

Inclusive ‘only’ in German

Laura Dörre (University of Münster)

Andreas Trotzke (University of Konstanz & Autonomous University of Barcelona)

1. Introduction

The focus particle *nur* in (1) is the German equivalent of English *only*. Its function is to associate with a focused constituent (e.g., ‘to the swimming pool’ in [1]) and to exclude alternatives to the focused constituent (e.g., König 1991).

- (1) Ich gehe heute **nur** ins Schwimmbad.
I go today PART to-the swimming-pool
‘Today, I only go to the swimming pool.’

In this contribution, we focus on clauses introduced by *wenn* (meaning either temporal ‘when’ or conditional ‘if’; see Fabricius-Hansen & Sæbø 1983 and our discussion below):

- (2) Wenn ich kann, gehe ich ins Schwimmbad.
if/when I can go I to-the swimming-pool
‘If/when I am able to, I go to the swimming pool.’

(2) can be paraphrased as ‘if the situation *x* holds’ or as ‘as soon as the situation *x* holds’. These paraphrases illustrate that (2) is ambiguous between a conditional and a temporal reading. A reliable diagnostic for the conditional reading is the replacement of *wenn* by *falls* (‘if’). The conjunction *falls* can never quantify over points in time but only over possible worlds. On the other hand, a diagnostic for the temporal reading is replacing *wenn* by *sobald* (‘once’); see Fabricius-Hansen & Sæbø (1983); Volodina (2006); Breindl (2014) on German *wenn*.

Inserting the German particle *nur* in (2) adds a meaning component to the semantic interpretation that can best be paraphrased as ‘-ever’. The resulting sentence (3) expresses something like ‘whenever the situation *x* holds’:

- (3) Wenn ich **nur** kann, gehe ich ins Schwimmbad.
when I PART can go I to-the swimming-pool
‘Whenever I am able to, I go to the swimming pool.’

In contrast to the sentence without *nur* in (2), *wenn* in (3) cannot be replaced by *falls* ('if'), ruling out a conditional interpretation. However, a replacement by *sobald* is possible, indicating that (3) has to be interpreted temporally:

(3') {Sobald, *falls} ich **nur** kann, gehe ich ins Schwimmbad.

In other words, while the sentence without *nur* in (2) can express a conditional or a temporal interpretation, the same sentence with *nur* in (3) is interpreted temporally.

Given that *nur* in (3) adds a meaning component that can be paraphrased as '-ever', the particle preceding the modal verb ('to can') in (3) leads to a different interpretation than the reading of the focus particle 'only' in (1). However, if *nur* occurs sentence-initially, it yields an interpretation with the paraphrase 'only if/when the situation *x* holds':

(4) **Nur** wenn ich kann, gehe ich ins Schwimmbad.
 PART if/when I can go I to-the swimming-pool
 'Only if/when I am able to, I go to the swimming pool.'

The focus particle *nur* in (4), like in (1), excludes alternatives, namely that the speaker does not go to the pool if she is not able to ($\neg p$). Thus, *nur* has its usual restrictive meaning here. However, this restrictive meaning component seems to be absent in sentences like (3).

To illustrate, we can say that the meanings of (3) and (4) involve a temporal scale with values specifying the time at which it is possible for the speaker to go to the pool. These values might be '1 o'clock', '2 o'clock', '3 o'clock'. The remaining, crossed-out values in Table 1 represent the times at which it is not possible for the speaker to go to the pool:

1 o'clock	2 o'clock	3 o'clock	4 o'clock	5 o'clock	6 o'clock
7 o'clock	8 o'clock	9 o'clock	10 o'clock	11 o'clock	12 o'clock

Table 1. Temporal scale with possible values.

Since *nur* in (4) has its usual restrictive meaning, it excludes the values according to which it is not possible for the speaker to go to the pool (not possible at 4 o'clock, 5 o'clock, ...), leading to an interpretation where the speaker performs the action in question less often than expected. However, instead of excluding time values, *nur* in (3) rather includes the values specifying the time at which it is possible for the speaker to go to the pool (possible at 1 o'clock, 2 o'clock,

and 3 o'clock). This is a reading of German *nur* that has not been accounted for in the literature so far, and we call it 'inclusive' *nur*. Since this reading can be paraphrased as 'whenever situation x holds', it resembles the meaning contributed by the temporal adverb *immer* 'always':

- (5) **Immer** wenn ich kann, gehe ich ins Schwimmbad.
always if I can go I to-the swimming-pool
'Whenever I am able to, I go to the swimming pool.'

Note that according to our scenario given in Table 1, there are only three points in time at which the speaker is able to go to the pool (1 o'clock, 2 o'clock, and 3 o'clock) – and this holds for sentences (3) and (4) (and, for that matter, for [5]) alike. Thus, the difference in interpretation is that *nur* highlights the inclusion of values in (3) and their exclusion in (4). The interpretation in (3) presents a new challenge to the existing literature, and our paper both establishes this new challenge empirically and indicates a path of how to deal with this data point theoretically.

The paper is structured as follows. In Section 2, we present a corpus study that addresses the question of how frequent the described pattern is and in which forms it occurs in natural contexts. Based on this study, Section 3 reports on an online judgment experiment where we explored to which extent the differences sketched above (highlighting exclusion vs. highlighting inclusion) are perceivable and detectable through experimental methods. We also investigated whether *nur* in (3) patterns the temporal adverb *immer* (5) in its interpretation, and whether both conditions differ from the sentence containing no particle (2). Section 4 indicates our theoretical tack on this new observation and concludes by sketching a formal analysis that explains the patterns we have observed in our empirical data.

2. Corpus study

We conducted a corpus study to explore a) the frequency of occurrence of inclusive 'only' and b) whether there are similar configurations from which the construction in question has to be distinguished. We further asked c) whether inclusive 'only' is restricted to a specific set of (modal) verbs, or whether it is rather productive. Finally, since accommodation and the presence of alternatives constitute an important role when it comes to focus particles like *only* (see Gotzner et al. 2016; Gotzner 2019), we were interested d) in the question of whether alternatives are present in the case of the target construction compared to similar constructions.

2.1 Methods and Results

We searched the DWDS corpus (Klein & Geyken 2010). Specifically, we chose the corpus of the German daily newspaper *Der Tagesspiegel*, with texts ranging from 1996 to 2005. We searched for occurrences of the German complementizer *wenn*, followed by the focus particle *nur*, followed by a modal verb (92 hits) or a full verb (229 hits). We allowed for up to six words intervening between the complementizer and the particle.

Of the 92 hits for modal verbs and the 229 hits for full verbs, 58% and 74% of the sentences, respectively, were in indicative mood. Note that the subjunctive mood renders the sentences as optative and the particle *nur* as an optative modal particle (Grosz 2014). Since we were not interested in optative sentences, we did not include them in our data set and thus only analyzed the remaining 223 hits featuring indicative mood.

17 of the 223 hits had to be excluded because they were strictly ungrammatical or the complementizer and the particle occurred across sentence boundaries. We thus based the following analysis on a final data set of 206 sentences in indicative mood (53 with modal verbs and 153 with full verbs). In order to isolate inclusive ‘only’, we further classified all 206 occurrences of the particle *nur* (ONLY) and the verb (X), resulting in five categories (see Appendix A for an example of each of those categories).

The first category was the combination of the particle *nur* and negating *nicht* (‘not’) (NOT ONLY X); it occurred in 7 of the cases (3%). The second category was *nur* in its restrictive reading (ONLY X); it occurred in 72 of the cases (35%). The third category was similar to the second category, but with a verb followed by the exclusion of an explicitly mentioned alternative Y (ONLY X ... NOT Y); it occurred in 11 of the cases (5%). The fourth category was again similar to the second category, but with an obvious scalar meaning component (SCALAR); it occurred in 37 of the cases (18%).¹ Finally, the fifth category was inclusive ‘only’ (TARGET); it occurred in 76 of the cases (37%). For three sentences (1%), it was impossible to unambiguously classify the particle *nur*. The five categories differ significantly from each other in terms of their frequency ($X^2 = 104.86$, $DF = 4$, $p < .001$):

¹ There is an extensive literature on scalar meanings of German *nur* (see Hole 2015 for recent work and an overview). Since a detailed semantic account of those readings is not the topic of the present paper, we use the neutral (but also, admittedly, vague) term ‘scalar’ and refer the reader to the existing literature on different forms of scalarity (often evaluative) involved.

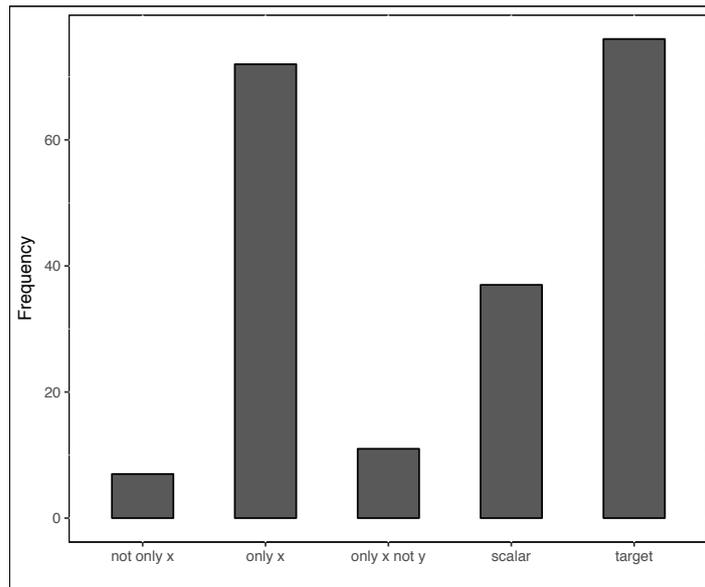


Figure 1. Frequency distribution of the five categories in the corpus.

Looking now at the verb types, we found that modal and full verbs differ in their distribution across the 5 categories. Of the 53 sentences with modals, 51 sentences were classified as TARGET (96%). Of the 153 sentences with full verbs, only 25 sentences were classified as TARGET (16%). Most of the sentences with a full verb were classified either as the second (restrictive *nur*; 47%) or as the fourth category (scalar *nur*; 24%).

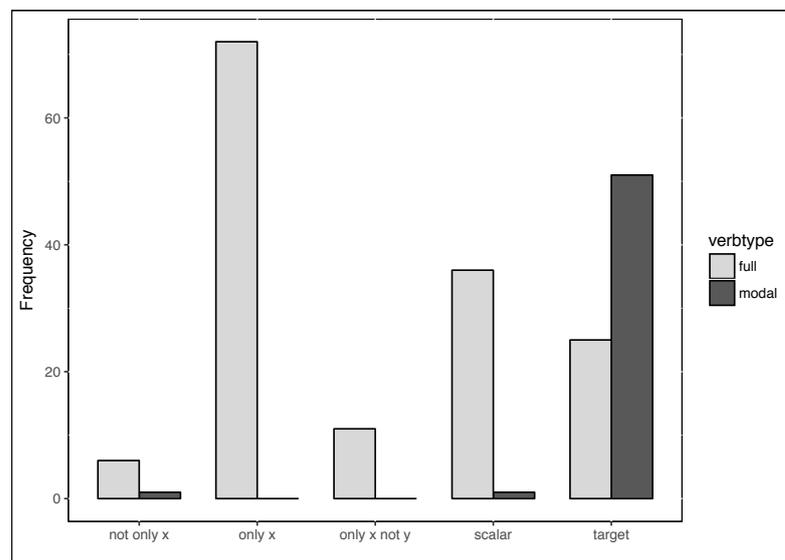


Figure 2. Frequency distribution of the two verb types across 5 categories.

To investigate whether a limited set of verbs occurs with inclusive ‘only’, we further looked at the verbs of all 76 TARGET sentences: modal verbs were *können* (‘to can’) and *wollen* (‘to want’); full verbs included 17 different verbs (see Appendix B). This indicates that our target

construction is rather productive and flexible with respect to the verb it can occur with. However, there is a clear tendency towards the use of ability or volitive modals, which is interesting in a broader context (see Section 4 below).

Regarding the presence of alternatives, we analyzed the whole data set of relevant items and coded the presence of alternatives in the critical sentence or in the immediate surrounding context. We classified alternatives as either being (i) explicitly mentioned, (ii) reconstructable, (iii) or as not present (see Table 2). Each of the five categories differed with respect to the involvement of alternatives. While in patterns 1 and 3, the majority of sentences involved explicitly mentioned alternatives, in patterns 2 and 4 it involved reconstructable alternatives. Crucially, for pattern 5, our TARGET, alternatives were neither present nor reconstructable. Therefore, inclusive ‘only’ differs remarkably from the otherwise very similar constructions concerning the presence of alternatives.

	Explicit	Reconstructable	No alternative
NOT ONLY X	5 (71%)	1 (14%)	1 (14%)
ONLY X	20 (28%)	33 (46%)	19 (26%)
ONLY X ... NOT Y	11 (100%)	-	-
SCALAR	2 (5%)	30 (81%)	5 (14%)
TARGET	-	-	76 (100%)

Table 2. Presence of alternatives in the critical sentence or the context.

2.2 Discussion of corpus evidence

The corpus study on inclusive ‘only’ suggests that (i) it is frequent (in fact, the most frequent variant), (ii) it is related to four other similar patterns which have to be distinguished from the pattern in question, and (iii) it occurs with a wide range of different verbs, indicating that this pattern is rather productive and flexible. Finally, (iv) the five patterns differ with respect to the presence of alternatives, with inclusive ‘only’ being the only pattern where alternatives are neither explicitly mentioned nor reconstructable.

We thus see that inclusive ‘only’ can indeed be established as a new data point when looking at natural contexts of occurrence. Based on our corpus findings, we conducted a judgment experiment to further support this hypothesis.

3. Judgment experiment

In this experiment, we asked whether native speakers of German confirm our hypothesis that there is one syntactic configuration systematically associated with an ‘inclusive’ reading of *nur*, while there are other patterns that yield the usual exclusive-particle interpretation. This contrast was illustrated by sentences (3) and (4), repeated here for convenience:

- (6) Wenn ich **nur** kann, gehe ich ins Schwimmbad.
‘Whenever I am able to, I go to the swimming pool.’
- (7) **Nur** wenn ich kann, gehe ich ins Schwimmbad.
‘Only if I am able to, I go to the swimming pool.’

While (6) leads to a temporal interpretation similar to *always*, (7) leads to a restrictive interpretation with *nur* functioning as the eliminative focus particle *only*. In (7), all situations where it is not possible for the speaker to go to the pool are excluded. But what about (6)? The corpus study revealed that alternatives are neither explicitly mentioned nor reconstructable in these kinds of sentences, and thus highlighting the exclusion of alternatives cannot be the way hearers understand sentences like (6).

In order to test how German speakers interpret these sentences, we conducted an online judgment experiment where we presented participants with sentences like (6) and (7). We further included the same sentences where we either deleted the particle or where we substituted the particle by German *immer* (‘always’). Participants had to rate the frequency with which the action in question is performed. If *nur* highlights the inclusion of values in (6), resembling the temporal interpretation of *always*, ratings should not differ from the sentences containing *always*. If *nur* highlights the exclusion of alternatives in (7), ratings should differ from the other conditions.

3.1 Methods and Results

36 native speakers of German participated in the experiment, which was sent as an online questionnaire to participants; participants were unaware of the purpose of the experiment.

We created 10 sentences of the form ‘*wenn ich kann, mache ich x*’ (‘if I am able to, I do *x*’; see Appendix C). For each of the 10 sentences, we used 4 conditions (see Table 4 below). Condition 1 contained no particle (PLAIN); condition 2 contained the exclusive particle *nur* preceding *wenn* (ONLY-EXCL); condition 3 contained the inclusive *nur* preceding *können* (ONLY-INCL); condition 4 contained *immer* (ALWAYS). 10 sentences similar to the test sentences were added as fillers. The 50 sentences were allocated to 5 lists by means of Latin square design.

The questionnaire started with a short introduction. Participants were instructed to rate for each sentence how often the action in question is performed by the speaker. For instance, after reading ‘*Wenn ich kann, gehe ich ins Schwimmbad*’, participants had to decide how often the speaker goes to the pool. The rating was based on a six-point Likert scale:

1	2	3	4	5	6
very rarely	rarely	more rarely	more often	often	very often

Table 3. Response options on a six-point Likert scale.

Turning to the results now, we see that the mean overall rating for the experimental sentences was 3.8 (SD 1.5). This indicates that participants were rather vague regarding the temporal interpretation of the items. Nevertheless, there was no value of 1 to 6 that was not given, indicating that the sentences indeed vary in their temporal interpretations.

Table 4 depicts the mean ratings for the 4 experimental conditions. The ratings for the condition PLAIN and the condition ALWAYS were the highest ones (4.1), closely followed by the rating for the condition ONLY-INCL (3.9). The rating for the condition ONLY-EXCL was the lowest one (3.0).

Condition	Example sentence	Rating
PLAIN	<i>Wenn ich kann, gehe ich ins Schwimmbad.</i>	4.1
ONLY-EXCL	<i>Nur wenn ich kann, gehe ich ins Schwimmbad.</i>	3.0
ONLY-INCL	<i>Wenn ich nur kann, gehe ich ins Schwimmbad.</i>	3.9
ALWAYS	<i>Immer wenn ich kann, gehe ich ins Schwimmbad.</i>	4.1

Table 4. Mean ratings for the four experimental conditions.

In order to see whether the ratings for the 4 conditions differ from each other, we analyzed them further by linear models with *CONDITION* as fixed factor. There was no significant difference between the conditions *PLAIN* and *ALWAYS* ($t = -0.25$), between the conditions *ONLY-INCL* and *ALWAYS* ($t = -1.03$), or between the conditions *ONLY-INCL* and *PLAIN* ($t = 0.91$). This indicates that the sentences in all three conditions lead to the same temporal interpretation. However, and crucially, there was a significant difference between the conditions *PLAIN* and *ONLY-EXCL* ($\beta = 1.07$, $SE = 0.22$, $t = 4.97$, $p < .001$), between *ALWAYS* and *ONLY-EXCL* ($\beta = -1.13$, $SE = 0.25$, $t = -4.59$, $p < .001$), and between *ONLY-INCL* and *ONLY-EXCL* ($\beta = -0.86$, $SE = 0.25$, $t = -3.49$, $p < .001$). This indicates that the temporal interpretation of sentences containing the exclusive focus particle *nur* differs from the other three conditions in that the performance of the action in question was rated as less frequent:

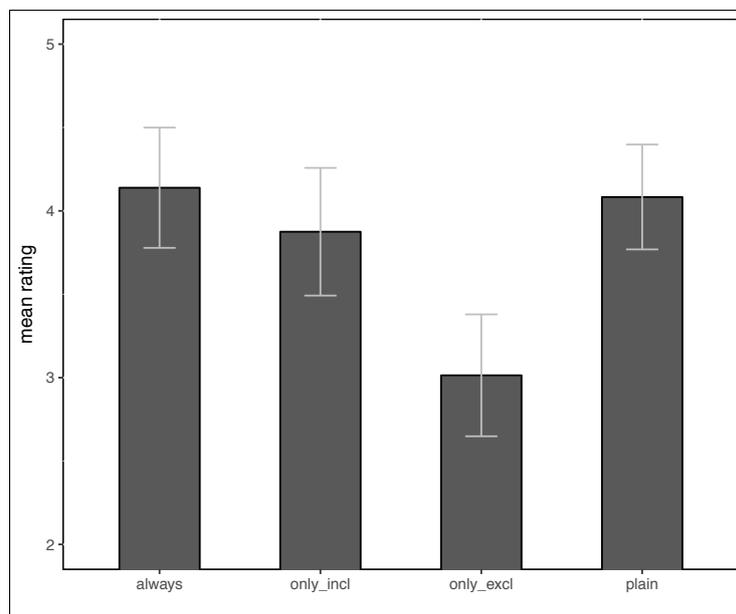


Figure 3. Ratings for the 4 conditions; error bars represent a 95% CI.

3.2 Discussion

All in all, the judgment data confirmed our observation that there are indeed two different *nur* items: one *nur* (*nur*₁) that is clearly exclusive and thus significantly differs from all other conditions in triggering a reading where the respective action *x* is interpreted as taking place (more) rarely/less often, while the other ‘inclusive’ *nur* (*nur*₂) patterns with the readings of both *immer* (‘always’) and with the plain utterance containing no modification. In those cases, the respective action *x* is interpreted as taking place (more) often, thus contrasting with *nur*₁.

Accordingly, together with our data in Section 2, we have solid empirical evidence that there is indeed an ‘inclusive’ reading of German *nur* (= *nur*₂).² In the following final section, we will now indicate a theoretical way of how to deal with this new empirical challenge for the semantics literature on focus particles.

4. Inclusive ‘only’ in German

In the last sections, we have empirically demonstrated that German *nur* in temporal *wenn*-configurations can receive a reading that we called ‘inclusive’. We pointed out that the reading *nur*₂ does not exclude situations, but it rather widens the domain of application by conveying a meaning akin to ‘whenever situation *x* holds’. Following this hypothesis, Section 4.1 first sketches two central modal implications of ‘free choice items’ like *whenever*: ‘ignorance’ and ‘indifference’ readings. Based on these interpretations, we will then turn to *nur*₂ in Section 4.2 and demonstrate that this item patterns with free choice items. We conclude the paper by suggesting that inclusive ‘only’ in German should therefore be analyzed by means of an anti-exhaustiveness operator that has been proposed in the literature on free choice items, and we point out interesting parallels to other non-exclusive uses of German *nur*.

4.1 Modal implications of free choice items

It is a well-known property of so-called free relative clauses that they can feature two types of *wh*-words: plain *wh*-words (8a) and ever *wh*-words (8b); see van Riemsdijk (2017) for syntactic and Šimík (2018) for semantic aspects:³

- (8) a. I will go to the pool when I can.
b. I will go to the pool whenever I can.

(8b) can give rise to certain modal implications. First, Dayal (1997) has argued that (8b) conveys an epistemic interpretation which she has called the ‘ignorance’ reading. One can

² Let us emphasize at this point that we view *nur*₂ as a special reading of German *nur*. That is, we use *nur*₁ and *nur*₂ for reasons of notational convention and do not claim that there are two separate lexical entries. Rather, there is only one lexical item *nur*, with diverse readings that can be analyzed as polysemes (see, again, Hole 2015 on scalar and non-scalar readings and Dörre & Trotzke 2019 for related work on the polysemy of German *nur* in *wh*-questions).

³ Other possible *wh*-items are *what(ever)*, *how(ever)*, and *where(ever)*.

easily demonstrate that something like this holds true for cases like (8b) by applying the ‘namely-apposition’ test; cf. (8’):

- (8’) a. I will go to the pool when I can, namely Sundays.
 b. I will go to the pool whenever I can, # namely Sundays.

(8b’) illustrates that a prominent interpretation of (8b) is that the speaker does not know when exactly he will be able to go to the pool. Therefore, a continuation featuring *namely* that specifies such a time is infelicitous, while it is perfect with the free relative as such (8a’). This modal inference is related to the property described as the variation requirement (Dayal 1997). That is, the referent modified by *-ever* is not constant across the possible worlds considered in the utterance situation.

The second implication that *ever* free relatives convey has been termed the ‘indifference’ reading, most notably by von Stechow (2000). (9a) is von Stechow’s (2000: 32) example; (9b) would be a temporal counterpart:

- (9) a. I grabbed whatever tool was handy.
 b. You can come to the pool whenever you want.

According to von Stechow (2000), the ‘indifference’ reading is the most salient reading of examples like (9). In informal terms, both (9a) and (9b) express that ‘it was/will be *x*, but it could well have been/could well be any other’.

4.2 Inclusive ‘only’, free choice items, and anti-exhaustivity

Let us now show that these two central properties (‘ignorance’ and ‘indifference’ reading) can help distinguish between *nur*₁ and *nur*₂. Consider first the ‘ignorance’ reading:

- (10) a. Wann immer ich kann, gehe ich ins Schwimmbad, # nämlich sonntags.
 whenever I can go I to-the swimming-pool namely Sundays
 b. Wenn ich nur kann, gehe ich ins Schwimmbad, # nämlich sonntags.
 when I PART can go I to-the swimming-pool namely Sundays

- c. Nur wenn ich kann, gehe ich ins Schwimmbad, nämlich sonntags.
 PART if/when I can go I to-the swimming-pool namely Sundays

There is no difference between inclusive ‘only’ in (10b) and free-choice *whenever* (10a): both are deviant when followed by a *namely* apposition. This contrasts with exclusive *nur*₁ in (10c): here, *namely* appositions are totally fine. Accordingly, the time value cannot be constant across the possible worlds in (10a) and (10b), while it can be constant in (10c). This corresponds to our discussion of possible time values in Section 1 above: when using *nur*₂, the speaker has no settled belief about all the possible times he can go to the pool.

Observe now that *nur*₁ is odd in a context of indifference (11c), in contrast to *whenever* (11a) and *nur*₂ (11b):

- (11) a. Wann immer ich kann, gehe ich ins Schwimmbad – no matter whether it’s during the week or on the weekend.
 b. Wenn ich nur kann, gehe ich ins Schwimmbad – no matter whether it’s during the week or on the weekend.
 c. Nur wenn ich kann, gehe ich ins Schwimmbad – # no matter whether it’s during the week or on the weekend.

Based on these patterns, we can indeed claim that *nur*₂, in contrast to *nur*₁, features modal implications sketched in Section 4.1. Our first tack on this difference in Section 1 has been that *nur*₁ is exclusive (highlighting the restriction of a relevant set), while *nur*₂ is ‘inclusive’ (highlighting the extension of a relevant set). The latter interpretation is reminiscent of German *nur* in other contexts.

Dörre & Trotzke (2019: 149) have recently proposed that *nur* in so-called ‘Can’t-Find-the-Value-of-*x* Questions’ (Bayer & Obenauer 2011) has a domain-widening effect (i.e., extends the domain of quantification *D*), similar to English expressions like ‘who on earth’:

- (12) Wer hat Marc nur begrüßt? ‘Who on earth welcomed Marc?’ (*w*)=
 $\lambda p \exists x \in D [p(w) \wedge \text{person}(x)(w) \wedge p = \lambda w (\text{welcome}(x)(\text{Marc})(w))]$

The basic idea of Dörre & Trotzke’s (2019) analysis is that in contrast to regular *wh*-questions, where *D* contains a presupposed subset of alternatives, *D* in special questions like (12) defines an open set including all persons in the universe and all possible values for *x* (also less likely

ones). This ‘extreme’ widening of the search domain for finding a value for x yields the interpretation of those questions that the speaker actually has no idea of what the answer could be.

However, in our cases of *nur*₂, which features the parallels to free-choice items mentioned above, we have to propose a slightly different analysis. In particular, the inclusive interpretation of *nur*₂ can formally be characterized by the domain-widening strategy of anti-exhaustiveness as analyzed by Chierchia (2006). In contrast to (12), we observe that while the alternative set can be both very big and very small (13a), it cannot be an empty set (13b). However, it can potentially be empty in ‘Can’t-Find-the-Value-of- x Questions’ (14):

(13) Wenn ich nur kann, gehe ich ins Schwimmbad ...

- a. ... and that’s actually always except Sundays/actually never except Sundays.
- b. # ... and (unfortunately) that is never the case.

(14) Wer hat nur eine Theorie für dieses schwierige Problem? (= Niemand!)

‘Who on earth has a theory for this difficult problem? (= Nobody!)’

Accordingly, we suggest that the lexical entry for *nur*₂ can be represented along the lines of Chierchia’s (2006: 562) analysis of related free choice items (where ‘ALT’ is a function that associates an item with its alternatives and where it is defined that the set of alternatives cannot be empty):

(15) a. $nur_{2D} = \lambda P \lambda Q \exists w' \exists x \in Dw' [P_w(x) \wedge Q_w(x)]$

b. $ALT(nur_{2D}) = \{\lambda P \lambda Q \exists w' \exists x \in D' w' [P_w(x) \wedge Q_w(x)]: D' \subseteq D \wedge D' \cap \lambda x \exists w' [P_w(x)] \neq \emptyset\}$

Given this analysis in terms of domain widening and anti-exhaustiveness of inclusive ‘only’, an interesting generalization emerges: all contexts where *nur* can express such a widening are non-veridical contexts, according to Giannakidou (1998); Giannakidou & Mari (to appear): preferably ability modals (16a) and/or future orientation (incl. cases with full verbs; Section 2.1) – and questions (16b). Also, there is a well-documented use of *nur* in imperatives (another non-veridical context), where *nur* also has a widening effect: it ‘opens up possibilities’ for the addressee due to the permission reading ([16c]; Schwager 2010; Grosz 2011):

- (16) a. Wenn ich **nur** kann, gehe ich ins Schwimmbad. (= [3])
 b. Wer hat Marc **nur** begrüßt? (= [12])
 c. Komm **nur** herein! Keine Sorge!
 come PART in no worries
 ‘Just come in! No worries!’

In contrast, when *nur* does not appear in the scope of a non-veridical operator, either because it scopes over this propositional operator (17b) or the sentence is veridical (17a), it can only express the exclusive interpretation of *nur*₁, and there is no way to get the inclusive ‘only’:

- (17) a. Ich gehe heute **nur** ins Schwimmbad. (= [1])
 ‘Today, I only go to the swimming pool.’
 b. **Nur** wenn ich kann, gehe ich ins Schwimmbad. (= [4])
 ‘Only if I am able to, I go to the swimming pool.’

All in all, our contribution established empirically that there is an inclusive version of ‘only’ in German, and that this version presents an interesting new challenge both for the literature on focus particles, but also for work exploring the interaction between sentence mood/modal bases and the semantic mechanisms of domain widening and domain restriction. Since our brief discussion indicates that there is such an interaction, this also raises the more general question to what extent domain widening in itself is pragmatic in nature, and how we should model the relation between the computational system and pragmatics.

References

- Bayer, Josef, & Hans-Georg Obenauer (2011). Discourse particles, clause structure, and question types. *Linguistic Review* 28:449–491.
- Breindl, Eva (2014), C1. Temporale Konnektoren. In Eva Breindl, Anna Volodina, and Ulrich Hermann Wassner (eds.), *Handbuch der deutschen Konnektoren. Band 2: Semantik*. Mouton De Gruyter. Berlin, New York. 271–390.
- Chierchia, Gennaro (2006), Broaden your views: Implicatures of domain widening and the “logicality” of language. *Linguistic Inquiry* 37:535–590.

- Dayal, Veneeta (1997), Free relatives and *ever*: Identity and free choice readings. *Proceedings of SALT* 7:99–116.
- Dörre, Laura, & Andreas Trotzke (2019), The processing of secondary meaning: An experimental comparison of focus- and modal particles in *wh*-questions. In Daniel Gutzmann, and Katharina Turgay (eds.), *Secondary Content – The Semantics and Pragmatics of Side Issues*. Brill. Leiden. 143–167.
- Fabricius-Hansen, Cathrine, & Kjell Johan Sæbø (1983), Über das Chamäleon „wenn“ und seine Umwelt. *Linguistische Berichte* 83:1–35.
- Giannakidou, Anastasia (1998), *Polarity sensitivity as (non)veridical dependency*. John Benjamins. Amsterdam-Philadelphia
- Giannakidou, Anastasia, & Alda Mari (to appear), *Veridicality in Grammar and Thought: Modality, Propositional Attitudes and Negation*. University of Chicago Press. Chicago.
- Gotzner, Nicole (2019), The role of focus intonation in implicature computation: A comparison with *only* and *also*. *Natural Language Semantics* 27:189–226.
- Gotzner, Nicole, Katharina Spalek, & Isabell Wartenburger (2016), The impact of focus particles on the recognition and rejection of contrastive alternatives. *Language and Cognition* 8:59–95.
- Grosz, Patrick (2011), German particles, modality, and the semantics of imperatives. In Suzi Lima, Kevin Mullin, and Brian Smith (eds.), *Proceedings of NELS 39*. GLSA. Amherst. 323–336.
- Grosz, Patrick (2014), Optative markers as communicative cues. *Natural Language Semantics* 22:89–115.

- Hole, Daniel (2015), A distributed syntax for evaluative ‘only’ sentences. *Zeitschrift für Sprachwissenschaft* 34:43–77.
- Klein, Wolfgang, & Alexander Geyken (2010), Das Digitale Wörterbuch der Deutschen Sprache (DWDS). *Lexicographica: International Annual for Lexicography* 26:79–96.
- König, Ekkehard (1991), *The meaning of focus particles: A comparative perspective*. Routledge. London.
- Schwager, Magdalena (2010), Modality and speech acts: Troubled by German *ruhig*. In Maria Aloni, and Katrin Schulz (eds.), *Proceedings of the 17th Amsterdam Colloquium*. ILLC. Amsterdam. 416–425.
- Šimík, Radek (2018), Ever free relatives crosslinguistically. In Uli Sauerland, and Stephanie Solt (eds.), *Proceedings of Sinn and Bedeutung 22*. ZASPiL. Berlin. 375–392.
- van Riemsdijk, Henk C. (2017), Free Relatives. In Martin Everaert, and Henk C. van Riemsdijk (eds.), *The Wiley Blackwell Companion to Syntax, Second Edition*. Wiley-Blackwell. Oxford.
- Volodina, Anna (2006), *wenn*-Relationen: Schnittstelle zwischen Syntax, Semantik und Pragmatik. In Eva Breindl, Lutz Gunkel, and Bruno Strecker (eds.), *Grammatische Untersuchungen. Analysen und Reflexionen*. Narr. Tübingen. 359–379.
- von Fintel, Kai (2000), Whatever. *Proceedings of SALT* 10:27–39.

Appendix A

- 1) NOT ONLY X: Manchmal, wenn die Mannschaft **nicht nur will**, sondern auch konzentriert ist und zeigt: Sie kann es ja.
 ‘Sometimes, when the team not only wants to, but when they are also focused and prove: They are actually able to!’
- 2) ONLY X: Wenn Du **nur wiederholst**, ist das für mich nichts Neues, leider.

- ‘If you are only repeating, unfortunately, it is nothing new to me.’
- 3) ONLY X ... NOT Y: Man baut auch keine Muskeln auf, wenn man **nur stemmt** aber **nicht genug Eiweiß isst**.
 ‘One won’t bulk up any muscles, if one is only lifting weights without eating enough protein.’
- 4) SCALAR: Ich kriege schon ein nervöses Zucken im linken Augenlid, wenn ich den Namen **nur höre**.
 ‘I’m getting a nervous tic in the left eye lid as soon as I only hear the name.’
- 5) TARGET: Es ist unbestritten, daß viele Straßenkinder stehlen, wenn sie **nur können**.
 ‘It is indisputable that many homeless children steal whenever they are able to.’

Appendix B

The full verbs were *anstrengen* (‘to endeavor’), *argumentieren* (‘to argue’), *aufhören* (‘to stop’), *bedenken* (‘to consider’), *beibringen* (‘to teach’), *denken* (‘to think’), *hinschauen* (‘to look closely’), *lassen* (‘to let’), *sagen* (‘to say’), *schaffen* (‘to accomplish’), *schmecken* (‘to taste’), *verbieten* (‘to prohibit’), *verlangen* (‘to demand’), *vorantreiben* (‘to promote’), *wissen* (‘to know’), *zulassen* (‘to admit’), and *umfallen* (‘to capitulate’).

Appendix C

Experimental sentences, condition PLAIN:

Wenn ich kann, gehe ich ins Schwimmbad.

‘If/when I am able to, I go to the swimming pool.’

Wenn ich kann, schreibe ich an meiner Abschlussarbeit.

‘If/when I am able to, I continue writing my term paper.’

Wenn ich kann, gehe ich mit meinem Hund spazieren.

‘If/when I am able to, I take my dog for a walk.’

Wenn ich kann, ernähre ich mich gesund.

‘If/when I am able to, I eat healthy food.’

Wenn ich kann, fahre ich mit dem Fahrrad zur Arbeit.

‘If/when I am able to, I cycle to work.’

Wenn ich kann, benutze ich Zahnseide.

‘If/when I am able to, I use dental floss.’

Wenn ich kann, kaufe ich Fairtrade-Kaffee.

‘If/when I am able to, I buy fair-trade coffee.’

Wenn ich kann, trenne ich den Müll.

‘If/when I am able to, I recycle.’

Wenn ich kann, gehe ich ins Kino.

‘If/when I am able to, I go to the cinema.’

Wenn ich kann, treffe ich mich mit meinen Freunden.

‘If/when I am able to, I meet my friends.’