

# Focus Particle Placement within German Event Nominals

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November 2007

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## Abstract

There is a considerable disagreement in the literature about the analysis of apparent DP-internal focus particles (Bouma et al. 2007). This squib sheds new light on the matter by concentrating on focus particles in one particular kind of German nominal: deverbal event nominals with argument structure (Grimshaw's (1990) 'complex event nominals'). The new finding is that these nominals allow a focus particle between N and the postnominal argument. The squib argues that this occurrence is, contrary to initial appearances, new evidence for Buring and Hartmann's (2001) prediction that focus particles always adjoin to non-arguments. Buring and Hartmann's Particle Theory, augmented with the idea that event nominals project VP structure, captures the new data.

**Keywords** *DP syntax, embedded VP hypothesis, event nominals, focus particles, German*

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Queen Mary's OPAL #10  
Occasional Papers Advancing Linguistics

## 1 Introduction

The great variety of possible positions of focus particles (FPrt) in German has prompted various linguists to develop a unified account of focus particle placement (e.g. Bayer 1996; Jacobs 1983). The most recent and successful approach is Buring and Hartmann's (2001) Particle Theory. In a nutshell, they give evidence that focus particles can only adjoin to non-arguments. The simplicity of this claim should not belie the complexity of its predictions. This squib focuses on German DPs like in (1), where a FPrt is allowed between N and the postnominal argument (König 1993, p. 984). The new observation is that this FPrt-placement is only available within deverbal event nominals with argument structure (Grimshaw's (1990) 'complex event nominals'), henceforth CEN(s). I will call all other nominals, which behave like Grimshaw's (1990) 'result nominals', non-CENs. This squib presents two new tightly linked arguments. The first one supports analyses which assume that there are specialized functional projections plus a VP projection within CENs (Borer 2003). The second one is that focus particle placement within CENs is predicted by Buring and Hartmann's (2001) Particle Theory once we adopt the structure suggested by Borer (2003).

So far, it has not been observed in the literature that the acceptability of N-FPrt-DP and N-FPrt-PP orders is a special property of CENs. That is illustrated in (1), where the FPrt *nur* 'only' and *auch* 'also' can occur before the postnominal object. As we will see in the next section, this occurrence is surprising under Buring and Hartmann's (2001) Particle Theory. At first glance, it even appears to be a counterexample. Throughout the squib, focus constituents are marked by a subscript  $F$ (ocus). Capitalization represents focal stress.

- (1) a. Die Auflösung **nur** der UniversITÄTen $_F$  wäre nicht sinnvoll.  
*the dismantling only the universities would-be not sensible*  
'The dismantling of only the universities would make no sense.'  
(König 1993, p. 984)
- b. (Das Ziel war ein Kammerorchester für das klassische Repertoire,  
*(the aim was a chamber-orchestra for the classical repertoire,*  
aber **auch** ein grosses Orchester für) die Aufführung **auch** von  
*but also a big orchestra for) the performance also of*  
NEUer $_F$  Musik.  
*new music*  
'The aim was to have a chamber orchestra for the classical repertoire  
as well as a big orchestra for the performance of also new music.'  
(Google, 13.06.2007)

Classical diagnostics (e.g. Grimshaw 1990; Ehrich and Rapp 2000) show that

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\*I would like to thank my supervisor David Adger, Katharina Hartmann, Daniel Buring as well as the audience of CamLing 2006 for productive discussions and very constructive suggestions on this paper. I, not those acknowledged, bear responsibility for any errors.

both nominals in (1) have an event reading<sup>1</sup>: in (1-a) the event of the dismantling of only the universities; in (1-b) the event of the performance of also new music. Note that we are dealing with a property, which only CENs have. If we exchange the CEN for a non-CEN, the FPrt-placement becomes ungrammatical (2).

- (2) a. \*Die Gebäude **nur** der UNIVERSITÄTEN<sub>F</sub> werden renoviert.  
*the buildings only the universities become refurbished*  
 ‘The buildings of only the universities get refurbished.’  
 b. \*Der Wert **auch** von NEUER<sub>F</sub> Musik wird oft unterschätzt.  
*the value also of new music is often underestimated*  
 ‘The value of also new music is often underestimated.’

In order to see why the FPrt-placement in (1) is surprising, we have to understand the workings of Büring and Hartmann’s (2001) Particle Theory. It is summarized in section 2. Section 3 applies the Particle Theory to FPrt-placements within CENs. As we will see in section 4, we have to adopt the structure of CENs suggested by Borer (2003) before we can explain the FPrt-placement in (1) under Büring and Hartmann’s (2001) Particle Theory. The conclusions about the syntax and the FPrt-placement within CENs are given in section 5.

## 2 Büring and Hartmann’s Particle Theory

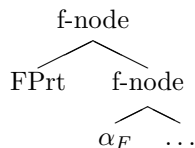
Büring and Hartmann’s (2001) Particle Theory specifies which requirements a syntactic node has to fulfil in order to count as the node where a FPrt must adjoin in a particular sentence. Büring and Hartmann call this node  $\beta$  or f(ocus)-node. FPrts always associate with a prosodically marked focus constituent  $\alpha_F$  in their syntactic domain (3).

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<sup>1</sup>The DPs in (1) allow event control, i.e. may license an *in order to*-phrase, and therefore have an event reading (Grimshaw 1990, p. 57).

- (i) a. Die Auflösung **nur** der UNIVERSITÄTEN<sub>F</sub> um Gelder  
*the dismantling only the universities in-order-to money*  
 einzusparen.  
*save*  
 ‘The dismantling of only the universities in order to save money.’  
 b. Die Aufführung **auch** von NEUER<sub>F</sub> Musik um mit dem  
*the performance also of new music in-order-to with the*  
 Trend zu gehen.  
*trend to go*  
 ‘The performance of also new music in order to follow the trend.’

(3)



The Particle Theory consists of four constraints, (4-a) - (4-d), and a principle governing the placement of the FPrt relative to its focus constituent (5). Underneath every constraint I give its more informal version.

- (4) The Particle Theory: For any node  $\alpha$  marked F in a phrase marker P, let the set of f-nodes of  $\alpha$  consist of all nodes  $\beta$  in P such that
- a.  $\beta$  is a non-argument.  
i.e. FPrts can only adjoin to non-arguments.
  - b.  $\beta$  is a maximal projection  
i.e. FPrts must be adjoined to a maximal projection.
  - c.  $\beta$  dominates  $\alpha$  or is identical to  $\alpha$   
i.e. FPrts must c-command the focus.
  - d. there is no EP  $\beta'$  such that  $\beta$  dominates  $\beta'$  and  $\beta'$  meets (4-b) and (4-c).  
i.e. FPrts are as close to the focus as possible.
- (5) A FPrt must be left-adjoined to an f-node of its focus.

For illustration, let us look at a concrete example. The sentence in (6), which contains an adjunct CP preceded by a FPrt, motivates Buring and Hartmann's constraint against FPrt-adjunction to arguments (4-a).

- (6) weil Hans hereingekommen wäre **nur** [<sub>CP</sub> wenn wir alle  
*because Hans entered had only if we all*  
 geschlafen hätten]<sub>F</sub>  
*slept had*  
 'because Hans would have entered only if everyone had been asleep.'  
 (Buring and Hartmann 2001, p. 267/8)

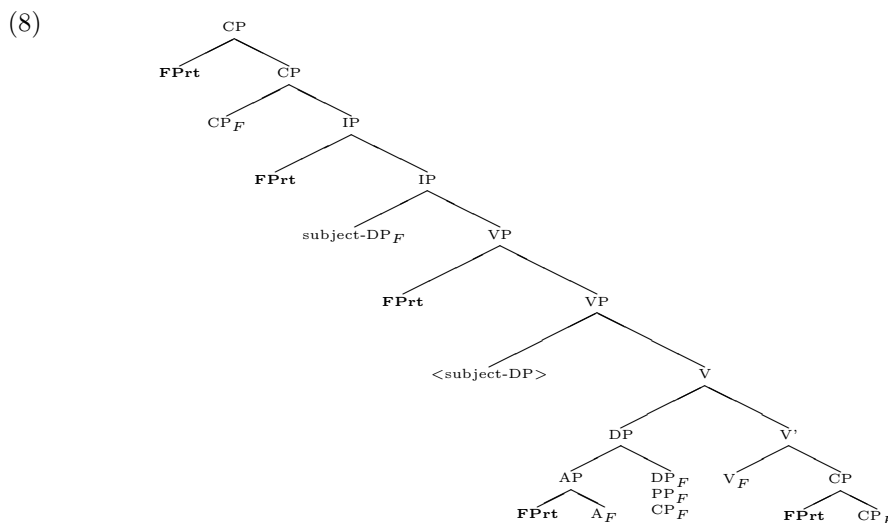
Let us apply the constraints (4-b) and (4-c) first in order to significantly narrow down the number of potential f-nodes. Nodes being maximal projections and allowing an adjoined FPrt to c-command the focussed CP are: root CP, IP, VP, adjunct CP. The constraint (4-a) which requires the f-node to be a non-argument yields the same set, i.e. root CP, IP, VP, adjunct CP. Finally the constraint in (4-d) picks the node which is closest to the focus while still allowing an adjoined FPrt to c-command it. It follows that the f-node in (6) has to be the CP yielding a [<sub>CP</sub> FPrt [<sub>CP</sub> ... ]]-structure. The significance of the constraint (4-a) manifests itself in argument/adjunct asymmetries which are the cornerstone of Buring and Hartmann's observations. In fact, sentences containing an argument CP do not allow a [<sub>CP</sub> FPrt [<sub>CP</sub> ... ]]-structure. As an example, take the sentence in (7), which forces FPrt-adjunction to an argument CP positioned on its right. It shows that immediate adjunction to argument projections leads to

ungrammaticality.

- (7) \*Ich habe gesagt, [<sub>CP</sub> nur [<sub>CP</sub> dass sie kommt]]  
*I have said only that she comes*  
 ‘I have said only that she comes.’  
 (Büring and Hartmann 2001, p. 268)

The grammaticality contrast between (6) and (7) has lead Büring and Hartmann to formulate a constraint against FPrt-adjunction to arguments. The Particle Theory is an updated version of Jacobs’s (1983) analysis of the syntax of FPrt. According to Jacobs, FPrt can only adjoin to verbal projections and never to DPs. The fact that DPs do not belong to the set of f-nodes follows from the Particle Theory under the assumption that DPs are always arguments. Independent evidence that FPrt cannot be DP-adjoined comes from Büring and Hartmann’s (2001) ‘no-reconstruction’ argument. FPrt preceding DPs cannot undergo reconstruction along with the DP even if the DP clearly can.

In summary, the Particle Theory allows adjunction to all non-argument projections: root CPs, adjunct CPs, IPs, VPs, adjunct PPs and APs. Which of these nodes the FPrt actually adjoins to depends on which constituent is focused. The possible FPrt-placements relative to the foci (subject-DP, object-DP/PP/CP, adjective, verb) are given in (8).



### 3 Focus Particle Placement within CENs

In this section, I show why the FPrt-placement in (1) is surprising under Büring and Hartmann’s (2001) Particle Theory. A way to check Büring and Hartmann’s prediction that only non-argument projections may serve as FPrt-adjunction sites (cf. constraint in (4-a)) is by contrasting the acceptability of FPrt preceding arguments and adjuncts. PPs are good test cases as they can be either

arguments ( $PP_{arg}$ ) or adjuncts ( $PP_{adj}$ ). Note that neither DPs nor CPs can be used. The former are always arguments, the latter do not occur within CENs (cf. Grimshaw 1990). Compare (9-a) and (1-b) repeated here as (9-b).

- (9) a. Die Veröffentlichung der Aufsätze **nur** [ $PP_{adj}$  in renomMIERTEN<sub>F</sub>  
*the publication the articles only in famous*  
 Zeitschriften] kann mehrere Jahre dauern.  
*journals can several years take*  
 ‘The publication of the articles only in famous journals can take  
 several years.’
- b. ... die Aufführung **auch** [ $PP_{arg}$  von NEUER<sub>F</sub> Musik].  
 ... *the performance also of new music*  
 ‘... the performance of also new music.’

Surprisingly, we do not find the expected asymmetry - both FPrt-placements in (9) are grammatical. Given Buring and Hartmann’s (2001) constraint (4-a), which excludes adjunction to arguments, the FPrt-placement in (9-a), but not the one in (9-b) is expected. Under the assumption that the FPrt *auch* in (9-b) is immediately adjoined to the argument-PP *von neuer Musik*, (9-b) is a counterexample to (4-a).

As we know from the introductory example (1-a), the same is true for FPrt placement before argument-DPs. It turns out that FPrts may precede not only postnominal object-, but also subject-DPs. Compare (9-b) and (10). (1-a) is repeated here as (10-a).

- (10) a. Die Auflösung **nur** [ $DP_{arg}$  der UniversITÄTEN<sub>F</sub>] wäre nicht  
*the dismantling only the universities would-be not*  
 sinnvoll.  
*sensible*  
 ‘The dismantling of only the universities would make no sense.’  
 (König 1993, p. 984)
- b. Die Teilnahme **auch** [ $DP_{arg}$  ÄLTERER<sub>F</sub> Studenten] ist  
*the participation also older students is*  
 ausdrücklich erwünscht.  
*explicitly desired*  
 ‘The participation of also older students is explicitly appreciated.’  
 (Reis 2005, p. 476)

The sentence in (10-b) is one of Reis’s (2005) counterexamples showing that FPrt-adjunction to argument DPs violates constraint (4-a) of the Particle Theory. However, what Reis does not observe is that this occurrence is restricted to CENs.

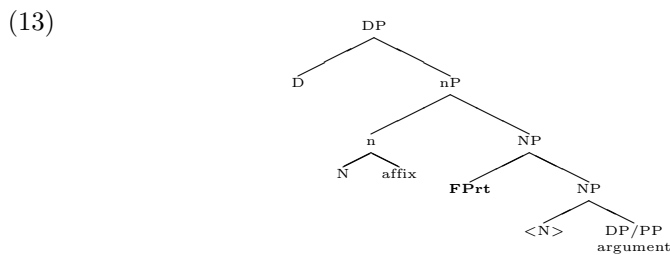
As for non-CENs like *brother*, the Particle Theory does make the right predictions. Observe the argument/adjunct asymmetry in (11).

- (11) a. \*der Bruder **auch** [ $PP_{arg}$  von Peter<sub>F</sub>] aus Berlin kommt zu  
*the brother also of Peter from Berlin comes for*  
 Besuch.  
*visit*  
 ‘The brother of also Peter from Berlin comes for a visit.’
- b. der Bruder von Peter **auch** [ $PP_{adj}$  aus Berlin<sub>F</sub>] kommt zu  
*the brother of Peter also from Berlin comes for*  
 Besuch.  
*visit*  
 ‘The brother of Peter also from Berlin comes for a visit.’

As expected, FPrtS can only precede PPs if the latter are non-arguments (11-b). FPrtS preceding argument-PPs are disallowed (11-a). Thus, only FPrt-placement within CENs (but not within non-CENs) is surprising because it appears that FPrtS do adjoin to arguments. (12) gives the unexpected word order we are trying to explain.

- (12) a. D-N-FPrt- $PP_{arg}$   
 b. D-N-FPrt- $DP_{arg}$

Do we really have to assume immediate adjunction to the argument-PP/DP in cases such as (12) as does Reis? An alternative way of analysing these would be to have the FPrt adjoin to the next higher non-argument projection. NP-adjunction as in (13) would then yield the attested word order.



We could leave it at that if Buring and Hartmann (2001) had not observed that FPrt-adjunction to NP is ruled out. Unfortunately, Buring and Hartmann do not have an explanation for this. Observe the FPrt-placement in (14), where adjunction to NP is forced.

- (14) \*der [ $NP$  **sogar** [ $NP$  Mann]] mit dem Hut  
*the even man with the hat*  
 ‘the even man with the hat.’

The DP in (14) is utterly unacceptable. It follows that NPs have to be excluded as FPrt-adjunction sites. More evidence comes from the unacceptability of FPrt-placement within the non-CENs in (15). (15-a) is repeated here from (11-a).

- (15) a. \*der Bruder [<sub>NP</sub> **auch** [<sub>NP</sub> [<sub>PP<sub>arg</sub></sub> von Peter<sub>F</sub>]]] aus Berlin  
*the brother also of Peter from Berlin*  
 kommt zu Besuch.  
*comes for visit*  
 ‘The brother of also Peter from Berlin comes for a visit.’
- b. \*Die Gebäude [<sub>NP</sub> **nur** [<sub>NP</sub> [<sub>DP<sub>arg</sub></sub> der Universitäten<sub>F</sub>]]] werden  
*the buildings only the universities become*  
 renoviert.  
*refurbished*  
 ‘The buildings of only the universities get refurbished.’

As mentioned before, the FPrt-occurrences in (15) are ungrammatical since adjunction to argument-DPs/PPs is ruled out by constraint (4-a) of the Particle Theory. Obviously, adjunction to NP, the non-argument projection containing the argument-DP/PP, is not an option either. Otherwise the FPrt-placements in (15) had to be possible. It follows that constraint (4-a) as well as the exclusion of NPs as potential FPrt-adjunction sites seem to be on the right track as far as non-CENs are concerned.

These restrictions appear to be substantially correct for explaining FPrt-placement within non-CENs, but do not get us any closer to explaining FPrt-placement within CENs. There are two methods of resolution to this problem. We can either adjust the Particle Theory so that it covers FPrt-placement within CENs, or, alternatively, we can reconsider the syntactic structure of CENs and leave the Particle Theory as it stands. As I assume that Buring and Hartmann’s Particle Theory is generally correct, I will embark on the second strategy here. What we are looking for is a postnominal adjunct XP (different from NP) which contains the argument PP/DP. Roughly, such a structure had to be of the form in (16). Again, immediate adjunction to DP or PP is not an option because FPrts cannot adjoin to arguments.

- (16) [<sub>DP</sub> ... [<sub>XP</sub> **FPrt** [<sub>XP</sub> [<sub>DP/PP</sub> DP<sub>arg</sub>/PP<sub>arg</sub>]]]]

As we will see in the next section, recent syntactic accounts of the syntactic structure of CENs like Borer (2003) assume that CENs have a more complex structure than all other nominals. It turns out that there is evidence for several FPrt-adjunction sites within CENs.

## 4 The Syntax of Focus Particle Placement within CENs

### 4.1 The ‘Event Complex’ within CENs

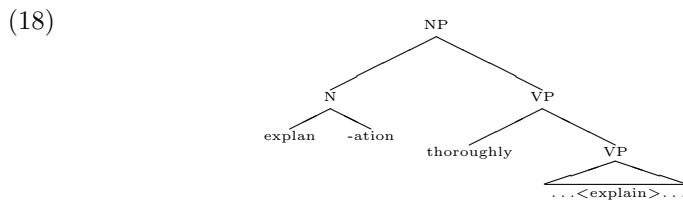
What makes the syntax of CENs so interesting and challenging is the fact that they have nominal as well as verbal properties. There is a debate in the literature as to whether the verbal properties of CENs are due to their lexical semantics (i.e. are specified in their lexical entry) or to a syntactic process



which derives CENs from verbs.<sup>2</sup> Proponents of the latter position assume that their verbal properties are due to the presence of a verbal constituent within CENs. Empirical evidence for such an analysis has to come from properties which are clear indicators of verbal structure. According to Fu et al. (2001, p. 555), manner "... adverbs are one of the prime indicators of verbal structure" as they, being VP modifiers, have to adjoin to VP. They observe that for many speakers of English, adverbs are acceptable within CENs. More importantly, all speakers observe a sharp contrast between adverbs within CENs and adverbs within non-CENs. This is exemplified in (17) where adverbs are allowed in the environment of *removal* and *explanation* but not in the environment of the non-CENs *version* and *metamorphosis*.

- (17) a. (While) the removal of evidence **purposefully** (is a crime), the removal of evidence **unintentionally** (is not).  
 b. His explanation of the accident **thoroughly** (did not help him).  
 c. \*His version of the accident **thoroughly** (did not help him).  
 d. ??His metamorphosis into a werewolf **so rapidly** was unnerving.

In a nutshell, Fu et al. reason that if adverbs adjoin to VP, and adverbs occur within CENs, the presence of adverbs is evidence for a VP projection within CENs. Fu et al.'s account aims at giving further evidence for the syntactic structure of CENs as it has been suggested in Borer (1991/1993, 1994, 1999).<sup>3</sup> (18) gives a rough idea of such an analysis<sup>4</sup>, Borer's more elaborated structure is given in (21).



As illustrated in (18), the CEN *explanation* is headed by the verb *explain*. The stem allomorph [explain<sub>V</sub>]  $\iff$  [explan<sub>N</sub>] is conditioned by the different syntactic or morpho-phonological contexts (Borer 2003, p. 12). Generally speaking,

<sup>2</sup>See Fu et al. (2001, p. 551) for a very brief summary of (i) properties which have been explained in syntactic as well as lexicalist approaches and (ii) the cross-linguistic evidence for verbal properties of CENs which can only be explained syntactically.

<sup>3</sup>The reader should be aware of the fact that the syntactic structure adopted in Fu et al. (2001) is the one suggested in Borer (1991/1993, 1994, 1999). After the publication of Fu et al. (2001), Borer published a paper on the syntax of CENs. I adopt her 'event complex' and the terminology as it has been suggested in Borer (2003).

<sup>4</sup>See Hazout (1991), Valois (1991), and Fu (1994) for cross-linguistic evidence for the presence of such a VP projection.

CENs contain a ‘double structure’ consisting of a VP projection, headed by V, and a nominal projection, headed by N. Verbs become event nominals by a head raising operation to a nominal affix which serves as an overt nominalizer (e.g. *-ation*).

Under such an analysis the presence of adverbs within CENs observed by Fu et al. receives a straightforward explanation. Adverbs can occur within CENs with an embedded VP projection but not in all other nominals, as only the former contain an adjunction site for adverbs. Observe the VP-adjunction of *thoroughly* in (18). Moreover, Fu et al. find that CENs allow the co-occurrence of adjectives and adverbs. That is expected under the ‘double structure’ in (18). Since the positioning of modifiers has to be fully consistent with their adjunction to the maximal projection that they modify, within event nominals with ‘double structure’, adjectives can adjoin to NP and adverbs to VP. This is exemplified in (19).

- (19) His [<sub>NP</sub> **careful** [<sub>NP</sub> destruction]] of the documents [<sub>VP</sub> **immediately** [<sub>VP</sub> ...]] (saved his reputation).

As a next step, consider the distribution of adverbs within event nominals. As they are left-adjoined to VP, their position marks the left edge of the embedded VP projection. Now, observe the positions of the adverb *deliberately* in (20).

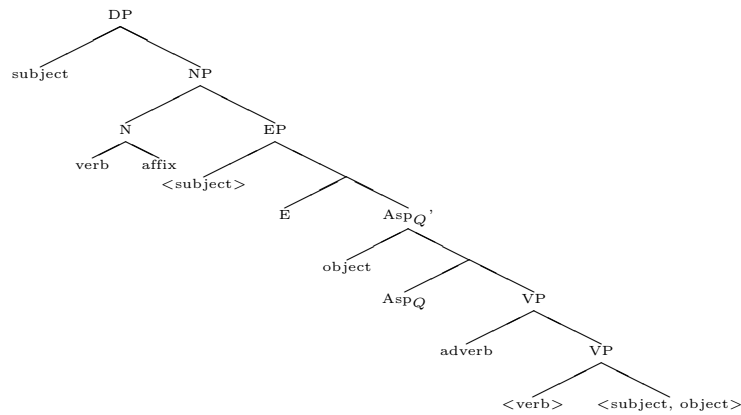
- (20) a. \*His **deliberately** removal of the evidence (resulted in obscuring the case).  
 b. \*His removal **deliberately** of the evidence (resulted in obscuring the case).  
 c. His removal of the evidence **deliberately** (resulted in obscuring the case).  
 (Fu et al. 2001, p. 560)

As expected, the adverb cannot occur within the nominal part of the ‘double structure’. Adverbs in pre-nominal position (20-a) or in post-nominal position (20-b) are ungrammatical. The grammatical placement is the one in (20-c). It is compatible with adjunction of *deliberately* to VP within approaches which assume that the object has to move out of the VP and to the left of the adverb. Such a movement is part of Borer’s (2003) more elaborated structure of CENs (21). It does not only contain an embedded VP projection but also two specialized functional projections, *Asp<sub>Q</sub>*’ and EP, which host the subject and object argument of the CEN.<sup>5</sup>

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<sup>5</sup>*Asp*’ = aspect phrase, *Q* = quantity, EP = event-phrase

(21)



Let us take a step back and point out very briefly on which assumptions such an analysis is based. It is standardly assumed that deverbal CENs like *the removal of the evidence* have argument structure. There is a debate in the literature as to how the argument structure of CENs is related to the argument structure of the ‘underlying’ verb phrase. According to Borer, argument structure is a category-sensitive property - a property which is associated with verbs only. As a consequence, there has to be verbal structure present within CENs. They contain a VP projection alongside functional structure responsible for the projection of argument structure. Borer’s approach ties up to current research on verbal argument structure which suggests severing the external argument from the verb (e.g. Kratzer 1994, 1996). Taking this analysis one step further, Borer argues that not only the external but also the internal argument have to be severed from the verb. The functional projections EP, Asp<sub>Q</sub>’ plus the VP form the ‘event complex’ which is required for the emergence of argument structure. It follows that this ‘event complex’ has to be present in CENs, i.e. deverbal event nominals with argument structure, as well. In other words, the only way to derive a CEN is to merge an ‘event complex’ with a nominalizing affix.

The word order in (20-c) with the object preceding the adverb follows straightforwardly from the tree in (21). The adverb is VP-adjoined and the object has to raise into the specifier of the Asp<sub>Q</sub>’ projection above VP. After both arguments as well as the verb have moved out of VP, the adverb is adjoined to an ‘emptied’ VP projection at the right edge of the CEN. According to Fu et al., the presence as well as the distribution of adverbs are compatible with the presence of an ‘event complex’ within CENs. It does not only provide the adjunction site for adverbs (i.e. VP) but also explains why arguments have to precede adverbs. As illustrated in (20-b), the inverse order, where the adverb precedes the object, is ungrammatical.

As expected, adverbs within German CENs show the same behavior. The adverb *so gründlich*, ‘so thoroughly’ can occur at the right edge of the CEN (22-a), but cannot intervene between the nominal and the object (22-b) or occur in pre-nominal position (22-c).

- (22) a. Die häufige Fälschung der Mona Lisa **so gründlich** hat sie  
*the frequent forgery the Mona Lisa so thoroughly has her*  
 noch bekannter gemacht  
*even more-well-known made*  
 ‘The frequent forgery of the Mona Lisa so thoroughly has made her  
 even more well known.’
- b. \*Die häufige Fälschung **so gründlich** der Mona Lisa hat sie noch  
 bekannter gemacht.
- c. \*Die häufige **so gründlich** Fälschung der Mona Lisa hat sie noch  
 bekannter gemacht.

Based on Fu et al.’s evidence for Borer’s syntactic structure of CENs and the successful application to German event nominals, I assume that the structure in (21) is generally correct. As a next step, we can now reconsider the range of potential FPrt-adjunction sites within German CENs.

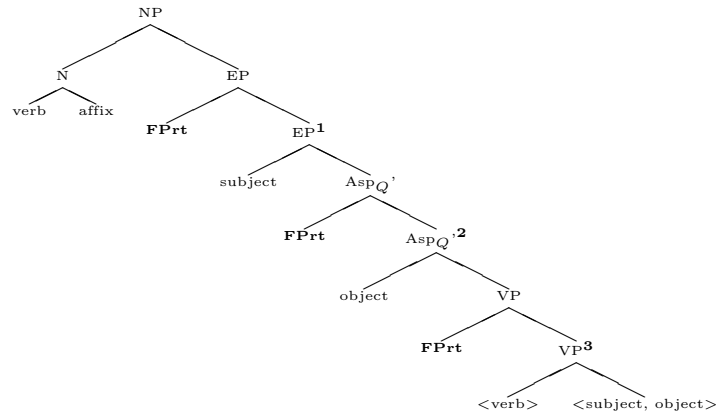
#### 4.2 Focus Particle Adjunction Sites within CENs

Recall that we set out to identify which f-nodes FPrts adjoin to within CENs. As stated in section 3, FPrts cannot immediately adjoin to the postnominal subject/object as adjunction to arguments is ruled out by constraint (4-a) of Büring and Hartmann’s (2001) Particle Theory. Since FPrts preceding postnominal subjects/objects are grammatical, we have to assume that they adjoin to non-argument projections which contain the subject or object, respectively. As we have seen in section 3, these non-argument projections cannot be NPs since the latter are generally excluded as FPrt-adjunction sites. What are the XPs in the structures in (23)?

- (23) a.  $[_{DP} \dots [_{XP} \mathbf{FPrt} [_{XP} [_{DP} \text{subject}] \dots ]]$   
 b.  $[_{DP} \dots [_{XP} \mathbf{FPrt} [_{XP} [_{DP} \text{object}] \dots ]]$

As we will see below, Borer’s structure for CENs introduced in section 4.1, sheds new light on FPrt-placement. Each of the projections of Borer’s ‘event complex’ embedded within CENs, i.e. EP, Asp<sub>Q</sub>’ and VP, serves as a potential FPrt-adjunction site. The tree in (24) identifies EP, Asp<sub>Q</sub>’ and VP as potential f-nodes (cf. superscript 1-3).

(24)



Given (24), what are the f-nodes the FPrt's in (23) have to adjoin to? Recall that the verb raises to N, the subject to the specifier of EP and finally the object to the specifier of  $Asp_Q'$ . Thus, we expect that a FPrt preceding a postnominal subject adjoins to EP and a FPrt preceding a postnominal object to  $Asp_Q'$ . As illustrated in (25), adjunction to these projections of the ‘event complex’ derives exactly the attested word order within the CENs mentioned above (in (1-a), (1-b) and (10-b)).

- (25)
- a. Die Auflösung  $[_{Asp'_Q}$  **nur**  $[_{Asp'_Q}$   $[_{DP}$  der Universitäten $_F$ ]]] ...  
*the dismantling* *only* *the universities*
  - b. ... die Aufführung  $[_{Asp'_Q}$  **auch**  $[_{Asp'_Q}$   $[_{PP}$  von NEUER $_F$  Musik]]]  
*... the performance* *also* *of new music*
  - c. Die Teilnahme  $[_{EP}$  **auch**  $[_{EP}$   $[_{DP}$  ÄLTERER $_F$  Studenten]]] ...  
*the participation* *also* *older students*

We conclude that (i) EP is the adjunction site for a FPrt occurring between N and a postnominal subject-DP and (ii)  $Asp_Q'$  the adjunction site of a FPrt between N and an object-DP/PP. It follows that once we adopt Borer’s (2003) structure, FPrt-placement within CENs is correctly predicted by Buring and Hartmann’s (2001) Particle Theory.

In fact, the structure in (24) predicts that there is a third FPrt-adjunction site within CENs: the embedded VP projection. The FPrt ends up being adjoined to an ‘emptied’ VP projection after the verb and the arguments have raised. Therefore, if this analysis is on the right track, it should be possible for FPrt's to occur at the right edge of CENs. Consider the grammatical placement of *nur* in (26).

- (26) die AUFLÖSUNG $_F$  der Universitäten  $[_{VP}$  **nur**  $[_{VP}$  <...>]] würde das  
*the dismantling the universities* *only* *would the*  
 Berliner Budget retten.  
*of-Berlin budget rescue*  
 ‘Only the dismantling of the universities would save Berlin’s budget.’

It turns out that the prediction is borne out. Note that in (26) it is the nominalized verb which is the focus of the FPrt, not some element of the postnominal argument (cf. CENs above). I assume that in this configuration the FPrt scopes over the nominalized verb. The verbal head reconstructs to its base position inside the embedded VP, where it is c-commanded by the VP-adjoined FPrt.

The FPrt-adjunction sites mentioned in this section have to be absent from non-CENs as they do not contain Borer’s (2003) ‘event complex’. Consequently, FPrts positioned at the right of non-CENs should be unavailable too. Buring and Hartmann consider a case where a FPrt seems to be right-adjoined to a non-CEN (27). Such a placement is, of course, ruled out by the Particle Theory, which only allows left-adjunction of FPrts.

- (27) (\*)Seine SCHWESTER<sub>F</sub> **nur** überlebte den Unfall.  
*his sister only survives the accident*  
 ‘Only his sister survives the accident.’  
 (Buring and Hartmann 2001, p. 240)

According to Buring and Hartmann’s judgment, the FPrt placement in (27) is unacceptable.<sup>6</sup> That is expected under the analysis suggested in this squib. Only within CENs such as (26), but not within non-CENs, there is an adjunction site for FPrts at the right edge.

To sum up, the presence of FPrts within German CENs is not surprising at all - they can adjoin to the projections coming along with Borer’s (2003) ‘event complex’ within CENs: EP, Asp<sub>Q</sub>’ and VP. The fact that non-CENs lack the FPrt-occurrences discussed in this squib is predicted under the assumption that they do not contain an ‘event complex’. Crucially, according to Buring and Hartmann’s (2001) Particle Theory, EP, Asp<sub>Q</sub>’ and VP are correctly predicted to be FPrt-adjunction sites.

## 5 Conclusion

Buring and Hartmann’s (2001) Particle Theory can be maintained in the face of apparent counterexamples only if we adopt the assumption that there is a (complex) VP structure in CENs. The approach I developed provides a syntax for the placement of FPrts in German CENs which captures the fact that they are found preceding a postnominal subject, preceding a postnominal object, and at the right periphery of the NP.

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<sup>6</sup>Buring and Hartmann (2001) point out that Helbig (1988) classifies ‘right-adjunction’ as rare, sporadic and limited.

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