Determiner doubling in bavarian German

Dalina Kallulli ▣ University of Vienna
Antonia Rothmayr ▣ University of Vienna

1 ▣ Introduction*

This paper discusses a peculiar construction that is attested in some varieties of German, in which the indefinite determiner occurs twice, or is "doubled" by another indefinite determiner (Plank 2002, Abraham 2006), as illustrated in (1) from Bavarian German (BG).

(1) a so a großa Bua. (BG)
a so/such a big boy
'such a big boy', or: 'so big a boy'

Though this construction is found in several varieties of German (Leu 2001), in this paper we limit our attention to an investigation of its properties in BG, comparing it only with Standard German (SG), where the same phenomenon occurs albeit in a more restricted fashion.

This paper is organized as follows. Section 2 presents the core data and some of the questions they raise. In section 3, we lay out our analysis. The basic proposal we put forward is that indefinite determiner doubling is restricted to structures containing a quantificational item. Further, we contend that the doubling determiner is a cardinality operator.

2 ▣ Indefinite determiner doubling constructions in BG and SG: the basic patterns

A first striking observation is that in BG the top (or doubling) determiner needs to be spelled out. In contrast, in SG this seems to be largely optional.[1] This contrast is highlighted in (2).

(2) a.* (a) so a großa Bua. (BG)
b. (ein) so ein großer Bub. (SG)
a so/such a big boy
'(a) such a big boy', or: '(a) so big a boy'

Secondly, indefinite determiner doubling is restricted to environments that contain either the element so 'such'/'so' – as in (1) and (2) – or *gons/ganz*, meaning 'quite' – as in (3).

(3) a.* (a) gons a bleda Föhla. (BG)
b. (ein) ganz ein blöder Fehler. (SG)
a quite a stupid mistake
'a totally stupid mistake.'

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[1] Indefinite determiner doubling constructions simply do not exist for some SG speakers.

However, the universal quantifier *jeda/jeder* 'every', which is morphologically composed of the quantificational element *je* and the definite determiner *da/der*, may co-occur with (i.e., be "doubled" by) an indefinite determiner both in BG and in SG, as in (4).

(4) a. a jeda Bua. (BG)
a every boy
b. ein jeder Student. (SG, Roehrs 2004: 2)
an every student

Abstracting away from the pattern in (4), both in BG and SG the elements *so* and *gons/ganz* are also found in other syntactic environments, such as in (5), exhibiting in this way a distribution typical of degree words, as shown in (6) for *sehr* 'very' and *irrsinnig* 'insanely'.[2]

(5) a. ein so großer Bub. (SG)
a so/such big boy
b. ein ganz blöder Fehler. (SG)
a ratherstupid mistake

(6) a. ein sehr großer Bub. (SG)
a very big boy
b. ein irrsinnig blöder Fehler. (SG)
an insanely stupid mistake

However, as (7) shows, the doubling pattern in (2)/(3) is not replicable with all degree words.

(7) a.* ein sehr ein großer Bub. (SG)
b.* a sehr/ur a groß a Bua.[3] (BG)
a very a big boy
c.* ein irrsinnig ein blöder Fehler. (SG)
d.* a irrsinnig a blöda Fehla. (BG)
an insanely a silly mistake

In fact, while *so/ganz* may precede the indefinite determiner also in SG, as in (8), *sehr/irrsinnig* cannot do so, as in (9); that is, in (9) there is an adjecancy requirement between the degree word and the adjective. In other words, the contrast between (2)/(3) on the one hand and (7) on the other, reduces to the contrast between (8) and (9).

(8) a. so ein großer Bub. (SG)
so/such a big boy
b. ganz ein blöder Fehler. (SG)
rathera stupid mistake

(9) a.* sehr ein großer Bub. (SG)
very a big boy
b.* irrsinnig ein blöder Fehler. (SG)
insanely a stupid mistake

Crucially, while *so* can modify DPs that are not modified by adjectives, as shown in

[2] Since BG and SG differ only in pronunciation in this respect, we have only provided the paradigm in SG.
[3] In some varieties of BG the word for 'very' is not *sehr* but *ur*.

(10) and (11), *ʃehr/ur* and *irrʃinnig* cannot do so, as shown in (12).

(10) a. So ein Mist. (SG)
ʃuch a garbage
'Such a mess!'
b. So ein Trottel.
ʃuch a iðiot
'Such an idiot!'
c. So eine Überraschung.
ʃuch a ʃurpriʃe
'Such a surprise!'

(11) * (A) so a Depp. (BG)
a ʃuch a iðiot
'Such an idiot!'

(12) a.* sehr/*irrsining ein Mist. (SG)
very/ inʃanely a garbage
b. * sehr/*irrsining ein Trottel.
very/ inʃanely a iðiot
c. * sehr/*irrsining eine Überraschung.
very/ inʃanely a ʃurpriʃe

Finally, note that as (13) shows that the indefinite determiner doubling construction in BG and SG is subject to a singularity restriction. In this respect, it is different from the "spurious *'n*" construction in Dutch (Bennis, Corver and den Dikken 1998).

(13) * drei so/gons a (große) Bua/ Buam. (BG)
three ʃo/ʃuch/quitea big boy/ boyʃ

In sum, the indefinite determiner doubling construction in BG raises the following questions. First, what is the descriptive generalisation that captures the distribution of *ʃo/ganz* on the one hand, and *ʃehr/irrʃinnig* on the other? Second, what is the syntax and semantics of the elements *ʃo/ganz* and how does it differ from *ʃehr/irrʃinnig*? Third, do the patterns in (1)-(3) on the one hand and in (4) on the other share the same syntactic structure? Finally, how can the variation in terms of determiner doubling within varieties of German be explained?

3 ▣ The syntax and semantics of indefinite determiner doubling constructions

3.1 ▣ Two kinds of degree-like elements

Adapting ideas in Bresnan (1973) and Corver (1997), namely that a distinction should be made within the degree system between quantifier-like degree items (Q0) and determiner-like degree items (Deg0), our main contention is that while degree words such as *ʃehr* and *irrʃinig* occupy the Deg slot within a AP, *ʃo* and *ganz* occupy a Q position outside of the DP/NP. That is, unlike elements such as *ʃehr* and *irrʃinig*, *ʃo* and *ganz* are true quantifiers.

3.2 ▣ The structure of *so-* and *ganz-* constructions

3.2.1 ▣ The ambiguity of *so*

The element *so* in German, like *such* in English, is often ambiguous between a kind and a degree reading, as illustrated in (14).[4]

(14) Hilda ist so eine Wissenschaftlerin. (SG)
Hilda is such a scientist
(i) Hilda is that kind of scientist.
(ii) Hilda is very much of a scientist.

Moreover, the availability of the kind or the degree reading of so seems to be subject to similar constraints as in English. For instance, like in English, only the kind but not the degree reading is available with (the correspondent of) an as-clause, as shown in (15).

(15) Hilda ist so eine Wissenschaftlerin wie du gerade erwähnt hast.
Hilda is such a scientist as you just mentioned have
(i) 'Hilda is such a scientist as you just mentioned.'
(ii) #'Hilda is so much of a scientist as you just mentioned.

While we will not undertake to present the syntactic analyses of (either kind or degree) the English *such* that are available in the literature (for this the reader is referred to Bresnan 1973, Carlson 1977, Siegel 1994, Landman 2006), we would like to highlight some facts that none of these analyses has been able to account for. One such fact is the peculiar property that both kind and degree *such* necessarily precede the article, as witnessed by the ungrammaticality of (16) – a fact that speaks against Siegel's (1994) adjectival analysis of such.

(16) * Hilda is a such scholar.

This property also holds for the German counterpart of *such*, namely *so*, as shown in (17 a,b).

(17) a.* eine so Frau. (SG)
b.* a so Frau. (BG)
such a woman

Another fact that we would like to capitalize on is the ambiguity of such and its German counterpart *so* itself. In other words, is it just a coincidence that *such* in English is ambiguous between a kind and a degree reading, as is its German counterpart *so*?

Finally, none of the analyses to date has been able to account for the fact that the kind reading of *such* – and of its German counterpart *so* – is blocked in the presence of an attributive adjective. That is, strings such as in (18) and (19) for German and English, respectively, only have a degree reading, with the kind reading being impossible.[5]

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[4] For instance, the meaning of the sentence Hilda is such a scholar can be rendered either as *Hilda is that kind of scholar* (the so-called kind, or identifier reading), or as *Hilda is very much of a scholar* (the so-called degree, or intensifier reading). The kind and the degree such in English differ in several ways (for details, see Bolinger 1972, Bresnan 1973, Carlson 1977, Siegel 1994, Landman 2006), which as we discuss also hold for German.

[5] This is of course related to the fact that only the degree but not the kind reading is available when *so/such* modifies nominals that denote gradable properties.

(18) such a big boy

(19) so ein großer Bub.
such a big boy
'such a big boy.', or 'so big a boy.'

Thus, (18) is semantically equivalent to (20), where *so* (not *such*) is used.

(20) so big a boy

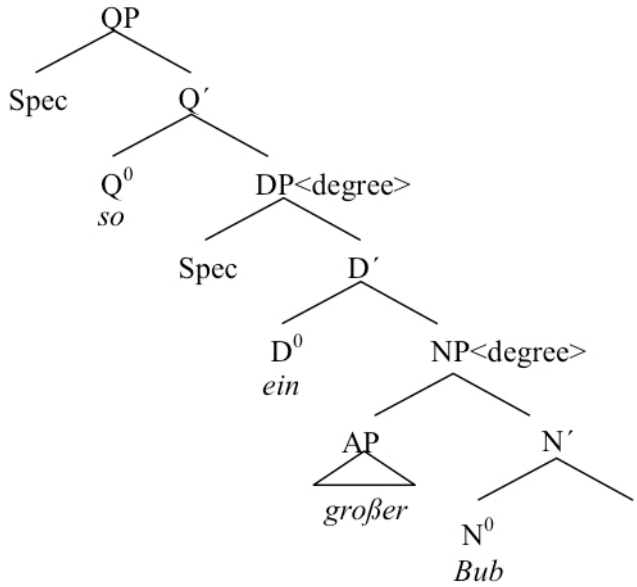
3.2.2 ▣ A UNIFORM STRUCTURE FOR KIND AND DEGREE *SO EIN* AND SEVERAL EXTENSIONS

As mentioned earlier, our basic proposal is that the element *so* in German and its English counterparts *such* are quantifiers. As such, they head QPs. Specifically, we contend that *so* in German (and *such* in English) is a quantifier that binds either (i) a kind, or (ii) a degree variable introduced by its complement NP/DP.[6] Hence, the basic structure that we assign to a construction such as in (19) is as depicted in (21).

(21) [QP so [DP<kind/degree> ein [NP [AP großer] Bub]]]]

Moreover, we submit that when the NP (or DP) contains an (gradable) adjective, its meaning will – due to the semantic composition of the noun and the adjective – necessarily have a degree component, as given in (22), and a kind component otherwise.

(22)



As mentioned above, the NP *großer Bub* 'big boy' in (22) necessarily has a degree meaning component because of the semantic composition (namey the intersection) of (the sets) 'big' and 'boy'. Moreover, whatever the contribution of the determiner *ein* 'a' in *ein großer Bub* 'a big boy' is (depending on the theory), we contend that the degree meaning ingredient of the NP will percolate to the DP (i.e., *ein großer Bub*) itself. Note that even if the determiner is assumed to provide some sort of (specific) reference, or argumenthood (Longobardi 1994), or even kind-reference (namely,

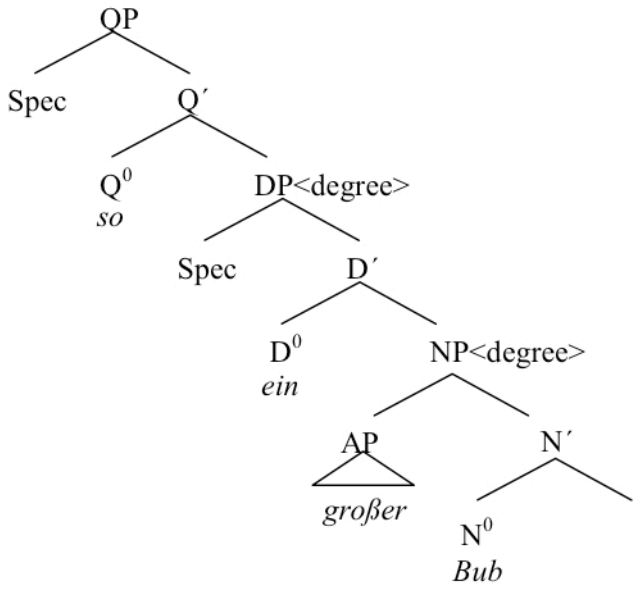
[6] For the moment, we are abstracting away from issues relating to the difference between NP and DP denotation.

the kind 'big boy'), this does not contradict our idea that the degree meaning ingredient is still present on the DP.

Hence, we straightforwardly account for the order so--Det--NP (and in English, such--Det--NP). Note also that the configurations in (21) and (22) are structurally in line with Matthewson's (2001) analysis of quantification, which as we discuss in section 3.4 we use to account for the semantics of the determiner doubling constructions under investigation.

Turning to the English *so* in (20), we claim that unlike *such* it combines with an adjectival-like projection, which we label $F_{adj}P$.[7] In other words, the structure of the construction in (20) is as in (23).

(23)



So combines with an adjectival projection, which is why it only quantifies over degrees, not over kinds. The AP moves out of the DP in (27), presumably so as to satisfy a formal adjectival feature on F_{adj}^{0}. Consequently, the linear order *so*--Adj--Det--NP is straightforwardly accounted for.

Finally, we extend the same analysis to *ganz/gons* 'quite' in German. That is, we take *ganz/gons* to be a quantifier that only binds a degree variable introduced by the FadjP. However, in German the AP does not move overtly. That is, we relate the cross-Germanic variation observed to the strength/weakness of the [+AP] feature of F^{adj0}.

3.3 ▣ The doubling determiner

Returning to indefinite determiner doubling in BG, we suggest (28) as its structure.

(24) [DP a [QP so/ganz [DP<kind/degree>/FadjP a [NP [AP großa] Bua]]]]

In (24), the top or doubling determiner combines with a QP, whose semantics was described in section 3.2 and is formalised in section 3.4 below. In other words, we contend that the indefinite determiner doubling construction in BG involves a recursive DP structure.

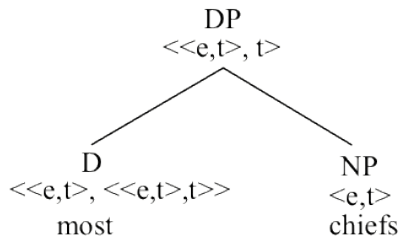
[7] $F_{adj}P$ here is merely as a label for an adjective-like functional projection (that is, a projection that has adjectival-like properties, or needs to merge with an AP at some point).

3.4 ▣ The semantics of indefinite determiner doubling constructions

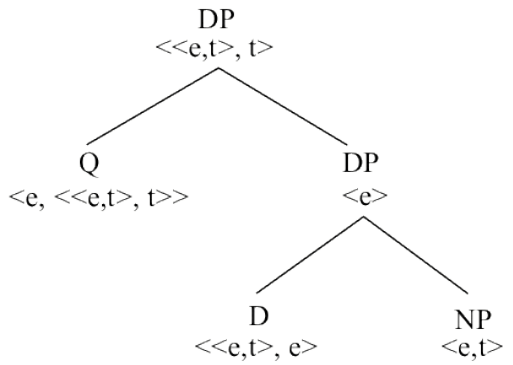
3.4.1 ▣ Theories of quantification – standard vs. new age

According to the standard analysis of quantification (Barwise and Cooper 1981), determiner quantifiers (such as *every* or *most*) take an NP predicate (i.e., an expression of type <e,t>) and create a generalized quantifier (i.e., an expression of type <<e,t>,t>). In contrast, Matthewson (2001) argues instead that quantifiers always require sisters of argumental type (i.e., type <e>, not <e,t>). For Matthewson the creation of a generalized quantifier from an NP-predicate (type <e,t>) always proceeds in two steps rather than one. First, a determiner D merges with an NP-complement, yielding a DP (type <e>), and only after this a quantifier merges with the DP, yielding a QP. The syntax and semantics of these two different approaches to quantification is depicted in the diagrams in (25).

(25)



(Matthewson 2001:146)



(Matthewson 2001:153)

Regarding indefinites, Matthewson's (2001) analysis relies on the mechanism of Choice Functions (Reinhart 1997, Winter 1997, Kratzer 1998). While the NP denotes a set of individuals (type <e,t>), the determiner acts as a choice function picking one element from the set. Thus, the whole DP denotes one individual entity (type <e>). Following Reinhart (1997), Matthewson assigns to the choice function the type <<e,t>,e>.[8] In order to derive a generalized quantifier, Matthewson takes a quantificational element to be introduced above the determiner layer. This Q-element takes the individual and returns a generalized quantifier (type <e, <<e,t>,t>>). In other words, the generalized quantifier is in Matthewson's approach constructed in two steps. First, the NP-predicate is transformed into an entity with the help of a determiner, and second, this entity is transformed into a generalized quantifier by the quantificational element.

3.4.2 ▣ Analysis of the kind *so*

Consider the BG example in (26), which involves indefinite determiner doubling.

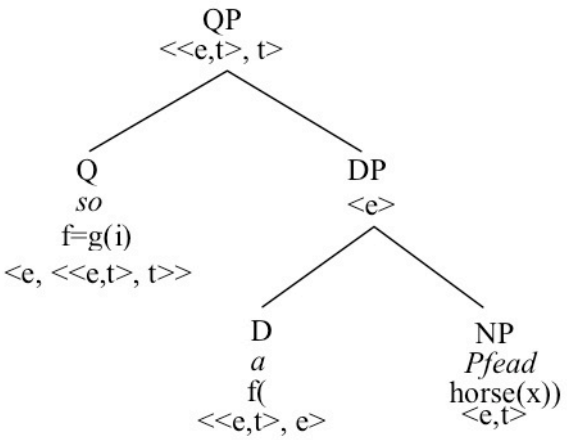
(26) A so a Pfead (wie ma im Zoo gsegn hom) ... (BG)
a such a horse (like we at zoo seen have
'Such a horse (like the one we saw at the zoo) ...'

We analyse (26) as follows. First, the noun *Pfead* 'horse' is combined with the

[8] The individuals returned by the choice function may be singular or plural (in the sense of Link 1983).

indefinite determiner *a* 'a'. This lower determiner acts as a choice function, as discussed above. It is of type <<e,t>, e> – that is, it takes a property (a set of individuals) and returns one element of it. In the next step, the quantificational element *so* 'such' enters the picture. Its function is to restrict the choice function. That is, *so* specifies a particular choice function; in Matthewson's (2001:152) words "*all determiners which combine with quantifiers necessarily introduce variables over choice functions*". This can also be thought of as binding the choice function variable. Following Reinhart (1997), who argues that the choice function variable can be bound anywhere, we submit that in the case at hand the choice function is bound by the quantificational element *so*. Thus, for *so a Pfead* 'such a horse', we have (27) and (28):

(27)



(28) $\lambda P.\ [f_y = g(i)\ \&\ f_y\ (horse)] \cap P(x) \neq \varnothing$

We claim that the top, or doubling determiner, which in SG is optional if at all possible (see note 2), specifies the cardinality of the whole phrase. This becomes especially clear when plural cases are considered, which allow for a cardinal numeral to appear in the top position. Plural cases of the kind reading are particularly frequent in situations where a thing is explained, as in the (b) answers in (29) and (30).

(29) a. Wea san dn die 'Power-Puff Göals'? (BG)
who are then the Power-Puff Girls
'Who are the 'Power-Puff Girls'?'
b. Na des san drei so Madln.
well this are three so girls
'Well, it's three girls of a particular kind.'

(30) a. Wos is n a 'Paar Frankfurter'? (BG)
what is then a Paar Frankfurter
b. Na des san zwaa so Wiaschtln.
well this are two so sausages
'Well, it's two sausages of a particular kind.'

A cardinal element specifies the exact number of members that a set (of individuals, i.e. of type <e,t>) has. Hence, in order to implement the idea that the top or doubling determiner in the indefinite determiner doubling construction is a cardinality operator, a set is needed. However, as was shown above (in (31)), at the place where the cardinality operator is inserted in the construction under

investigation only an expression of type <<e,t> t> is permitted. That is, type-shifting (from <<e,t> t> to <e,t>) is needed, and as is well-known, this operation has indeed been independently motivated (see Partee 1987 and related literature). Specifically for the case at hand (that is, shifting from the generalized quantifier type <<e,t> t> to the predicative type <e,t>) this has been argued independently by Landman (2003, 2004) on the basis of examples like the one in (31).

(31) The press is *every person who writes about the news*. (Landman 2004:43 (20a))

Now, it is possible for the cardinality operator to specify the exact number of elements as in (32), where Q corresponds to our type-shifted QP projection.[9]

(32) *three* -> λQλP ∃x ∈Q: |x|=3 ∧ P(x)
(Partee-style, cited after Landman 2004: 20)
The relation that holds between two sets P and Q iff some element of Q is a sum of three individuals having P.

To illustrate, consider the sentence in (33a). The definition in (32) gives (33b) for (33a).

(33) a. Three girls laugh.
b. ∃x∈girl: |x|=3 ∧ laugh(x)

Crucially, girls is a set, namely the set of all individuals who have the property laugh, and the property girl, and there are at least three such individuals. Hence, the semantics of cardinals boils down to that of intersective adjectives.

In sum, we get the analysis in (34b) for the doubling construction in (34a).

(34) a. a so a Pfead. (BG)
one so a horse
'a horse of this kind'
b. λP. [[f_y = g(i) & f_y(horse(x))]<e,t> & |x|=1] ∩ P(x)

The expression [f_y = g(i) & f_y(horse(x))] in (34b) corresponds to the QP type-shifted to <e,t>; *g(i)* is the contextual value that picks out a particular, discourse-determined choice function; *x* is a variable that may range over singular and plural individuals; and *P* is the property that the generalized quantifier requires in order to return a truth value. The cardinality restriction |x|=1 is conjoined to the predicate. Of course this also holds for plural expressions:

(35) a. zwaa so Wiaschtln. (BG)
two so sausages
'two such sausages' / 'two sausages of this kind'
b. λP. [[f_y = g(i) & f_y (sausages(x))]<e,t> & |x|=2] ∩ P(x)

Note that there is no lower indefinite determiner present in the plural case. This is not surprising, as indefinite plurals never take a determiner in German. That is, the choice function is not realized phonetically (i.e., it is phonetically null).

3.4.3 ▣ Analysis of the degree *so*

This section deals with the question of how the degree reading of *so* (and *such*) comes about in contexts with an adjective. The relevant examples from section

[9] Partee (1987) and Landman (2004) analyse indefinites differently (as generalized quantifiers and adjectives, respectively, thus differing also from our Matthewsonian account). The repercussions of this, however, have little bearing on the implementation of the cardinality operation as an intersection operation. Important for our purposes is solely the fact that a generalized quantifier may be type-shifted to a predicative expression.

3.2.1 are repeated here.

(18) such a big boy

(19) so ein großer Bub
such a big boy
'such a big boy', or 'so big a boy'

Ultimately, we are concerned with the question of whether a compositional semantics is feasible for the indefinite determiner doubling construction in (2a) (repeated here).

(2) a.* (a) so a großa Bua. (BG)
a so a big boy
'such a big boy' / 'so big a boy'

It is commonly assumed that adjectives contain degree arguments that are hosted in a separate degree projection (DegP) (Abney 1987, Corver 1990, 1997). While the degree head contains the relational operator that expresses comparison (*-er, more*) or equity (morphologically not realized), the specifier hosts the measure phrase, as shown in (37) for the expression in (36).

(36) ein Meter groß (SG)
a meter big
'one meter tall'

(37) [DegP [MeasureP ein Meter] Deg^0 [AP A^0]]

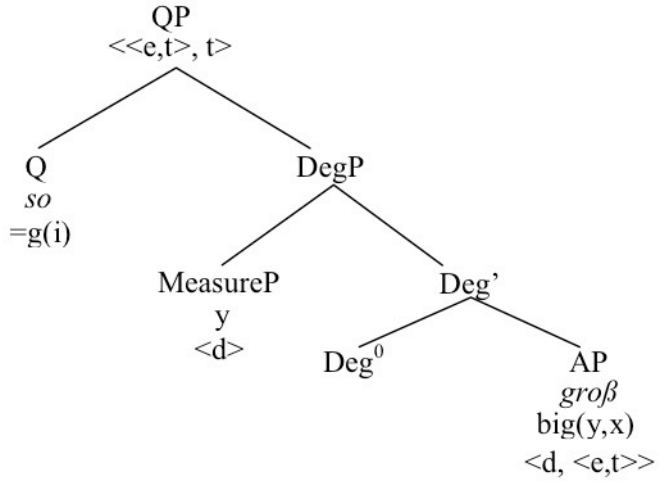
As adjectives relate predicates and degrees, we use the type <d> for degrees (see Cresswell 1976), obtaining thus (38).

(38) λdλx.big(d,x) <d,<e,t>>

As mentioned earlier, the quantificational elements *so* 'such'/'so' and *ganz* 'quite' do not provide a value for the degree argument right away; recall the fact that their distribution contrasts sharply with what we referred to as genuine degree elements such as *sehr/ur* 'very' and *irrsinnig* 'insanely', which provide a value for the degree argument right away. Hence, our analysis differs from the one in Landman (2006) according to which *such* in English (and – by extension – *so* in German) is the degree argument in contexts like the one at hand. We argue instead that the quantificational element binds the degree argument of adjectives, very much in the same way as they bind the choice function in the kind reading. For example, every degree of bigness can be seen as a particular instantiation of bigness, much in the same way as every indefinite is picked out by the choice function. Thus, the quantificational element determines both the choice function with indefinites and the degree with adjectives.

Our analysis of the degree reading of *so*-constructions is summarized in (39) and (40).

(39)



(40) a. so groß (SG)
ʒo big
b. λx.[y=g(i) & big(y,x)]

3.5 ▣ Back to the singularity contraint: the role of 'Agree'

As was pointed out in section 2, the indefinite doubling construction is subject to a singularity constraint. This was illustrated in (13), repeated here for ease of reference:

(13) * drei so/gons a (großa) Bua/ Buam. (BG)
three ʒo/ʒuch/quitea big boy/ boyʒ

That is, with plural cardinals the lower indefinite determiner is illicit, hence (41):[10]

(41) drei so/gons (*a) (großa) Bua / Buam. (BG)
three ʒo/ʒuch/quite a big boy / boyʒ
'three such/quite big boys.'

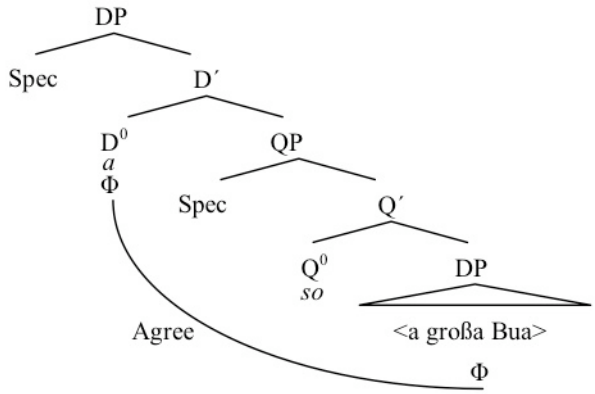
So, the question arises how the singularity requirement on the indefinite determiner doubling construction can be explained, since the semantics that we have ascribed to the construction does not readily derive it. We claim that the lower indefinite determiner is not only what turns the whole DP in a choice function, but at the same time the spell-out of (singular) number. In other words, we claim that there is a functional number projection between the NP and the DP (as is standardly assumed in the literature), the singular value of which is spelled out as the indefinite determiner. The plural number feature (value) on the other hand, is spelled out by the plural morpheme, which in Germanic is a bound morpheme. Hence, the lower indefinite determiner in the indefinite determiner doubling construction cannot co-occur with the plural morpheme. However, since in our account the top or doubling determiner specifies cardinality, it can co-occur with the singular number morpheme, as it does for instance in BG. This co-occurrence, in turn, is responsible for the elided structure in SG, where – as discussed – the top, or doubling determiner is not obligatory, its content being recoverable.

The issue of recoverability can be implemented in terms of the (long-distance) Agree mechanism (e.g. in a Probe-Goal relationship) – see Chomsky (2000). In

[10] See also the examples in (33b) and (34b) in section 3.4.2.

view of the data discussed, the (singular value of the) number feature seems to be sufficient to enforce the singularity requirement on the indefinite determiner doubling construction, however. Likewise, the plural value of the number feature also 'agrees' with the plural feature of the cardinal numeral. It must then be the case that at the same point in the derivation, an Agree relation is established between the projection hosting the number feature and the DP headed by the cardinal numeral, along the lines of (42).

(42)



Due to the Agree relation in (42), the PF-content of the head can then be deleted, yielding the 'non-doubled' SG structure. This means that, strictly speaking, there is no semantic redundancy involved in indefinite determiner doubling constructions.

3.6 ▣ Summary

The different readings of the German *so* 'such'/'so' are captured straightforwardly by analyzing the quantificational element as occupying different positions in each case. Further, the mechanism of specifying cardinality, while obligatory in BG, is (often) implicit in SG. We assume (43) as the structure for indefinite determiner doubling construction in BG. Specifically, the DP-layer within the quantificational structure put forward in Matthewson (2001) finds further empirical support from BG.

(43) [DP - QP - DP - NP]
a so a Depp
a such an idiot

In SG but not in BG, the top DP layer is (usually) empty phonetically.

3.7 ▣ Indefinite determiner doubling with universal quantifiers

The question then arises whether the (recursive) DP-structure that we argued for in section 3.5 can be maintained to account for the case illustrated in (48a) and (48c). That is, is a formal and uniform analysis of indefinite determiner doubling constructions possible? In other words, is (43) the structure of the determiner doubling constructions in (44a) and (44c), too? We contend that it is.

(44) a. a jeda Bua (BG)
a every boy
b. jeda Bua (BG)
every boy

c. ein jeder Student (SG, Roehrs 2004: 2)
an every student

To start with the semantics of the construction at hand, notice that the (universal) quantificational element *je* is distributive, corresponding to 'each' in English, as witnessed by the fact that like 'each' but unlike 'every', it can quantify over VPs, as shown in (45).

(45) Die Mädchen sind je zwei Mal gesprungen. (SG)
the girls are each two times jumped
'The girls (have each) jumped twice (each).'

However, in other contexts it is impossible to distinguish between 'each' and 'every' in SG. That is, *jeder* in SG is used both distributively and non-distributively. However, on the basis of the judgements that we elicited, we claim that when *jeda/jeder* is doubled by an indefinite determiner, as in (44a) and (44c), then it is necessarily distributive, corresponding in this way to the English *each*, not *every*.

Consider the contrast between (46) and (47) (modelled after Tunstall 1998:99), both of which contain the overt distributive marker *einzln* 'individually'. Unlike *olle* 'all' in (46), the doubled *jedn* in (47) cannot co-occur with this distributive marker.

(46) Di Anna hod olle Schüla (vo da Klass) fotografiat, oba ned
the Anna has every pupil (of the class) photographed but not
einzln. (BG)
individually
'Anna photographed every pupil (of the class), but not individually.'

(47) * Di Anna hod an je-dn Schüla (vo da Klass) fotografiat, oba ned
the Anna has a je-the pupil (of the class) photographed but not
einzln. (BG)
individually
'Anna photographed each pupil (of the class), but not individually.'

Note further that (46) is true also in a situation in which Anna photographed different (sub)groups of pupils, as long as she didn't leave any of the pupils un-photographed. Under this latter scenario, the distribution is over groups of individuals. But let us consider the non-doubled counterpart of (47) given in (48).

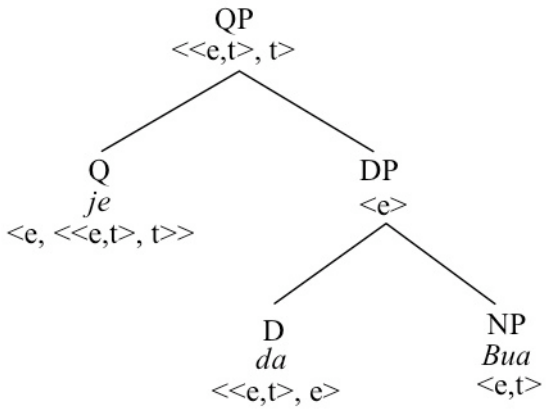
(48) ? Di Anna hod je-dn Schüla (vo da Klass) fotografiat, oba ned
the Anna has a je-the pupil (of the class) photographed but not
einzln. (BG)
individually
'Anna photographed each pupil (of the class), but not individually.'

As indicated, BG speakers find examples like (48) slightly marked and show a strong preference for the universal quantifier *olle* in this context (as in (46)). Crucially, however, there is a clear distinction in terms of acceptability between (47) and (48) on the part of these speakers, as indicated by the marks * versus *?*. It seems thus reasonable to state that while the distinction between (to abstract away from case marking) *jeda* and *a jeda* is becoming increasingly grammaticalized, which would in turn explain the more restricted occurrence of the doubled *ein jeder* (and more generally, of indefinite determiner doubling in SG, as mentioned earlier), there still is a certain semantic difference at least for some speakers.

Our formalization of the facts described in this section proceeds in a similar way to that of the indefinite determiner doubling constructions discussed in section 3. First, the predicate combines with the definite determiner. According to standard

assumptions (Russell 1905, Partee 1987, and others), the definite determiner picks out the single individual that has the property of the predicate. Hence, it turns a predicate of type <e,t> into an individual of type <e>. In this way, it has a similar effect as a choice function. In the next step, the distributive universal quantifier je is added. Thus, we have (49):

(49)



Finally, the top determiner that is required in BG again specifies the cardinality restriction. It is not possible to have a plural cardinal element in the top position, say four, as the definite determiner imposes a uniqueness constraint. Thus, it picks out the only individual around.

4 ▣ Conclusion

Our agenda was to show that the phenomenon of indefinite determiner doubling in BG and SG can be accounted for in a principled way by maintaining a version of the split-degree hypothesis proposed in Bresnan (1973) and Corver (1997). Specifically, we have argued that this phenomenon is restricted to structures that contain a quantifier. We have taken a first stab towards a compositional semantics for indefinite doubling determiner constructions in these varieties of German, thereby hopefully getting one step closer to the understanding of quantificational structures in natural language. The most far-reaching conclusion of the account that we have detailed is that no semantic redundancy is present in indefinite determiner doubling constructions. The variation observed in BG versus SG with respect to this phenomenon is confined to the PF-component.

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