

Expressive intensifiers in German: syntax-semantics mismatches

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1. Introduction

Like many languages, German exhibits different possibilities for intensifying the meaning of a gradable adjective. The most obvious ways are by means of degree-morphology (*-er* for the comparative; *-st* for the superlative) or degree word like *very* ‘sehr’. However, in this paper, we want to examine a special class of degree items, which we call *expressive intensifiers* (EIs) and which mainly belong to informal varieties of German. The most frequent EIs are *total* ‘totally’ and *voll* ‘fully’ (Androutsopoulos 1998), and more recently, *sau*, which is derived from the homophonous expression meaning ‘female pig, sow’.¹

- (1) Sophie ist {**sau/total/voll**} schnell.
Sophie is EI fast
‘Sophie is EI (≈ totally) fast.’

EIs like *sau* exhibit particular syntactic and semantic properties which set them apart from simple degree words and which, as we will show, pose some interesting puzzles for their syntactic and semantic analysis. These obstacles mainly stem from the fact that beside the standard position inside the DP in which EIs precede the adjective they intensify, as in (2), they can appear in a DP-external position in which the entire DP follows the EI.²

- (2) Du hast gestern eine **sau** coole Party verpasst.
you has yesterday a EI cool party missed
‘Yesterday, you missed a EI cool party.’ (DP-internal position)
- (3) Du hast gestern **sau** die coole Party verpasst.
you has yesterday EI the cool party missed
‘Yesterday, you missed EI a cool party.’ (DP-external position)

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¹See Kirschbaum (2002) for an overview over the metaphoric patterns according to which intensifiers evolve, both conceptually and diachronically. A general overview over the aspects of intensification in German is provided by van Os (1989).

²External EIs are pretty frequent in informal settings and can easily be found in the web. In addition, we backed up our own intuition with a questionnaire study with 265 subjects, which confirmed the contrasts we present in this contribution.

Semantically, the difference between EIs and standard degree elements is that beside their intensifying function, EIs convey an additional expressive speaker attitude, which is not part of the descriptive content of the sentence they occur in. That is, beside raising the degree to which the party was cool in (2), *sau* expressively displays that the speaker is emotional about the degree to which the party was cool.

This paper is structured as follows. In section 2 we will describe the syntax and semantics of EIs in the DP-internal position. We argue that EIs behave like degree elements and that they are the head of the extended degree projection of the adjective they modify. After that, we will turn to the syntax and semantics of the external position in section 3. As this description will show, the external position comes with some puzzling mismatches between the syntax and semantics of external-EI constructions. In section 4, we will provide a first suggestion for an analysis of the external-EI construction and try to sketch answers to what we think the four most important riddles they pose are. section 5 concludes.

2. Internal EIs

In this section, we describe the syntax and semantic behavior of internal expressive intensifiers. This will provide us with some first directions for a proper analysis.

2.1. The syntax of internal EIs

EIs and common degree words have the same range of uses, at least in adjectival contexts. Common intensity particles like *sehr* ‘very’ can occur with gradable adjectives regardless of the question of whether the adjective is used attributively, predicatively or adverbially. As the following examples show, this also holds for EIs.³

- | | |
|---|---|
| <p>(4) Die Party ist sau/sehr cool.
 the party is EI/very cool
 ‘The party is EI/very cool.’</p> | <p>(5) Piet läuft sau/sehr schnell.
 Piet runs EI/very fast
 ‘Piet runs EI/very fast.’</p> |
| <p>(6) Du hast gestern eine sau/sehr coole Party verpasst.
 you has yesterday a EI/very cool party missed
 ‘Yesterday, you missed a EI/very cool party.’</p> | |

Further similarities between *sau* and *sehr* ‘very’, that also give hints to the categorial status of EIs, are provided by their behavior with respect to other means of expressing degrees. As is well known, degree words like *very* are incompatible with other overt degree morphology (among many others, cf. Kennedy and McNally 2005). This holds for the comparative morpheme *-er* in (7) as well as for the superlative morpheme *-st* in (8). The same holds true for *sau* as the examples show.

- (7) *Unsere Party ist **sau/sehr** cool-**er** als eure.
our party is EI/very cool-er than yours.
- (8) *Unsere Party ist die **sau/sehr** cool-**ste** von allen.
our party is the EI/very cool-est of all

³In addition, both ordinary degree words and EIs can also occur in adverbial contexts. However, this function is not freely available, EIs being even more restricted.

Another 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 *sau* and *sehr*.

- (9) 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 this, we draw the conclusion that EIs are degree expressions, just like *very* or the comparative morpheme *-er*. We presuppose the common syntactic analysis of adjective phrases, in 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 1997a). Internal EIs are the head of this phrase, just as degree elements like comparative morphemes, intensifiers or a positive morpheme, which is covert in languages like German or English (Kennedy 2007:5).

- (10) [DP die [NP [DegP sau [AP coole]] [NP Party]]] ‘the EI cool party’

While this structural analysis of internal EIs is relatively uncontroversial and rather conservative, we will have to refine it in section 4 in order to account for the puzzles posed by the external variant, which we will discuss in section 3. But before that, we will discuss the semantic contribution of *sau*.

2.2. The semantics of internal EIs

Semantically, EIs increase the degree that is expressed by their adjective argument just like common intensifiers do. According to the ‘standard theory’ (Beck 2012), adjectives denote a relation between a degree and an entity (cf. e.g. von Stechow 1984; Kennedy and McNally 2005) and therefore are expressions of type $\langle d, \langle e, t \rangle \rangle$.

- (11) $\llbracket cool \rrbracket = \lambda d \lambda x. x$ is cool to degree d (‘ x is d -cool’)

Degree expressions like measure phrases, degree morphology or intensifiers apply to the adjective and determine the value of its degree argument. Measure phrases as in (12a) saturate the degree argument, while degree morphology quantifies over it (Heim 2001; Kennedy and McNally 2005:350).⁴ The restriction imposed by intensifiers like *very* is such that relative to a comparison class, the degree must be higher than it should be the case if the positive adjective were used.

One semantic difference between *very* and *sau* is that *sau* expresses an even higher degree than *very*. That is, while *very cool* is cooler than just *cool*, *sau cool* is even cooler.

- (12) sau cool \succ sehr cool \succ cool

The more important semantic difference between *sau* and common intensifiers, however, is that beside their intensifying function, EIs convey an additional expressive speaker attitude.

- (13) Du hast gestern eine **sau** coole Party verpasst.
you has yesterday a EI cool party missed
‘Yesterday, you missed a EI cool party.’

⁴An alternative view perceives adjectives as expressions of type $\langle e, d \rangle$, so-called measure phrases that map entities onto degrees (cf. e.g. Kennedy 2007). Degree expressions then turn these measure functions into properties. Nothing what we say in this paper hinges on choosing one approach over the other.

- (14) a. Descriptive meaning of (13): ‘Yesterday, you missed a very very cool party.’
 b. Expressive meaning of (13): ‘The speaker is emotional about how cool the party was.’

Crucially, this attitude is not part of the truth-conditional content of the utterance, while the descriptive component of *sau* is. This can be shown, for instance, by the denial-in-discourse test (cf. e.g. Jayez and Rossari 2004). The descriptive content of an EI can be denied directly, as in (15B), where B denies that the party was cool to the high degree expressed by *sau cool* but grants that it reaches the standard for being very cool.

- (15) A: Die Party war **sau** cool.
 ‘The party was EI cool’
 B: Nee, so cool war die Party nicht, auch wenn sie sehr cool war.
 no so cool was the party not even if it very cool was
 ‘No, the party wasn’t that cool, even if it was very cool.’

In contrast, the expressive attitude conveyed by *sau* behaves differently. Denying an utterance on the basis that the attitude does not hold is not felicitous, as witnessed by the following example.

- (16) A: Die Party war **sau** cool. B: #Nee, das ist dir doch egal.
 ‘The party was EI cool.’ no that is you PART equal
 ‘No, you don’t care.’

A dialog as this one, however, should be perfectly possible if the evaluative component of *sau* were part of its truth-conditional content. If you nevertheless want to deny the attitude, you can do so, but you first have to make clear that you do not challenge the descriptive content.⁵

- (17) A: Die Party war **sau** cool.
 ‘the party war EI cool’
 B: Ja, stimmt, aber das ist dir doch eigentlich egal.
 yes right but that is you.DAT PART PART equal
 ‘Yes, right, but you don’t actually care about that.’

That you can only deny them if making use of special means is typical for non-truth-conditional content (cf. e.g. Horn 2008; von Stechow 2004).

Semantically, EIs are therefore two-dimensional expressions that contribute to both dimensions of meaning (cf. McCready and Schwager 2009). In addition to the data discussed in McCready 2010 or Gutzmann 2011, EIs hence add further evidence against Potts’ (2005:7) claim that no lexical item contributes both descriptive and expressive meaning. Using McCready’s (2010) terminology, EIs are *mixed expressives*.

⁵Without the particles *doch* and *eigentlich*, which signal contrast or correction, such a reply becomes less acceptable. The following example also shows how hard it is to cancel the evaluative component even if the descriptive content is affirmed:

- (i) B: ?Ja stimmt, aber das ist dir egal.
 yes, right but that is you.DAT equal
 ‘Yes, right, but you don’t care about that.’

In all examples presented thus far, the expressive meaning of *sau* was a *positive* emotional attitude. However, whether the attitude is a positive or negative evaluation depends on the context, as the following two examples illustrate.

- (18) Mann, es ist wieder **sau** kalt.
 man it is again EI cold
 ‘Man, it’s EI cold again!’ (negative attitude)
- (19) Bei dieser Hitze kommt das **sau** kalte Bier genau richtig.
 at this heat comes the EI cold beer exactly right
 ‘In this heat, the EI cold beer comes just right’ (positive attitude)

Due to lack of space, we cannot provide and motivate a formal account of the meaning of *sau* and other EIs in this paper. However, we are sure that this can easily be done, given that what we have presented here is not unique to EIs and that all the needed tools already exist. There are, for instance, different suggestions on how to handle multidimensional expressives. For instance, one could employ McCready’s (2010) elaboration and modification of Potts’ logic of conventional implicatures. McCready (2009) also studies the particle *man* which shows a similar context dependency of polarity of the expressed attitude.⁶

Before we now turn to the syntax and semantics of EIs in external position, note that what we have said with regards to the semantics of the internal position also holds for the external position. That is, external *sau* intensifies the adjective by imposing a higher restriction on the degree argument of the adjective and conveys an expressive speaker attitude towards the propositional content. However, as we will see in the following section, the semantics of the external position is connected with additional indefiniteness effects that are absent when the EI is in DP-internal position.

3. External EIs

Except for their expressive nature, EIs do not seem to behave differently from ordinary intensifiers when they occur inside the DP. The external position which we study now however shows some puzzling semantic and syntactic properties. As before, we will first discuss the syntax of external EIs and then address their semantics.

3.1. The syntax of external EIs

The biggest difference between EIs and non-expressive intensifiers is a syntactic one. What sets EIs apart from the well studied degree expressions is that they can occur in DP-external position in which they precede the entire DP. This is a rather surprising position for an intensifier to occur in. Crucially, this position is not available for standard degree elements.

- (20) Du hast gestern **sau**/***sehr** die coole Party verpasst.
 you has yesterday EI/very the cool party missed
 ‘Yesterday, you missed EI/*very a cool party.’

⁶If we had the space, we would start by assigning *sau* the following mixed expressive of McCready’s extended logic for conventional implicatures: $\langle\langle d, \langle e, t^a \rangle \rangle, \langle e, t^a \rangle \rangle \times \langle\langle d, \langle e, t^a \rangle \rangle, \langle e, t^s \rangle \rangle$, that is, the type of mixed expressive quantifiers over degrees. The superscripts are used to denote different classes of types (at-issue and shunting types respectively), they regulate the composition. Cf. McCready 2010 for the technical details.

Since Meinunger (2009) does not consider external-EI constructions that contain adjectives, a degree analysis is not evident for him, and hence, he analyzes them as adjectives. As said above, this makes wrong predictions if there is an adjective (the more common case). Recall that the main motivation to analyze EIs as the head of DegP was that it directly accounts for the fact that no other degree expressions can co-occur with the adjective when an EI is present.

- (26) Du hast **sau** die *{sehr coole / total coole / cool-ere / cool-ste} Party verpasst.
 you has EI the very cool EI cool cool-COMP cool-SUP party missed

This restriction cannot be accounted for by Meinunger's (2009) adjective analysis, and we therefore conclude that it should be substituted by a degree analysis, like we suggested above.

The presence of a gradable adjective or, at least, a gradable noun is, however, not sufficient to license external EIs. It depends also on the syntactic form of the DP, especially on the determiner. While *sau* can occupy an external position if the DP is headed by a definite article like in example (20) above, this is not possible if the DP is a projection of an indefinite article, as the following example shows.

- (27) *Du hast gestern **sau** eine coole Party verpasst.
 you has yesterday EI a cool party missed

Contrasting this restriction with the *definiteness effect*, which can be observed in existential constructions (Milsark 1977) or possessive constructions with *have* (Bach 1967), the EIs in external position could be said to be connected with an *indefiniteness* effect (Wang and McCready 2007). However, the syntax of EIs in this position is even more restricted, 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.

- (28) *Heute steigt **sau** diese/ihre coole Party.
 today goes-on EI that/her cool party

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

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

All these examples illustrate that the syntactic structures that license EIs in DP-external position 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 (20). This contrasts with the DP-internal position, in which EIs are much less restricted and exhibit the same behavior as non-expressive intensifiers.

3.2. The semantics of external EIs

Beside the syntactic constraints that come with the external position, there is also a curious semantic effect. Even if external *sau* is restricted to occur only with a definite determiner, the DP is nevertheless interpreted as indefinite. The DP-external construction in (30a) therefore corresponds to the internal variant in (30b) and not as expected to (30c).

- (30) a. Heute steigt **sau** die coole Party.
 today goes-on EI the cool party
 ‘Today, EI the cool party is going on.’ (30a) = (30b) ≠ (30c)
- 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.’

That the requirement for an indefinite interpretation of a DP with an external intensifier is a semantic 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 restrictive relative clauses or explicit contrast constructions.

- (31) *Da kommt **sau** der coole Typ, von dem ich dir erzählt habe.
 there comes EI the cool guy of whom I you told have
 Intended: ‘There comes EI the cool guy I told you about.’
- (32) *Ich habe **sau** 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.’

Strong evidence for the observation that the external EI construction really is interpreted as being indefinite is provided by the classical test for indefinites, namely, the ability to occur in existential constructions, which are impossible with definites. External EIs pass this test whereas definite DPs with internal EIs show the common definiteness effect associated with existential constructions.

- (33) 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.’
- (34) *Es gibt den **sau** coolen Typen auf meiner Schule.
 it gives the EI cool guy at my school.

Another consequence of the indefinite interpretation is that the external-EI construction is at least marked when occurring sentence-initially like in (35). Since the so-called pre-field is considered a topic position, this is expected if DPs with external EIs are not referential expressions but rather generalized quantifiers, that is, expressions of type $\langle\langle e, t \rangle, t\rangle$ and not of type e .

- (35) ??**Sau** die coole Party steigt heute.
 EI the cool party goes on today

More evidence for the indefinite interpretation 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 (informal) German. When they do so, they are impossible with external EIs, but fine with internal ones.

- (36) 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

Note that (36a) 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, (37) is fine when used to express that some property that is saliently associated with Einstein holds to a high degree for Peter.

- (37) Peter ist sau der Einstein.
 Peter is EI the Einstein
 ‘Peter is totally an Einstein’

The findings of our brief discussion of the syntax and semantics of EIs is summarized in Table 1. Internal EIs do not show a special relationship between their syntactic structure and their semantic interpretation. In the construction, the choice of the determiner is not restricted at all and the interpretation of the entire DP compositionally reflects which determiner is used. In contrast, when it comes to EIs in the external position, we can detect a mismatch between their form and their interpretation. Indefinite articles (as well as many other kinds of determiners) are impossible if the EI is located externally, but despite the presence of a definite article, the entire DP receives an indefinite interpretation. In the next section, we turn to this puzzle, raise some additional ones, and sketch an analysis of external EIs.

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

Table 1: Syntax-semantics (mis)matches with EIs

4. A sketch of an analysis

As the previous discussion has shown, EIs show interesting and rather unexpected behavior that raises many questions for an analysis of their syntax and semantics. We take the following four questions to be the most important ones from the perspective of the syntax-semantics interface.

- (i) *Position* Given that degree elements commonly do not occur outside of the DP, what is the position in which external EIs reside?
- (ii) *Restriction to EIs* Given that, except for their expressive meaning, internal EIs seem to behave like standard degree words, why is the external position only available for the former but not for the latter?
- (iii) *Restriction to definite articles* Why is the external position only available for definite articles but neither for indefinite ones nor for quantified DPs?
- (iv) *Indefinite interpretation* Why is the entire DP interpreted indefinitely, despite the fact that a definite article is required for the external position to be available in the first place?

In the following, we will give a tentative analysis for DP-external EIs that provides answers to these questions, even if we have to leave certain problems unsolved.

4.1. Position

In section 2.1 we showed that EIs fill the head position of the DegP, which is an extended functional projection of the adjective phrase. Therefore, EIs in external position must be located in a head position as well, given the standard structure preservation requirement that ‘the landing site of head movement must always be another head’ (Roberts 2001:113).⁷ In order to provide a head position for the EI, we therefore need an extended projection that embeds the entire DP. Of course, it would be rather *ad hoc* to just stipulate such a projection solely to account for external *sau*. However, there are independent arguments for such an additional projection. For instance, Kallulli and Rothmayr (2008) argue for a quantifier phrase (QP) above the DP in order to deal with structures like (*ein so ein cooler Typ* ‘(a) such a cool guy’ in Bavarian German and argue that the intensifying element *so* ‘such/so’ fills the head of the QP.

(38) [QP so [DP ein [NP [DegP cooler] [NP Typ]]]]

However, we think that Kallulli and Rothmayr’s (2008) analysis of *so* is not adequate for various reasons. In brief, as shown by Lenerz and Lohnstein (2005) in an earlier study (not mentioned by Kallulli and Rothmayr 2008), *so* should better be analyzed as phrasal instead of being a head.⁸ In order to account for preposed *so*, Lenerz and Lohnstein (2005) therefore propose that it may be raised to a specifier position of the DP, a solution which is not available for EIs, since they, as heads, cannot occur in such a position.

We therefore still need to provide a proper landing side for external EIs. Even if Kallulli and Rothmayr’s (2008) proposal may be problematic for *so*, it can be a good starting point for EIs, at least for the syntactic side of the problem. Their approach is based on the general proposal put forward by Matthewson (2001), who, based on a semantic analysis of quantification in St’át’imcets (Salish), argues that what is traditionally considered to be a DP should be decomposed into a D- and a Q-projection, as in (39), such that a quantifier does not take an NP-complement but an entire DP. A similar structure is proposed for syntactic reasons, amongst others, by Giusti (1991) to account for phrases like *all die Studenten* ‘all the students’ in (40), in which there is both a quantifier and a determiner.

(39) [QP Q [DP D [NP N]]]

(40) [QP all [DP die [NP Studenten]]]

Even if it is not straightforwardly obvious why *sau* and its kin should be able to occur in this position, we propose to take Matthewson’s (2001) decomposition and the basic insights of Kallulli and Rothmayr (2008) as a starting point and propose that *sau* is moved to the head of QP when it occurs in external position.⁹

⁷We cannot delve into the recent discussion concerning head movement, that is, whether there is genuine syntactic head movement or whether it is rather a PF-phenomenon, cf. amongst many others, Koopman and Szabolcsi (2000); Boeckx and Stjepanovic (2001); Chomsky (2001); Matushansky (2006). However, if our analysis of EIs as the head of DegP is right, then the external EIs seem to support syntactic movement since, as shown in the previous section, the movement comes with a crucial semantic effect.

⁸Zimmermann (2011) discusses further problems of Kallulli and Rothmayr’s (2008) approach.

⁹According to the approaches alluded to in the main text, external EIs are not really external since the QP is part of what is traditionally understood as a DP.

(41) [QP **sau**_i [DP die [NP [DegP *t*_i [AP coole]] Party]]]

Having suggested an answer to the question of what the position is in which external EIs are located, we now turn to the question why more common degree elements are excluded from this position.

4.2. Restriction to EIs

As we have seen in (20) in section 3.1 above, *sehr* ‘very’ and other non-expressive degree expressions cannot occur in the DP-external position, while *sau* and other EIs can. In order to implement this difference in the syntactic structure, *sehr* should receive a different syntactic analysis than *sau*. To motivate this however, we need more evidence to treat EIs differently from common degree words. Importantly, this additional difference has to go beyond the mere difference of the availability of the external position. This raises the question of in what respects EIs do not behave like non-expressive intensifiers even when they occur DP-internally, deviating from what we presented in section 2.1.

A first bit of evidence that EIs actually behave differently from *sehr* is provided by their behavior in elliptical answers. Whereas *sehr* can constitute a possible short answer that is elliptical for *die Party war sehr gut* ‘the party was very good’, this is impossible for *sau*. This holds for *yes/no*-questions as well as for *wh*-questions.

- | | | | |
|------|----|--------------------------------|------------------------|
| (42) | a. | War die Party cool? | Ja, sehr./*Ja, sau. |
| | | <i>Was the party cool?</i> | <i>yes very yes</i> EI |
| | b. | Wie cool war die Party? | Sehr./*Sau. |
| | | <i>How cool was the party?</i> | <i>very</i> EI |

A further important difference between *sehr* and *sau* concerns the ability to extract constituents from the degree phrases they embed. First, as the examples in (43) show, extracting the adjective is possible with *sehr* but not so with EIs. Similar facts hold for left dislocation construction in which a degree-element referring to a topicalized adjective is extracted from the degree phrase as illustrated by the examples in (44).

- | | | | | |
|------|----|--|----|---|
| (43) | a. | Cool _i ist Sophie sehr <i>t</i> _i . | b. | *Cool _i ist Sophie sau <i>t</i> _i . |
| | | cool is Sophie very | | cool is Sophie EI |
| | | ‘Sophie is very cool.’ | | |
| (44) | a. | Cool, das _i ist Sophie sehr <i>t</i> _i . | b. | *Cool _i , das ist Sophie sau <i>t</i> _i . |
| | | cool that is Sophie very | | cool that is Sophie EI |
| | | ‘Sophie is very cool.’ | | |

The same restriction also applies to *wh*-movement, which is possible for *sehr* but ill-formed with *sau*, as illustrated in (45).¹⁰

- | | | | | |
|------|----|--|----|--|
| (45) | a. | Was _i ist Sophie sehr <i>t</i> _i ? | b. | *Was _i ist Sophie sau <i>t</i> _i ? |
| | | what is Sophie very | | what is Sophie EI |
| | | ‘What is Sophie a lot?’ | | |

¹⁰Some speakers of German do not find (45a) completely acceptable. However, even for those speakers, (45b) is worse and this is what is important here.

These contrasts in their syntactic behavior show that there must be a structural difference between standard degree words and EIs/*so*, especially given the fact that semantically, all these syntactic operations would be as intelligible for EIs as they are for non-expressive intensifiers.

How can this difference be accounted for? Corver (1997a,b), following Bresnan (1973), assumes that there are two kinds of degree elements. On the one hand, there are determiner-like degree elements, which head a DegP. On the other hand, he argues that there are also degree expressions that are more like quantifiers that project a QP inside the extended functional projection of the adjective. To distinguish this adjectival QP from the nominal one, we call it ‘QegP’ instead. According to this *Split degree system hypothesis* (Corver 1997b), the extended structure of an adjective phrase can be given as follows.

(46) [DegP Deg [QegP Qeg [AP ...]]]

What is important for our concerns here is that Corver (1997b) observes differences between Deg- and Qeg-elements similar to the ones we described in (43)–(45). For instance, he shows that in Dutch, adjective phrases that are headed by Qeg-elements allow for extraction or split topicalization while those introduced by Deg-elements do not (Corver 1997b:127, Fn. 13). Based on the asymmetries in (42)–(45), we therefore assume that internal EIs are Deg-elements, while *sehr* is the head of the QegP. That is, even when in internal position, *sau* and *sehr* take up different positions. This accounts for their different behavior with respect to the syntactic phenomena just discussed.

Let us now turn to the question of why only EIs can be located in the external position but other degree elements cannot. Given the structural differences just discussed, this comes down to the question of why only Deg-elements can occur externally, whereas Qeg-elements cannot. As we argued for in the last subsection, the position of external EIs is the head position of the QP-layer on top of the DP. We assume that external EIs are base-generated in internal position and raised to the higher Q-position. Looking at the structures for EIs and standard degree elements in (47a) and (47b) respectively, we can see why only *sau* can be raised to Q^0 but not *sehr*. According to the head-movement constraint (Travis 1984), a head can only be moved to the next c-commanding head position and cannot skip an intervening head position (cf. also Roberts 2001). In contrast, degree elements like *sehr* ‘very’ that are located below Deg⁰ in Qeg⁰, cannot be moved to Q^0 , since in this case, Deg⁰ counts as an intervening head position and therefore, movement of *sehr* to Q^0 is blocked, as depicted in (47b).¹¹

(47) a. [QP *sau*_i [DP die [NP [DegP *t*_i [QegP Qeg⁰ [AP *coole*]]] Party]]]
 b. *[QP *sehr*_i [DP die [NP [DegP Deg⁰ [QegP *t*_i [AP *coole*]]] Party]]]

We should note that in order for this to work, we have to make the plausible assumption that D^0 is not a proper landing site for head movement of degree elements, maybe because it is too different in terms of its features. Hence it does not count as an intervener with respect to the head movement constraint, which in its more recent incarnation is relativized to features (cf., e.g., Epstein et al. 1998; Ferguson 1996; Chomsky 2001).

¹¹ An anonymous review mentions a further difference. While *sehr* can be iterated, EIs cannot.

(i) a. Es ist {*sehr*, *sehr*} / *{*sau*, *sau*} kalt. b. *Es ist *sehr*, *arg*, *besonders* kalt.
 it is very, very EI EI cold it is very acutely extraordinarily cold

While we agree on this, we are not sure how to implement this into the structure proposed in the main text. Allow DegP to be iterated at will seems to be too liberal, as degree-word iteration is not freely available.

A further problem for the analysis in (47a) is that definite DPs are commonly regarded as islands for extraction and therefore, moving *sau* to Q⁰ should not be possible. The empirical data, however, shows the contrary pattern, as external-EI constructions are possible with definite DPs but not with indefinite. In addition, we have seen that the seemingly definite external-EI constructions are interpreted as indefinite. That is, it could be the case that there is no definite article after all. We will return to this below when we discuss the remaining two problems.

Setting these problems aside, which we think could be solved, we conclude that, given the head-movement constraint as well as the split degree system hypothesis, which are both motivated independently of external EIs, the restriction of the DP-external position to EIs can be derived from the categorial difference between *sau* and *sehr*. In the following, we will try to come up with answers to the remaining two questions. However, as we will see, these are even harder to answer satisfactorily.

4.3. Restriction to definite articles

That external-EI constructions cannot co-occur with quantifiers, as shown in (29), is accounted for by the structural analysis we suggested above in §4.1. Since in quantified DPs, the Q-position is already occupied by the quantifying element, there is no head position outside the DP for an EI to be raised to. Furthermore, the structure in (41) correctly predicts that, in contrast to external-EI constructions, the internal position is freely available with quantified DPs.

- (48) Heute steigen alle / einige / die meisten / drei / höchstens drei **sau** coole(n) Partys.
 today goes-on all some the most three at most three EI cool parties
 ‘Today, all/some/the most/three/at most three EI cool parties are going on.’

That the external EI-construction is restricted to definite articles, however, does not fall out directly from the QP-DP structure proposed in (41) and (47a). Considering the obligatorily indefinite interpretation, to which we turn in the next subsection, this restriction is even more puzzling. At the moment, we can present some speculative thoughts on this questions.

A first direction in which to look for an answer is provided by the details of Matthewson’s (2001) QP-DP-split system. According to her theory, the DP must denote an individual of type *e*.¹² The quantifier then takes the DP as an argument and yields a generalized quantifier (Matthewson 2001:153).

- (49) [QP:⟨⟨*e,t*,*t*⟩ Q_{⟨*e*,⟨⟨*e,t*,*t*⟩⟩} [DP:*e* D_{⟨⟨*e,t*,*e*⟩} NP_{⟨*e,t*⟩}]]

It is therefore important for her system that the DP is definite, not indefinite.¹³ If we assume that Matthewson’s (2001) analysis carries over to German, the restriction to definite determiners follows. But even if there are cases like the one in (40), in which a distinction between Q and D is overt, it is not always obvious. A further instance where a division between Q and D seems to be transparent is the universal quantifier *jeder* ‘every’ in German, which can morphologically be decomposed into the quantifying part *je-* and a definite article *der*.¹⁴

¹²Plural individuals are also possible in Matthewson’s (2001) semantics.

¹³One of the problems of the analysis presented by Kallulli and Rothmayr (2008) that Zimmermann (2011:213) points out is that they adopt Matthewson’s (2001) analysis for an indefinite NP. Note, furthermore, that even if the determiner must be definite in her approach, the entire QP may nevertheless receive an indefinite interpretation, depending on the meaning of the quantifier. See Matthewson (2001:152-154) for details.

¹⁴See, for example, Sauerland 2004 and Kallulli and Rothmayr 2008. Leu (2009) criticizes this approach. Note that (50) is an instance of the pattern mentioned in the previous footnote. Even if the determiner *der* is definite, the

(50) [QP je- [DP der [NP Student]]]

The crucial question, however, is how indefinite DPs in German should be analyzed, when we use the approach developed by Matthewson (2001). An obvious way to go would be to argue that indefinite DPs are not QPs but bare DPs in which a generalized quantifier is created in the traditional way. Of course, this analysis would not be in the spirit of Matthewson (2001), as it runs counter her general no-variation hypothesis, which she defends in her paper.

A second approach is more in line with Matthewson's agenda and mirrors her suggested analysis of *every*. Some elements function as both quantifiers and determiners simultaneously. We do not want to determine the merits or shortcomings of these two suggestions. However, even if they are structurally very different and certainly have different consequences, they both can provide a straightforward answer to the question why external-EI constructions are impossible with indefinite articles. According to the first solution, there is no QP and therefore, there is no landing site for *sau* to be moved to. According to the second solution, the indefinite article serves the function of both Q and D and therefore, *sau* cannot occupy Q^0 . However, it should be noted that these are preliminary suggestions rather than definite solutions to the posed problem, since the consequences of Matthewson's (2001) reformulation of the DP-structure for languages like German are not worked out in detail.

Before going on to the remaining question, let us mention that external-EIs are not the only construction that show a restriction to a specific determiner that is surprising given the interpretation of the determiner. This holds, for instance, for intensifying *that*-constructions in English, which can also precede the determiner. Although semantically, it would make perfect sense to have such constructions with definite articles, it is impossible.¹⁵

- (51) a. I saw that cool a guy.
b. I saw a guy that cool.
c. *Yesterday, I finally saw the guy that cool, the one you told me about.
d. *Yesterday, I finally saw that cool the guy, the one you told me about.

Superlatives like in (52) are another construction that seem to come with strong preference for definite articles even if, at least in the so-called comparative reading (Heim 1995), it is interpreted as indefinite, as illustrated by the paraphrase.

- (52) Piet schmeißt die / *eine cool-ste Party
Piet throws the a cool-est party
'Piet throws the coolest party' ('Piet throws a cooler party than anyone else')

Not only for this, superlatives are interesting for our study, as they touch on further issues similar to the questions raised by EIs. The indefinite interpretation of a definite article just mentioned is the most prominent one to which we will turn to next.

4.4. Indefinite interpretation

The last question remaining is why the definite article is nevertheless interpreted as indefinite, an observation that is rather surprising considering the requirement for definite articles just mentioned. One way to account for this change in interpretation is on purely semantic grounds.

entire quantifier *je-der* is indefinite.

¹⁵Thanks to Chris Barker, Erich Groat and Barbara Partee, who pointed this out to us.

The precise semantics for EIs, which has not been what we focussed on in this paper, could be defined such that external EIs combine with the DP in such a way that the definiteness of the articles is ‘neutralized’ or at least that it has no observable effect on the semantics of the entire structure. The definite article and its indefinite interpretation would then be ‘part of the construction’ (Barbara Partee, p.c.). For instance, Stump’s (1981) compositional analysis of frequency adverbs can be thought to be an approach along these lines. The famous *occasional sailor* kind of examples can involve a similar shift in interpretation as external EIs show.

(53) There was the occasional question making everyone think a lot.

The more recent approach to such cases developed by Zimmermann (2003) can be regarded as a semantic construction-approach as well. Even if he derives the right reading and an adequate structure by the formation of a complex quantifier by incorporating the adverb into the determiner at LF, ‘compositionality does not extend into the complex quantifier’ (Zimmermann 2003:257), that is, the meaning of the complex quantifier *the+occasional* is not determined by the meaning of its parts. Therefore, an approach that makes the entire external-EI construction responsible for the restriction to definite articles that are nonetheless interpreted indefinitely, may be plausible since similar ones may be needed anyway to deal with phenomena like (52) or (53). However, it may be not completely satisfying.

Another way to address this question is to take the mismatch between form and interpretation at face value. According to this view, the external-EI constructions do not involve a definite article but an indefinite one. Besides the obviously indefinite interpretation, the fact that external-EIs are possible in existential- or *have*-constructions without a definiteness effect can be a diagnostics for this, in contrast to internal EIs with definite articles.

- (54) a. Da ist {sau die} / *{die sau} coole Party.
 there is EI the the EI cool party
 b. Ich habe {sau den} / *{den sau} coolen Freund.
 I have EI the the EI cool boyfriend

In this respect, the external-EI construction relates again to superlatives for which a similar mismatch analysis has been suggested (cf., e.g., Heim 1995, Szabolcsi 1986). Note that in order to derive the comparative reading of a superlative by movement, the degree expression must be extracted from the DP at LF (cf. Heim 1995).

(55) Piet [C -est] λd . [throws [the *d*-cool party]]

(56) Piet throws a cooler party than any other element of the contextual salient set C.

This LF-extraction, however, faces the same problem as our overt extraction of *sau*. Since definite DPs are regarded as islands for extraction, raising the degree quantifier is unexpected. However, since it nevertheless seems to be possible and since the interpretation shifts from definite to indefinite, Heim (1995) assumes that the overt definite article is actually vacuous and the determiner which is instead interpreted at LF can be either a covert definite or indefinite determiner. That is, the actual LF for (52) is (57) instead of (55). Only when the abstract article A is indefinite, extraction becomes possible and with it the comparative reading.

(57) Piet [C -est] λd . [throws [A *d*-cool party]]

The problem of external EIs is very similar to this, except for the fact that we are dealing with overt extraction instead of LF-movement. First, we have the unexpected extraction of a

degree expression out of a seemingly definite DP. Secondly, this DP is interpreted as indefinite. Accordingly, we can follow Heim (1995) and assume that the definite article is only superficially definite but actually an indefinite determiner. This would allow us to extract *sau* and by the same token would give us the observed indefinite interpretation. However, the question of why there is a mismatch between the observed form and interpretation in external-EI constructions remains unanswered in this approach, like in the construction-based approaches. Note, furthermore, that this analysis renders the argumentation from the previous subsection obsolete, for, by assumption, there is no definite article in the first place.

Besides this mismatch approach, it is also possible that there are more structural strategies available. For instance, a possible explanation could be based on the assumption of a functional projection for a definite interpretation, like, for example, the S(trong)DP in Zamparelli 2000. If it can then be shown that an EI in Q^0 prohibits the determiner from ending up in SD^0 (either by blocking movement or by disallowing the entire projection), the article has to be interpreted indefinitely. However, even in such an approach, the mismatch between the indefinite interpretation and the requirement of a definite determiner remains mysterious.

5. Conclusion

In this paper, we have addressed some of the puzzling properties exhibited by a particular class of degree elements in informal varieties of German which we called *expressive intensifiers*. What is special about these expressions is that they can occur in a position preceding the determiner where they nevertheless still intensify the adjective inside the DP. This position is not available for standard degree expressions. We have dealt with what we take to be the four most important questions raised by EIs, namely the questions of (i) what the position is in which external EIs are located; (ii) why only EIs but not standard degree elements like *sehr* ‘very’ can occur in that position; (iii) why external EIs are restricted to definite articles; and (iv) why the definite article is interpreted as indefinite. First, we assume that when in external position, EIs take up the head position of the QP, an additional extended functional projection of the NP that embeds the DP and whose existence is argued for by Matthewson (2001) and Giusti (1991) on independent grounds. Regarding the second question, we follow Corver’s (1997a) split degree system hypothesis, according to which there are two kinds of degree elements. The first group, the Deg-elements, to which *sau* and other EIs belong, are located higher in the extended projection of the adjective and therefore can be moved to the head of the QP. In contrast, motivated by other differences between *sau* and *sehr*, we have analyzed *sehr* as a Qeg-element which is located below the DegP. According to Travis’ (1984) head movement constraint, they cannot be moved to Q^0 because with Deg^0 , there is an intervening head position which blocks this long movement. Next we showed how the restriction to definite determiners can be explained within Matthewson’s Q-D-split system. Since an answer to this depends on how indefinite articles are analyzed, we sketched two possibilities both of which lead to the same explanation of the restriction, namely that the Q-position is not available as a landing site for *sau*. For the last question, we highlighted parallels between superlatives in their comparative reading and external EIs. Following Heim (1995) it could be assumed that the definite article is actually an indefinite one, which solved the extraction and interpretation obstacle. However, this requires treating the restriction to definite articles as an arbitrary part of the construction.

All of the four questions are worth studying in much more detail. And given the fact that we have not addressed the precise lexical semantics of EIs in this paper either, it should be ob-

vious that expressive intensifiers in German are an interesting subject for further investigations, especially since they combine interesting syntactic and semantic properties that do not match up as expected. This makes them an ideal object for exploring the syntax-semantics interface of not-well studied constructions.

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