is selected by the verb and can be said to make the syntactic status of the dependent clause formally visible, the adverb that relates to an adverbial clause is not selected by the verb and its function is a purely interpretative one. When the pro-form is present, the content of the matrix clause is understood as given and the adverbial clause provides new information, (44b), (45). In the case of the construction without the pro-form, the matrix clause does not have to be given, (44a).

(44) *Was ist passiert?*
      What happened?'
   a. *Maria hat gerade das Zimmer verlassen, weil   Max*
       Mary has just   the room   left   because Max

       hereingekommen ist.
       come-in   is

       'Mary has just left the room because Max has come in.'
   b. **Maria hat gerade DEShalb das Zimmer verlassen, weil   Max*
        Mary has just   therefore the room   left   because Max

       hereingekommen ist.
       come-in   is

(45) *Warum hat Maria das Zimmer verlassen?*
      'Why did Mary leave the room?'
      Maria hat DEShalb das Zimmer verlassen, weil Max hereingekommen ist.

(46) confirms that when the pro-form is present, it is not possible to have the matrix clause focal and the adverbial clause given.

(46) *Was hat Max' Hereinkommen bewirkt?*
      'What did Max's entering bring about?'
      **Maria hat DEShalb das Zimmer verlassen, weil Max hereingekommen ist.*

If no pro-form is present, the adverbial clause can be focal or given, as can be the matrix clause.

(47) *Warum hat Maria das Zimmer verlassen?*
      Maria hat das Zimmer verlassen, weil Max hereingekommen ist.

(48) *Was hat Max' Hereinkommen bewirkt?*
      Maria hat das Zimmer verlassen, weil Max hereingekommen ist.

Since the pro-form and the adverbial clause together may occupy the prefield, (49), we can again assume that the pro-form and the adverbial clause constitute one constituent. Thus there is no difference between the internal syntactic analyses of the ADVc and the POc. The pertinent differences between the ADVc and the POc are rather due to the fact that the POc's pro-form is selected whereas the ADVc's pro-form is only present for interpretative reasons.

(49) [*DEShalb, weil Max hereingekommen ist*], *hat Maria das Zimmer verlassen.*

I assume that if an adverbial clause without a pro-form occurs, no empty PP-shell is there. In the case of an adverbial, there is no element which would subcategorise for a PP-shell, be it lexically realised or empty. It follows that the bare adverbial

clause may occupy the prefield and may appear in the middle field, (50). Note the difference between (50) and the examples with a prepositional object clause in (39b, d), where we found evidence for the existence of an empty PP-shell when no lexically realised pro-form appears.

(50)   a.   *Weil Max hereingekommen ist, hat Maria das Zimmer verlassen.*
       b.   *Maria hat, weil Max hereingekommen ist, das Zimmer verlassen.*

Regarding the properties *(ii)–(v)*, the ADVc behaves as is to be expected given that the adverbial clause is generated inside the PP-shell projected by the pro-form.[7] A difference between the POc and the ADVc can be seen with regard to the property *(vi)*, which concerns the possibility of root phenomena in the dependent clause. Whereas with a POc, depending on the matrix verb, root phenomena in the dependent clause are possible, root phenomena are never possible in the dependent clause of an ADVc. The reason is that an adverbial clause occurring with a pro-form is necessarily an integrated adverbial clause (cf., e.g., Brandt 1990), and an integrated adverbial clause does not allow any root phenomena (cf., e.g., Thurmair 1989; Haegeman 2004; Coniglio 2011; Frey 2011). In Section 7 we will briefly come back to this subject.

5.   The construction of the *überraschen*-class

In this section it will be considered how the construction containing a predicate of the *überraschen*-class, *es* and a dependent clause behaves in an all-focus inducing environment and with regard to the variations we have looked at for the other constructions above. The construction in question will be called the clausal psych-construction (PSYc). It will become clear that the PSYc is very different to the other constructions considered in this paper.

Let us start with the all-focus environment. The PSYc may occur here very well:

   i.   *Occurrence in an all-focus clause*
(51)   *Was gibt's denn Neues?*
       'What's new?'
       a.   *Hans hat es sehr überrascht, dass Maria kommt.*
            Hans has it a-lot surprised   that Maria comes
            'It surprised Hans that Maria will come.'

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7.   However, as is well known, independent of the presence of a pro-form extraction out of an adverbial clause is never possible. A standard explanation of this fact builds on the lack of theta-marking of the adverbial clause. Thus, that the ADVc disallows extraction out of the dependent clause is not related to the topics of this paper.

    b.   *Für Maria ist es denkbar,   dass uns heute Frau*
        for Maria is it conceivable that us   today Mrs.
        Merkel besucht.
        Merkel visits
        'It is conceivable for Maria that Mrs. Merkel will visit us today.'

Next we observe that in the PSYc *es* and the dependent clause may occur together in the middle field.

    ii.   *Joint appearance of pro-form and dependent clause in the middle field*
(52) a. *weil Hans   es,   dass Maria kommt, sehr überraschte*
         since Hans.ACC it.NOM that Maria comes   very surprised
         'since Maria's coming surprised Hans very much'
      b. *weil die Chefin   es,   mich hier zu sehen,*
         since the boss.F.ACC it.NOM me   here to see
         kaum   überraschte
         hardly surprised
         'since seeing me here hardly surprised the boss'
      c. *Für Maria ist es, dass uns Frau Merkel besucht,*
         for Maria is it   that us   Mrs. Merkel visits
         durchaus   denkbar.
         absolutely conceivable
         'It is absolutely conceivable for Maria that Mrs. Merkel will visit
         us today.'

It is remarkable that the pro-form does not need to be adjacent to the clause:

(53) a. *weil es die Chefin, mich hier zu sehen, kaum überraschte*
      b. *weil es für Maria, dass uns Frau Merkel besucht, durchaus denkbar ist*

The next property is of special interest. With the PSYc it is possible to have VP-preposing with the dependent clause while the pro-form occurs in the middle field. This serialisation is ungrammatical with the other constructions considered in this paper.

    iii.   *VP-preposing containing the dependent clause but not the pro-form*
(54) a. *Überrascht, dass Maria kommt, hat es Hans sehr.*
         surprised   that Maria comes   has it Hans very
         'It really surprised Hans that Maria is coming.'
      b. *Denkbar,   dass uns Frau Merkel besucht, ist es für Maria.*
         conceivable that us Mrs. Merkel visits   is it for Maria
         'It is conceivable for Maria that Mrs. Merkel will visit us.'
                                    (cf. Haider 1995)

The next property, illustrated in (55), is shared by all constructions considered in this paper. Also in the case of the PSYc, the dependent clause cannot move to the prefield across *es* in the middle field:

   iv.   *Movement of the dependent clause across the pro-form*
(55) a. **Dass Maria kommt, hat es Hans sehr überrascht.*
       b. **Dass uns Frau Merkel besucht, ist es für Maria denkbar.*

However, the following property again reveals a crucial difference between the PSYc and the other constructions considered here. The PSYc allows extraction out of its dependent clause in the presence of the pro-form.

   v.   *Extraction out of the dependent clause*
(56) a. *Wohin$_1$ hat   es dich überrascht, dass Max t$_1$ gegangen ist?*
          where to has it you surprised   that Max   gone   is
          'To where did it surprise you that Max has gone?'
       b. *Wen$_1$ hat es dich   überrascht, dort t$_1$ anzutreffen?*
          'Who did it surprise you to   meet   there?'
       c. *Wen$_1$ ist es denkbar,   dass Frau Merkel t$_1$ besucht?*
          'Who is it conceivable that Mrs. Merkel   visits?'

Finally we note that in contrast to the correlative construction and the RDc, the PSYc allows root phenomena inside the dependent clause:

   vi.   *Root phenomena in the dependent clause*
(57) a. *Hans hat es überrascht, dass Maria halt doch kommt.*
          Hans has it surprised   that Maria MP   MP   comes
          'It surprises Hans that Maria is coming.'
       b. *Für Maria ist es denkbar,   dass uns Frau Merkel eben*
          for Maria is it conceivable that us   Mrs. Merkel MP
          doch besucht.
          MP   visits
          'It is conceivable for Maria that Mrs. Merkel will visit us.'
       c. *Mich hat es überrascht, dass Max jedenfalls nicht kommt.*
          me   has it surprised   that Max for-one   not   comes
       d. *Für Maria wäre es denkbar, dass Max jedenfalls nicht kommt.*

Taken together these data indicate, I believe, that Berman (2003) is right in assuming that the PSYc is very different from the other constructions considered in this paper and that with the PSYc, *es* and the clause are two different arguments of the predicate. According to Berman (2003), *es* is a non-thematic subject and the clause is a thematic object. Berman's assumptions will be slightly modified below. However, the claim that the clausal argument is a deep object will be retained (cf. also Cinque 1990; Bennis 2004).

If with the PSYc, the dependent clause is an object clause base generated independently of *es*, it is clear that the PSYc may occur in an all-focus context, (51). Furthermore, according to this analysis, despite a certain resistance of argument clauses to occurring in the middle field of German, it is to be expected that in the PSYc, *es* and the dependent clause can occur together in the middle field, (52). It also makes sense that the pro-form does not have to be adjacent to the clause, (53).

The next two properties I take as the main evidence for the assumption that the dependent clause is an argument independent of *es*. First, (54) illustrates that the dependent clause may undergo VP-preposing while the pro-form remains in the middle field. Remember that this realisation pattern is impossible with the other constructions. However, the well-formedness of (54) makes perfect sense under the assumption that in the PSYc, *es* and the clause occupy different argument positions. For the original spell-out domain the grammar of German does not impose a fixed linearisation requirement between a subject and an object which would have to be respected later on. Second, extraction is possible out of the dependent clause of the PSYc, (56). If the dependent clause were part of a DP-shell headed by *es*, this extraction would not be possible. However, if the dependent clause is generated independently, the possibility of extraction is understandable.

In addition, in (57) it was illustrated that the dependent clause of the PSYc may exhibit root phenomena. Under the assumption that the dependent clause is just a regular object clause without a DP-shell, this makes sense. As already noticed several times, if a matrix predicate assigns an illocutionary potential to its complement clause, root phenomena may appear. It is reasonable to assume that the object clause of the PSYc has illocutionary potential.

What, given an account like Berman's (2003), is at first unexplained is that the PSYc does not allow movement of the dependent clause across the pro-form, (55). If the clause and *es* are independent arguments, why should it matter if one of these arguments, the clause, is moved across the other, the pronoun? Thus, the ungrammaticality of (55) seems to suggest that *es* and the clause are not completely independent of each other after all. Therefore, I would like to suggest that *es* is not a non-thematic subject, but it is the lexical realisation of a causer argument. There is a certain tradition in the literature of analysing psych-verbs whose object is the experiencer argument as having a causer subject. For example, Pesetsky (1995) assumes that experiencer-object verbs are bimorphemic: they contain a causative morpheme. This morpheme is null in English, while it is overt, for example, in Japanese. The causer argument and the target of the emotion are identified. In a similar vein, Haider (1993) proposes analysing a German experiencer-object verb like *ängstigen* ('to frighten') as in (58).

(58)   x ängstigt y: x CAUSE [y fears x]

I would like to suggest adopting this kind of analysis for the predicates of the PSY-construction and treating *es* as the overt realisation of the external argument of the CAUSE component of the predicate. Furthermore, because the causer and the target of the emotion refer to the same object (the event described by the clause), *es* and the clausal argument are co-indexed. Thus, the PSYc has some similarity with a reflexive structure in so far as two co-arguments are semantically identified. In this configuration, the subject *es* is the structurally higher argument; it c-commands the object clause in base structure. In purely structural terms it is the clause which is the syntactically dependent argument.

In a standard reflexive construction, the dependent element is not allowed to move across its antecedent to the prefield. In terms of the binding theory one would say that in (59) the movement induces a principle C violation on the referential expression *Otto*.

(59)   *$Sich_1$ hat $Otto_1$ t_1 heute   rasiert.
         himself has Otto   today shaved

Given this observation, I would like to suggest that the sentences in (55) are bad because a local dependent element is moved across its antecedent to the prefield; consider for example:

(55)'   a.   *[*Dass Maria kommt*]$_1$, hat es$_1$ Hans t$_1$ überrascht.

Thus, the examples in (55) are ruled out as violations of the binding theory, i.e., more specifically as a principle C violation on the referential expression *es*.

6.   Overview of the observed characteristics of the five constructions

Table 1 lists the observations we have made about certain constructions featuring a dependent clause associated with a lexically realised pro-form. The constructions should be taken as being realised under their prevailing standard intonation. Remember that the term 'correlative construction' refers to the construction with a verb of the *bedauern*-class, 'RDc' indicates the construction with a verb of the *behaupten*-class, 'POc' is the construction with a verb that takes a clausal argument with the function of a prepositional object, 'ADVc' refers to the structure with a pro-form which relates to an adverbial clause, and 'PSYc' is the construction with a psych-verb that takes its experiencer argument as an object.

Note that if a property is shared by different constructions, the reasons why the property holds may nevertheless be different. For example, all constructions disallow the movement of the clause across the pro-form (property *iv*). In the case of the correlative construction, the POc and the ADVc the reason for this as

Table 1. Characteristics of the constructions

		Correlative construction	RDc	POc	ADVc	PSYc
i.	possible in an all-focus context	✓	*	✓	*	✓
ii.	joint appearance of pro-form and clause in middle field	*	*/✓ only if clause is an apposition	✓	✓	✓
iii.	VP-preposing containing clause but not pro-form	*	*	*	*	✓
iv.	movement of the clause across pro-form	*	*	*	*	*
v.	extraction out of clause	*	*	*	*	✓
vi.	root phenomena in the clause possible	*	*	✓	*	✓

argued for in the preceding text is the same. However, the reasons given for the RDc and the PSYc are quite different. The same holds for the second row of the table, which concerns the joint appearance of the pro-form and the clause in the middle field (property *ii*). Although one can find four yes-signs here, the structures which allow the joint appearance are of three quite different sorts.

We may note that, taken together, the entries in the fifth column nicely illustrate that in the case of the PSYc the dependent clause is nearly independent of the pro-form appearing in the construction.

7.   The possibility of root phenomena in the dependent clause

Two of the five constructions considered in this paper allow root phenomena in the dependent clause, while three inherently do not; cf. the last row in Table 1. Here we have concentrated on two root phenomena, MPs and marking of an aboutness topic. Many other root phenomena would show the same distributional pattern. The observation that a dependent clause allows root phenomena can reveal something about the internal syntactic structure of the clause since arguably root phenomena need some sort of structural licensing.

Let us here take MPs as the representative example for root phenomena. Jacobs (1986), Thurmair (1989), Coniglio (2011), and Bayer & Obenauer (2011) emphasise that a MP occurring in an independent clause interacts with the illocutional force of the clause. For example, the MP *mal* may weaken a command, *doch* may be used to indicate that the speaker's assertion runs against an assumption of the hearer, with *ja* the speaker expresses that the proposition in question belongs

to the common ground of the hearer and speaker and that the hearer should treat this proposition as salient, and with *wohl* the speaker indicates that her/his capabilities to justify the assertion are reduced. To represent the illocutional force of a clause in syntax, it has been proposed that as part of the structure of the clause's left periphery (the CP layer), there exists a functional projection encoding illocutional force, often called the Force-projection (cf., e.g., Bayer 2001; Haegeman 2004). Under this perspective, it is the Force-projection that syntactically licenses the occurrence of a MP. It follows that root clauses and root-like dependent clauses on the one hand and non-root-like dependent clauses on the other differ as to which functional projections in the left periphery they realise. Hence, important ingredients of this proposal are that first, only root clauses and root-like dependent clauses contain a Force-projection, and second, only clauses containing a Force-projection allow so-called root phenomena.

For our concerns, an immediate consequence of this proposal is that the dependent clauses of PSYc and POc may have a Force-projection, and that the dependent clauses of the correlative construction, the RDc and the ADVc, never being root-like, do not have a Force-projection but a reduced structure.

Coniglio (2011) argues that embedded argument clauses with Force, i.e., with an illocutionary potential, can be understood as ascribing an 'inner' speech act to the referent of the logical subject of the matrix predicate. This referent may have performed a corresponding speech act. This in fact seems to be the case with the matrix predicates in (36) and (57). We can ascribe to someone who is surprised about a certain circumstance that (s)he potentially could make a speech act expressing her/his surprise. Likewise, if a circumstance is conceivable for someone, (s)he might potentially assert the corresponding proposition in an inner speech act. In contrast, with verbs of the *bedauern*-class the ascription of an inner speech act is not possible. If someone denies, regrets, forgets or rejects a fact, we cannot ascribe an inner speech act to her/him which just takes the proposition of the dependent clause as its content. Thus, the dependent clauses of these verbs never have any illocutionary potential. It follows that no root phenomenon may occur in these dependent clauses. This is independent of the presence of the correlative element, since it just depends on the semantics of the subcategorising predicates of the *bedauern*-class.

This is different with the verbs of the RDc class. If these verbs do not participate in the RDc but occur in the standard way without a pro-form, the dependent clause may contain root phenomena. This makes sense, since the verbs of this class, for example *behaupten*, *glauben*, and *hoffen*, allow ascribing an outer or an inner speech act to their logical subjects. However, if these verbs enter into the RDc, their dependent clauses no longer allow a root phenomenon. The reason lies in the anaphoric nature of its pro-form. The *es* of the RDc refers to the

previously mentioned eventuality described by the proposition denoted by the dependent clause. The pro-form *es* and the dependent clause are co-referential. Thus, the dependent clause does not refer to the content of an illocutionary act, be it a potential inner one or an outer one, but to a circumstance already established in the discourse. Such a clause does not exhibit a Force-projection.

An integrated adverbial clause specifies the eventuality described by the matrix clause. Arguably, an integrated adverbial clause does not refer to a proposition but to an eventuality. As such it does not have any (potential) illocutional force. We expect that an integrated adverbial clause cannot host a root clause phenomenon. Since a pro-form for an adverbial clause is only possible for an integrated adverbial clause (Brandt 1990), it follows that an ADVc may not host any root phenomena in its dependent clause.

According to the remarks above, clauses which allow root phenomena are of a richer structure in their left periphery than clauses which do not allow root phenomena. It is tempting to relate the richer structure to the possibility of extraction out of the dependent clause. The richer structure, i.e., Spec,ForceP, provides an escape hatch for extraction. The dependent clauses of verbs of the *bedauern*-class and the dependent clauses of the RDc do not allow extraction since they do not contain a Spec,ForceP-position, and thus do not furnish an escape hatch. The complement clause of a PSYc allows extraction if it gets assigned an illocutionary potential by the matrix predicate. The complement clause then delivers the escape hatch Spec,ForceP. That often the dependent clause of the POc does allow root phenomena, i.e., that it has a Force-projection, but does not allow extraction out of it, is not in conflict with the correlation between allowing root phenomena and allowing extraction because the dependent clause of the POc is covered by a DP in a PP. In German, Ā-movement to the left is not possible out of any DP.

8.   Summary

The paper highlights some syntactic differences between various constructions which in the literature are often put into the same basket under the name 'correlative construction'. The paper argues that these constructions have to be clearly distinguished.

The paper starts by adopting the insight of Pütz (1986[2]) and Sudhoff (2003) that there is a crucial difference between the pro-form construction with verbs of the *bedauern*-class and the pro-form construction with verbs of the *behaupten*-class. These constructions show very different properties and, therefore, have to receive quite distinct syntactic analyses. Then, the paper argues, contrary to Sudhoff (2003, this volume), that the constructions consisting of a verb of the

bedauern-class with a correlate and without a correlate exhibit different syntactic structures. Their different syntax corresponds to a semantic difference in regard to the mandatory factivity of the proposition denoted by the dependent clause. Next the construction in which the verb takes a dependent clause with the function of a prepositional object is considered. It is argued that with most such verbs the dependent clause is covered by a prepositional adverb. The interpretative properties and the syntactic structure of the construction with a prepositional adverb are the same regardless of whether the prepositional adverb is canonically stressed or not, whether it is reduced or not, or whether it is not lexically realised. Some verbs (exemplified above by *zwingen* and *entscheiden* taking infinitival complements), however, take the clausal prepositional object directly, without a covering PP-shell. Their dependent clauses show a different behaviour. The paper also considers the construction in which the pro-form relates to an adverbial clause. Here, the pro-form needs to be stressed and its presence clearly has a semantic effect. Finally it is argued that it is crucial to distinguish a further pro-form construction. It contains a psych-verb with an experiencer-object, the pro-form *es* and a clausal argument. In this construction, *es* is an independently generated pronominal argument encoding the causer of the emotion, which is co-referential with the clausal argument.

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