Expressive intensifiers and external degree modification

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Abstract Varieties of colloquial German exhibit a special class of degree expression, including expressions like *sau, voll* or *total*, which we call expressive intensifiers (EIs) and which have received almost no attention in the literature. EIs are distinguished from ordinary degree intensifiers like *very* by several special syntactic properties. Most importantly, they can appear in what we call *external degree modification construction* (EDC), a construction of the form [EI D (A) NP]. Despite preceding the determiner in these constructions, the EI still intensifies the adjective or noun inside the DP. The entire EDC behaves like a DP and, curiously, its interpretation must be indefinite, irrespective of the definite determiner that it involves. External EIs raise at least six questions for their analysis. (i) What is their relation to internal EIs? (ii) What position hosts them and why do they move at all? (iii) Why does the external position shift the interpretation of the determiner? (iv) Why are ordinary degree items excluded from that position? (v) Why are some EIs prevented from appearing adnominally in internal position, but all can be used adnominally in external position? (vi) Why do some constructions block external EIs? After presenting a detailed description of the behavior of EIs both in internal and external position and in adjectival and adnominal use, we develop an analysis of EDCs to answer these questions which is based on the idea that the derivation of EDC involves head movement to D^0 where the EI forms a complex quantifier with the determiner in order to express a syntactic expressivity feature.

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1 Introduction

Like other languages, German exhibits different possibilities for intensifying the meaning of gradable adjectives. The most obvious way to intensify an adjective like *fast* in (1) is by means of the overt comparative morpheme *-er* as in (2), or by using degree words like *sehr* 'very', *überaus* 'acutely' and other 'intensity particles' (Breindl 2009), as illustrated in (3). There are also syntactic ways to express that a certain property holds to a high degree, for instance exclamative sentences (4). Under certain circumstances, intonation can also be used to express intensification as in (5).

(1) Piet ist schnell.
     Piet is fast.POS
     "Piet is fast"

(2) Sophie ist schnell-**er**.
     Sophie is fast-COMP
     "Sophie is faster"

(3) Sophie ist **sehr** schnell.
     Sophie is DEG *fast*
     "Sophie is very fast."

(4) Wie schnell Sophie ist!
     how fast   Sophie is
     "How fast sophie is!"

(5) Piet ist grooooß!
     Piet is big
     "Piet is huuuge!"

What we are interested in in this paper, however, is a special subclass of degree expressions. Beside the standard degree words like in (3), German exhibits a number of special intensity particles, which we like to call *expressive intensifiers* (EIs).[1] These are mainly confined to informal varieties of German like youth language, where they are very frequent. What we have in mind are expressions like *sau*, which is (diachronically) derived from the homophone expression for "female pig, sow", *mords* (lit.) 'murder', *krass* 'crass', *total* 'totally' and *voll* 'fully' (Androutsopoulos 1998).[2]

(6) ᵞDas Ding ist **sau/voll/total** schnell.[3]
     the thing is EI   *fast*
     'That thing is EI (≈ totally) fast.'

EIs are distinguished from ordinary degree items by particular syntactic properties which, as we will elaborate in this paper, pose some challenging puzzles for their syntactic analysis. However, despite, or because of that, EIs have received almost

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[1] They are not only expressive in an intuitive way, but also in the semantic sense of contributing a speaker attitude that is not part of the main content of the sentence Kaplan (1999); Potts (2007). We will not deal with the semantics of EIs in this paper, but the syntactic analysis we will develop is compatible with standard degree-based semantics for adjectives, like, e.g Kennedy and McNally (2005), and the multi-dimensional systems that can deal with expressives that contribute to the main content as well (McCready 2010; Gutzmann 2012). See McCready and Kaufmann 2013 for a recent manuscript that also deals with expressive intensifiers as defined here.

[2] See Kirschbaum (2002) for an overview of the metaphoric patterns according to which intensifiers evolve, both conceptually and diachronically. For further patterns of adjective intensification, cf. Claudi (2006). A general overview over the aspects of intensification in German is provided by van Os (1989).

[3] Throughout the paper, we follow the Horn-style convention to use a prefixed "ᵞ" to mark examples that we found by googling (cf., e.g., Horn 2013). If it is a common and not specific example with a lot of hits, we will not provide a URL for it.

no attention in the literature. Even from a descriptive point of view, these elements are not well documented. Only in Androutsopoulos's comprehensive reference work of German youth language, are they described in a bit more detail in the general context of intensification strategies (Androutsopoulos 1998, 345-357). From a more theoretical point of view, Meinunger (2009) provides the only serious investigation of EIs we are aware of. However, he leaves out a lot of important data about EIs and, as a consequence, draws inadequate conclusions, as we will discuss below.

The most interesting fact about EIs, also discussed by Meinunger, is that beside the standard adjectival position in which EIs precede the adjective they intensify, as in the predicative constructions in (6) or the attribute use in (7), they can also appear in a DP-peripheral position in which the entire DP follows the EI, as in (8).

(7)   *DP-internal position*
        ᵞDu bekommst [**eine sau** coole party] ABER deine eltern   finden raus, dass
        you get   a   EI cool party but   your parents find   out   that
        du   eine feierst, weil   die das net wussten und schmeißen alle raus.
        you one throw   because they that not known   and throw   all out
        'You're getting a EI cool party but your parents find out that you are throwing one, because they didn't know that, and kick everybody out.'
        (http://www.iphpbb.com/foren-archiv/25/1590400/1589280/die-boese-fee-39872219-79563-323.html)

(8)   *DP-external position*
        ᵞEs ist [**sau die** coole Party], und Sinus, Cosinus und Tangens hüpfen im
        It is EI   the cool party and sine   cosine and tangent jump   in
        Kreis.
        circle
        'There is a EI cool party and sine, cosine and tangent are jumping in circles.'
        (http://www.lachschon.de/item/18377/)

When talking about constructions like in (8), we will say that the EI is in an *external position* in order to contrast them with examples like (7) in which the EI resides in a position that is *internal* to the DP. Accordingly, we call the pattern in (8) an *external degree modification construction*, or EDC for short. However, this is rather descriptive terminology and is not meant to imply that *sau* in (8) does not belong to the DP. In fact, as we will show below, external EIs still remain inside the DP.

Beside these two variants of EI-constructions just discussed, both of which seem to target an adjective, there is also an adnominal use in which an EI directly modifies a noun rather than an adjective. In this case, the EI must carry the appropriate inflection for ϕ-features.

(9)   ᵞdie {**krass-e/total-e**} Party
        the EI-NOM.SG.F   *party.*NOM.SG.F
        'the total party'

This adnomimal use of EIs extends to the external position so that there are EDCs without adjectives as well. In such cases, the EI remains uninflected.

(10) $^\gamma${**total / krass**} die Party
        EI   *the party*
        "EI a party"

Crucially, while the internal adnominal use is only available for a subset of EIs, namely those that can carry inflectional morphology, the external adnominal use is licensed for all of them.[4]

(11)   a.   der {**totale** / $^\%$**sau**} Idiot
              the EI   *idiot*
              'the EI idiot'
        b.   {**total / voll / sau**} der Idiot
              EI   *the idiot*
              'EI an idiot'

The adnominal use and the availability of the external position are defining characteristics of EIs, and distinguish them from ordinary degree items like *sehr* 'very', which can neither be used adnominally (12) nor occur in the external position (13).

(12)   Du hast gestern   die **totale** / *****sehr** Party verpasst.
        you have yesterday the EI   *very   party missed*
        'Yesterday, you missed the EI party.'

(13)   Du hast gestern   **sau** / *****sehr** die coole Party verpasst.
        you have yesterday EI   *very   the cool   party missed*
        'Yesterday, you missed EI/*very a cool party.'

Besides its particular syntactic structure, the EDC is connected with an interesting "indefiniteness effect" (Wang and McCready 2007). The external position is perfectly

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    [4] Note that *sau+N* is grammatical for many speaker if *sau* is interpreted as a noun and the linear string is understood as a compound structure (in this case N+N: *Sau.idiot*; see also the discussion of prefixoids around (40) below). We hence use a prefixed "%" to mark strings that are ungrammatical for adnominal EIs, but okay under a compound reading. The two structures can be distinguished by adding an intervening modification of the noun, which blocks the compound reading (i). If *sau* is taken to modify just the adjective, the string is of course fine, but has a different reading (ii).

(i)   *der **sau** [soziale Idiot]   (ii)   der [**sau** soziale] Idiot
        the EI   *social   idiot*   *the* EI   *social   idiot*
        Intended: ≈ 'a big idiot in social matters'   ≈ 'an idiot, but a highly social one'

As expected, such intervening modification is possible for those EIs that can be used adnominally.

(iii) $^\gamma$Ein Forum ist in gewisser Weise auch eine soziale Gemeinschaft, da   bekommt man
        a   forum is to certain   extend also a   social community   there gets   one
        Eigenschaften bestimmter Poster doch schon   mit, wenn man nicht der **totale** soziale Idiot ist.
        character   certain   post.er PART *already with if   one not   the* EI   *social idiot is*
        'To certain extend, a forum is also a social community; even there, you can come to know the character of a contributer, if you aren't a EI social idiot.'
        (http://www.heise.de/foren/S-Nutzungsprofil/forum-10541/msg-12513526/read/flatviewforum/)

fine if the DP is headed by a simple definite article, but impossible for almost all speakers (in case of *sau*) or, at least, for some speakers (e.g. with *voll*).

(14)   a. ^γ**sau** die coole Party
        EI *the cool party*
       'a EI cool party'

        b. ***sau/**[?]**voll** eine coole Party
            EI   *a   cool party*

What is even more curious is that, in spite of this preference, even an EDC with a definite article is interpreted as being indefinite. That is, the interpretation of (14a) corresponds to the internal construction in (15a), which involves the indefinite article, and not, as may be expected, to (15b).

(15)   a. ^γeine **sau** coole Party
        a   EI *cool party*
       'a EI cool party'

        b. ^γdie **sau** coole Party
          the EI *cool party*
         'the EI cool party'

A last observation regarding the external position is that it can be blocked by different structures inside the DP. First, an internal adnominal EI or adnominal size adjectives blocks the external degree modification construction.

(16)   a. ***sau** der **totale** reiche Idiot
         EI *the* EI   *rich idiot*
        b. ***sau** der **große** reiche Idiot
         EI *the big   rich idiot*

Secondly, constructions with complex quantifiers like *die+ganzen* 'all the' also block EIs in external position. The same holds for so-called *occasional* constructions – DPs containing an infrequency adject – which block external EIs under the relevant DP-external adverbial interpretation of the adjective.

(17)   a. ***sau** die **ganzen** reichen Kunden
         EI *the whole rich   customers*
         Intended: "EI all the rich customers"
        b. ***Sau** der **gelegentliche** Idiot betrat   den Laden.
         EI *the occasional   idiot entered the shop*
         Intended: "Occasionally, EI the idiot entered the shop."

The aims of this paper are twofold. First, we want to provide a detailed description of the behavior of EIs, because, as stated above, it is hardly studied at all. Secondly, we want to present an approach that accounts for the obstacles that are raised by EDCs for their syntactic analysis. The following questions are what we take to be the main hurdles.

(Q1)   **Relation between internal and external EIs**
       How is the external position related to the internal one? That is, is it derived by movement or are external EIs base-generated?

(Q2) **Position**
      What is the position in which external EIs reside and why can they appear
      there in the first place?

(Q3) **Definiteness mismatch**
      Why are EDCs with definite articles nevertheless interpreted as indefinite?
      See (15).

(Q4) **Constraint on EIs**
      Why can EIs occur DP-externally, but not ordinary degree items like *sehr*
      'very'? See (13).

(Q5) **Different classes of EIs**
      Given that in external position, all EIs can be used adnominally, why are
      some EIs blocked from the internal adnominal position? See (11).

(Q6) **Intervention effects**
      Why does a variety of constructions, like complex quantifiers or even other
      EIs or adnominal size adjectives block EDCs? See (16) and (17).

The main clue to answer these question lies in the connection between the expressive nature of EIs. As we will show, expressive intensification can alternatively be expressed by the determiner alone, which leads us to the assumption of an expressivity feature that can be marked in D. This feature is what can trigger the movement of an EI, leading to the external degree modification construction. In addition, the observation that not all EIs behave the same will lead us to distinguish between three different subclasses of EIs that exhibit different degrees of grammaticalization and differ in their ability to carry inflection morphology and thereby express ϕ-features.[5]

In a nutshell, our analysis works as follows. Internal EIs move to D, where they incorporate with the deteminier to form a complex quantifier, following Zimmermann's (2003) analysis of the adverbial reading of the *occasional* constructions.

(18) $[_{DP} [_{D^0} $ sau+die$_{[+ex][-def][\phi:NOM.SG.F]}] [_{Deg_NP} [_{Deg_NP^0} $ sau $] [_{NP} [_{DegP} [_{Deg^0} $ sau $]$
        $[_{AP} $ coole $]] [_{NP} $ Party $]]]]$

This movement is triggered by an expressivity feature in D which must be phonologically expressed. This answers (Q1) and (Q2). The definiteness mismatch then is assumed to be a PF effect that is based on the morphological realization rules of expressive determiners in German. Furthermore, that fact that ordinary degree items like *sehr* 'very' do not exhibit the expressivity feature, provides a direct answer to (Q4), as there is nothing that would drive their movement. Furthermore, a side effect of EI-movement is that after incorporation, the determiner can serve as a kind of ersatz inflection, thereby licensing otherwise uninflectable EIs in external position that would be ungrammatical when in internal positon, which answers (Q5). Finally, the observed intervention effects are directly accounted for by the fact that the adnominal degree position c-commands the adjectival one, allowing the head movement constraint to block the raising of adjectival EIs. Likewise, if another element has to incorporate with the determiner, EI-movement is also blocked (Q6).

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[5] Thanks to all three anonymous reviewers, each of whom draw our attention to different chunks of data regarding to which EIs do not behave homogeneously.

The structure of this paper is as follows. In §2, we will give a detailed description of the behavior of the four EI-constructions. We argue that internal EIs behave like degree elements and that they are the head of the extended degree projection of the adjective or noun they modify. However, only a subclass of EIs can be used adnominally. Then we will discuss the external degree modification construction and present the puzzling mismatch between the syntax and semantics that they involve. After this first part, we will then present the analysis of EDCs in §3, where we first give an outline of the approach, before motivating it in more detail by addressing the questions outlined above. §4 concludes and provides some outlook for open questions and further research.

2 Expressive intensifiers and external intensifying constructions

In this section, we provide an empirical description of the properties of EIs and EDCs. Given that EIs can be used adnominally or to intensify adjectives and that they can either appear in internal or external position, we are dealing with four inter-related constructions, summarized in Table 1.

Table 1 Four cases of EI-constructions

	POSITION	TARGET	EXAMPLE	SECTION
(IA)	internal	adjective	*eine total coole Party*	§2.1
(IN)	internal	noun	*eine totale Party*	§2.2
(EA)	external	adjective	*total die coole Party*	§2.3
(EN)	external	noun	*total die Party*	§2.4

In the following, we will go through these four cases in detail. This will not only work towards the goal of a proper documentation of these understudied constructions, but will provide us with some first constraints on how to analyze them properly in the later parts of this paper. We will begin with the internal position before addressing EDCs. In both cases, we start with the adjectival variant.

2.1 Expressive intensifiers in internal adjectival position

When used with an adjective, EIs and ordinary degree items have the same range of uses. Common intensity particles like *sehr* "very" can occur with gradable adjectives regardless of whether the adjective is used attributively, predicatively or adverbially. As the following examples show, this also holds for EIs.[6]

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[6] In addition, both ordinary degree words and EIs can also occur in some adverbial contexts, even if their distribution is not completely the same.

(i)   Es hat **sau/sehr** geregnet.
       It has EI/very rained
       'It rained a lot.'

(19) $^\gamma$Das Ding ist **sau/sehr** cool.
         the thing is EI/*very cool*
         'The thing is EI/very cool.'

(20) $^\gamma$Das Ding läuft **sau/sehr** schnell.
         the thing runs EI/*very fast*
         'The thing runs EI/very fast.'

(21) $^\gamma$War eine **sau/sehr** coole Party!
         was a EI/*very cool party*
         'That was a EI/very cool party!'

However, it is only in the attributive position where the important difference between EIs and standard degree items can be observed. This is because only in that syntactic context of a DP, there can be an external position at all.

Further similarities between EIs and *sehr* 'very', that also point towards their categorial status, are provided by their behavior with respect to other means of degree expressions. As is well known, degree words like *sehr* 'very' are incompatible with other overt degree morphology (cf., among many others, Kennedy and McNally 2005). This holds for the comparative morpheme *-er* in (22a), as well as for the superlative morpheme *-st* in (22b). The same is true for EIs as the examples in (23) show.

(22)   a.   *Unsere Party ist **sehr** cool-**er** als   eure.
              our   party is very cool-er than yours.
         b.   *Unsere Party ist die **sehr** cool-**ste** von allen.
              our   party is the very cool-est of   all

(23)   a.   *Unsere Party ist **sau** cool-**er** als   eure.
              our   party is EI *cool-er than yours.*
         b. $^\%$Unsere Party ist die **sau** cool-**ste** von allen.
   *our   party is the* EI *cool-est of   all*

A further fact that illustrates that EIs and expressions like *very* both function as degree elements is that EIs and standard degree words cannot co-occur. This holds irrespectively of the particular ordering of an EI and *sehr*.

(24)   a.   *Die Party ist **sau sehr** cool.
              The party is EI *very cool.*
         b.   *Die Party ist **sehr sau** cool.
              The party is very EI *cool.*

From these various observations, we draw the conclusion that EIs are in fact degree expressions, just like *sehr* 'very' or the comparative morpheme *-er*. We presuppose a standard syntactic analysis of adjective phrases, according to which gradable adjectives are dominated by an extended functional projection, a so-called degree phrase or DegP (cf. e.g. Abney 1987; Kennedy 1999; Corver 1997). EIs are the head of this phrase, just as degree elements like comparative morphemes, intensifiers or the posi-

tive morpheme, which is covert in languages like German or English (Kennedy 2007, 5).

(25)

'the {cool-POS / cool-est / very cool / EI cool} party'
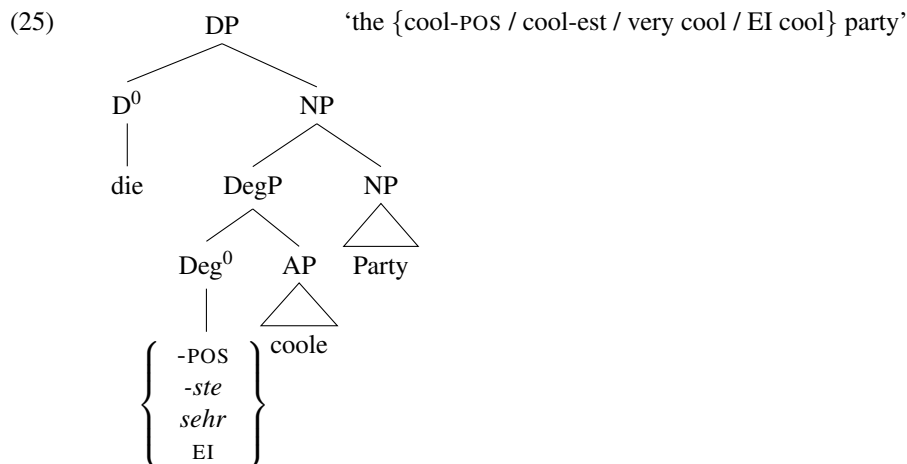
While this structural analysis of internal EIs is relatively uncontroversial and rather conservative, it cannot be the entire story, because we also have to address the adnominal use of EIs, to which we turn now.

2.2 Expressive intensifiers in internal adnominal position

As we have seen above in (9), EIs can also be used adnominally, directly modifying a noun instead of an adjective.

(26) $^\gamma$total die Party
        EI   *the party*
        'EI a party'

Similar to the analysis of gradable adjectives as arguments of degree expressions, a degree based analysis has been proposed, more recently, also for certain nouns (Morzycki 2009, 2012; Matushansky and Spector 2005).[7] The basic observation is that some nouns are associated with a gradable property that licenses degree morphology pretty much like gradable adjectives do. For instance, (27a) reads like a nominal variant of the comparative construction in (27b).

(27)   a.   Clyde is more of an idiot than Floyd.   (Morzycki 2012, 189)
        b.   Clyde is more idiotic than Floyd.

Furthermore, some seemingly adjectival expressions do not modify a noun in a simple intersective way, but rather target the degree that is associated with a gradable noun.

(28)   a.   the big idiot
        b.   the real idiot

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[7] See (Constantinescu 2011) for an opposing view.

These DPs have two readings. First, the adjective can be interpreted as a proper adjective modifying the noun. (28a) then refers to a person that is both an idiot and big, while (28b) refers to a person that is both an idiot and real (as supposed to imaginary). The most likely reading for (28b) though, which is also available for (28a), is the one in which it refers to an object whig is an idiot *to a high degree*, that is, somebody whose idiocy is even higher than those of a plain idiot.

That the degree function is syntactically distinct and not just a pragmatic reinterpretation of the adjectives is shown by the fact that the degree reading disappears in predicative position. That is, the following examples only exhibit the adjectival interpretation.

(29)   a.   This idiot is big.
        b.   This idiot is real.

In addition, the degree function is only available for certain adjectives and not for others, even if they are close in their meaning, which also speaks for the degree element being actually different, not just derived by a general pragmatic reinterpretation.[8] For instance, while *big* allows for the degree reading, *tall* does not, so that (30) lacks the relevant intensification and just has the size reading.
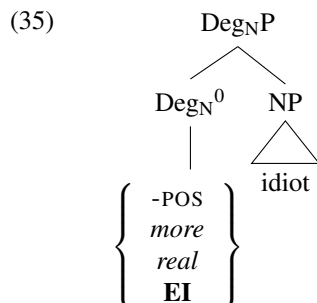
(30)   the tall idiot

Another crucial observation is that such adnominal degree elements are not licensed by all nouns, but only by those that have a very salient dimension of gradability. An important difference between adjectival and nominal gradability is that gradable adjectives are associated with a single dimension, whereas many nouns are complex bundles of semantic features that do not necessarily have a prominent dimension that can be targeted by degree expressions. Therefore, "gradable nouns are those for which a single criterion can be distinguished from the others as the most salient" (Morzycki 2009, 186). This explains the different acceptability of the following minimal pairs.[9]

(31)   a.   *ein totales Auto   (32)   a.   *ein totaler Film
              a   EI   *car*   *a*   EI   *move*
        b. $^\gamma$eine totale Schrottkarre   b. $^\gamma$ein totaler Horrorfilm
              a   EI   *junker*   *a*   EI   *horror.movie*
              'a total junker'   'a total horror movie'

(33)   a.   *ein totales Haus   (34)   a.   *totales Wasser
              a   EI   *haus*   EI   *water*
        b. $^\gamma$eine totale Villa   b. $^\gamma$totales Eiswasser
              a   EI   *villa*   EI   *ice.water*
              'a total villa'   'total ice water'

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[8] Of course, some kind of pragmatic mechanism, like metaphorical transfer, most certainly had been the start for the grammaticalization of an adjective like *big* into an adnominal degree expression.
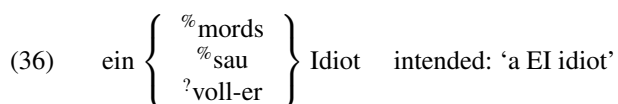
[9] As a reviewer rightly pointed out, this is certainly not salience in the standard pragmatic sense, as putting, say, *Auto* 'car' in a context in which velocity is salient does not increase the acceptability of *ein totales Auto*. Instead, the gradable dimension of a gradable noun must be lexically marked and thereby be "salient" for the adnominal intensifier.

To account for this kind of degree modification in the nominal domain, Morzycki (2009, 188) proposes to extend the structure of the NP by an adnominal degree phrase $\mathrm{Deg_N P}$, in analogy to the extension of adjective phrases to DegPs. This analysis seems to be an adequate analysis of internal adnominal EIs as well.

(35)

$$\mathrm{Deg_N P}$$

$$\mathrm{Deg_N}^0 \quad \mathrm{NP}$$

idiot

$$\left\{ \begin{array}{c} \text{-POS} \\ \textit{more} \\ \textit{real} \\ \mathbf{EI} \end{array} \right\}$$

It shall be noted that the analysis of size adjectives in adnominal degree phrases is more complicated, as it is assumed that they are not the head of $\mathrm{Deg_N P}$, but are viewed as measure phrases that are selected for by an abstract morpheme $\mathrm{MEAS_N}$.

There is, however, a complication to be noted, as the internal adnominal use is not licensed for all EIs. For instance, *sau, mords* and *voll* cannot be used in this way.[10]

(36)   ein $\left\{ \begin{array}{c} ^{\%}\mathrm{mords} \\ ^{\%}\mathrm{sau} \\ ^{?}\mathrm{voll\text{-}er} \end{array} \right\}$ Idiot   intended: 'a EI idiot'

There are, as we argue, two reasons why certain EIs cannot be used in such adnominal contexts, allowing them to be divided further into two subclasses. First, note that the $\mathrm{Deg_N}^0$-position takes part in the agreement chain between the determiner and the noun, so that the adnominal degree element has to agree with the determiner (and the NP) with respect to its case and ϕ-features. Without inflection, the construction is ungrammatical.

(37)   a.   ein-**e**   total-**e**   Katastrophe
            a-NOM.SG.F *total*-NOM.SG.F *catastrophe*.NOM.SG.F
            'a complete catastrophe'
        b.   mit ein-**em**   total-**en**   Idiot-**en**
            with a-DAT.SG.M *total*-DAT.SG.M *Idiot*-DAT.SG.M
            'with a total idiot'
        c.   *mit ein-**em**   total Idiot-**en**
            with a-DAT.SG.M *total Idiot*-DAT.SG.M

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[10] However, note that even those EIs can intensify a bare, i.e. adjectiveless, NP if they occur in external position. We will come back to this issue below in § 2.4. Also not that *voll* is not as restricted as *sau* and *mords* and can be used with certain with certain nouns, even though it is a bit marked.

Now, in contrast to *total*, EIs like *sau* and *mords* are uninflectable expressions and cannot bear any case- or ϕ-morphology. Trying to inflect them, as *total* in (37b), is ungrammatical.

(38)   *mit ein-**em** $\left\{ \begin{array}{l} \text{sau} \\ \text{mords} \end{array} \right\}$ -**en** Idiot-**en**.

However, not inflecting them is not an option either, as shown by (36). Hence, we conlcude that EIs like *sau* and *mords* cannot be used purely adnominally due to their inability to express the necessary case- and ϕ-morphology that seems to be required in this syntactic position.

For the other group of EIs, instantiated by *voll*, things are different, at least superficially. As shown in (36), *voll* cannot be used adnominally either, even if it is inflected (as it is in that example). Therefore, it may seem as if we needed an alternative explanation for this restriction. However, we think that the difference is only superficial and *voll*, as an EI, actually cannot be inflected. What can be inflected is the homonymous adjective *voll* 'full', not the EI. That is, in an ordinary non-degree reading, *voll* can occur attributively, and also (uninflected) predicatively. However, the homophone adjective lacks the intensification reading altogether (Meinunger 2009).

(39)   a.   mit ein-er   **voll**-en   Flasche
              with a-NOM.SG.F *full*-NOM.SG.F *bottle.*NOM.SG.F
              'with a full bottle';   *not* "with a total bottle"
        b.   Die Flasche ist **voll**.
              the bottle   is full
              'The bottle is full'

That is, the main difference between *sau* or *mords* on the one hand, and *voll* on the other, is most likely a diachronic one regarding the different sources from which the EIs were grammaticalized. Let us address these differences in a bit more detail. However, we shall note that the following remarks on the development of EIs are rather speculative, since actual diachronic studies of the development of such elements are yet to be done, and an endeavor like that is beyond the scope of this paper. Hence, the assertions in the following should be considered more as hypothesis, rather than statements of matters of fact. That being said, it seems highly plausible that the EI *voll* originated from the still existing homophone adjective (Claudi 2006, 354). While adjectives in general seem to be the most frequent source of EIs, this is, however, not the case for *sau* and *mords*, which developed out of nouns. An intermediate stage, which also supports at least an adnominal component, is the use of these nouns in nominal word formation.

(40)   a.   **Sau**wetter, **Sau**regen, **Sau**karre
              sow.weather, sow.rain, sow.junker
        b.   **Mords**party, **Mords**spaß, **Mords**sound
              murder.party, murder.fun, murder.sound

Interestingly, this use as first elements in nominal compounds seems to have developed into so-called prefixoids in adjectival intensifying word formation (Pittner 1996,

Table 2 Classes of EIs

		internal $\text{Deg}_N{}^0$	ϕ on EI	source
(I)	*total* group	✓	✓	ADJ
(II-a)	*voll* group	✗	✗	ADJ
(II-b)	*sau* group	✗	✗	N

1991; Stevens 2005). In such cases, *sau* and *mords* are already pretty close to being EIs, the major difference being that they are not entirely independent words yet and, given the orthographic conventions of written German on word formation, hence are written without a separating space between prefixiod and base.[11]

(41)   **mords**dumm, **sau**dumm
       murder.dumb, sow.dumb
       'very stupid'

For these constructions, we assume, it is a small step to a reanalysis as independent degree expressions, in which case they have to be considered as proper independent words and are also written as such. In case of EIs, the availability of the external position is the perfect diagnostic for this because elements of derivational morphology, prefixes or prefixiods all the like, cannot be separated from their bases. Furthermore, note that not all intensifying prefixoids underwent this kind of grammaticalization. That is, while EIs can occur in external position, this is impossible for the majority of other elements Pittner lists. For instance, while *stock* (lit.) 'stick' or *stroh* (lit.) 'straw' combine naturally with *dumm* 'stupid', they cannot do so in external position like *sau* and *mords* can (we use "IPX" to gloss the intensifying prefixiods).

(42)   a.   **stock**dumm, **stroh**dumm
            IPX.*stupid,*   IPX.*stupid*
            'very stupid'
       b.   *{**stock/stroh**} die dumme Idee
            IPX   *the stupid   idea*
       c.   {**sau/mords**} die dumme Idee
            EI   *the stupid   idea*
            'EI a stupid idea'

What we can conclude from this excursus into the diachronics of *sau* and *mords* is that they had a development path different from *voll*, and this is what makes them to behave superficially different. However, as already noted above, the sole reason is that *voll* has a homophone adjective (which is its historical source). What unites them is that they are unable to carry inflectional morphology, in contrast to *total, komplett* and the like, which can (still?) be inflected like adjectives, even in their EI function. As summed up in Table 2, we therefore end up with two to three different classes of EIs, depending on whether you want to count the *voll* group as its own class or not.

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[11] See Pittner (1996) for more criteria to distinguish the first elements of intensifying word formation from independent words.

The important difference is that only members of the *total* group can actually surface in adnominal position. However, as we will explicate below, it has to be assumed that the other EI classes can function as adnominal degree elements as well, but that due to their inability of bearing ϕ-features, they cannot stay in that position. It can can be argued, then, that – as EIs – the *voll* group exhibits a greater degree of grammaticalization because they have lost the ability for inflection of their adjectival source items, while EIs like *total* still retain them.

Despite the differences between the three groups, what they all have in common – in addition to the availability of the external position – is that none of them, not even those of the inflectable *total*-group, can bear comparative- or superlative morphology, which further supports the assumption that they are the head of the $\text{Deg}_\text{N}\text{P}$ and not adjectives.[12] This contrasts, for instance, with size adjectives, *groß* 'big', which, even in the adnominal degree reading, are still APs viz. DegPs. But, as mentioned briefly above, rather than modifying the noun directly as attributive adjectives do, they are selected for by the abstract MEAS-morpheme which itself takes up the $\text{Deg}_\text{N}\text{P}$ head position.

Having discussed EIs in the two DP-internal variants, we will now turn to the external degree modification construction. As before, we start by discussing the adjectival use first, before we turn to the adnominal case.

2.3 Adjectival external intensifying constructions

The fact that EIs can occur in DP-external position in which they precede the entire DP sets them apart from the well studied ordinary degree expressions like *sehr* 'very'. Since those cannot occur in the external position (van Os 1989, 16), it is a rather surprising position for a degree expression to appear in.

(43)   Du hast gestern   **sau** / ***sehr** die coole Party verpasst.
        you have yesterday EI   *very   the cool   party missed*
        'Yesterday, you missed EI/*very a cool party.'

The external position is by a large margin the most prominent feature of EIs and what sparked our interest in them in the first place. As we will see, this position is associated with some puzzling syntactic and semantic aspects that are in need of an explanation. In the following sections, we will give an overview over the behavior of the external degree modification construction or, for short, EDC. In doing so, we will especially concentrate on features that will point us towards how an appropriate analysis of EDCs has to look like.

2.3.1 EDCs are DPs

A first important observation about EDCs is that, despite having the degree expression outside of the DP, they nevertheless behave like DPs and not like DegPs. As shown by (43) and many other examples, the external EI-construction can serve as an

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[12] Further arguments against an analysis of EIs as adjectives will be presented in § 2.3.2 below.

argument for predicates like *verpassen* 'to miss' that take DPs but not DegPs. Substituting the EDC in (43) with a proper degree phrase clearly leads to ungrammaticality, as in (44).

(44)   Du hast gestern $\left\{\begin{array}{c} \text{[}_{DP} \textbf{ sau } \text{die coole Party]} \\ \text{[}_{DP} \text{ eine Party]} \\ \text{*[}_{DegP} \text{ sehr cool]} \end{array}\right\}$ verpasst.

        'You missed $\left\{\begin{array}{c} \text{[}_{DP} \text{ EI a cool party]} \\ \text{[}_{DP} \text{ a party]} \\ \text{*[}_{DegP} \text{ very cool]} \end{array}\right\}$ yesterday.'

That EDCs are DPs and not DegPs is also shown by the fact that they can be freely coordinated with other DPs, as witnessed by the following example.

(45)   Du hast [$_{DP}$ **sau** die coole Party] und [$_{DP}$ ein tolles Konzert] verpasst.
        you have   EI the cool party and   a great concert missed
        'You missed EI a cool party and a great concert.'

The previous example also illustrates that the entire structure [EI DP] forms a single constituent. This conclusion is also reached by Meinunger (2009), who provides the sole theoretical discussion of the external degree modification construction we are aware of. He presents further arguments that show that external EIs indeed belong to the DP they precede. If they did not form a constituent, they should be able to be split apart. This, however, is impossible (cf. Meinunger 2009, 124).

(46)   a.   *\textbf{Sau} hast du   die coole Party verpasst.
            EI   *have you the cool   party missed*
       b.   *Die coole Party hast du   **sau** verpasst.[13]
            the cool   party have you EI   *missed*
            Both intended: "You missed EI the cool party."

These examples illustrate that splitting an EDC apart leads to ungrammaticality, regardless of the order of the splitting.

2.3.2 EDCs are degree expression (not adjectives)

In contrast to our analysis of internal EIs as degree expressions that occupy the head position of DegP, Meinunger takes external *voll* and *total*, as well as some other examples, to be adjectives. He calls them *left-most adjectives* and argues for an analysis

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[13]   Note that using *voll* or *total* instead of *sau* in (46b) makes the sentence grammatical.

(i)   Die coole Party hast du **total** verpasst.
       the cool party have you totally missed
       "You totally missed the cool party."

However, in that case, we are not dealing with EIs but with ordinary adverbs modifying the VP. As indicated by the translation, this leads to a different reading. To avoid such issues, we prefer to use *sau* in our examples whenever the difference between the EI classes do not matter, because *sau* is unambiguously an EI, except for the homophone noun, with which it can hardly be confused.

that treats them parallel to some special adverbials that occur in the left-most periphery of the CP, thereby giving more support for the thesis of the parallelism between CP and DP (Abney 1987; Laenzlinger 2010). The adverbials Meinunger studies are speaker-oriented adverbs that can even precede the so-called prefield, the otherwise first position in German main clauses, leading to a seemingly verb third constellation, something which is otherwise mostly excluded in German. An illustrative example is given in (47), while (48) shows that other elements from inside the clause cannot occur in that left-most position.

(47)   **Offen gesagt**, ich fand   die Party ziemlich langweilig.
         openly said   I   found the party pretty   boring
         'Frankly speaking, I think the party was pretty boring.'

(48)   *Die Party, ich fand   **offen   gesagt** ziemlich langweilig.
         the party I   found openly said   pretty   boring

While such adverbials occur in an orphaned position preceding even the specifier position of C (the otherwise highest projection of the clause), Meinunger argues that external *voll* and *total* take up the same position with respect to the DP. In particular, he assumes that external EIs or – this is also his terminology – "outer adjectives", are base-generated in the external position (Meinunger 2009, 132). Accordingly, he assumes, they are not inflected because they are not derived from relative clauses like attributive adjectives under a Kayne-style analysis (Kayne 1994) of attributive adjectives, which he adopts, following Struckmeier (2007). Because of that, they are not in a position in which they receive inflection and therefore, they remain uninflected when in external position.

However, without needing to go into the details of Meinunger's analysis, we think that it cannot be correct. First, while there are homophone adjectives for the EIs from the *voll* or *total* group, which may have lead Meinunger to his adjectival analysis, this does not hold for EIs from the *sau* group, which are derived from nouns. As we have seen, EIs like *sau* cannot be used as an adjective, regardless of whether they are inflected (which is impossible) or remain uninflected. The fact that this does not only hold for supposedly attributive uses, but also for predicative positions, shows that *sau* cannot even be considered as an uninflectable adjective.

(49)   a. $^\%$die **sau** Party
            the EI   *party*
        b.   *die **sau**-e   Party
            the EI-NOM.SG.F *party*.NOM.SG.F
        c.   *Die Party ist **sau**.
            the party is   EI

A second argument against an adjectival treatment of EIs comes from the fact that it loosens the connection between external and internal EIs. As for internal EIs, it is even more evident that they cannot be adjectives, simply because of the fact that they are used to modify adjectives, which is not generally possible for adjectives in Ger-

man. This is true, even if the adjective in question would semantically be well suited for an intensifying function, shown by its felicity in adnominal degree phrases.[14]

(50)   *eine {groß / stark} coole Party
       a   *big* / *strong cool party*

In addition, the problems regarding additional degree elements also holds for internal EIs, see example (23) above. That is, an analysis of external EIs as adjectives is unlikely on its own merits, but it is even more unlikely given that such an analysis of internal EIs faces additional problems. In light of the discussed data, we therefore conclude that an analysis of EIs, regardless whether internal or external ones, as adjectives is inadequate. However, as we will see later below, some aspects of Meinunger's (2009) approach will still carry over to our own proposal, even if we reject the adjectival basis of his approach.

2.3.3 The "definite" article

Further elaborating on the question of what constructions allow for EIs in external position, it is important to note that the presence of a gradable target inside the DP is not the only factor licensing EDCs. It depends also on the syntactic form of the DP, especially on the determiner. First, while EIs can occupy an external position if the DP is headed by a definite article, this is marked if the DP is a projection of an indefinite article (Androutsopoulos 1998, 353). The following examples illustrate this contrast.

(51)   ?Du hast gestern   **sau eine** coole Party verpasst.
       you have yesterday EI *a*   *cool party missed*

(52)   Du hast gestern   **sau die** coole Party verpasst.
       you have yesterday EI *the cool party missed*
       'You missed a totally cool party yesterday.'

Contrasting this restriction with the *definiteness effect*, which can be observed in existential constructions (Milsark 1977) or possessive constructions with *have* (Bach 1967), EDCs could be said to be connected with an *indefiniteness* effect (Wang and McCready 2007).

In a precursor of this paper (Gutzmann and Turgay 2012), we treated the indefiniteness effect as a hard constraint. However, further investigation of the data showed that there seem to be two speaker groups. One group, to which the authors belong, goes with Androutsopoulos's' judgment and generally rejects external EIs with indefinites, while the other group seems to accept them generally. We will later come to implement this micro-variation into our analysis.

Despite this variation, there seems to be a preference for definite articles in EDCs that is shown by corpus data. Though, unfortunately, there is no openly available

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[14]   Again, recall that adjectives like *big*, when used in adnominal degree phrases, are not the head, but are selected for by a MEAS function. This contrasts with EIs and other adnominal degree elements, which can directly occur in Deg_NP^0.

corpus of informal varieties of German (nor youth language) and since the two major corpora of German, *cosmas 2* and *DWDS*,[15] are mainly based on newspaper articles and therefore, EDCs cannot be expected to occur there. Thus, we have to rely on googling. However, even this method can illustrate the contrast between the definite and indefinite article in EDCs. We searched for the following variations of the EDC.

(53)   [EI] [D] $\left\{\begin{array}{c} \text{coole(r) 'cool'} \\ \text{geile(r) 'wicked'} \\ \text{gute(r) 'good'} \end{array}\right\}$ $\left\{\begin{array}{c} \text{Band 'band'} \\ \text{Freund 'friend'} \\ \text{Freudin '(girl)friend'} \\ \text{Idee 'idea'} \\ \text{Party 'party'} \end{array}\right\}$

For [D], we used the simple definite or indefinite article – *der/die* 'the' and *ein/eine* 'a' respectively while for [EI], we used *sau, total* and *voll*. Cumulating the results for each variant in Table 3, the number of google hits, #γ, for the definite article is #γ = 715.146. In contrast, for the indefinite article, we end up with #γ = 2.173 . Since the frequency for the various is quite different, depending on the adjective and noun involved, we give the numbers of hits for each variant in Table 5 in the appendix.

Table 3 Total google hits for EDCs

	#γ	
EI	+DEF	−DEF
sau	30.308	1
total	44.128	376
voll	715.146	2.173

We take these results as empirical support for the preference of definite determiners in EDCs, even for those speakers that accept indefinite EIs. As an interesting side note, the fact that *voll* is much more frequent than *total* matches the conjecture made above that *voll* is more grammaticalized and hence has lost its ability to be inflected (as an EI), while *total* still inherits this property from its adjectival source.

However, besides the preference for definite articles, there are some hard constraints on the syntax of EIs, since it does not allow for other definite determiners. For instance, demonstrative pronouns, which are definite, are also impossible with external EIs. The same holds for possessive pronouns or possessive genitives.

(54)   *Heute steigt   **sau** {diese / ihre / Ronjas}   coole Party.
              today goes.on EI   *that   her   Ronja*.GEN *cool   party*

Furthermore, EIs cannot occur in the external position of quantified DPs irrespective of whether the quantifier is strong or weak.

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[15] The corpora are accessible under http://www.ids-mannheim.de/cosmas2 and http://www.dwds.de.

(55) *Heute steigen {**sau** alle / einige / die meisten / höchstens drei} coole(n)
      Heute goes.on EI *all   some   the most   at most   three cool*
      Partys.
      parties

All these examples illustrate that the syntactic structures that license EDCs are very
specific and highly restricted. Furthermore, only EIs are allowed in this position,
while ordinary degree words like *sehr* 'very' are not, as it has been shown in (43).
This contrasts with the DP-internal position, in which EIs are much less restricted
and exhibit the same behavior as their non-expressive counterparts.

2.3.4 Definiteness mismatches

Beside their syntactic constraints, EDCs also involve a curious semantic effect. Even
EDCs with definite determiners are nevertheless interpreted as indefinite. The EDCs
in (56a) therefore correspond to the internal variant in (56b) and not, as would be
expected, to (56c).

(56) a. Heute steigt   **sau** die coole Party.
          today goes.on EI *the cool party*
          'Today, EI a cool party is going on.'   (56a) = (56b) ≠ (56c)
      b. Heute steigt   eine **sau** coole Party.
          today goes.on a   EI *cool party*
          'Today, a EI cool party is going on.'
      c. Heute steigt   die **sau** coole Party.
          today goes.on the EI *cool party*
          'Today, the EI cool party is going on.'

The following example nicely illustrates the indefinite interpretation of the entire
EDC.

(57) $^\gamma$Boah ist der Vater sch****!!!! ich dachte, da   kommt jetzt **voll der**
      *woah is the father sh****   I   thought there comes now* EI *the*
      coole Typ (der Rufus vlt   möglicherweise auch noch ähnlich sieht…)
      cool guy that Rufus perhaps possibly   also even alike   look
      und dann schiebt sich   so   ein Drecksack ins   Bild!!!
      and then wheel himself such a   scumbag   into.the picture
      'Man, is the father sh****!!!! I thought, now there comes EI a cool guy (that
      perhaps possibly even looks like Rufus) and then such a scumbag wheels
      itself into the picture!!!'
      (http://www.youtube.com/watch?v=m3szYNo8cZk)

Substituting the EDC in this context by an internal variant with definite article is
clearly illicit. As predicted, one needs to use an indefinite internal one to preserve the
intended reading.[16]

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[16] Stress on the determiner renders (58a) fine again. We will come back to this later in § 3.4.

(58) a. #da   kommt jetzt **der voll** coole Typ
          there comes now the EI *cool guy*
      b. da   kommt jetzt **ein voll** cooler Typ
          there comes now a EI *cool guy*
          'there comes a EI cool guy'

That this mismatch between definite syntactic form and indefinite interpretation is a semantic effect and not a pragmatic one can be illustrated by the fact that the DP-external use is incompatible with phenomena that require a definite interpretation, like explicit contrast constructions or adding the demonstrative *da/dort* 'there' in post-nominal position.

(59) *Ich habe **voll** den coolen Typen geküsst, nicht den langweiligen.
       I   have EI *the cool   guy   kissed   not   the boring*
       Intended: "I kissed EI the cool guy, not the boring one."

(60) *Ich kenne **voll** den coolen Typen da   von einer Party letzte Woche.
       I   know EI *the cool   guy   there from a   party last   week*
       Intended "I know EI the cool guy over there from a party last week."

Further evidence for the indefinite interpretation of EDCs is provided by the classical test for indefinites, namely, the ability to occur in existential or *have* constructions, which are impossible with definites (Bach 1967; Milsark 1977). External EIs pass this test, whereas definite DPs with internal EIs show the common definiteness effect associated with these constructions.

(61) a. Es gibt   **sau** den coolen Typen auf meiner Schule.
          it gives EI *the cool   guy   at   my   school*
          'There is EI a cool guy at my school.'
      b. *Es gibt   den **sau** coolen Typen auf meiner Schule.
          it gives the EI *cool   guy   at   my   school.*

(62) a. Ich habe **sau** den coolen Freund.
          I   have EI *the cool   boyfriend*
          'I've got EI the cool friend.'
      b. *Ich habe den **sau** coolen Freund.
          I   have the EI *cool   boyfriend*

 An additional piece of evidence for the definiteness mismatch is provided by proper names. In their ordinary use, proper names are always definite. Even if they do not require a determiner in standard German in order to have referential force, they combine freely with definite articles in many variants of German. When they do so, they are, however, impossible with EDCs, but fine with internal EIs.

(63) a. *Ich treffe heute **sau** den coolen Peter.
          I meet today EI *the cool   Peter*
      b. Ich treffe heute den **sau** coolen Peter.
          I meet today the EI *cool   Peter*
          'I'll meet the EI cool Peter today.'

Note that (63a) is only unacceptable when *Peter* is used as a real proper name. In cases in which a proper name is used to denote a property instead of an individual, external EIs are possible. For instance, *Einstein* can be used to express a property that is saliently associated with Einstein, like being a genius or having a bad grade in math.[17] If used in this way, which is indefinite, proper names license the use of EDCs.[18]

(64) $^\gamma$Der David is son kleines Genie, **voll** der EINSTEIN...
the david is such.a small genius EI *the Einstein*
'David is such a genius, a total Einstein.'
(http://joylaura.homepage24.de/Friends)

(65) $^\gamma$Jeah **voll** der Einstein. Nein du hast sogar recht, in Mathe hatte ich eine 5
yeah EI *the Einstein no you have even right in math had I a 5*
[...]

'Yeah, a total Einstein. No, you're actually right, I had a 5 in math.'
(http://forums.d2jsp.org/topic.php?t=33449169&f=149&o=130)

Taking the discussed data together, we take this as conclusive evidence that EDCs really behave like indefinite DPs, in spite of the required definite article.

Table 4 summarizes the discussion of the definiteness mismatch, adding internal EIs to the picture as well. In contrast to EDCs, internal EIs do not exhibit a similar mismatch between the syntactic form and semantic interpretation. The choice of the determiner is not restricted at all, and the interpretation of the entire DP compositionally reflects which determiner is used. Only in EDCs, we can detect the definiteness mismatch. First, indefinite articles (as well as many other kinds of determiners) are marked in EDCs, whereas the (required) definite article is nevertheless interpreted as indefinite.

2.4 Nominal external intensifying constructions

Let us now come to the EI-construction that is still missing, namely those in which an external EI intensifies the degree associated with a DP-internal noun instead of the

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[17] The later property wasn't actually true for Einstein. This widespread popular myth is based on the fact that the grade system in Switzerland, where Einstein went to high school, is the mirror image of the German one. That is, 6 is the worst and 1 the best grade in Germany, while in Switzerland at that time, 6 was the best. See http://commons.wikimedia.org/wiki/File:Albert_Einstein%27s_exam_of_maturity_grades_%28color2%29.jpg.

[18] Example (64) contains a curious exception to the bigness generalization that seems to be particular to German. As Morzycki (2009, 181) observes, "[a]djectives that predicate bigness systematically license degree readings. Adjectives that predicate smallness do not." But, as he addresses in a footnote, *klein* in German provides a curious exception to this otherwise wide-held generalization (Morzycki 2009, 181). We think it is not really problematic. First, it is not clear that it expresses a small degree: rather it seems to act upon the dimension expressed by the noun itself. That is, a *kleines Genie* is not necessarily somebody that has a small degree of being genius, but is a genius in not all the major respects, which is akin to Morzycki's significance reading. Secondly, even if it allowed a true degree reading, it seems to be an idiosyncratic property of German, as in general, adjectives of smallness do not give rise to degree readings in German.

Table 4 Syntax-semantics (mis)matches with EIs

	syntax	←match→	semantics
internal	indefinite	✓	indefinite
	definite	✓	definite
external	indefinite	(✓)	indefinite
	definite	✗	indefinite

degree of an adjective. We gave an example for this in (10), and more examples of such adnominal EDCs can easily be found.

(66) $\gamma\left\{\begin{matrix}\text{mords}\\\text{sau}\\\text{total}\\\text{voll}\end{matrix}\right\}\left\{\begin{matrix}\text{der Idiot}\\\text{die Party}\\\text{die Stimmung}\end{matrix}\right\}$ "EI the {idiot/party/atmosphere}"

Like their internal kins, adnominal EDCs are only licensed by particular, gradable nouns. Hence, the contrasts observed in (31)–(34) for internal adnominal EIs carry over to the external variant.

(67) a. ***total** das Auto
      EI   *the car*
    b. $^{\gamma}$**total** die Schrottkarre
      EI *the junker*
     'EI a junker'

(68) a. ***total** das Haus
      EI   *the haus*
    b. $^{\gamma}$**total** die Villa
      EI *the villa*
     'EI a villa'

Adnominal EDCs also share properties with the external adjectival variant. In particular, they exhibit the same definiteness mismatch, as the definite article is interpreted as indefinite.

(69) *Ich habe **total** die Schrottkarre da   gekauft.
    I   have EI *the junker   there bough*
    Intended: 'I've bought EI the junker over there.'

The important observation about adnominal EDCs is that they are possible with all EIs, even those from the *voll* or *sau* group, which, as we have shown in the discussion around (36), cannot be used in internal adnominal position. That is, in contrast to (36), which we repeat here for convenience, the variants in (70) are all possible.

(36) *ein $\left\{\begin{matrix}^{\%}\text{mords}\\^{\%}\text{sau}\\^{?}\text{voll}\end{matrix}\right\}$ Idiot

(70) $\gamma\left\{\begin{matrix}\text{mords}\\\text{sau}\\\text{voll}\end{matrix}\right\}$ der Idiot   'EI the idiot'

That, of course, does not mean that the external position in adnominal EDCs is an anything-goes position; ordinary degree items like *sehr* are still excluded from that position, just as they are impossible in internal adnominal contexts.

(71)　　a.　*sehr der Idiot　　　　　　b.　*ein sehr Idiot
　　　　　　very the idiot　　　　　　　　　*a　very idiot*

Any approach to EDCs therefore must tell something about why EIs which seem to have the same internal distribution as ordinary degree items – being licensed in adjectival contexts, but excluded from adnominal ones – can nevertheless occur in external adnominal and adjectival EDCs, while *sehr* and its kin cannot.

　　　Before going on, let us briefly address an interaction between adnominal and adjectival use, especially in EDCs. The important observation is that EDCs seem to be possible even with non-dimensional adjectives that do not combine well with degree modifiers (van Os 1989), at least not without coercion. Consider for instance, adjectives like the following.[19]

(72)　　a.　sechsbeinig 'with six arms'
　　　　b.　letzt 'last'
　　　　c.　unlösbar 'unsolvable'
　　　　d.　arbeitslos 'unemployed'
　　　　e.　schwanger 'pregnant'

As these adjectives are not connected to a dimensional scale, they are marked, if not unacceptable, with ordinary degree expressions. The same holds for EIs in internal position.

(73)　　a.　*ein {**sehr / sau**} sechsbeiniges Monster
　　　　　　a　very　　EI　*six.legged　　monster*
　　　　b.　*ein {**sehr / sau**} arbeitsloser Mann
　　　　　　a　very　　EI　*unemployed man*
　　　　c.　*ein {**sehr / sau**} unlösbares Problem
　　　　　　a　very　　EI　*unsolvable problem*

In contrast to this restriction, such non-dimensional adjectives can, however, co-occur with external EIs under certain circumstances.

(74)　　a.　**sau** das sechsbeinige Monster[20]
　　　　　　EI　*the six.legged　　monster*
　　　　b.　ᵞdas war **voll** das unlösbare　problem [...]
　　　　　　that was EI　*the unsolvable problem*
　　　　　　"That was a totally unsolvable problem."
　　　　　　(http://www.bym.de/forum/welt/437314-hallo-80-print.html)
　　　　c.　ᵞGerade　bin ich **voll** der arbeitslose　Penner　[...]
　　　　　　currently am I　EI　*the unemployed bummer*

"Currently, I am a totally unemployed bummer."

(http://www.tagesspiegel.de/berlin/ich-bin-ein-berliner-63-ich-bin-gerade-penner/8226140.html)

However, we think that such examples constitute only superficial evidence against the generalization that EIs can only be used with gradable expressions. The EDCs in (74) do not target the adjective directly, but instead are used adnominally and intensify the complex NP containing the attributive adjective as well as the noun. There are two arguments in favor of this assumption. First, all of the examples in (74) are still grammatical if the adjective is omitted.

(75)   a. $\gamma \left\{ \begin{array}{c} \text{sau} \\ \text{voll} \\ \text{total} \end{array} \right\}$ das Monster   "EI a monster"

     b. $\gamma \left\{ \begin{array}{c} \text{sau} \\ \text{voll} \\ \text{total} \end{array} \right\}$ das Problem   "EI a problem"

     c. $\gamma \left\{ \begin{array}{c} \text{sau} \\ \text{voll} \\ \text{total} \end{array} \right\}$ der Penner   "EI a bummer"

This shows that the adnominal use is available for the EDCs in (74). The availability of the internal adnominal degree reading for the following examples further confirms this.

(76)   a.   ein {totales / großes} Problem
         a   EI   *big*   *problem*
         'a EI/big problem'

     b.   ein {totaler / großer} Penner
         a   EI   *big*   *bummer*
         'a EI/big bummer'

The second argument for an adnominal analysis of the cases in (74) comes from the observation that the examples become bad if the noun is substituted by a non-gradable one.

(77)   a.   *__sau__ das sechsbeinige Insekt
         EI   *the six.legged*   *insect*

     b.   *__sau__ die arbeitslose Person
         EI   *the unemployed person*

These considerations support an analysis in which EDCs that involve non-gradable adjectives are actually modifing a complex NP which happens to contain an adjective as well. That is, as long as at least one component inside the DP is gradable, the noun or the adjective, an EDC should be available.

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[20]   This example is due to an anonymous reviewer.

3 Towards a syntactic analysis of EDCs

Having described in detail the behavior of expressive intensifiers in both internal and external position, we can now tackle the questions we raised at the beginning of this paper, and which we repeat here.

(Q1) **Relation between internal and external EIs**
       How is the external position related to the internal one? That is, is it derived by movement or are external EIs base-generated?

(Q2) **Position**
       What is the position in which external EIs reside and why can they appear there in the first place?

(Q3) **Definiteness mismatch**
       Why are EDCs with definite articles nevertheless interpreted as indefinite? See (15).

(Q4) **Constraint on EIs**
       Why can EIs occur DP-externally, but not ordinary degree items like *sehr* 'very'? See (13).

(Q5) **Different classes of EIs**
       Given that in external position, all EIs can be used adnominally, why are some EIs blocked from the internal adnominal position? See (11).

(Q6) **Intervention effects**
       Why does a variety of constructions, like complex quantifiers or even other EIs or adnominal size adjectives block EDCs? See (16) and (17).

Before we are going to answer these questions one by one, we will first outline our syntactic analysis and then show what answers it provides to the six questions, which in turn will give us the opportunity to motivate the approach in more detail.

3.1 The syntactic structure of EDCs

Our analysis of the EDC is based on two main hypothesis. The first one concerns the relation between the internal and external position, the second one make assumptions about the relation between the determiner and the expressive nature of EIs.

(H2) **The external position is derived by complex quantifier formation**
       From the adnominal degree position, EIs are moved to D and form a complex quantifier with the determiner.

(H2) **Expressivity is a synactic feature**
       D can come with the a expressivity feature that must be realized phonologically.

Taken together, these two hypotheses lead to a syntactic analysis of EDCs which, we think, is able to account for the major empirical observations regarding EIs and the EDC as detailed in this paper.

As summarized in Table 1, the two factors POSITION (*internal* vs. *external*) and TARGET (*adjective* vs. *noun*) lead to four different cases EI-constructions. For each of those, we need slightly different analyses, all of which, however, are directly based on the two hypotheses just introduced.

The basic syntactic grid on which we base our analysis of all four cases combines the two degree projections that we outlined in §2.1 and §2.2. We have the adjectival degree phrase as an extension of the AP (78) and the adnominal degree phrase as an additional functional layer for gradable NPs (79).

(78) $[_{DP} D^0 [_{NP} [_{DegP} Deg^0 [_{AP} \ldots]] [_{NP} \ldots]]]$

(79) $[_{DP} D^0 [_{NP} [_{DegP} Deg^0 [_{AP} \ldots]] [_{NP} \ldots]]]$

For internal use of EIs, i.e. the (IA) and (IN) case in Table 1, the structures are the ones already sketched in (25) and (35): internal adjectival EIs are the head of the adjectival degree phrase, just like ordinary degree items like *very*, whereas internal adnominal EIs take up the head position of the adnominal degree phrase.

(80)   a. $[_{DP} \text{eine} [_{NP} [_{DegP} [_{Deg^0} \text{total}] [_{AP} \text{coole}]] [_{NP} \text{Party}]]]$ "a EI cool party"
         b. $[_{DP} \text{eine} [_{Deg_N P} [_{Deg_N^0} \text{totale}] [_{NP} \text{Party}]]]$ "a EI party"

From these internal structures, the external variant is derived, according to (H1), by moving the EI into D^0, where it forms a new complex quantifier with the definite determiner.[21]

(81)   a. $[_{DP} [_{D^0} \text{total+die}] [_{NP} [_{DegP} [_{Deg^0} \text{~~total~~}] [_{AP} \text{coole}]] [_{NP} \text{Party}]]]$
         b. $[_{DP} [_{D^0} \text{total+die}] [_{Deg_N P} [_{Deg_N P^0} \text{~~total~~}] [_{NP} \text{Party}]]]$

Keeping this basic analysis in mind, we can now provide answers to the four questions outlined above and explore the motivation for and consequences of (80) and (81) in more detail.

3.2 EDCs are derived by movement

Our analysis of EDCs is based on the basic idea that EDCs are derived by movement from the internal EI-constructions. However, we should briefly consider the alternative that external EIs are independent from the internal position and are base-generated in their external surface position.

A first challenge for the base-generation approach is that it must tell a story about why EDCs are only possible if there is actually a gradable target inside the DP, that

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[21] Except for the landing site and the incorporation, this analysis of adjectival EDCs follows Matushansky's (2002) analysis of "degree movement" in English.

(i) $[_{NumP} [_{AP} \text{so capable}]_1 [_{Num'} [_{Num} \text{an}] [_{NP} t_1 [_{NP} \text{assistant}]]]]$.

The important difference between constructions like this and the EDC is that they involve phrasal movement as the adjectives is commonly pied-piped. Therefore, Matushansky assumes the specifier position as the landing site. See also Kallulli and Rothmayr (2008) for a similar construction in German.

is, if the DP contains an adjectival or adnominal degree phrase (82a). Also, as shown by (82b), if there is a degree phrase, its degree argument must not already be satisfied by a measure phrase.

(82) a. *__sau__ der Liter Saft
          EI *the liter juice*
      b. *__sau__ die 2 Meter langen Bretter
          EI *the 2 meters long   planks*

Since it should not be possible for an external EI to look inside a DP, there must be a mechanism to ensure that the information about gradability percolates up to the DP level. This is not to say, of course, that this cannot be done, but that it involves additional assumptions that are not necessary for a derivational approach, and which go beyond what is needed to account for internal EIs, something that is not necessary for the derivational approach.

A more severe challenge is provided by the blocking examples we discussed in the introduction. What is relevant here is the case in which an internal adnominal EI blocks an external use of an adjectival EI.

(83) *__sau__ der **totale** reiche Idiot
      EI *the* EI   *rich   idiot*

The problem with this construction is that the impossibility of having *sau* in external position solely depends on the presence of the adnominal EI, which has nothing to do with the gradability of the adjective which *sau* is supposed to target. We do not see a reasonable explanation for this blocking effect under a base-generation approach, whereas the derivational account does not need any additional assumptions, as we will shown in § 3.7 below. We therefore conclude that a derivational relation holds between the internal and external position. We will discuss the reasons that drive this movement in the next sections.

3.3 External EIs undergo complex quantifier formation with the determiner

Besides derivationally relating external EIs to internal ones by movement, the main component of the proposed analysis is the idea that EIs undergo complex quantifier formation with the determiner. The inspiration for this move is drawn from Zimmermann's (2003) analysis of constructions involving an infrequency adjective inside a DP which is interpreted like the corresponding DP-external adverbial. Due to the examples used in Stump's (1981) influential paper on this topic – one of which he in turn attributes to Bolinger (1967, 5) – such constructions are know as *occasional constructions* (OCs).

(84) An occasional sailor strolled by.

Beside the internal interpretation that a person that sails occasional, an alternative interpretation of constructions like this is one in which *occasional* is not interpreted as an attributive adjective, but as an adverb scoping over the entire event.

(85)   Occasionally, a sailor strolled by.

As already noted by Stump (1981, §2.2), but discussed in more detail by Zimmermann (2003), OCs are also possible with definite determiners. Crucially, even such seemingly definite OCs are interpreted like the indefinite adverbial counterpart in (85).

(86)   The occasional sailor strolled by.
         ≈   'Occasionally, a sailor strolled by.'   [=(85)]
         ≉   'Occasionally, the sailor strolled by.'

In this regard, OCs exhibit a definiteness mismatch similar to the one involved in EDCs, even if it is not as strong, because OCs are also possible with indefinite articles, something that is ruled out for EDCs.

    The external reading, as the adverbial reading of OCs can be called, is not freely available, but obeys some syntactic restrictions. First, as already observed by Stump (1981), the external reading requires adjacency of the determiner and the adjective, so that it is blocked if there is an intervening element (Zimmermann 2003, 252).

(87)   a.   The **occasional** well-dressed sailor strolled by.
                ≈ 'Occasionally, a well-dressed sailor strolled by.'
         b.   The well-dressed **occasional** sailor strolled by.
                ≉ 'Occasionally, a well-dressed sailor strolled by.'

Secondly, the external reading of OCs is only possible with indefinite and definite articles, but neither with cardinal or strong quantifiers, nor with demonstratives (Zimmermann 2003, 252).[22]

(88)   a.   Two occasional sailors strolled by.
                ≉ 'Occasionally, two sailors strolled by.'
         b.   Every occasional sailor strolled by.
                ≉ 'Occasionally, every sailor strolled by.'
         c.   This occasional sailor strolled by.
                ≉ 'Occasionally, this sailor strolled by.'

While not exactly the same, quite similar constraints hold for EDCs. First, recall from the last section that EDCs are also impossible with quantifiers and demonstratives. Secondly, an additional adnominal EI blocks a reading in which an external EI intensifies a lower adjective.

(89)   *Heute steigt   voll die große, coole Party.
         today goes.on EI   *the big   cool   party*
         intended: "Today an important, totally cool party goes on"

OCs are related to EDCs in another important aspect. Since OCs are interpreted as in (85), the infrequency adjective somehow must be raised into a position from which it

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[22] Zimmermann (2003) also mentions bleached 2nd person singular possessive pronouns as another possibility for the external reading, as in *Well, your occasional sailor would also show up.*

can take scope over the event denoted by the VP, even if this raising happens covertly. Therefore, any analysis of OCs must provide a proper landing site (at LF) for the infrequency adjective. Without committing to any particular analysis, similar things hold for the EDC and therefore, the analysis of OCs may cast some light on how a syntactic analysis of EDCs may look like. Zimmermann (2003, 250, 254) discusses three potential analyses for the external reading of OCs.

(90)   *LF-extraction out of the DP*
       A . . . [$_{DP}$ D [A̶ NP]]

(91)   *Complex quantifier formation by incorporation into the determiner*
       [$_{DP}$ D+A [A̶ NP]]

(92)   *LF-movement to the specifier position of DP*
       [$_{DP}$ A [D [A̶ NP]]]

After discussing the alternatives, Zimmermann (2003) settles on (91), complex quantifiers formation (CQF), as the proper analysis. The main reasons are (i) that the CQF analysis can account for the observed syntactic restrictions and (ii) the shift in interpretation, while (iii) not violating general syntactic constraints. First, the blocking effect of an intervening adjective can be explained by Travis's (1984) head movement constraint or its minimalist successors like relativized minimality (Rizzi 1990; Chomsky 1995), according to which a head can only be moved to its next suitable head position and cannot skip an intervening head position (see Zimmermann 2003, 258, for this argument; cf. also Roberts 2001). In addition, since the infrequency adjective and the determiner form a new, complex quantifier, it is not necessarily that what surfaces as a definite article really is a definite article and hence the shift in interpretation can be accounted for. That is, "compositionality does not extend into the complex quantifier", but this is to be expected as "choosing the indefinite or the definite article as part of the complex quantifier does not make a difference for the overall meaning of OCs" (Zimmermann 2003, 257). In contrast, LF-extraction out of the DP and LF-movement to DP^{spec} cannot account for the definiteness mismatch as easily. In addition, the LF-extraction approach faces the problem that definite DPs are islands for both overt and covert extraction (Fiengo and Higginbotham 1981) and therefore, without further motivation, it is unclear why extraction should be possible in this case.

Let us see how these arguments transfer to external EIs. First, note that movement to DP^{spec} is not a viable option for EIs, which are heads and hence cannot end up in that position due to the standard structure preservation requirement that "the landing site of head movement must always be another head" (Roberts 2001, 113). Extraction out of DP is not an option either, as the head movement constraint prohibits that an EI skips an intervening head, which is D^0 in this case.[23] Hence, as for OCs, complex

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[23] Note that in modern incarnations of the head movement constraint, locality constraints are relativized to features (cf., e.g., Epstein et al. 1998; Ferguson 1996; Chomsky 2001), so that one could argue that D^0 is not a proper landing site for head movement of degree elements and hence does not intervene. We adopted such a stance in a previous version of this paper (see Gutzmann and Turgay 2012), but the anonymous reviewers did a good job of pointing out that it has severe consequences for the rest of our approach, which differed from the present proposal, which does not need such a stipulation anymore.

quantifier formation is the only option left for EDCs as well. Not that in contrast to the occasional constructions, CQF happes overtly in case of EDCs and not just at LF.

Basically, we follow Zimmermann's (2003) argumentation and adopt his analysis of OCs and assume that EDCs are derived by moving an EI into D^0, where it undergoes incorporation with the determiner.

(93)
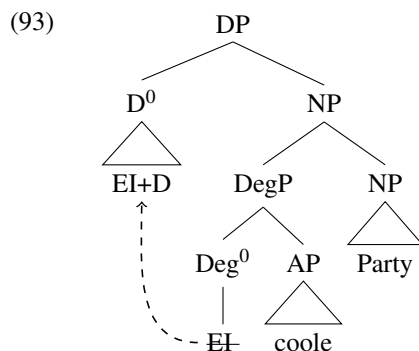
Beside these more theoretically driven arguments for a CQF-based approach to EI-raising, it is also supported by some empirical considerations. First, it allows us to adopt Zimmermann's (2003, 258) reasoning regarding the observation that EIs are impossible with quantifiers, demonstrative or possessive pronouns – see (54) above – namely that they "cannot take part in CQF because their inherent semantics must not be overwritten". In addition, it also offers a place to account for the observed interpretational shift of the determiner. Similar to the interpretational effects observed in the complex quantifier *occasional+the* in OCs, a complex quantifier like *sau+die* 'EI+the' is not expected to necessarily have compositional meaning. That is, we assume that what, after CQF, occurs as EI plus definite article is actually not a definite article, but rather an indefinite one.

Similar considerations apply to preference for definite articles in EDCs, which the CQF-analysis allows to approach. The comparison to the OC again helps. While, as we have seen, the OC equally allows for both definite and indefinite articles to incorporate with the infrequency adjective, the definite one is preferred with EDCs. The crucial difference between the two constructions is that OCs only involve CQF at LF, while EDCs also show it on PF. Hence, the preference for the definite article may best be expressed as a PF-constraint. That phonological factors are relevant is supported by the following considerations. As as illustrated by the google-date in 3, *sau* is almost impossible with indefinite articles, while *total* and *voll* occur more frequently with them. It is likely that this is due to a phonological constraint against the vowel hiatus that occurs with *sau+ein* 'EI+a'. Also, if the indefinite article is used in its reduced form *'n-*, it occurs more frequently with EDCs than the full form *ein-* 'a'. For instance, a google search for *voll eine coole* yields $\#\gamma = 887$, whereas for *voll ne coole*, the variant with the reduced article, we get $\#\gamma = 37,600$ (and $\#\gamma = 145,000$ for the definite variant *voll die coole*). For *sau ne coole* we get $\#\gamma = 10$ compared to $\#\gamma = 0$ for *sau eine coole*.

3.4 Expressivity is a feature of D

As to the question of *why* the article should form a complex quantifier with an EI, there are two different factors that we like to address. The first is based on the morphological properties of EIs and will be detailed in §3.6. The more important one involves the connection between the expressive character of EIs and the determiner. Before we can address EI-movement in the next section, let us start with the general assumption of having expressivity as a feature of D in German. As discussed by Androutsopoulos (1998, 353f.) and also noted by one of the anonymous reviewers, the definite article itself can be used to express an EI-like function, when it receives heavy stress.

(94)   a.   Gerhard ist **DER** Fußballexperte.
              Gerhard is the   football.expert
              'Gerhard is THE football expert.'
        b.   Heute steigt   **DIE** Party.
              today goes.on the party
              'Today, THE party is going on.'

Constructions like those are also what Androutsopoulos assumes to be the historical source for EDCs. The two relevant observations are that the heavily accented article is (i) interpreted as indefinite and (ii) expresses an intensification of the content of the NP. Following Androutsopoulos, we can hence paraphrase the meaning of constructions like (94a) with an indefinite DP with an adnominal degree element.

(95)   Gerhard ist ein besonders   großer Fußballexperte.
        Gerhard is an exceptional big   football.expert
        'Gerhard is an exceptionally big soccer expert.'

Androutsopoulos's (1998) idea is that using intensifiers with full DPs is related to such heavily accented determiners. If heavy accent is a means to give an expressive interpretation to a DP and change its interpretation from definite to indefinite, it does not seem implausible that other expressions like EIs can express this function, when they incorporate with the determiner, so that the heavy accent becomes superfluous. Androutsopoulos's considerations, if correct, fit our approach perfectly. Note, for instance, that a heavy accent on an indefinite DP does not give rise to the same interpretation.

(96)   #Gerhard ist **EIN** Fußballexperte.
        Gerhard is a   football.expert
        intended: 'Gerhard is an exceptionally big soccer expert.'

Also, using the intensifying accent together with an external EI is also infelicitous under the intended reading (cf. also Androutsopoulos 1998, 352), which further supports the conjecture that the two phenomena are closely related.

(97)   #Gerhard ist **sau DER** Fußballexperte.
        Gerhard is EI   the   football.expert

Let us spell out this connection in a bit more detail.[24] As shown by the accented cases, an accented definite determiner can function as an expressive intensifier. We assume that this is contributed by a feature [+ex(pressive] in D^0. Moreover, as we also saw, these constructions are interpreted indefinite and hence, we assume that [+ex] always co-occurs with [–def]. As (94) shows, this feature combination of [+ex][–def] in D^0 must be spelled-out as a definite article plus phonological emphasis in German.[25] For instance:

(98) $D[+ex][-def][\phi:\text{NOM.SG.F}] \Longrightarrow \text{DIE}$

Obviously, we assume that EIs are [+ex] as well. When they incorporates with D^0, we then get the same set of features in D. In contrast to the case without an EI in D, there is no need to spell-out the expressivity of the EDCs with heavy emphasis, as the EI already takes care of the realization the expressive feature. To account for the variation between the two speaker groups, we then assume that this configuration allows for two realization forms, one using the definite determiner and the other the indefinite one.

(99)   a. $\text{EI}+D[+ex][-def][\phi:\text{NOM.SG.F}] \Longrightarrow \text{EI}+die$
        b. $\text{EI}+D[+ex][-def][\phi:\text{NOM.SG.F}] \Longrightarrow \text{EI}+eine$

The speaker group that can use both definite and indefinite articles in EDCs, has access to both of these two morphological realization rules. Taken together, the feature combination of [+ex][–def] can lead to three forms: definite D with emphasis, EI plus definite article, and, for some speakers, EI plus indefinite article.[26]

The assumption of the expressive feature does not only help to capture the connection between the expressive-accent DPs and the external degree modification construction, but will also play an important role in addressing the question of why EIs move in the first place.

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[24] Many thanks to the editor, Susi Wurmbrand, for suggesting an analysis like the one presented in the main text.

[25] The fact that it must be the definite determiner that realizes this feature combination in German and that it cannot be the indefinite one probably results from a conspiracy of various factors. First, there seems to be blocking effect, as stress on the indefinite *ein-* 'a' results in an numerical interpretation.

(i)   Heute steigt   EINE Party! (Nicht zwei.)
       today goes.on a   party not   two
       'Today, A party goes on (not two).'

Secondly, as suggested by an anonymous reviewer, such use of definite DPs may have started from a proper definite, but modal-like reading of the definite article induced by the stress. Under such a reading, (94a) could be paraphrased by (ii).

(ii)   In the given comparison class, if you called anyone *the soccer expert*, it would be Gerhard.

[26] Beyond this, there also seem to be some phonological constraints involved that exclude the exclude the use of *sau* with the indefinite *ein-*, as this particular form is unavailable also for those speaker that otherwise accept EDCs with indefinite determiners.

3.5 EIs move to realize expressivity in D

So far, our approach does not feature any reason for the fact that EIs may move to D in the first place. However, the expressivity feature that we introduced in the previous section to implement the connection between EDCs and expressive DPs with accented determiners provides us with an opportunity for this as well. The main obstacle to providing a formal motivation for EIs to be raised to D^0 is that this movement seems to be entirely optional, given that speaker are free to chose between internal and external EIs, if we set aside the case the *sau*-type EIs in adnominal use. That is, (100a) and (100b) can freely be exchanged.

(100)   a.   eine **sau**   coole Party
                a   *EI cool party*
    b.   **sau**   die   coole Party
           EI the cool party

In order to syntactically regulate EI-raising nevertheless, we therefore assume that it is the expressive [+ex]-feature that can come with D that triggers this movement. As we have seen in the previous section, this feature must be realized phonologically in D^0, either by stress on the determiner or by an EI and, as shown by (97), this two ways are in complimentary distribution. To account for both optionality of the movement and these different ways to realize [+ex], we therefore assume that there different lexical variants of D that come equipped with different features. First, ordinary variants of D do not come with any with [+ex]. Because there is nothing that forces the movement, they surface as internal EIs with a definite or indefinite determiner, depending on the further specification of D.

(101)   a. $[_{DP} [_{D^0} D_{[+def][\phi:nom.sg.f]}] [\ldots EI_{[+ex]} \ldots]] \Longrightarrow$ die $\ldots$ EI $\ldots$
    b. $[_{DP} [_{D^0} D_{[-def][\phi:nom.sg.f]}] [\ldots EI_{[+ex]} \ldots]] \Longrightarrow$ eine $\ldots$ EI $\ldots$

Beside these simple D-variants, there are also those that carry the [+ex]-feature and which can potentially trigger the EI-movement. There are several ways to technically implement how this feature relates to the [+ex]-feature of the EI. As this is not the right to place to join the ongoing debate on how movement relates to agreement relates and syntactic features, we make just a few assumptions that allows us to implement the relation between D and the EIs. We do not really want our choices to be understood as a theoretical stance, as we think the data can as well be described with alternative assumptions about the underlying machinery. This caveat in mind, we assume that the expressive feature of D can come in two variants, a strong and weak one. The strong one, which we notate just notate as [+ex] as before, does not trigger any movement as it can express expressivity on its own. It is spelled out as the stressed definite article. That is, it corresponds to rule (98) given above. In contrast, the weaker expressivity feature, which we notate as [⋆ex] (borrowing from Sternefeld 2008), cannot be realized alone but needs to be "checked" by as strong version of the feature. Because an EI come with such a feature, this is what triggers its movement.[27]

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[27] We use the star-notation to remain uncommitted to the question whether it is uninterpretability or unvaluedness that triggers syntactic movement (Chomsky 2001; Zeijlstra 2012; Pesetsky and Torrego 2007).

(102)   a. $[_{DP} [_{D^0} D_{[\star ex][-def][\phi:\text{NOM.SG.F}]}] [_{NP} \dots EI_{[+ex]} \dots]]$
         → *move EI to D*

     b. $[_{DP} [_{D^0} EI+D_{[+ex][\star ex][-def][\phi:\text{NOM.SG.F}]}] [_{NP} \dots \text{EI} \dots]]$
         → *agreement*

     c. $[_{DP} [_{D^0} EI+D_{[+ex][\star ex][-def][\phi:\text{NOM.SG.F}]}] [_{NP} \dots \text{EI} \dots]]$

This derivation brings us back to the constellation we assumed in (99), which then can be spelled-out as an EDC with definite or, for some speaker, with an indefinite one.

     To sum up, we assume that it is the interplay between the expressive character of EIs and the expression of expressivity in D that is responsible for the EI-movement. In the next section, will consider another side effect this movement has. This way of thinking about external EIs also has the advantage that it offers a straight-forward solution to the question of why ordinary degree items like *sehr* 'very' cannot occur in external position (Q4). They are not expressive and do not carry the necessary [+ex]-feature that triggers the movement. Hence, they cannot move even in case there is a [⋆ex]-determiner.

3.6 Incorporation with D^0 is ersatz inflection

There is a complication to the picture presented so far. As we have seen in § 2.2, and as is summarized in Table 2, only *total*-type EIs can actually surface in the Deg$_N$-position; those from the *voll* and *sau*-group cannot. However, we take the fact that even those EIs can be used adnominally when in external position as evidence that they nevertheless are adnominal degree elements. But why can't they appear in the internal adnominal position? The key to answering this question lies in another observation presented in Table 2: the EIs that cannot be used in internal adnominal position are those that are unable to express ϕ-features by inflectional morphology, either because the EI has lost this ability (as in the case of *voll*) or never had it to begin with (as in the case of *sau*). However, as can be witnessed by inflectable EIs like *total* (103), the Deg$_N$P has to agree in ϕ-features with D^0 and must overtly express it.

(103)   a.   ein   **total-er**   Idiot
           a.NOM.SG.M EI-NOM.SG.M *idiot*.NOM.SG.M
           'a EI idiot'

     b.   *ein   **total** Idiot
           a.NOM.SG.M EI   *idiot*.NOM.SG.M

Because of this clash between the required overt expression of ϕ-features and their inability to do so, EIs from the *voll*- and *sau*-group cannot stay in Deg$_N{}^0$. However, the derivation can be rescued if the uninflected EI incorporates into D^0. The determiner

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Also note that even though the idea in the main text supposes a notion of agreement in which it the needy expression is below the strong one (Zeijlstra 2012; Wurmbrand 2012), we think that with some different assumptions the same core idea can likewise be formulated under a more standard version in which agreement goes downwards. We have to leave the question of whether EI-movement may tell us anything about how agreement works for further research.

then functions as a kind of "ersatz inflection". In other words, forming a complex quantifier like *sau+die* 'EI+the' is an alternative way for *sau* to partake in agreement that substitutes for the requirement of expressing the necessary ϕ-features on its own *in situ.*

Some evidence for the fact that the determiner, after incorporation, indeed takes care of the requirement of inflectional morphology is provided by the observation that even EIs from the *voll*-group, which can bear inflectional morphology, receive no additional inflection when they surface in external position.[28] Compare (103) to (104), where the judgments are reversed.

(104)   a.   **total** der Idiot
            total the idiot.NOM.SG.M

            'EI an idiot'
    b.   ***total-er**   der   Idiot
            total-NOM.SG.M *the*.NOM.SG.M *idiot*.NOM.SG.M

In addition, this is not only true for EIs, but for other expressions that can occur together with the determiner like some quantifiers (105). When used inside the DP, such an expression must be inflected, but if it precedes to the determiner, it must not carry its own inflectional morphology.

(105)   a.   **all-e**   Student-en
            all-NOM.PL.M *student*-NOM.PL.M

            'all students'
    b.   **all** die   Student-en
            all the.NOM.PL.M *student*-NOM.PL.M

            'all the students'
    c.   ***all-e**   die   Student-en
            all-NOM.PL.M *the*.NOM.PL.M *student*-NOM.PL.M

The incorporation-for-inflection approach also provides reasons for the observed definiteness mismatch and for the fact that EIs move first place. First, if the determiner is recruited as a means to express the necessary $\phi-$features morphologically, this explains why it does not express its ordinary meaning anymore.[29] In analogy to Zimmermann's (2003) analysis of OCs, it also explains why demonstratives, quantifiers or possessives can not be used in external EIs, because their additional lexical semantic content would be overridden.

In addition to providing an answer to (Q4), it also motivates why EIs move at all. While the movement from Deg^0 to $\text{Deg}_\text{N}{}^0$ is optional from a syntactic point of view, the move from $\text{Deg}_\text{N}{}^0$ to D^0 is completely driven by syntactic viz. morphological

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[28] This is also observed by Meinunger's (2009). In his approach, according to which EIs are adjectives that are base-generated in the external position, they are not inflected because they are merged in a non-inflectional position. In contrast, in our incorporation approach, external EIs are inflected after all, only that they use the determiner to do that.

[29] This may well be also true for (105). However, since universal quantifier should already be conceived as definite, one cannot really tell whether the CQF with the determiner overrides the D-feature of the determiner.

considerations. In the case of EIs of the *voll-* and *sau-*group, it is obligatory triggered once Deg_N^0 is reached in order to make up for the lack of inflectional morphology that is required in that position. In contrast, whether an EI like *total* moves to D^0 or remains *in situ* depends on whether the suitable inflectional morphology is used in Deg_N^0 or not.

Under this analysis, EI-movement is a consequence of them being in a agreement position but not being able to receive the necessary inflection for ϕ-features in that position. Hence, in some sense, they move to pick up agreement morphology similar to how a verb moves to pick up its inflection. Therefore, according to this analysis, EI-movement complies with the generalization that movement leads to richer morphology even if it *prima facie* does not (Zeijlstra 2012).[30] What is special of this case is that is a determiner that is recruited to fulfill the role of inflection.

3.7 Intervention effects

The presented analysis of EDCs can also explain some additional effects, which, to our knowledge, have not yet been described. The first set of data regards the interaction between adnominal and adjectival EIs. First note that the use of internal adnominal EIs together with adjectival EIs is possible.

(106)   ein [$_{Deg_NP}$ **totaler** [$_{NP}$ [$_{DegP}$ **sau** reicher] Idiot]]
         a   EI   EI *rich*   *idiot*
         'a total totally rich idiot'

What is crucial about this constellation is that the adnominal $DegN^0$ c-commands the adjectival Deg^0. Therefore, an adjectival EI that shall be raised in order to undergo CQF cannot directly be move to D^0, because it would cross $DegN^0$ and hence would go against the head movement constraint. Instead, it must first move to Deg_N^0. Therefore, an internal adnominal EIs is predicted to block an adjectival EI from raising to the external position. As we briefly mentioned above, this is indeed confirmed by the data.

(107)   ***sau** der **totale** ~~sau~~ reiche Idiot
          EI *the* EI   *rich*   *idiot*

As is expected as well, adjectival EDCs are not only blocked by adnominal EIs, but also by adnominal size adjectives.

(108)   ***sau** der **große** ~~sau~~ reiche Idiot
          EI *the big*   *rich* *idiot*

Of course, the opposite constellation – an internal adjectival degree element and an adnominal EDC– is perfectly fine.

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[30] Thanks to an anonymous reviewer for pointing this out, which helped us to see the interplay between EI-movement and inflection more clearly.

(109) **voll** der ~~voll~~ total reiche Idiot
      EI *the*   EI *rich* *idiot*
      'a total totally rich Idiot'

In a similar vein, because EIs have to form a complex quantifier with the determiner, the analysis predicts intervention effects if there are other expressions that form complex quantifiers. Again, this is borne out by the data. For instance, consider again the *occasional*-constructions discussed above. As they involve CQF at LF, they interfere with EDCs. As shown by (110a) and (110b), this holds irrespective of the order in which the infrequency adjective and the DegP hosting the EI are ordered. The same intervention effect can, as expected, be observed with adnominal EDCs as in (110c).

(110) a. ***Sau** der **gelegentliche**, reiche Kunde   betrat   den Laden.
         EI *the occasional*   *rich*   *customer entered the shop*
    b. ***Sau** der reiche, **gelegentliche** Kunde   betrat   den Laden.
         EI *the rich*   *occasional*   *customer entered the shop*
         both intended: 'Occasionally, a EI rich customer entered the shop'
    c. ***Sau** der **gelegentliche** Idiot betrat   den Laden.
         EI *the occasional*   *idiot entered the shop*
         intended: 'Occasionally, a EI idiot entered the shop.'

Internal EIs of course do not intervene with infrequency adjectives so that the later can undergo CQF and the adverbial reading of the OC is available.

(111) a. Der **gelegentliche sau** reiche Kunde   betrat   den Laden.
         the occasional   EI *rich*   *customer entered the shop*
         'Occasionally, an EI rich customer entered the shop.'
    b. Der **gelegentliche totale** Idiot betrat   den Laden.
         the occasional   EI   *idiot entered the shop*
         'Occasionally, an EI Idiot entered the shop.'

Another set of data that our analysis correctly predicts is provided by similar intervention effects that can be observed for other adjectives that form complex quantifiers with the determiner. For instance, the adjective *ganz* 'whole, intact' can built a complex quantifier roughly paraphrasable as "all the" (cf. Zimmermann 2003, 259, from whom we borrow the following example).[31]

(112) Wer hat denn die **ganzen** Punkte hier gemalt?
      who has then the whole dots   here painted
      'Who has painted all the dots here?'   (quantificational reading)
      NOT: 'Who has painted the whole/intact dots here?'   (attributive reading)

Zimmermann (2003) assumes an analysis for such constructions pretty much like the one he advocates for the OC: the adjective *ganz* LF-moves from its attributive position to D^0 to build the complex quantifier.[32]

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[31] For many more examples, cf. Pafel (1994).

[32] We changed the analysis slightly to bring it more in line with the present approach.

(113)   [DP [D0 die+ganzen] [NP ~~ganzen~~ Punkte]]
                the whole   *dots*
         'all the dots'

Taken together with our analysis of EDCs, this assumption predicts that such complex quantifiers also intervene with external EIs, which, as shown by the following examples, indeed seems to be the case.

(114)   a. ***sau** die **ganzen** reichen Kunden
             EI *the whole   rich   customers*
         b. ***sau** die **ganzen** Idioten
             EI *the whole   idiots*

The fact that the CQF-approach to EDCs can account for these two different kinds of intervention effects "for free" adds additional empirical support to it.

4 Conclusion and outlook

At the beginning of this paper, we formulated four questions that we took to be the most pressing ones regarding the syntactic analysis of the external degree modification construction in German. We first described the behavior of four different expressive intensifiers constructions, namely both internal and external EIs in adjectival and adnominal use. From there, we developed an analysis that we think is capable of addressing those questions. The approach is based on two hypothesis. First, all expressive intensifiers are also adnominal degree elements, even those that cannot remain in internal adnominal position (H1). Secondly, from this adnominal position, the external degree modification construction is derived by complex quantifier formation with the determiner (H2). Taken together, these two hypotheses lead to the following answer to the question (Q1)–(Q6).

(A1)   **Relation to internal EIs**
        The EDC is derived from internal EIs by head-movement D.

(A2)   **Position**
        EIs first move to D^0 in order to realize an expressivity feature.

(A3)   **Definiteness mismatch**
        EIs undergo complex quantifier formation with the determiner, which is governed by its own realization rules.

(A4)   **Constraint on EIs**
        Since ordinary degree items lack the expressivity feature, there is nothing that would license their movement.

(A5)   **Different classes of EIs**
        Surfacing in the adnominal degree position requires the overt morphological expression of ϕ-feature. Since EIs of the *voll-* and *sau-*group cannot be inflected, they must not stay in that position. However, incorporating into the determiner serves as ersatz morphology.

(A6) **Intervention effects**

Other constructions that involve complex quantifier formation like the *occasional*-construction or quantifiers like *die+ganzen* block EDCs because the determiner can only incorporate with one expression. Internal adnominal EIs or size adjectives block adjectival EDCs, because the Deg_N^0-position is already occupied and the adjectival EI must not cross it.

However, despite providing answers to these six question, EDCs pose many more, equally interesting questions for further research which we could not address in this paper. Especially, more work has to be done on the historical development of EIs and their semantic analysis, which we could only touched upon in this paper, as well as the nature of the expressivity feature.

(F1) How do EIs develop diachronically? What are the contexts that facilitate this and what are the differences in the category of their source (adjective vs. noun)? How do EIs relate to adnominal degree elements like *real* diachronically?

(F2) How do the presented analysis relate to a more detailed analysis of the semantics of EIs? How do they relate to other intensifiers or expressive items? What role does their expressivity play? Does the external position come with subtle differences in meaning or contexts of uses?

(F3) What is the nature of the syntactic expressivity feature of D? How does it, for instance, relate to DP-internal expressives adjectives like *damn* that strongly prefer demonstratives over definite articles (*that damn Peter*)? Does this DP-feature have a related feature in the clausal C-Domain?

We take these questions to be promising areas for further research into the complex nature of the external degree modification construction, and we hope that the syntactic analysis developed in this paper may be a good starting point.

A Appendix: Google search

Table 5 Detailed google hist for the variant in (53).

EI D⁰	AP	NP	#γ +DEF	#γ −DEF
	coole		30	0
	geile	Band	83	0
	gute		26	0
	coole		10	0
	geile	Freund	58	0
	gute		4.450	0
sau [D]	coole		105	0
	geile	Freundin	4.410	0
	gute		6.050	1
	coole		79	0
	geile	Idee	4.410	0
	gute		5.040	0
	coole		10	0
	gute	Party	2	0
	geile		1.030	0
		Σ	30.308	1

EI D⁰	AP	NP	#γ +DEF	#γ −DEF
	coole		1	0
	geile	Band	106	0
	gute		9	0
	coole		0	0
	geile	Freund	2	0
	gute		206	6
total [D]	coole		8	0
	geile	Freundin	8	0
	gute		6.050	1
	coole		474	0
	geile	Idee	31.300	1
	gute		5.950	367
	coole		6	0
	gute	Party	7	0
	geile		1	0
		Σ	44.128	376

EI D⁰	AP	NP	#γ +DEF	#γ −DEF
	coole		4.270	0
	geile	Band	25.000	1
	gute		979	0
	coole		5.580	21
	geile	Freund	5.510	6
	gute		43.900	1.180
voll [D]	coole		24.000	3
	geile	Freundin	32.600	6
	gute		115.000	574
	coole		91.200	7
	geile	Idee	161.000	8
	gute		167.000	367
	coole		1.310	0
	gute	Party	37.600	0
	geile		197	0
		Σ	715.146	2.173

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