

# ***Aller* is not an intensifier but defines the domain of the superlative**

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**Abstract:** In this paper we claim that Dutch and German *aller* (*allerbeste*, ‘the best of all’) is not an intensifying prefix or an excessive as is commonly claimed in the literature (e.g. Kiefer 1998: 277, Van der Wouden 2020) but rather the universal quantifier that attaches to the left of superlatives, defining the relevant domain in which the superlative should be interpreted (‘the best of all’), yielding what we would like to call a domain defining superlative compound (DDSC). More specifically, we argue that *aller* is an argument of the superlative, and that it is an overt expression of Heim’s (1999) ‘domain argument’ or the comparison class C.

Support for this new analysis comes from the hitherto unreported existence of other DDSCs: DDSCs are not restricted to the universal quantifier but can be constructed with other nominal elements attaching to the left of superlatives, exhibiting the same interpretation. These can be found in both Dutch and German albeit to different degrees of productivity. These compounds pattern with the *aller-* compounds in all respects, e.g. (i) they do not have comparative or positive variants; and (ii) they can only be formed with morphological superlatives, not with semantically superlative elements. In order to empirically substantiate our claim and to further specify the syntactic and semantic properties of DDSCs we conducted a corpus study. Using a Python script we were able to automatically extract a list of DDSCs in both languages for 500 superlatives.

**Key words:** superlative, corpus research, language variation

## **0. Introduction**

Dutch and German *aller* has been claimed to be an intensifying prefix (cf. (1) and (2)) which solely combines with superlative forms (Van der Wouden, 2020). In this paper we challenge this claim and show that *aller* is rather an instance of a pattern we call *Domain Defining Superlative Compounds* (DDSC). DDSCs as shown in (3) are composed of a superlative form at its base and a nominal element to its left which defines the domain within which the superlative holds.

- (1) Der aller-beste Schüler [German]  
the all-best pupil

- (2) De aller-beste leerling [Dutch]  
the all-best pupil  
‘The best pupil of all, the very best pupil’
- (3) Der schul-älteste Lehrer [German]  
the school-oldest teacher  
‘The oldest teacher of the school’
- (4) De wijze dorp-s-oudste [Dutch]  
the wise village-LNK<sup>1</sup>-oldest  
‘The wise village elder’

*Schul-* ‘school’ in (3) restricts the search domain of relevant *Lehrer* ‘teachers’ for the superlative *älteste* ‘oldest’ to the location of the school. *Dorps-* in (4) restricts the search domain for the superlative *oudste* ‘oldest’ to the village, making sure that the referent is the eldest of the *village* specifically. Correspondingly we claim that the correct interpretation for (1) and (2) is ‘the best pupil of all’. More specifically, we argue that *aller* is an argument of the superlative, and that it is an overt expression of Heim’s (1999) ‘domain argument’ or the comparison class C.

An immediate advantage of such an analysis is that the otherwise odd selectional behavior of an intensifying prefix to select for only superlatives can be accounted for in a straightforward fashion: any prior literature claiming that *aller* is supposedly an intensifying prefix would have to explain (i) why *aller* would be the only intensifying prefix that selects for only superlatives (it cannot combine with positive adjectives or nouns as we will see below); and (ii) why it should combine with a superlative in the first place. As we will show below, the interpretation of DDSCs and *aller*-constructions in general requires superlative semantics to be present, out of which the selectional requirement follows naturally.

The paper is organized as follows: In 2.) we summarize the properties of *aller* and point out problems to the intensifying-prefix-hypothesis; in 3.) we present DDSCs, a phenomenon so far unnoticed in the literature, and we establish the parallel to *aller*-type constructions. In 4.) we present a corpus study on DDSCs to further describe the phenomenon, comparing its use in Dutch and German. In 5.) we lay out a semantic analysis based on Heim’s (1999) superlative

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<sup>1</sup> The abbreviations used for glosses in this paper are: GEN = genitive, LNK = linker, SUP = superlative. We followed the Leipzig glossing rules, but glossed only where needed.

semantics. Finally, in 6.) we conclude our research and present some open questions for further research.

### 1. *Aller*: An intensifying prefix?

Although there is little work on *aller*, researchers seem to agree that this is an intensifying prefix (De Haas & Trommelen, 1993; Kiefer, 1998; Van der Wouden, 2020). Other examples of intensifying prefixes would be for instance *ober-* or *sau-* in German, and *opper-* and *super-* in Dutch:<sup>2</sup>

- (5) Der allerdümmste Schüler [German]  
‘the dumbest pupil of all’
- (6) Der saudümmste Schüler  
‘the incredibly dumbest pupil’ (lit. ‘the pig-dumbest pupil’)
- (7) Der oberdümmste Schüler  
‘the very dumbest pupil’ (lit. ‘the upper-dumbest pupil’)
- (8) De allerdomste leerling [Dutch]  
‘the dumbest pupil of all’
- (9) Het superleukste jaargetijde  
‘the super-funniest season’
- (10) De oppermachtigste koning  
‘the very mightiest king’ (lit. ‘the upper-mightiest king’)

However, at closer inspection, this parallel breaks quite rapidly. First, *aller* combines solely with superlatives, as opposed to unambiguous instances of intensifying prefixes, which generally have no such selectional requirement<sup>3</sup> and readily combine with positive and comparative forms of adjectives:

- (11) \*Der allerdumme Schüler [German]  
Intended: ‘the dumb pupil of all’

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<sup>2</sup> A host of other intensifiers are available in both languages, including but not limited to more vulgar examples.

<sup>3</sup> One possible exception to this generalization that may come to mind is *viel* which requires verbally derived adjectival forms. However, in contrast to *aller*, *viel* tolerates both past and present participles:

- i.) vielsagend ‘meaningful’ (lit. ‘much saying’)  
ii.) vielbeschäftigt ‘busy’ (lit. ‘much employed’)

- (12) Der saudumme Schüler  
‘the very dumb pupil’ (lit. ‘the pig dumb pupil’)
- (13) Der oberdumme Schüler  
‘the very dumb pupil’ (lit. ‘the upper dumb pupil’)
- (14) \*de allerdomme leerling<sup>4</sup> [Dutch]  
Intended: ‘the dumb pupil of all’
- (15) het superleuke feest  
‘the super fun party’
- (16) de oppermachtige koning  
‘the very mighty king’ (literally ‘upper mighty’)

In fact, intensifying prefixes are not restricted to co-occurring with adjectives at all, but may as well combine with nominals:

- (17) der Saupreuße ‘the damned Prussian’ [German]
- (18) Der Obermacker ‘the good friend / great guy’
- (19) Het superfeest ‘the super party’ [Dutch]
- (20) De oppermakker ‘the good friend / great guy’

Further, *aller* only accepts morphological superlatives and rejects ‘semantic’ superlatives, i.e. adjectives which are at the extreme of their scale; intensifying prefixes seem to be unaffected by this distinction:

- (21) \*Alleroptimal, \*allerperfekt [German]
- (22) hochoptimal, ultraperfekt
- (23) \*alleroptimaal, \*allerfavoriet [Dutch]

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<sup>4</sup> WNT dictionary of Dutch language says: ‘De enkele voorbeelden, die men hier en daar aantreft, van *aller-* met den positief van een bnw., zijn aan vergissing toe te schrijven.’ ‘The sporadic examples found here and there of *aller-* with a positive adjective can be labeled as mistakes’ (our translation). They explicitly condemn the use of *aller-* with a positive, and say that the mistakes are due to mixing the expression with *alles-*, which would be the nominative/accusative equivalent of genitive *aller-*.

<https://gtb.ivdnt.org/iWDB/search?actie=article&wdb=WNT&id=M003460&lemmodern=aller->

(24) superoptimaal,<sup>5</sup> megafavoriet

There exist different kinds of intensifying prefixes in both languages. Some could be considered very picky, as they attach only to one or two specific adjectives (*oliedom* but not *\*olielief*; conversely, *poeslief* but not *\*poesdom*, see (31)-(34)). These restrictions seem to be arbitrary and tied to the individual lexical items. Other intensifiers may have originally had idiosyncratic properties, but got extended to use with other adjectives as well; one example could be *kei-* ‘rock’ which one would expect with the adjective *hard* ‘hard’, but which additionally can also combine with other adjectives: *keilief* ‘super lovely’, *keilang* ‘super long’ and even the opposite *keizacht* ‘super soft’. Finally, there are such intensifiers that seem not to have any restrictions at all, such as *ultra*, *super*, *mega* (see (22), (24)).

Note, however, that even for the very versatile, seemingly unrestricted intensifying prefixes, there do in fact exist restrictions: even a prefix as versatile as *sau-* or *super-* doesn’t seem to combine very well with *letzte* ((25)). No such restriction can be attested for *aller*, which seems to be able to attach to any adjective.<sup>6</sup>

- |      |                     |  |          |
|------|---------------------|--|----------|
| (25) | *Der sauletzte      | <i>Intended</i> : ‘the damned last one’                    | [German] |
| (26) | Der hinterletzte    | ‘the absolutely last one’ (lit. ‘the one behind the last’) |          |
| (27) | *Der hinterlauteste | <i>Intended</i> : ‘the damned loudest one’                 |          |
| (28) | Die saulauteste     | ‘the damned loudest one’ (lit. ‘the pig loudest’)          |          |
| (29) | Der allerletzte     | ‘the last one of all’                                      |          |
| (30) | Der allerlauteste   | ‘the loudest one of all’                                   |          |
| (31) | *de olieliefste     | <i>Intended</i> : ‘the absolutely sweetest’                | [Dutch]  |
| (32) | de oliedomste       | ‘the absolutely dumbest one’ (lit. ‘the oil dumbest’)      |          |
| (33) | *de poesdomste      | <i>Intended</i> : ‘the absolutely dumbest’                 |          |
| (34) | de poesliefste      | ‘the absolutely loveliest one’ (lit. ‘the cat loveliest’)  |          |
| (35) | *de superlaatste    | <i>Intended</i> : ‘the very last one’                      |          |
| (36) | de allerdome        | ‘the dumbest one of all’                                   |          |
| (37) | de allerliefste     | ‘the loveliest one of all’                                 |          |
| (38) | de allerlaatste     | ‘the last one of all’                                      |          |

<sup>5</sup> This would be an intensified meaning of ‘extremely optimal’, not ‘super optimal’ with the literal latin meaning of ‘above optimal’.

<sup>6</sup> Of course *aller* cannot combine with adjectives which are unable to form a superlative, as we have shown above, but this is not an idiosyncratic property of *aller*; we will illustrate in the sections to come how this derives from *aller*’s requirement to combine with a superlative form.

Given these mismatches between *aller* and uncontroversial intensifying prefixes, we would like to propose instead that *aller* is an instance of what we call Domain Defining Superlative Compounds (DDSCs). In the next section we will introduce this hitherto unnoticed type of compounds and show how they pattern with the *aller*-formations reviewed in this section.

## 2. Domain Defining Superlative Compounds

Hitherto unnoticed, DDSCs are compounds that consist of a nominal modifier, which we call henceforth *the domain setter*, and a superlative base:

- (39) Der liga-schnell-ste Angreifer [German]  
the league-fast-SUP attacker  
'The fastest attacker of/in the league'
- (40) Der platz-älteste Camper  
the place-old.SUP camper(vehicle)  
'The oldest camper of the camping ground'

Semantically these compounds receive a particular interpretation, e.g. in *ligaschnellste* in (39), *liga* 'league' restricts the meaning of the superlative to a certain domain, namely the contextually salient league at a contextually salient point in time; i.e. here we are talking about the fastest attacker of the league. From this follows a necessarily definite specific interpretation of the domain setter and a stage level interpretation of the property as a whole (cf. section 4 for a more detailed semantic approach to DDSCs).

A similar reading can be proposed for the *aller*-type constructions as in (1) and (2), (5) and (8). E.g. *aller-* in *allerdümme* would serve as the domain of the superlative *dümme*, yielding a paraphrased meaning à la "the stupidest student of all".

Note that DDSCs differ from other compounds of the type shown in (41):

- (41) Die Schnee-reich-ste Region Deutschland-s  
the snow-rich-SUP region Germany-GEN  
'Germany's region richest in snow'

In (41), *Schnee-* does not set the domain within which the bearer of this property is richest. Rather, it further specifies the type of richness that is being talked about, i.e. rich *in terms of* snow. The property expressed by this compound can potentially be either stage level or individual level. In section 5 below we shed more light on the differences in make-up between the DDSC and this lookalike, which is the superlative form of a compounded adjective.<sup>7</sup>

Selectionally, DDSCs pattern with the *aller-* constructions: They are limited to superlative bases, i.e. changing (39) and (40) to positive forms will yield either different interpretations or unacceptable utterances:

(42) ?Der ligaschnelle Angreifer

Possible meaning: the attacker that is as fast as it is the standard in some ligue

(43) \*Der platzalte Camper

Possible non-sensical meaning: The camper which is as old as some place

Similarly, DDSCs require superlative morphology and thus do not pattern with semantic or inherent superlatives:

(44) \*Der ligaperfekte Angreifer

‘the most perfect attacker of the league’

(45) \*Der platzoptimale Camper

‘the most optimal camper of the camping ground’

In section 5 below we propose an analysis of the DDSC in terms of Heim’s (1999) superlative semantics, but first we provide some empirical support for the phenomenon. Since DDSCs are hitherto undocumented in the literature to the best of our knowledge, we conducted an exploratory corpus research, mainly intended as an empirical back up to the phenomenon, which we present in the next section.

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<sup>7</sup> One could imagine ambiguous cases, where different contexts could allow for different readings: *die filialstärkste Firma* ‘the branch-strongest firm’ would be the company with the most branches, or ‘strongest where number of branches is concerned’; in a different context, *der filialstärkste Mitarbeiter* ‘the branch-strongest employee’ would be a DDSC where the employee in question sold the most products in the branch where they work, making them the strongest salesperson of that branch (and employee of the month).

### 3. Domain Defining Superlative Compounds – corpus research

In order to provide an empirical basis for our claims, we conducted corpus research, with the following goals:

- i.) Show that DDSCs are a productive pattern in both German and Dutch and therefore validating the hypothesis brought forth in this paper;
- ii.) Gather more instances of DDSCs in both languages capturing differences in distribution, following the research questions:
  - a. Which adjectives may serve as a superlative base?
  - b. Which nouns can serve as domain setters?
  - c. Can DDSCs appear in the same contexts in both languages?

#### 3.1. Methodology

In order to conduct our search for DDSCs we extracted lists of the most frequently used superlatives from *Timestamped JSI web corpus 2014-2021 German* (7,055,641,455 tokens) and *Timestamped JSI web corpus 2014-2021 Dutch* (1,390,833,141 tokens) via Sketch Engine (Kilgarriff et al., 2004; 2014). The search for DDSCs was conducted by means of a Python script.<sup>8</sup> In a nutshell, this works as follows: you feed the script a list of superlatives. For each item on this list of superlatives, the script searches the corpus and extracts all forms that contain the superlative base, for example for ‘*largest*’ it would return ‘*superlargest*’, but also ‘*elargest*’ if such a form exists in the corpus. For a real example from the German search, see (46):

(46) *Schönste*

a. *Welt-schönste*

‘world-prettiest’ (domain defining superlative compound, DDSC)

b. *Wunder-schönste*

‘wonder-prettiest’

(Non-DDSC; this is the superlative form of the N-A compound *wunderschön*)

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<sup>8</sup> The script accesses Sketch Engine’s API (Application Programming Interface). This is an alternative and faster way of extracting specific forms from the corpus that would not have been possible, or at least been far slower, if done by hand in Sketch Engine’s web interface.



For the superlative *schönste*, the script would pick up (among any other forms consisting of ‘x+schönste’) the DDSC in a as well as the non-DDSC form in b, provided both occur in the corpus.

As a second step, the script then checks whether it can find a positive form of these items, by checking the lemma of the superlative as provided by the corpus: the superlative *schönste* is filed under the lemma *schön*. For (46)b, the script should find *wunderschön*, as this is a compound (positive) adjective in German. In the case of (46)a, it likely would not find the form *\*weltschön* in the corpus. If indeed it doesn’t, the form *weltschönste* is saved in a list of potential DDSCs.<sup>9</sup> An illustration of the process can be found in (47):

(47) *Weltschönste*

- a. Identifying the Domain Setter: [Welt] [schönste]
- b. Merging the domain setter and the positive: [Welt] [schön]

In order to check whether e.g. (46)a *weltschönste* has a positive form, the script operates as follows: *weltschönste* is a search result for the superlative *schönste*. The script removes this superlative input *schönste* from the search result *weltschönste*, thus isolating *welt* as the Domain Setter, (cf.(47)a). It then combines the Domain Setter with the previously extracted positive form and check whether this form can be found in the corpus (cf. (47)b). The script disregards any words that contain ordinals (e.g. *zweitschönste*, ‘second-prettiest’) as well as other morphemes which are irrelevant to the topic at hand.<sup>10</sup> After sorting the results by hand, we ran another script to retrieve the relative frequencies for the extracted tokens in the respective corpora.

Note that this approach bears several problems and is therefore, like any automated corpus search, merely approximative:

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<sup>9</sup> Note that these are only *potential* DDSCs, as there is a possibility that the positive does exist but is simply not present in the specific corpus. We chose large corpora; the larger the corpus, the less likely this becomes.

<sup>10</sup> The script is written to avoid false results as much as possible. The three main categories of these are misspelling, for example superlatives that had been merged with a definite article by mistake, e.g. *derschönste*; and prefixation, e.g. *uninteressierteste* ‘the most uninterested’, the superlative of *uninteressiert*, not a compound of *un* with *interessierteste*.

- i.) The script relies on the lemmatization provided by the corpora which are never perfect. E.g.: ‘*allerschlechteste*’ should be assigned the lemma ‘*schlecht*’, yet is categorized as belonging to the lemma ‘*allerschlecht*’.
- ii.) The script will struggle with adjectives that are contained in another adjective. For example, ‘*eng*’ is contained in the word ‘*streng*’. When querying for ‘*eng*’ any form of ‘*streng*’ will be picked up by the script as a potential hit.
- iii.) Surface ambiguities such as ‘*abgehärtete*’ are problematic as well: while the form may look as if it derives from the superlative of *hart* ‘hard’, it actually derives from a superlative form of the past participle of *abhärten* ‘harden’. What the script ends up recognizing as a domain setter (*abge+härtete*) is just part of the past participle circumfix.

In order to control for these sources of potential errors the results obtained were checked manually by the authors (Ruby Sleeman for the Dutch data, Nicolas Lamoure for the German data). As the Sketch Engine user interface displays its search results in a KWIC format (Key Word In Context), we also removed any hits that occurred in contexts that were not part of ‘normal’ sentences, i.e. we excluded hits that originated in hashtags, URLs, and headlines.

### 3.2. Results for German

In what follows we will present the results obtained for each language, starting with German, and Dutch in the next subsection.<sup>11</sup> The search conducted for German was based off of the 100 most frequent superlative forms found in the *Timestamped JSI web corpus 2014-2021 German*. After manual checking, a total of 147 unambiguous DDSCs was obtained. Excluding cases of *aller* serving as the Domain Setter, the search yielded a total of 51 unambiguous, well-formed instances of DDSCs.

The latter were composed of a total of 28 different adjectives and 24 different Domain Setters. All Domain setters were nominals and refer to either a point in space (e.g. *Welt* ‘world’, *Bunker* ‘bunker’) or time (*Jahres* ‘(of the) year’, *Saison* ‘season’), an organization (*Verein* ‘club’, *Unternehmen* ‘company’), or an activity (*Dienst* ‘service’, *Training* ‘training’).

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<sup>11</sup> The full, hand cleaned results can be accessed through the following links:

German: [https://1drv.ms/t/s!AoMzVa1KUTMfnIYOS54IiKxkAIZ\\_Mw?e=4hs1qq](https://1drv.ms/t/s!AoMzVa1KUTMfnIYOS54IiKxkAIZ_Mw?e=4hs1qq)

Dutch: <https://1drv.ms/t/s!AoMzVa1KUTMfnIYQgdAOfvzi7PuNEA?e=yxU1yt>

DDSCs not involving *aller* are used as genuine adjectives ((48)) but also as nominalizations ((49)):

(48) Der einst welt-beste Handball-spieler sitzt im Rollstuhl [...].  
the once world-good.SUP handball-player sits in.a wheelchair  
'The formerly best handball player of the world is in a wheelchair.'

(49) Er ist nicht grund-los der welt-beste.  
he is not reason-less the world-good.SUP  
'He is not the best of the world without a reason.'

The adjectives serving as the superlative base of the construction are widely varied and make reference to all sorts of properties including size (*größte* 'largest'), age (*jüngste* 'youngest'), physical quality (*hart* 'hard'). As follows from the obligatorily superlative form, the adjectives found are all gradable.

The group of extracted DDSCs contains both quite frequently as well as infrequently used constructions, the highest frequency being 2.35 per million tokens, *weltgrößte* 'world-largest'; the lowest frequency being less than 0.01 per million tokens, *ligahöchste* 'league-highest'. From this range, we conclude that DDSCs not involving *aller* are productive in German.

As pertains to constructions including *aller*, the script found that they were composed of a total of 76 adjectives, all of which are gradable, morphologically superlative adjectives. *Aller*-type DDSCs are used both as genuine adjectives as well as nominalizations.:

(50) "Man kann Michael Schumacher nur das allerbeste für seine Gesundheit wünschen,  
[...]

'One can only wish to Michael Schumacher the best of all for his health'

(51) Selena und Demi sind allerbeste Freundinnen [...]

'Selena and Demi are the best friends of all'

Similarly, *aller*-type constructions involve both very frequent and infrequent tokens e.g. *allereffizienteste* with 0.0 hits per million tokens versus *allerhöchste* yielding 0.49 hits per million tokens.

### 3.3. Results for Dutch

The Dutch results reveal a radically different picture. Despite a massively increased number of tested superlatives (500), the script only picked up a total of 225 unambiguous DDSCs. Not counting cases with *aller* (211) there remain only 14 unambiguous DDSCs. These are all composed of the superlative base *oudste* ‘oldest (of the)’ (e.g. *clanoudste* the clan eldest). We list the 14 different domain setters in (52) with English translations:

- (52) *blok*- ‘[prison] block’; *clan*- ‘clan’; *dorps*- ‘village’; *gemeente*- ‘[church] community’; *groep*- ‘group’; *huis*- ‘house (student dorm)’; *kerk*- ‘church’; *kamp*- ‘camp’; *klassen*- ‘school class’; *regiment*- ‘regiment’; *stam*- ‘tribe’; *team*- ‘team’; *wijk*- ‘neighborhood’; *zender*- ‘[radio] station’.

What the domain setters seem to have in common is that they represent subdivisions of society where a (larger or smaller) number of people live together and therefore sooner or later require some sort of hierarchy, in which case the eldest tends to get high authority. This notion then gets extended to cases where the person may not be literally oldest in age but have been in the relevant community the longest; or simply gets the most authority and by extension is named the ‘elder’. Syntactically, all 14 examples found in the corpus occur not adjectivally but in a nominalized way. In (53), it follows the definite determiner *de* and is not followed by a noun. In (54), it is preceded by not only the definite determiner *de* but also by the adjective *nieuwe* ‘new’:

- (53) Jean ontmoet **de dorpsoudste** van Saadnayel. </s><s> De man is gekozen door de bevolking van de stad (...).  
‘Jean meets Saadnayel’s village elder. The man was chosen by the city’s inhabitants.’
- (54) Wanneer deejays Coen & Sander en Gerard Ekdome deze zomer vertrekken bij jongerenradiostation 3FM, is ochtendpresentator Giel Beelen (37) **de nieuwe zenderoudste**. (...) Je bent straks de oudste deejay op een zichzelf sterk verjongende radiozender.  
‘When DJs Coen & Sander and Gerard Ekdome leave youth radio station 3FM, morning host Giel Beelen (37 yrs) will be the new ‘station elder’. (...) Soon you will be the oldest DJ at a radio station where the people are getting younger and younger.’

Frequency for these items varies but less than within the group of their German counterparts – *dorpsoudste* is represented 0.03 times per million tokens, while *teamoudste* occurs 0.0 times per million tokens. With respect to the *aller* results, we find all of the adjectives involved to be gradable. Frequencies range from 8.78 per million tokens (*allerlaatste* ‘last of all’) to 0.0 per million tokens (*allermerkwaardigste* ‘most strange’, lit. ‘most noteworthy’).

### 3.4. Summary of results and intermediate conclusion

DDSCs are clearly productive in German. The difference in frequency amongst well-formed hits indicates that speakers seem to make up new lexical combinations on the spot, which our informants have not heard before. This seems to be true for Dutch *aller-* type constructions as well. However, all other Dutch DDSCs are severely restricted in both composition (i.e. which adjectives may form DDSCs) and syntactic distribution. Despite these limitations, DDSCs seem to be still productive within these boundaries – similarly as in German, speakers verify that they accept the utterances even if they have never encountered them before. Although it is at this point unexplained why we find the DDSC only with the (nominalized) superlative *oudste* ‘eldest’, the range of results found with this item is clearly too wide to be a set of idioms or fossilized expressions.

Repeating here the goals with which we set out to research DDSCs in German and Dutch, we conclude the following:

- i.) Show that DDSCs are a productive pattern in both German and Dutch and therefore validating the hypothesis brought forth in this paper;

**DDSCs are productive in German; restricted in Dutch but productive within the restrictions.**<sup>12</sup>

- ii.) Gather more instances of DDSCs in both languages capturing differences in distribution, following the research questions:

- a. Which adjectives may serve as a superlative base?

**German: any (gradable) adjective.**

**Dutch: only *oudste* ‘eldest’, unless it is an *aller-*construction: all (gradable) adjectives.**

- b. Which nouns may serve as domain setters?

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<sup>12</sup> An anonymous reviewer disagrees with our claim concerning the productivity of the construction in Dutch. We would like to maintain our claim, as the instances of DDSCs found in Dutch, although limited to *oudste*, contain items that are clearly not lexicalized.

**Nouns which indicate a domain in space (e.g. ‘world’, ‘city’); a domain in time (e.g. ‘week’, ‘year’); or a more abstract space, community, or event (‘match’, ‘round’, ‘class’, ‘club’).**

- c. Can DDSCs appear in the same contexts in both languages?

***Aller*-constructions behave on par in both languages. Other DDSCs are restricted to being nominalized in Dutch; in German they can occur adjectivally or nominalized.**

This concludes the results section. In order to further explain the phenomenon and how it is crucially not similar to intensifying prefixes, we now turn to Heim’s (1999) semantics for the superlative, and unify our findings with her observation that in the very formula of the interpretation of the superlative, there is a slot reserved for the domain argument.

#### **4. Embedding the analysis in the standard superlative semantics by Heim (1999)**

Although establishing the parallel between DDSCs and *aller*-type constructions removes the oddities encountered when trying to align *aller* with other intensifying prefixes, our suggestion so far does not account for why *aller*-type constructions – or DDSCs generally for that matter – are limited to superlative bases. In order to account for this behavior, we suggest in this section that domain setters are an argument of superlatives, i.e. they are overt manifestations of Heim’s (1999) domain argument C. Hence, our Domain Defining Superlative Compounds are predicted to only be possible with superlative bases, as they are formed on the basis of superlatives; as opposed to some of our other corpus results, which are rather superlatives formed on the basis of compounded positive adjectives (recall *schneereich* ‘rich in snow’ from example (41), where the noun *Schnee* ‘snow’ further specifies the adjectival base *reich* ‘rich’, i.e. it further specifies the type of richness that is at stake).

The contrast is illustrated in (55) and (56) (see Booij, 2012 for similar schemas of compounding as in (56)):

- (55) Dom. Def. Sup. compound: [ [Welt]<sub>N</sub> + [[schön]<sub>A</sub> + ste]<sub>SUP</sub>]<sub>SUP</sub>  
 (56) Superlative of a compounded adjective: [ [[Schnee]<sub>N</sub> + [reich]<sub>A</sub>]<sub>A</sub> + ste]<sub>SUP</sub>

Heim (1999), following Szabolcsi (1986) and others, acknowledges that a sentence such as in (57) can be interpreted in two ways:

- (57) John climbed the highest mountain.
- a. Absolute reading: John climbed Mount Everest
  - b. Comparative reading: John climbed a mountain that is higher than anyone else in a contextually salient domain.

In order to model this ambiguity, Heim suggests that superlative morphology takes three arguments:

- i.) The **internal argument**, the adjective it affixes to, which she labels (R) (the Relation between objects and degrees);
- ii.) The **external argument** (x), which is realized by the subject of which the whole adjective+affix complex is predicated;
- iii.) A **domain argument** (C) realized by a predicate variable whose value is essentially supplied by the context.

This then yields the following lexical entry for the superlative morphology (Heim, 1999):

$$(58) \quad \text{-est} (x, R, C) \sqcap \exists d ( R(x,d) \ \& \ \forall y [ y \neq x \ \& \ y \in C \rightarrow \neg R(y,d) ] )$$

A sentence such as in (57) then means that “John climbed the unique object which falls under the predicate [C -est] [high mountain]” (Heim, 1999). Deriving the two different readings now becomes a matter of the definition of C: We arrive at the absolute reading if C happens to be the set of all mountains (on earth). In this case (57) is true if John climbed Mount Everest. If C were to refer to the set of mountains climbed by John and his friends, then we arrive at the relative reading and (57) may be true if John climbed Mount Holyoke, as long as none of the relevant friends climbed any mountain higher than Mt. Holyoke. In Heim’s own words: “C may be presuppositionally constrained to be some set of mountains, but which such set it is may vary from one utterance of [her number (12)] to the next” (Heim, 1999).

We propose that the domain setter in DDSCs is an overt realization of Heim’s domain argument. In the case of *aller* we propose that the value supplied is simply the universal quantifier, i.e. *all*. As domain arguments are an inherent property of superlatives, this derives

the fact that DDSCs (including *aller*-type constructions) cannot be formed with any adjectival forms other than superlatives. From this follows that DDSCs should differ substantially from e.g. superlatives built on compounded adjectives: while the former are necessarily derived on the basis of superlatives, the latter are constructed on the basis of a positive adjective and subsequently superlativized, as was illustrated in (55) and (56) above.

This analysis then also accounts for why DDSCs generally do not exhibit an ambiguity in terms of absolute and comparative readings:

- (59) Wer hat den welthöchsten Berg bestiegen? [German]  
 ‘Who climbed the world’s highest mountain?’  
 a. Peter, er hat den Mount Everest bestiegen  
 ‘Peter, he climbed Mount Everest’  
 b. \*Peter, er hat die Wasserkuppe bestiegen  
 ‘Peter, he climbed the Wasserkuppe’

Since the domain argument in (59) has been overtly realized by lexical material its value cannot be supplied by the context anymore and thus no ambiguity should arise. Note however that *aller*-type DDSCs still exhibit an ambiguity in the relevant sense:<sup>13</sup>

- (60) Wer hat den allerhöchsten Berg bestiegen? [German]  
 ‘Who climbed the highest mountain of all?’  
 a. Peter, er hat den Mount Everest bestiegen  
 ‘Peter, he climbed Mount Everest’  
 b. Peter, er hat die Wasserkuppe bestiegen  
 ‘Peter, he climbed the Wasserkuppe’
- (61) Wie heeft de allerhoogste berg beklommen? [Dutch]  
 ‘Who climbed the highest mountain of all?’  
 a. Peter, hij heeft Mount Everest beklommen  
 ‘Peter, he climbed Mount Everest’  
 b. Peter, hij heeft de Wasserkuppe beklommen  
 ‘Peter, he climbed the Wasserkuppe’

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<sup>13</sup> We would like to thank the anonymous reviewer who pointed out this interpretation to us.



We do not take this to be a counterargument to our hypothesis but rather a consequence of the ambiguous nature of *aller*, which can refer to different collections of entities, i.e. all mountains in the world, or all mountains in the present context. In this sense *aller* is akin to a pronominal element and functions as a variable.

Finally, the proposed analysis allows us to make sense of the actual meaning and “purpose” of *aller*-type constructions. Contenders of the intensifying prefix hypothesis noted a logical inconsistency:

“The meaning contribution of *aller*- is intensifying. Logically speaking, there cannot exist a larger house than *het grootste huis* ‘the largest house’” (Van der Wouden, 2020).

Under Heim’s analysis this apparent inconsistency is resolved: A priori, a superlative does not necessarily refer to the end of a given scale. Depending on the value provided to the domain argument it may refer to a multitude of different entities situated at different points of the scale. The addition of *aller* disambiguates the superlative, marking clearly that one is referring to the maximum of said scale.

## 5. Conclusions and open questions

In this paper we have cast doubt on the traditional view that *aller* is an intensifying prefix, arguing that the selectional properties of *aller* are quite unusual for an intensifying prefix. Instead, we have suggested that *aller* is part of a hitherto unnoticed phenomenon we dubbed Domain Defining Superlative Compound (DDSC). We have conducted a preliminary corpus research, showing that DDSCs are productive in both Dutch and German, however with strongly contrasting results (more on this below). In order to explain the tight link between DDSCs (including *aller*-type constructions) and superlative forms we have adopted Heim’s seminal approach to superlatives, arguing that domain setters are overt realizations of Heim’s Domain argument C, an argument type that is intrinsically linked to superlative morphology. Hence, we predict correctly that DDSCs are only possible with superlatives, as opposed to non-DDSCs, which look alike but are nothing more than a superlative built on a compounded positive adjective.

A number of open questions remain for future research. For instance, the stark contrast between our findings for Dutch and German remain puzzling. While DDSCs are virtually unrestricted in German, they appear in only two contexts in Dutch: In the form of *aller*-type constructions and with the superlative *oudste* ‘eldest’, and the latter only in nominalized usages.

Considering that *aller* is uncontroversially analyzed as a genitive of the universal quantifier in the literature (see e.g. Van der Wouden, 2020) and keeping in mind the similarities found in German between *aller*-constructions and DDSC's, one possibility is that the construction with nominalized *-oudste* is the only remaining construction of a more productive pattern in Dutch. In order to corroborate this hypothesis, one would need to search historic Dutch corpora for equivalents of the German DDSC, and subsequently to explain how the construction was lost in Dutch – perhaps along with the loss of genitive and case distinctions in general, in Dutch but not German.<sup>14</sup>

A further question we have left unanswered in this paper pertains to the co-occurrence of different lexical material in DDSCs. First note that *aller* as opposed to other domain setters can be readily stacked:

- |      |   |          |
|------|---|----------|
| (62) | Das allerallerschönste Bild             | [German] |
| (63) | Het allerallermooiste plaatje           | [Dutch]  |
|      | ‘the most beautiful image of all’       |          |
| (64) | ?Das Weltweltweltschönste Bild          | [German] |
|      | ‘the most beautiful image of the world’ |          |

Further, *aller* seems to be the only domain setter that is able to combine with other domain setters:

- |      |  |          |
|------|--|----------|
| (65) | Der weltallerbeste Käsekuchen              | [German] |
|      | ‘The world’s best cheesecake of all’       |          |
| (66) | ?Der Klassenweltbeste Käsekuchen           |          |
|      | ‘the world’s best cheesecake of the class’ |          |

We take this to mean that something more needs to be said about the exact meaning that *aller* contributes to the superlative as a domain setter.

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<sup>14</sup> Alternatively, Dutch never had the construction, and *oudste* became lexicalized as a nominal and therefore allows compounding according to normal Dutch N+N compounding rules. We find this an unattractive alternative, because it seems rather haphazard for only one superlative to do this.

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