Distribution and Interpretation of the German Focus Particle *nur* 'only' in Sentences and DPs

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Abstract

This paper applies to DPs recent findings about the semantics of the focus particle *nur*: they adjoin to the extended verbal projection (Büring and Hartmann 2001) and quantify over contextually given alternatives (Rooth 1992). New data shows that *nur* neither exclusively associates with scalar adjectives nor quantifies over contextually given alternatives. The proposal is that *nur* within DPs associates with scalar as well as non-scalar adjectives and introduces scalar implicatures. It can mean 'merely', 'mainly', or 'repeatedly', in each case introducing a scale that, if applicable, overrides the adjectival scale. These results together with the results in the literature give a unified semantics for *nur* in both clausal and DP domains.

Keywords association with focus, DPs, focus, focus particle *nur* 'only'; English, German

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1 Introduction

In English and German, for example, focus is realized by an accent on the so-called focus constituent. In German, as we'll see below, focus can be described as the combined effect of intonation and linear word order (Wagner and Jaeger 2003). Following Rooth (1992) I assume that focus is marked as a feature on phrases in a syntactic description, which can have a semantic/pragmatic and phonological/phonetic interpretation.

1.1 The Concept of Focus

First of all, what's the concept of focus? A sentence containing a constituent bearing a focal accent can be described as an utterance in a specific discourse setting. It's an appropriate utterance, if the accented part of the utterance gives information that is relevant in a current context. I'll illustrate this concept by the following question/answer sequences (small capitals indicate the focal accent):

(1) a. Q: Who introduced Bill and Tom to Sue?
A: MARY introduced Bill and Tom to Sue.
b. Q: To whom did Mary introduce Bill and Tom?
A: Mary introduced Bill and Tom to SUE.
c. Q: Who did Mary introduce to Sue?
A: Mary introduced BILL AND TOM to Sue.

In a question/answer sequence the focussed part within the answer must be that information which is asked for by the question. In other words: the focussed part corresponds to the question word. In (1a) Mary is the information asked for by the question word *who*. In (1b) Sue is the information asked for by the question word *to whom*. And finally Bill and Tom is the information asked for by *who* in (1c). Note crucially, that focus is always optional. The sentence *Mary introduced Tom and Bill to Sue* is absolutely fine without any focus at all. Is there a focal accent realized on a constituent, the interpretation of the sentence varies according to the placement of the

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accent. Clearly, the answers in (1a)−(1c) have different interpretations and are only appropriate as answers to the corresponding questions. Each of the A-sentences answers a specific question and they are not interchangeable.

In this paper, I look at a specific pattern of focus interpretation: the association of focus particles with the focus constituent. I'll delimit my observations and discussions to the German focus particle *nur* 'only'. Where helpful I'll also discuss the English translation. I aim to compare findings on the distribution and interpretation of *nur* in sentences to their distribution and interpretation in DPs. Before we'll look at the distribution of *nur* in sentences, I'll briefly introduce two basic concepts: association with focus and the theory of Alternative Semantics (Rooth 1985, 1992). In (2a), the German focus particle *nur* associates with the focus constituent *Sue*. The corresponding sentence in English is given in (2b).

(2) a. Maria stellt nur SUE Tom und Bill vor
Mary introduces only Sue Tom and Bill PRT
'Mary only introduces Tom and Bill to Sue.'
b. Mary only introduces Tom and Bill to SUE.

The examples in (2) show that association with the focus particle *nur/only* is realized differently in English and German. Nevertheless, (2a) and (2b) return the same interpretation: the only person Mary introduces Tom and Bill to is Sue. While *only* in the English sentence is realized in auxiliary position (the position of the auxiliary verb beside the main verb), *nur* in the German sentence follows the verb and directly precedes the focus constituent. It follows that semantic association with a focus constituent must not exclusively depend on the placement of the focus particle. Put differently, a theory accounting for the interpretation of association with focus has to be purely semantic. The sentences in (3) and (4) give further evidence for the different placement of *nur/only* in English and German. The same pattern applies if the accusative object or the verb are in focus.

(3) a. Maria stellt Sue nur TOM UND BILL vor
Mary introduces Sue only Tom and Bill PRT
'Mary only introduces Tom and Bill to Sue.'
b. Mary only introduces TOM AND BILL to Sue.

(4) a. weil Maria Sue Tom und Bill nur VORSTELLT
since Mary Sue Tom and Bill only introduces

'since Mary only introduces Tom and Bill to Sue.'

b. since Mary only INTRODUCES Tom and Bill to Sue.

Whether *Tom und Bill* or *Sue* or the verb *vorstellen* 'introduce' associate with the focus particle, *nur* immediately precedes the focus constituent. In the English sentences in (3b) and (4b) *only* occurs in auxiliary position. Consequently, a theory capturing association with focus must not act on the assumption that semantic association goes hand in hand with linear order. How can the concept of semantic association with focus then be accounted for?

1.2 The Theory of Alternative Semantics

I adopt the theory of Alternative Semantics as developed in Rooth (1985) and the Theory of Focus Interpretation as developed in Rooth (1992), which is a purely semantic account. I'll very briefly summarize the basic ideas of Rooth's approach. According to Rooth (1992), focus on a constituent is indicated via a focus feature F. Every phrase receives two different interpretations: an ordinary semantic value, $[\![\mathrm{X}]\!]^o$, and a focus semantic value, $[\![\mathrm{X}]\!]^f$. If a constituent does not bear a focal accent, the ordinary semantic value and the focus semantic value coincide. The focus semantic value gives a set of alternatives to the ordinary semantic value. This idea is illustrated in example (5). Consider the following situation: Mary introduces Bill and Tom to Sue. The ordinary semantic value is marked with a superscript *0*, the focus semantic value is marked with a superscript *F*. The subscript *F* indicates the focal accent.

(5) a. $[\![\text{Mary introduces Bill}_F \text{ to Sue}]\!]^o =$
{ [[Mary introduces Bill to Sue]] }

b. $[\![\text{Mary introduces y to Sue}]\!]^f =$
{ [[Mary introduces Bill to Sue]], [[Mary introduces Tom to Sue]] }

The focus semantic value is derived from the ordinary semantic value by substitution of the focussed constituent (Bill) by a variable (y). The resulting set is derived by substitution of the meaning of the focussed constituent by contextually plausible alternatives[1]. The only person other than Bill, who

[1] Compare Büring and Hartmann (2001).

Mary introduces to Sue, is Tom. In the situation above, the variable y can be substituted by Bill and by Tom—in each case arriving at a description of the situation. The labeling of the theory as Alternative Semantics is now justified. To sum up, according to Rooth (1985) and Rooth (1992) the focus semantic value consists of a set of alternatives to the ordinary semantic value. This set is derived by substituting the focussed constituent with contextually plausible alternatives. What's the interpretation of the focus particle *only* in terms of Rooth's ((1985), (1992)) Alternative Semantics?

1.3 The Focus Particle *only* in Alternative Semantics

1.3.1 Quantificational Implication of only

Following Rooth (1992) the focus particle *only* quantifies over the alternative assertions in the focus semantic value of an expression. As we have seen above, the focus semantic value of a sentence (including a focus constituent) contains a variable as a placeholder for contextually plausible alternatives. For example, in the sentence in (5b) the variable y can be substituted either by Bill or by Tom. What's according to Rooth (1992) the effect of the focus particle *only* on the interpretation? If a focus constituent associates with the focus particle *only*, substitution does not take place. The following example illustrates this effect.

(6) a. $[\![\text{Mary only introduces Bill and Tom to Sue}_F]\!]^o =$
$\{[\![\text{Mary introduces Bill and Tom to Sue}]\!]\}$
b. $[\![\text{Mary only introduces Bill and Tom to z}]\!]^f =$
$\{[\![\text{Mary introduces Bill and Tom to Sue}]\!]\}$

Sue is the focus constituent and is replaced by the variable z in the focus semantic value. Due to the semantics of *only*, there can be no substitute for z other than Sue. Even if there are alternatives available in the context, the focus particle *only* forces substitution of the variable by Sue. According to Rooth (1992) *only* quantifies over alternative assertions. Put differently, *only* prevents substitution by alternatives. The sentence in (7) is another example of the interpretation of *only*, the focal accent being on the accusative object, Bill. Consider again the situation: Mary introduces Bill and Tom to Sue.

(7) a. $[\![\text{Mary only introduces Bill}_F \text{ to Sue}]\!]^o =$
$\{[\![\text{Mary only introduces Bill to Sue}]\!]\}$

b. $[\![$Mary only introduces y to Sue$]\!]^f =$
$\{[\![$Mary only introduces Bill to Sue$]\!]\}$

Given the situation above, the association of *only* with Bill results in an assertion, which is false as a description of the situation. The sentence in (7) excludes the possibility of Mary introducing Tom to Sue. It's not true that Bill is the only person Mary introduces to Sue. Mary also introduces Tom to Sue. (7) serves to show, that *only* has a truth-conditional effect when associating with a focus constituent. While the assertion in (6) is true, the assertion in (7) is clearly false as a description of the situation. Rooth (1992) formalizes the behaviour of *only* by giving a predicate logic term. (8c) gives the predicate logic term of the sentence *Mary only introduces Bill to Sue*, (8b) gives the focus semantic value for (8a).

(8) a. Mary only introduces Bill_F to Sue
b. Mary only $[\![$ introduces y to Sue $]\!]^f$
c. $\forall P\ [\![P \in C \wedge P(\mathbf{m}) \rightarrow P = \{\ \lambda x\ [\ \text{introduce}(x, \mathbf{b}, \mathbf{s})\ ]\}]\!]$[2]

How to derive the predicate logic term in (8c)? First of all, the focus particle *only* in (8a) associates with Bill returning the meaning: the only person Mary introduces to Sue is Bill. The focus semantic value for this sentence contains the variable y instead of Bill. As mentioned above, *only* allows only Bill as a substitute for the variable. Now, we'll look at the formula in (8c). P stands for properties; C stands for domain of quantification; **m** stands for Mary; **b** for Bill and **s** for Sue. What's the semantics of *only* given the formula in (8c)? Rooth (1992) argues that *only* introduces a domain of quantification with exactly one value: the focus semantic value of the VP. As the focus semantic value depends on the placement of the focal accent, it follows, that 'The role of focus is to identify the set C serving as the domain of quantification' Rooth (1992, p. 4). In (8a) the domain of quantification contains the focus semantic value in (9a). Compare: If the focal accent were on Sue, the domain of quantification would contain the focus semantic value in (9b).

(9) a. $[\![\ [_{\text{VP}}$ introduces $[\text{Bill}]_F$ to Sue$]\ ]\!]^f =$
$\{\ \lambda x\ [\text{introduce}(x, y, \mathbf{s})]\ |\ y \in E\ \}$

[2]Boldface indicates that Bill and Sue are given by the context.

b. $[\![\ [_{\text{VP}}$ introduces Bill to [Sue]$_F]\ ]\!]^f =$
$\{\ \lambda$x [introduce(x, **b**, z)] | z $\in$ E $\}$

While in (9a) Bill is the focus constituent and substituted by y, Sue is the focus constituent in (9b) and substituted by z. The formula in (8c) considers all properties P ($\forall$P) and puts two constraints on them. Firstly, it delimits the properties to the property that is contained in the domain of quantification given in (9a). Secondly, it delimits the properties to the properties Mary has (P(**m**)). According to (8a) the only person Mary introduces to Sue is Bill. It follows that given the domain of quantification in (9a) and given the situation in (8a), the only property that meets all the requirements is Mary's property of introducing Bill to Sue. We'll now look again at the formula given by Rooth (1992) repeated here as (10).

(10) $\forall P\ [\![\ P \in C \wedge P(\mathbf{m}) \rightarrow P = \{\ \lambda x\ [\text{introduce}(x, \mathbf{b}, \mathbf{s})]\}]\!]$

In the predicate logic term in (10) both **b** for Bill and **s** for Sue are given. The variable y in the domain of quantification has been replaced by **b** for Bill, as the situation (or the domain of quantification, respectively) leaves no other alternative. Metaphorically speaking, *only* 'freezes' the focus constituent it associates with. Strictly speaking, it doesn't only quantify over the alternative assertions, but delimits the alternative assertions to zero. It follows, that in case of *only* the ordinary semantic value and the focus semantic value coincide.

To sum up so far, Rooth (1992) develops an account based on the idea of Alternative Semantics. It explains focus effects with the help of focus semantic values as opposed to ordinary semantic values. It's outside the scope of this paper to give all the different constraints, which according to Rooth (1992) trigger the focus semantic value in one or the other way.[3] I'll rather introduce one other focus effect that *nur* can have on the interpretation of the focus constituent it associates with.

1.3.2 Scalar Implicature introduced by nur

Above we've seen that *only* quantifies over alternative assertions. German *nur*, as I'll show below, cannot only introduce a quantificational implication like in (11a), but also a scalar implicature like in (11b).

[3]Rooth (1985) also gives very interesting insights into the semantics of *even* in English

(11) a. Maria stellt Sue nur Bill$_F$ vor
Mary introduces Sue only Bill PRT
intended 'The only person Mary introduces to Sue is Bill.'
b. Maria ist nur Teilzeit$_F$-Studentin
Mary is only part-time-student
intended 'Mary is only a part-time, not a full-time, student.'

As known from the examples above, *only* associates with Bill in (11a) and delimits the people Mary introduces to Sue to Bill and noone else is introduced. In turn, *nur* in (11b) does not quantify over alternative assertions. Instead *nur* introduces a scalar implicature resulting in the following interpretation: Mary is not a full-time student, but merely a part-time student. The assertion in (11b) implies a scale for hours put in for studying, according to which part-time students are ranked lower than full-time students. The focus particle *nur* implies two things: First, *nur* implies that the property of being a part-time student is ranked lower than the property of being a full-time student. Second, *nur* implies the negation of any higher property, here the property of being a full-time student. How can the scalar implicature be assessed in terms of Alternative Semantics?

Rooth (1992) describes scalar implicatures also as a contrast between the ordinary semantic value and the focus semantic value. However, he doesn't give examples with a focus particle. Instead, he gives the following example, in which the scalar implicature is introduced by the focal accent. Consider the following situation Rooth (1992, p. 8):

> My roommates Steve and Paul and I [Rooth] took a quiz in our self-paced calculus class, which was graded right away by the TA [teaching assistant]. Afterwards, George asked me how it went. My answer was: Well, I passed.

The sentences in (12) are both possible answers for George's question. Note, that the nature of the scalar implicature of the sentences in (12) varies according to the placement of the focal accent.

(12) a. Well, I [passed]$_F$
b. Well, [I]$_F$ passed.

The sentences in (12) have different meanings, as the focal accent is realized on different constituents. The answer in (12a) means: I did not better than passing (I did not ace). If the speaker had aced in the exam he would have

said so. In contrast, the answer in (12b) returns the interpretation: I passed, but the other roommates did not pass. Accordingly, if all roommates had passed the exam the speaker would have said so. The focal accent in (12a) is on the verb and implies a scale of alternatives for the verb *pass*. The focal accent in (12b), in turn, is on the subject and implies a scale, which ranks the speaker and the alternatives for the speaker (the roommates). Rooth (1992) suggests the following underlying scale for the answer in (12a).

(13) { ace(**r**), pass(**r**) }

This underlying scale contains an underlying ordering relation according to which passing is ranked lower than acing. Futhermore, acing implies passing. Someone, who aces in an exam, is assumed to pass the exam; but someone, who passes an exam, might have almost failed the exam and clearly didn't ace in the exam. It follows that the assertion *I* [*passed*]$_F$ negates the higher ranked alternative assertion *I aced*. What about the ordinary semantic value and the focus semantic value? I give the following semantic values for the answer in (12a).

(14) a. $[\![$ Well, I passed$_F$ $]\!]^o$ = { $[\![$ Well, I passed $]\!]$ }
b. $[\![$ Well, I x $]\!]^f$ = { $[\![$ Well, I passed $]\!]$, $[\![$ Well, I aced $]\!]$ }

The set of alternative assertions given in (14b) differs from the set of alternative assertions given in (5b) in that it's not a domain of quantification but a scale of alternative assertions. While in (5b) the alternative assertion *Mary introduces Tom to Sue* is also a description of the situation, the alternative assertion in the scale in (14b) is not a description of the situation. On the contrary, it describes the opposite situation. Nevertheless, according to Rooth (1992) both sets of alternative assertions ((5b) and (14b)) are underlying domains of quantification. In both cases, the variable in the focus semantic value is substituted by alternatives, which are given or implied by the context. Crucially, the alternatives cannot be of any type or meaning. They have to be of the same type as the focussed constituent and they have to be implied by the context. In both cases, the domain of quantification contains a range of contextually implied alternative assertions constraining the interpretation of the focussed constituent. Rooth's formalization of this constraint is the *Principle of Focus Interpretation*, which I'll introduce in the next section.

1.3.3 The Principle of Focus Interpretation

First of all, I'll explain why, according to Rooth (1992), the ordinary semantic value has to be a subset or an element of the focus semantic value. This constraint can be easily demonstrated by question/answer sequences like the one in (15).

(15) Q: Do you want tea or coffee?
A: I would like tea / I would like coffee.
$[\![\text{A}]\!]^f = [\![\text{ I would like y }]\!]^f =$
$\{ [\![\text{ I would like tea }]\!], [\![\text{ I would like coffee }]\!] \}$

The focus semantic value of the answer in (15) constrains the meaning of the question. In other words, the answer requires that the question is a subset of the focus semantic value of the answer: $[\![\text{Q}]\!]^o \subseteq [\![\text{A}]\!]^f$. It follows that the questioned position in the ordinary semantic value of the question has to be an element of the focus semantic value of the answer. In the question/answer sequence in (15) tea and coffee in the ordinary value of the question are felicitous substitutions for the variable y in the focus semantic value of the answer.

Now, we'll see that the domain of quantification introduced by the focus particle *only* and the underlying scale introduced by a focal accent both have to be subsets of the focus semantic value. Again, consider the situation *Mary introduces Bill to Sue* and the focus semantic value of expression α.

(16) Mary only $[\![\text{ introduces y to Sue }]\!]^f$
$\text{C} \subseteq [\![\alpha]\!]^f$

The domain of quantification C contains one member of the set of people, which Mary introduces to Sue. Put differently, the domain of quantification C has to be a subset of the focus semantic value, as it has to provide a referent of the same type as the variable y. If the domain of quantification were not a subset of the focus semantic value, the sentence would be false as a description of the situation. Now, consider again the sentence in (14) repeated here as (17).

(17) $[\![\text{ Well, I x }]\!]^f = \{ [\![\text{ Well, I passed }]\!], [\![\text{ Well, I aced }]\!] \}$

The possible alternatives for x have to be members of the scale of alternative assertions underlying the sentence *Well, I passed*$_F$.

To sum up, both, the domain of quantification introduced by *only* and the scalar implicature introduced by the focal accent, require that a semantic object is a subset of the focus semantic value. Crucially, the members of the subset have to have the same semantic type as the focus constituent. This is opposed to question/answer sequences, which require that some semantic object is an element of the focus semantic value. Rooth (1992, p. 11) gives the following principle, which covers all constraints on the interpretation of focus.

(18) Principle of Focus Interpretation
In interpreting focus at the level of a phrase α, add a constraint that:
(contrasting set) $\Gamma \subseteq [\![\alpha]\!]^f$,
(contrasting individual) $\gamma \subseteq [\![\alpha]\!]^f$
Γ is a variable with the type of a set of objects matching α in type, and γ is a variable matching α in type.

According to Rooth's *Principle of Focus Interpretation* the interpretation of focus operates on the difference between the ordinary semantic value and the focus semantic value. In a question/answer sequence a constraint requires that $[\![\text{Q}]\!]^o$ is a contrasting individual of $[\![\text{A}]\!]^f$. Rooth (1992) formalizes this constraint as $\gamma \subseteq [\![\alpha]\!]^f$ requiring that some semantic object is an element of the focus semantic value. In case of *only* a constraint requires that some semantic object (an underlying set C) is a contrasting subset of $[\![\alpha]\!]^f$. Rooth (1992) formalizes this constraint as $\Gamma \subseteq [\![\alpha]\!]^f$. This contrasting subset is either a domain of quantification introduced by *only* or, as I argue, a scalar implicature introduced by *only*.

In the remainder of this paper, I'll focus on the German focus particle *nur*. As already mentioned at the beginning of the introduction, focus in German is realized via accent as well as via linear word order. Following Wagner and Jaeger (2003) I'll look at the distribution and interpretation of *nur* in sentences in section 2. Section 3 gives Wagner's generalizations on the behaviour of *nur* in sentences showing that association with focus interacts with linear word order. Sections 4 and 5 look at the distribution and interpretation of *nur* in DPs. While section 4 surveys the distribution of *nur* in DPs, section 5 attempts to explain the interpretation of *nur* in DPs applying Rooth's theory. Finally, I'll give some generalizations about the interpretation of *nur* within DPs as opposed to sentences as my conclusions in section 6.

2 The Behaviour of *nur* 'only' in Clauses

As mentioned above association with focus in German is generally speaking—realized via linear word order Wagner and Jaeger (2003). Although intonation plays a crucial role in determining which item is in focus, association with focus is much constrained by constituent order. In this section the behaviour of the German focus particle *nur* in clauses will be described in general terms. Where enlightening, we'll look at the corresponding English sentences. Section 3 attempts to explain some of *nur*'s behaviour by introducing the generalizations revealed in Wagner and Jaeger (2003). In general, *nur* precedes the focus constituent it associates with. Consider the following example.

(19) Peter gab nur [Maria]$_F$ ein Buch
Peter gives only Mary a book
'The only person Peter gives a book to is Mary.'

In (19) *nur* associates with Maria resulting in the reading: the only person Peter gives a book to is Mary. In order for *nur* to associate with Maria, *nur* has to precede Maria. The word order does not allow association with *ein Buch* 'a book' as (i) *nur* does not immediately precede it and (ii) *ein Buch* 'a book' does not bear a focal accent.

Which focus options result from this behaviour of *nur*? As we've seen in the introduction the position of focus in an answer correlates with the questioned position in the *wh*-question. The question/answer sequences in this section exemplify that the scope of the focus (the focussed constituents) correlates with the information asked for by the question. Put differently, the focus in an answer gives the information requested by the question. According to the number and type of constituents included in the focus, Wagner and Jaeger (2003) distinguish four focus options for German. A convenient way to think about the different focus options is in terms of question/answer sequences. Consider the following situation taken from Wagner and Jaeger (2003, p. 3):

> Why did Peter put Mary's bike upside-down? I think that Peter only wanted to play a prank on Mary. I doubt he wanted to annoy her.

We'll now look at four questions asking for the reason for Peter's behaviour. Depending on the speaker's knowledge about the situation, he asks different

kinds of questions requiring different kinds of answers. First, we'll look at the four different kinds of questions (20a)−(20d). The question in (20a) below asked by a speaker who doesn't know that it's Peter who put the bike upside down and doesn't know that it's Mary's bike that was put upside-down requires an answer with the widest focus, the sentence-wide focus reading. The question of a speaker who knows that it's Peter who put someone's bike upside-down, but doesn't know that it's Mary's bike, will get an answer with a broad focus reading (20b). The question in (20c) is asked by a speaker who knows that Peter put Mary's bike upside-down but doesn't know why it's Mary's bike and not some else's bike (The NP *Mary* has to be stressed). This question leads to a verb-direct object focus reading. The only thing the speaker asking the question in (20d) doesn't know is the reason why Peter put Mary's bike upside down. In this case the appropriate answer has a verb-focus reading. The corresponding focus options for the answers are:

> sentence wide focus > broad focus > verb-direct-object focus (V-DO focus) > verb-focus (V-focus)

(20)
a. Why is the bike upside-down?
(leading to a sentence-wide focus reading in the answer)
b. Why did Peter put one of the bikes upside down?
(leading to a broad-focus reading in the answer)
c. Why did Peter put Mary's bike upside-down?
(leading to a V-DO focus reading in the answer)
d. Why did Peter put Mary's bike upside-down?
(leading to a V-focus reading in the answer)

(21) gives the answers for the questions in (20). The answers in (21a)−(21d) illustrate how the different focus options are realized in German embedded sentences.

2.1 The Behaviour of *nur* 'only' in Embedded Clauses

In all the answers the focus constituents associate with the focus particle *nur*. In all cases except (21c) the focus particle *nur* marks the left border of the focus. In other words, *nur* precedes the focus of the embedded sentence.

(21) I think ...

a. ...dass nur [irgendwer irgendwem einen Streich spielen
...that only someone someone-DAT a prank play
wollte]$_F$
wanted
'... that someone only wanted to play a prank on someone.'

b. ...dass Peter nur [irgendwem einen Streich spielen
...that Peter only someone-DAT a prank play
wollte]$_F$
wanted
'...that Peter only wanted to play a prank on someone.'

c. ...dass Peter [Maria] nur [einen Streich spielen wollte]$_F$
...that Peter Mary only a prank play wanted
'...that Peter only wanted to play a prank on Mary.'

d. ...dass Peter Maria nur [einen Streich spielen wollte]$_F$
...that Peter Mary only a prank play wanted
'...that Peter only wanted to play a prank on Mary.'

The focus options in (21) demonstrate that the narrower the focus, the more right the focus particle *nur* occurs. What about the placement of *nur* in (21c)? In this case *nur* precedes just part of the focus. The expected word order for a V-DO focus reading is the one in (22a) with *nur* preceding the whole VP.

(22) I think ...

a. ...*dass Peter nur [Maria einen Streich spielen wollte]$_F$
...that Peter only Mary a prank play wanted
'...that Peter only wanted to play a prank on Mary.'

b. ...dass Peter nur [Maria]$_F$ einen Streich spielen wollte
...that Peter only Mary a prank play wanted
'...that Peter wanted to play a prank only on Mary.'

Instead, the resulting focus reading is the one in (22b), in which *nur* only associates with Maria. The resulting meaning is: It's only Mary Peter plays a prank on. Wagner and Jaeger (2003) give some more examples for this linear order of the focus particle *nur* and the focus constituent. The same behaviour of *nur* occurs with pronouns as in (23).

(23) a. *Peter hat nur [sich die Finger gewaschen]$_F$, anstatt
Peter has only himself the fingers washed instead-of
ein Bad zu nehmen
a bath to take
'Peter only washed his fingers instead of taking a bath.'

b. Peter hat nur [sich]$_F$ die Finger gewaschen, anstatt
Peter has only himself the fingers washed instead-of
ein Bad zu nehmen
a bath to take
'Peter washed only himself the fingers instead of taking a bath.'

c. Peter hat [sich] nur [die Finger gewaschen]$_F$, anstatt
Peter has himself only the fingers washed instead-of
ein Bad zu nehmen
a bath to take
'Peter only washed his fingers instead of taking a bath.'

The expected word order is the one in (23a) with *nur* preceding the focus. However, this linear order doesn't yield a V-DO focus. *Nur* only associates with the pronoun *sich* 'himself' returning the meaning: Peter only washed his fingers but not somebody else's fingers. Only the linear order in (23c), in which *nur* follows the pronoun, yields a V-DO focus. It follows that in order to realize a focus on the verb as well as on the object (DP/pronoun) the focus particle *nur* has to follow the object. If *nur* preceded the object, it would only associate with the object.

Are there more exceptions to the patterns in (20)? Wagner and Jaeger (2003) come up with a variety of exceptions, which I'll introduce briefly. The first exception regards the sentence-wide focus. Above, we've seen that a sentence-wide focus is realized by placing *nur* immediately after the conjunction. The same linear word order applied to the sentence in (24a) surprisingly doesn't allow a sentence-wide focus.

(24) I think ...

a. ...*dass nur [Peter irgendwem einen Streich spielen
...that only Peter someone-DAT a prank play
wollte]$_F$
wanted
'...that Peter only wanted to play a prank on someone.'

b. ...dass nur [Peter]$_F$ irgendwem einen Streich spielen
...that only Peter someone-DAT a prank play
wollte
wanted
'...that only Peter wanted to play a prank on someone.'

c. ...dass Peter nur [irgendwem einen Streich spielen
...that Peter only someone-DAT a prank play
wollte]$_F$
wanted
'...that Peter only wanted to play a prank on someone.'

The placement of *nur* in front of Peter (24a) results in association with only Peter (24b). The widest possible focus reading for the sentence in (24) is the broad focus reading in (24c). The resulting meaning is: Peter only wanted to play prank on someone and nothing else.

What about the linear order of *nur* and compound verb forms? The second exception observed by Wagner and Jaeger (2003) affects the linear order of *nur* and the focus constituents inside the verbal complex. Assuming that *nur* has to precede its focus, *nur* is expected to precede a focussed verb. As the sentence in (25) illustrates that's not the case.

(25) Peter hat nur kommen (*nur) [wollen]$_F$
Peter has only come (*only) wanted
'Peter only wanted to come, but he didn't make it.'

(25) shows that *nur* has to precede the verbal complex. Even if *nur* semantically associates with the second verb of the verbal complex, *nur* cannot occur within the verbal complex. Wagner and Jaeger (2003) convincingly show that all constituents in a verbal complex, which cannot undergo scrambling, prevent *nur* from immediately preceding the focussed verb. The question/answer sequence in (26) illustrates that for instance goal PPs cannot undergo scrambling. The sentence in (26) is a possible answer for the question: Why don't you carry the motorbike into the garage?

(26) weil man das Motorrad nur in die Garage (*nur) [fahren]$_F$
because one the motorbike only in the garage (*only) drive
kann
can
intended 'The only way to move the motorbike into the garage is to

drive it into the garage. It's not possible to carry it into the garage.'

In (26) the verb *fahren* 'drive' semantically associates with *nur*. However, *nur* cannot immediately precede the verb *fahren* 'drive' because the verbal complex also contains the goal PP *in die Garage* 'into the garage'. The goal PP cannot scramble 'out of the way' and forces *nur* to precede the verbal complex. Other examples of constituents within a verbal complex, that cannot scramble, are adjectival complements (27a) and resultatives (27b). It applies the same reasoning as for the goal PP in (26).

(27) a. weil man sich nur [traurig fühlt]$_F$
because one oneself only sad feels
intended 'because one only feels sad but isn't sad at all.'

b. weil ich sie nur in den Schlaf [singen]$_F$ würde
because I her only in the sleep sing would
intended 'because I would only sing her in the sleep, I would never talk her in the sleep.'

We've seen that in embedded sentences the focussed constituent is preceded by *nur*. In some cases, *nur* cannot immediately precede the focus constituent for reasons independent of association with focus. In these cases the sentence-wide focus is not an option. Moreover, we looked at constituents within the verbal complex that block the immediate precedence of *nur* as they cannot scramble 'out of the way'. All we looked at so far, refers to the behaviour of *nur* in embedded sentences. In the next section I contrast, following Wagner and Jaeger (2003), what we've said so far about the behaviour of *nur* in embedded sentences with its behaviour in matrix clauses.

2.2 The Behaviour of *nur* 'only' in Matrix Clauses

In matrix clauses association with focus seems to work differently. Firstly, I'll contrast the linear word orders. In an intransitive embedded sentence as in (28a) *nur* precedes the verb in sentence-final position. In (28b), the corresponding matrix clause, *nur* follows the verb.

(28) Why is Peter disappointed?

a. ... weil der Korken nur [zischte]$_F$
... because the cork only fizzed

intended 'The cork just fizzed ... It didn't pop.'

b. Der Korken [zischte]$_F$ nur
the cork fizzed only
intended 'The cork just fizzed ... It didn't pop.'

What about the linear order of *nur* and the focus in transitive matrix clauses? Accordingly, *nur* also follows the verb in transitive and ditransitive matrix clauses. In the transitive sentence in (29a) *nur* (following the verb) associates with the verb as well as with the object. In the ditransitive sentence in (29b) *nur* follows the auxiliary and associates with the verb and both objects.

(29) a. Peter [schwamm] nur [ein paar Mal im Meer]$_F$
Peter swam only a few times in ocean
intended 'The only exciting thing Peter did (e.g., *over the summer*) was to swim a few times in the sea.'

b. Peter [hat] nur [Maria ein Buch geliehen]$_F$
Peter has only Mary a book lent
intended: 'The only thing Peter did was lend a book to Mary.'

What about *nur* in sentence initial position? Wagner and Jaeger (2003, pp. 18−21) distinguish two functions of *nur* in sentence initial position. Firstly, it associates with the subject as in (30a). Secondly, it associates with none of the constituents in the sentence like in (30b). The latter has a discourse related meaning—a behaviour of *nur* that will be explained in the next section.

(30) a. Nur [in Sibirien]$_F$ schneit es
only in Siberia snows it
intended 'It only snows in Siberia and nowhere else.'

b. Schön und gut, dass du dorthin willst. Nur schneit es in
Nice and good, that you there want. Only snows it in
Sibirien
Siberia
intended: 'Fair enough that you want to go to Siberia. The only thing is, it snows in Siberia.'

So far, following Wagner and Jaeger (2003), we've seen that the linear order of *nur* and its focus is reversed in matrix clauses. In transitive and ditransitive matrix clauses *nur* follows the verb instead of preceding it. Surprisingly, *nur*

in sentence initial position doesn't associate with any of the constituents. The next section introduces the generalizations Wagner and Jaeger (2003) reveal about the behaviour of *nur* in sentences.

3 Explanation of the Behaviour of *nur* 'only' in Sentences

We've seen in the previous section that, on the one hand, association with focus in German is realized via linear word order. On the other hand, there are reasons independent of linear word order that override the linear word order. How can the observations on the behaviour of *nur* in sentences be accounted for? Wagner and Jaeger (2003) suggest five generalizations on the behaviour of focus particles in sentences. Their paper '(...) is not so much intended to deliver a theoretical explanation of the observed facts but rather aims at a structured overview' Wagner and Jaeger (2003, p. 2). However, they convincingly show the importance of linear word order for association with focus. They account for the combined effect of linear word order, information status and intonation on association with focus. Wagner's generalizations are based on the focus options introduced in the previous section. Recall, that the placement of the focus particle *nur* correlates with different focus options. The more left *nur* occurs the wider the focus: sentence-wide focus > broad focus > V-DO focus > V-focus. While *nur* occurs right after the conjunction in an embedded sentence with a sentence-wide focus, *nur* precedes the verb in sentence-final position in an embedded sentence with V-focus. Based on the sentences with sentence-wide focus reading Wagner and Jaeger (2003) suggest precedence as a generalization on the placement of focus particles. The following generalizations are true for embedded sentences as well as for matrix clauses. Consider the example in (31a); (31b) gives Wagner's *Generalization 1*: precedence.

(31) a. weil Peter Maria nur [ein Buch]$_F$ gibt
because Peter Mary only a book gives
intended 'Peter gives Mary only a book and nothing else.'

b. *Generalization 1*: precedence
A focus-sensitive adverb has to precede its focus.

Generalization 1 accounts for the fact that the focus domain of a focus particle is on the right of the focus particle. For *nur* to associate with *ein Buch* 'a book' it has to precede it. Note that *Generalization 1* clearly does not

mean that the verb in (31a) is part of the focus. The precedence has to be immediate.

How to capture the fact that there are exceptions to precedence as we've seen in the previous section? *Generalization 2*, adjacency, touches on immediate precedence. Wagner and Jaeger (2003) illustrate adjacency by means of a sentence with broad-focus reading as in (32a). *Generalization 2* is given in (32b).

(32) Why did Peter put someone's bike upside down?

a. (Ich glaube,) dass (*nur) Peter nur [irgendwem einen
(I think) that (*only) Peter only someone-GEN a
Streich spielen wollte]$_F$
prank play wanted
'The only thing Peter wanted to do is to play a prank on someone.'

b. *Generalization 2*: adjacency
A focus-sensitive operator and its focus cannot be separated by a constituent that is not part of the focus.

The speaker, who asks the question in (32a), knows that Peter is the one who put the bike upside down. As the NP *Peter* is not part of the focus, it has to occur outside the focus domain of *nur*. Otherwise it has to associate with *nur* preventing a broad focus reading. In order to allow a broad focus reading, *Peter* has to scramble towards the beginning of the sentence. The question, why Peter has to scramble, will be addressed later in this section. As we've seen in the previous section, not all constituents are able to scramble 'out of the way'. In these cases *nur* has to occur separate from its focus domain. What's overruling adjacency in these cases? As mentioned before, constituents that cannot undergo scrambling are goal PPs, adjectival complements as well as resultatives. I'll repeat the examples from the previous section in (33).

(33) Q: Why don't you carry the motorbike into the garage?

a. A: Weil man das Motorrad nur in die Garage (*nur)
because one the motorbike only in the garage (*only)
[fahren]$_F$ kann
drive can
intended 'The only way to move the motorbike into the garage

is to drive it into the garage. It's not possible to carry it into the garage.'

b. Weil man sich nur traurig (*nur) [fühlt]$_F$
because one oneself only sad (*only) feels
intended 'Because one only feels sad but isn't sad at all.'

c. Weil ich sie nur in den Schlaf (*nur) [singen]$_F$ würde
because I her only in the sleep (*only) sing would
intended 'Because I would only sing her to sleep, I would never talk her to sleep.'

In all sentences in (33) *nur* is not adjacent to its focus, the verb. The ungrammatical placement of *nur* inside the verbal complex is marked with an asterisk. In (33a) *in die Garage* 'in the garage', in (33b) *traurig* 'sad' and in (33c) *in den Schlaf* 'in the sleep' separate *nur* from the focussed verb. It seems that they cannot scramble from this position towards the beginning of the sentence, as they 'are stuck' in the verbal complex. This placement of *nur* seems to be due to the attachment site of *nur*. Wagner and Jaeger (2003), referring to Büring and Hartmann (2001), argue that *nur* cannot attach to the verb but only to the verb phrase. They generalize over the attachment site of *nur* by suggesting *Generalization 3* in (34).

(34) *Generalization 3*: Focus sensitive operators only attach to maximal verbal projections.

Firstly, it follows that '(. . .) *nur* can attach to any projection of VP, but not to subconstituent verbal heads V^0 or subconstituents of V' (. . .)' Wagner and Jaeger (2003, p. 11). Secondly, it follows that *nur* cannot attach to DPs or CPs. The only possible attachment site for *nur* is the maximal verbal projection.

A question, which hasn't been addressed so far, is why Peter in (32) (repeated here as (35a)) cannot be part of the focus and has to scramble towards the beginning of the sentence. In a sentence with a broad focus reading as in (35a) Peter cannot be preceded by *nur*. The example in (35b) follows the same pattern.

(35) a. dass (*nur) Peter nur [irgendwem einen Streich spielen
that (*only) Peter only someone-DAT a prank play
wollte]$_F$
wanted

intended: 'The only thing Peter wanted to do is to play a prank on someone.'

b. Peter$_i$ hat (*nur) [ihn] nur [nach Hause gefahren]$_F$, (er$_i$
Peter has (*only) him only to home driven , (he
ist nicht abgereist)
has not left)
intended: 'Peter only drove him home. The reason why he was leaving was that drove him home and not that he was leaving town.'

Before we'll look at the sentence in (35a), I'll state Wagner's observation on German sentences like in (35b). Their explanation goes, that information structural status of DPs and pronouns triggers linear order. The use of the pronoun *ihn* 'him' in (35b) signals that the speaker and the hearer know the person *ihn* 'him' refers to. Wagner and Jaeger (2003) therefore argue that the pronoun *ihn* 'him' in (35b) is given information. Together with the verb and the goal PP the pronoun *ihn* 'him' forms the focus of the sentence. Crucially, the only felicitous placement of *nur* in (35b) is following *ihn* 'him', although *ihn* 'him' is part of the focus. Wagner and Jaeger (2003) observe that personal pronouns as well as reflexive pronouns (like *sich* 'himself') and reciprocal pronouns (like *einander* 'each other') have to precede the focus particle if they are part of the focus and are given information. This is surprising, as we've seen before that only constituents that do not form part of the focus have to scramble out of the focus domain. The sentence in (35a) is an example for this. The NP *Peter* has to move to the left of *nur* as it's not part of the focus. Wagner and Jaeger (2003, p. 13) capture this behaviour of *nur* by giving *Generalization 4*.

(36) *Generalization 4*: DPs in the focus domain of focus-sensitive operator can precede the operator if they are given.

Generalization 4 accounts for the linear word order in (35b). As the pronoun *ihn* 'him' is given information it can precede *nur*. Are there cases, in which they may precede but don't have to? Consider the following example Wagner and Jaeger (2003, p. 13), a possible answer to the question: Why is Peter's mother upset with Mary? Anything serious?

(37) A: Peter hat (nur) [Maria] (nur) [ein Buch vorgelesen]$_F$,
Peter has (only) Mary (only) a book read
anstatt für seine Prüfung zu lernen
instead-of for his exam to study
intended 'Peter has only gone and read a book to Mary instead of studying for his exam.'

In the answer in (37) the NP *Maria* is part of the focus and is given information. In contrast to the sentence in (35b) the answer in (37) is felicitous with *nur* preceding or following the NP *Maria*. *Generalization 4* accounts for cases as in (37): DPs in the focus domain of focus-sensitive operator may but don't have to precede the operator if they are given.

Nevertheless, what about the behaviour of *nur* in cases like the sentence in (35a)? The NP *Peter* is not part of the focus but given information and has to precede the focus particle *nur*? According to *Generalization 4* only DPs that are in the focus domain can precede the focus particle. I argue that cases like (35a) are not accounted for by Wagner's generalizations. It seems that given DPs may precede the focus particle *nur* independent of whether they form part of the focus or not. I claim that there's a general rule about the linear order of the focus particle and given information: Given information has to move out of the focus domain of the focus particle.

4 The Behaviour of *nur* 'only' within DPs

First of all, the distribution of *nur* within DPs is very restricted allowing *nur* 'only' to appear in only one position. What we've said implicitly about *nur* and DPs in sentences so far is that *nur* may precede DPs (e.g., *dass Peter nur* [*Maria*]$_F$ *einen Streich spielen wollte* 'that Peter only wanted to play a prank on Mary'; *Nur* [*Peter*]$_F$ *schnarcht.* 'Only Peter snores.') and that *nur* may follow given DPs (e.g., *Peter$_i$ hat* [*Maria*] *nur* [*nach Hause gefahren*]$_F$. *Er$_i$ hat die Stadt noch nicht verlassen.* 'Peter$_i$ only drove him home, he$_i$ didn't leave town yet').

What about association of *nur* with the focus constituent within DPs? Wagner and Jaeger (2003) give examples for restrictions on *nur* within DPs. In DPs, in which *nur* 'only' associates with a DP-internal DP like in (38a) or (38b) or with a non-scalar adjective like in (38c), the sentence turns out

ungrammatical.[4]

(38) a. *Peter und nur [Maria]$_F$ treffen sich
Peter and only Mary meet each-other
'Peter and only Mary meet.'

b. *der Bruder nur [des Grafen]$_F$ kommt zum Tee
the brother only the-GEN count-GEN comes to-the tea
'The brother of only the count comes for tea.'

c. *der nur gelbe Wagen hat einen Platten
the only yellow car has a flat-tyre
intended 'The car which is only yellow (and contains no other colour).'

Nevertheless, Wagner and Jaeger (2003, p. 11) show that *nur* 'only' can appear within DPs when preceding a scalar adjective like in (39). Wagner and Jaeger (2003) distinguish between two kinds of *nur* 'only': the non-scalar *nur* like in (38c) that cannot associate with a non-scalar adjective and the scalar-*nur* like in (39) that does associate with scalar adjectives like *gut* 'good'.

(39) a. Der nur [gute]$_F$ Wein kostet fünf Euro
the just good wine costs five Euros
intended 'The wine which is only good (and not amazing).'

b. Der nur [drei Jahre alte]$_F$ Wein schmeckt mir nicht
the only three years old wine taste me not
intended 'The wine which is only three years old (and not amazing) doesn't taste good to me.'

In the remainder of this paper, we'll look at DPs allowing *nur* to precede the DP-internal adjective. At this point of the paper it seems appropriate to

[4]Note, that it's possible to think of a context like in (i) below, in which the realization of *nur* within a DP seems to be acceptable.

(i) A: Nein, Peter und nur [Maria]$_F$ kommen zur Party
No, Peter and only Mary come to-the party
'No, Peter and only Mary are coming to the party.'

However, it seems that in the answer in (i) it's not the NP *Maria* but the focus particle *nur* that is focus marked. The corresponding question could be: Is Peter bringing Mary and Sophie to the party?

embark on a different strategy. Some new data will be developed in order to show that the German focus particle *nur* can have different meanings. On the one hand, there seems to be only one possible placement of *nur* within DPs, the position preceding the DP-internal adjective. On the other hand, *nur* seems to be able to fulfil different functions when preceding an adjective within DPs. In order to reveal generalizations about the behaviour of *nur* within DPs, I'll list semantic and pragmatic functions of *nur* modifying scalar adjectives. Note importantly, that the following interpretations of *nur* don't translate into English *only*. The intended meaning will be specified in each case. Firstly, *nur* can modify scalar adjectives as in (40)−(42).

(40) Das nur [hübsche]$_F$ Mädchen ist nicht schön
the only pretty girl is not beautiful
intended 'The merely pretty girl is not beautiful.'

(41) Das nur [lähmende]$_F$ Gift ist nicht tödlich
the only paralyzing poison is not deadly
intended 'The merely paralyzing poison is not deadly.'

(42) Die nur [bequeme]$_F$ Hose ist nicht schick
the only comfortable trouser is not chic
intended 'The merely comfortable trousers are not dressy.'

In these cases *nur* can be replaced by *lediglich* 'merely'. I call the *nur* that can be replaced with *merely* 'merely'-nur. Clearly, 'merely'-nur cannot be used with typically non-scalar adjectives, like *tödlich* 'deadly' in **das nur tödliche Gift* 'the only deadly poison' or like *schwanger* 'pregnant' in **die nur schwangere Frau* 'the only pregnant woman'. Secondly, *nur* can combine with scalar adjectives yielding a 'mainly'-interpretation like in (43). This interpretation is more difficult to get. A DP containing *nur* with a mainly interpretation could be uttered in the following situation: Mary wants to buy a car, which is safe and well equipped. Therefore, she's bent on spending more money if necessary. She visits a car dealer and spots a poorly equipped and expensive car. She says to Peter:

(43) Das nur [teure]$_F$ Auto überzeugt mich nicht
the only expensive car convinces me not
intended: 'The mainly expensive car doesn't convince me.'

In this case *nur* could be replaced by *hauptsächlich* 'mainly', clarifying that

the main feature of the mentioned car is to be expensive. This kind of *nur* will be referred to as 'mainly'-nur. Thirdly, *nur* can have a temporal meaning. Given the following situation: During the last few weeks, Mary was ill four times. Her colleague who has to take over all her duties says:

(44) Die nur [kranke]$_F$ Kollegin ist schon wieder nicht da
The only ill colleague is yet again not here
intended: 'The repeatedly ill colleague is absent again.'

In (44) *nur* could be replaced by *ständig* 'repeatedly' giving the third kind of *nur*: 'repeatedly'-nur. So far, three different kinds of *nur* have been introduced: (i) 'merely'-nur, (ii) 'mainly'-nur and (iii) 'repeatedly'-nur. Contrasting the behaviour of German *nur* in sentences with the behaviour of German *nur* within DPs it can be generalized that the placement as well as the interpretation of *nur* differ considerably and have to be described separately.

5 Explanation of the Behaviour of *nur* 'only' within DPs

Wagner and Jaeger (2003) draw attention to the fact that in sentences like (45) *nur* seems to form a constituent together with the following noun phrase. This goes back to the assumption that all elements preceding the verb in first position form a constituent. However, referring to Jacobs (1983) and Büring and Hartmann (2001) or *Generalization 3* above they point out that *nur* doesn't attach to DPs but to maximal verbal projections. Consequently, (45) is not an example of *nur* within a DP.

(45) Nur [Peter]$_F$ schnarcht
Only Peter snores
'Only Peter snores.'

Nevertheless, Wagner and Jaeger (2003) don't discuss the distribution of *nur* within DPs. In the remainder of this section I attempt to explain the different interpretations of *nur* within DPs based on Rooth's *Principle of Focus Interpretation*. As described in the introduction Rooth (1992) assumes that *nur* in sentences triggers a pragmatic process, which consists in the construction of a quantificational domain. Semantically speaking, focus has a truth conditional effect in the context of *nur* like in (46). Given a situation in which Mary introduces Bill and Tom to Sue, (46a) is true whereas (46b)

is false as a description of the situation Rooth (1992, pp. 3−4). In (46b) the focus particle *only* associates with the focus constituent Bill. As *only* allows no alternative for the constituent it associates with, the sentence turns out false as a description of the situation.

(46) a. Mary introduces Bill to Sue
b. Mary only introduces [Bill]$_F$ to Sue

What's the interpretation of *nur* within a DP? Does it also have a truth conditional effect within DPs? The examples in (47) show that *nur* doesn't have a truth conditional effect within DPs. Placing *nur* inside the DP *den guten Wein* 'the good wine' doesn't affect truth conditions. (47a) and (47b) are true as descriptions of the following situation: Mary buys wine.

(47) a. Mary kauft den guten Wein
Mary buys the good wine
'Mary buys the good wine.'
b. Mary kauft den nur guten Wein
Mary buys the-ACC only good wine
'Mary buys the merely good wine.'

The next question to ask is whether the interpretation of *nur* differs too. I claim that *nur* introduces a quantificational implication in sentences while involving a scalar implicature within DPs. In order to approach this claim, we'll look at the following four DP structures:

(i) [$_{\text{DP}}$ det nur numeral NP]
(ii) [$_{\text{DP}}$ det 'merely'-nur scalar adjective NP]
(iii) [$_{\text{DP}}$ det 'mainly'-nur scalar adjective NP]
(iv) [$_{\text{DP}}$ det 'repeatedly'-nur scalar adjective NP]

Before we look at the structure in (i) we'll consider the structure *nur* [$_{\text{DP}}$ *det numeral NP*] in which *nur* precedes with the DP. In the sentence in (48a) *nur* quantifies over the DP *die zehn Weine* 'the ten wines'. The resulting meaning is: Mary buys no more than ten wines. (48a) presupposes that Mary buys exactly ten wines and that in this situation there are alternatives for the numeral. Now consider the structure in (i) [$_{\text{DP}}$ det nur numeral NP]. Placing *nur* inside the DP in the sentence in (48a) forces association of *nur* with the numeral and makes the sentence ungrammatical (48b). We see that *nur* behaves differently when occurring within the DP vs. preceding a DP.

However, if the numeral modifies an adjective, *nur* can occur within the DP and associates with the adjective (49).

(48) a. Maria kauft nur [die zehn Weine]$_F$
Mary buys only the ten wines
'Mary only buys the ten wines.'
b. *Maria kauft die nur zehn Weine
Mary buys the only ten wines
'Mary buys the only ten wines.'

(49) Maria kauft den nur zehn Jahre alten Wein
Mary buys the only ten years old wine
'Mary buys the only ten years old wine.'

The expected interpretation would be: Mary buys no other wine than ten years old wine. Surprisingly, this isn't the case. The sentence in (49) is ambiguous between the following two interpretations: (i) fortunately, the wine is no more than ten years old or (ii) unfortunately, the wine has no more than ten years. The sentences in (50a) and (50b) give the two different readings. The example in (50a) results in the meaning in (i); the example in (50b) results in the meaning in (ii).

(50) a. Die nur zehn Jahre alten Weine sind nicht reif genug
the only ten years old wines are not mature enough
'The only ten years old wines aren't sufficiently mature.'
b. Die nur zehn Jahre alten Weine sind schon ausverkauft
the only ten years old wines are already sold-out
'The only ten years old wines are already sold out.'

The DP *die nur zehn Jahre alten Weine* 'the only ten years old wines' has two different meanings. The DP in (50a) means: it's unfortunate that the wines aren't old enough. There is an underlying presupposition relating old age to goodness. On a scale for goodness of wine, the wine in the situation in (50a) has a low degree of goodness. The DP in (50b) *die nur zehn Jahre alten Weine* means: it's fortunate that the wines aren't older than ten years. In this case there's an underlying presupposition relating young age to goodness. On that scale for goodness of wine, the wine in the situation in (50b) has a high degree of goodness. It follows, that *nur* associates with the adjective and is interpreted subject to an underlying scale introduced by *nur*. Even if the adjective is modified by a numeral, *nur* associates with the adjective. We can

now generalize, that the interpretation of *nur* involves a scalar implicature when associating with an adjective. The respective underlying scale has to be constructed pragmatically according to the context.

A review of the English translation reinforces the claim. The DP *die nur zehn Jahre alten Weine* translates either (a) the just ten year old wine or (b) the only ten year old wine and results in different meanings. The focus particle *just* in (a) means that it's not suitable that the wine is ten years old. Accordingly, the DP *der nur gute Wein* translates into 'the just good wine' resulting in the meaning: the just good but not amazing wine. The focus particle *only* in (b) means that there is just one wine, which is ten years old. The translation of the DP *the only good wine* into German would be *der einzig gute Wein*, clearly forcing a quantificational interpretation. In other words, *der nur gute Wein* cannot be interpreted quantificationally. While *just* is used as a focus particle introducing a scalar interpretation, *only* is used as a quantifier triggering a quantificational interpretation. In German the focus particle *nur*, in turn, can trigger either a scalar interpretation in DPs or a quantificational interpretation in sentences. The quantificational interpretation within DPs is not available in German.

Rooth's claim about the scale underlying the sentence *Well, I* $[passed]_F$ discussed in the introduction has some explanatory power here. Recall from the introduction that focus introduces an underlying partially ordered set C {ace(**m**), pass(**m**)}, in which acing is ranked higher than passing and acing implies passing. Crucially, the underlying set C has to be derived contextually. Applied to the DPs above, the underlying scale could be 30 years (wine) > 20 years (wine) >10 years (wine), etc. for the DP in (50a) and 2 years (wine) > 7 years (wine) > 12 years (wine), *etc.* for the DP in (50b). While the underlying scale for (50a) ranks 30 years first, the underlying scale for (50b) ranks 2 years first.

What about *nur* in the context of adjectives in the structure in (ii)−(iv)? I assume that *nur* modifying scalar adjectives comes in three different flavours. We'll see that *nur* in (51) introduces a scalar implicature, whereby every type of *nur* introduces a different type of scalar implicature. First, *nur* meaning *merely* will be surveyed. Examples (42), (43) and (44) are repeated below as (51), (52) and (53).

(51) a. Der nur gute Wein ist kein hervorragender Wein
the only good wine is no excellent wine
'The merely good wine is not an excellent wine.'

b. Der nur gute Wein ist vergleichsweise schlecht
the only good wine is comparatively bad
'The merely good wine is comparatively bad.'

In (51) *nur* 'merely' introduces a scalar (conventional) implicature about the goodness of the wine. The DP in (51) *der nur gute Wein* 'the only good wine' can have two different presuppositions: As exemplified in (51a), it can presuppose that the wine is good, but not excellent. The interpretation is based on the scale of the scalar adjective *gut* 'good'. As exemplified in (51b), the DP can alternatively presuppose that there's another wine which is of higher quality. The latter case is especially interesting here. It follows from the interpretation in (51b) that *nur* specifies a certain degree of goodness. I define the following underlying partially ordered scale:

{ outstandingly (good) > acceptably (good) > after all (good) > merely (good) }

Crucially, it's the focus particle that introduces the scalar implicature, not the scalar adjective. Note, that *nur* 'merely' cannot modify adjectives which are interpreted at the very top of the adjectival scale { sehr gut 'very good' > gut 'good' > schlecht 'bad' }: **der nur sehr gute Wein* 'the merely very good wine' or at the very end of a scale **der nur schlechte Wein* 'the merely bad wine'. Further examples of DPs with adjectives describing properties which are obviously not at the top of a scale are *das nur lauwarme Wasser* 'the merely tepid water' or *das nur halbfertige Bild* 'the merely half-finished painting'. In the DP in (52) *nur* also introduces a scalar implicature—the context has been given in section 3 for example (43).

(52) Das nur teure Auto ist nicht gut ausgestattet
the only expensive car is not well equipped
'The mainly expensive car is not well equipped.'

The construction of a scale for the DP in (52) is more difficult. The *nur* 'mainly' indicates that the properties of the car are not suitable. The most suitable car would be cheap and well equipped, but it could be still suitable if it was well equipped and expensive. Consequently, a car that is bad equipped is least suitable. *Nur* 'mainly' modifying the adjective *teuer* 'expensive' introduces the presupposition that the car is not suitable because it's badly equipped and expensive. *Nur* 'mainly' indicates that one property

is predominant (is the main property) and renders the object (i.e., *the car*) unsuitable. It represents the top of the following scale:

{ mainly (expensive) > also (expensive) > not at all (expensive) }

The DP in (53) finally introduces *nur* 'repeatedly', which has a temporal interpretation.

(53) Die nur kranke Kollegin ist schon wieder nicht anwesend
the only ill colleague is yet again not present
'The repeatedly ill colleague is absent again.'

Nur 'repeatedly' introduces the following scale:

{ repeatedly(ill) > once in a while(ill) > never(ill) }

In this case *nur* 'repeatedly' refers to the top of the scale presupposing that the frequency is too high. The following table summarizes the scales *nur* can imply. Note, that 'merely'-nur cannot combine with adjectives at the top of the adjectival scale (e.g., *nur gut* 'only good' vs. **nur am besten* 'only the best').

1. 'merely'-nur
{ outstandingly (scalar adjective) >
acceptably (scalar adjective) >
after all (scalar adjective) >
merely (scalar adjective) }

2. 'mainly'-nur
{ mainly (scalar adjective) >
also (scalar adjective) >
not at all (scalar adjective) }

3. 'repeatedly'-nur
{ repeatedly (non-scalar adjective) >
once in a while (non-scalar adjective) >
never (non-scalar adjective) }

So far, we haven't looked at association with focus within DPs. In the sentence *Well, I* [*passed*]$_F$ the focus marking is essential for the interpretation. In turn, it seems that in *der nur zehn Jahre alte Wein* 'the merely ten

years old wine' focus marking is not essential. Put differently, focus marking has no effect on the interpretation in the context of *nur*. *Nur* cannot refer to another constituent but the scalar adjective. The ungrammaticality of the following DPs shows that *nur* cannot associate with the NP. Even if this were the case, the scalar adjective wouldn't have a focal accent:

(54) a. *der nur Wein
the merely wine'
'the merely wine'
b. *das nur Auto
the mainly car
'The mainly car'
c. *die nur Kollegin
the repeatedly colleague
'the repeatedly colleague'

How can the observation be explained that scalar adjectives associate with the focus particle *nur* but aren't focus marked? According to Rooth (1992), focus effects are optional and association with focus isn't forced. As far as the focus particle *only* in sentences is concerned, Rooth (1992) assumes that association with focus is practically obligatory. In exceptional cases there's a competing motivation for focus within the sentence that triggers association with another (focus-)constituent but the focus particle. Rooth (1992, p. 33) gives the following 'symmetric contrast configuration' as an example:

(55) Generally, people who [grow]$_F$ rice only [eat]$_F$ rice.

In (55) the focus on *eat* is motivated by the focus on *grow*. It follows that the focus on *eat* cannot be associated with *only*. In other words, *only* neither associates with *eat*, nor with *rice*. Consequently, *only* has no quantificational domain in (55) but is nevertheless felicitous in this context. Rooth (1992) claims that the domain of quantification can either be fixed by the focus constituent or can be fixed pragmatically. In (55) only is supposed to associate with an object that is not realized grammatically, but constructed pragmatically. If this is on the right track, I propose, *nur* within DPs doesn't obligatorily associate with focus. For example, in the DP *der nur gute Wein* 'the merely good wine', the only constituent *nur* can associate with is the scalar adjective *gut* 'good'. Moreover, there's no alternative placement for *nur* other than preceding the scalar adjective: *der gute nur Wein, *der

gute Wein nur. My claim about association with focus in the context of *nur* within DPs is that association with focus is grammatically obligatory and the constituent *nur* associates with doesn't have to be phonologically prominent. The placement of the scalar adjective following *nur* could instead be assumed semantically prominent.

To sum up, we can approach the behaviour of *nur* in DPs as follows. When *nur* precedes a DP it doesn't attach to it but certainly associates with it. In this case it has a quantificational interpretation. The English data confirms that *only* has different interpretations. In English, the difference between the quantificational *only* and the scalar *only* is lexicalized. The former equals *only*, the latter equals *just*. Within a DP *nur* can only associate with a scalar adjective. In this case *nur* introduces a scalar implicature overriding the scale of the adjective. I propose three different scales introduced by *nur*: *nur* meaning *merely*, meaning *mainly* and meaning *repeatedly*. Following Rooth's analysis of the sentence *Generally, people who grow rice only eat rice*, in which *only* doesn't associate with *eat* or with *rice*, I assume, that *nur* within DPs doesn't associate with a focus constituent but with the non-prominent scalar adjective. *Nur* in DPs has a scalar interpretation and the interpretation cannot be accessed in terms of alternative assertions.

6 Conclusions

This paper shows that the German focus particle *nur* behaves differently in sentences and in DPs. The distribution of *nur* in sentences has been surveyed following Wagner and Jaeger (2003). They develop five generalizations about the behaviour of *nur* in terms of linear word order and the combined effect of linear order and intonation. However, what about the meaning that results from association with focus? Rooth (1992) suggests a non-grammatical approach. According to Rooth's *Principle of Focus Interpretation* the interpretation of focus can be captured by the theory of Alternative Semantics: to interpret focus means to consider alternative values for the focus constituent. Put differently, focus has a uniform semantic import of alternative assertions. According to Rooth (1992) the focus particle *only* constrains this semantic import by quantifying over the alternative assertions. Moreover, Rooth (1992) shows that focal accents may imply alternative assertions based on scalar implicatures.

The data on the interpretation of *nur* within DPs in this paper shows that *nur* within DPs does not quantify over the adjective it associates with

but introduces a scalar implicature. The following comparison of the interpretation of *nur* in sentences with *nur* within DPs in (56a)−(56d) further stresses this contrast.

(56) a. alle/einige nur gute Weine
all/some only good wines
'All/some merely good wines.'
b. alle/einige nur teure Autos
all/some only expensive cars
'All/some mainly expensive cars.'
c. alle/einige nur kranke Kolleginnen
all/some only ill colleagues
'All/some repeatedly ill colleagues.'
d. *Maria gibt Peter alle nur Bücher
Mary gives Peter all only books
'Mary gives Peter all only books.'

If *nur* had a quantificational interpretation in the DPs above, it wouldn't be possible to add quantifiers like *alle* 'all' or *einige* 'some'. As the DPs in (56a)−(56c) are absolutely fine, *nur* must not quantify over the NPs. *Nur* in sentence (56d), on the contrary, quantifies over the argument *Bücher* 'books' and therefore cannot be preceded by *alle* 'all'. How can the different interpretations of *nur* in sentences and in DPs be accounted for?

Based on the data discussed in this paper, I come to the following conclusions:

1. In clauses *nur* quantifies over the NP it associates with. Within DPs *nur* does not quantify over the adjective it associates with.

2. The focus particle *nur* can either associate with scalar or with non-scalar DP-internal adjectives. If the DP-internal adjective is scalar, the interpretation of the DP can either be based on the scale of the adjective or on the scale of *nur* (see (51b) for an example). If the DP-internal adjective is non-scalar, the interpretation can only be based on the scale introduced by *nur*. Put differently, even if the adjective does not imply a scale, a scalar interpretation applies due to the scale introduced by *nur*.

3. DP-internal *nur* can have three different meanings: *merely*, *mainly* and *repeatedly*. In each case *nur* implies a different underlying scale. In line

with Rooth's *Principle of Focus Interpretation* the interpretation of *nur* can be given in terms of Alternative Semantics. The modification of the DP-internal adjective by *nur* implies the negation of the alternatives for *merely*, *mainly* or *repeatedly* given in the scale.

The findings on *nur* discussed in this paper together with the findings on *nur* in sentences in the literature seems to give a unified semantics for the German focus particle *nur*. The syntax of *nur*, which has to account for the different interpretations of *nur* in sentences and within DPs, has to await future research.

References

Büring, Daniel and Hartmann, Katharina. 2001. The syntax and semantics of focus-sensitive particles in german. *Natural Language and Linguistic Theory* 19:229–281.

Jacobs, Joachim. 1983. *Fokus und Skalen. Zur Syntax und Semantik der Gradpartikeln im Deutschen*. Niemeyer Tuebingen.

Rooth, Mats. 1985. Association with focus. Ph.D. thesis, University of Massachusetts at Amherst.

Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* 1:75–116.

Wagner, Michael and Jaeger, Florian. 2003. Association with focus and linear order in german. *Semantics Archive* .