

## Chapter 6

# On the distribution of the strong and weak adjectival inflection in Old High German: A corpus investigation

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Analyzing the evidence in the *Referenzkorpus Altdeutsch*, the present chapter investigates the distribution of strong (incl. zero) and weak inflectional patterns of attributive adjectives in Old High German. Two types of datasets are considered, namely DPs containing a determiner-like marker of definiteness and indefiniteness, and bare DPs. The study revises previous accounts according to which the choice of the inflectional pattern of the adjective is driven by the interpretation of the DP in terms of (in)definiteness. It is shown that, in both datasets, the strong inflection occurs with any semantic type of DP. The weak inflection, on the other hand, one correlates with some grammatical and constructional factors, such as gradation and the adverbial use of nominalized adjectives derived from proper names by means of the morpheme *-isk*. In addition, the analysis shows that the choice of strong patterns in definite DPs increases if the adjective is postnominal, supporting previous observations reported by Demske (2001). Finally, it is shown that the modern German standard distribution according to which the choice of inflectional pattern depends on the presence or absence of overt inflection on the determiner begins to be established already in Old High German, especially in the domain of DPs headed by a possessive determiner.

## 1 Introduction

Adjectives in Old High German (OHG, c. 750–1050) display two inflectional paradigms traditionally termed strong and weak, with the zero inflection considered a subtype of the strong inflectional pattern (Behaghel 1923: 170–171; Braune



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2018: 298–299). This formal distinction is also known as dual adjective inflection, a phenomenon shared by all early Germanic varieties, with the strong inflectional pattern being inherited from Indo-European (IE) and the weak one representing a common Germanic innovation.

The emergence of two inflectional paradigms of adjectives in Germanic and the understanding of the principles underlying their distribution in the individual varieties are some of the most intriguing questions in Germanic philology and historical linguistics (Bammesberger 1990: 230, see also the overview in Rehn 2019: 60–66). Researchers investigating the rise of the weak paradigm have established a relation between the origins of this pattern and a class of nominal expressions conveying a special meaning, namely, that they denote a referent identifiable by virtue of some characteristic property (Osthoff 1876: 119–121; Delbrück 1909: 191–192; Behaghel 1923: 171; Braune 2018: 297). This observation gave rise to the assumption that the weak variant is associated with the identifiability of the referent and therefore with the definiteness of the DP used to denote it. By contrast, the strong inflectional pattern was considered to be irrelevant regarding the semantic interpretation of the DP in early Germanic, being found both in indefinite as well as definite environments. Delbrück (1909: 189–190), who presents and discusses comparative evidence for modified bare nouns in Old English and Old Norse, states:

[E]in Substantivum, welches mit einem nach indogerm[anischer] Weise flektierten (starken) Adjektivum verbunden ist, kann unbestimmt und bestimmt gebraucht werden

‘A noun which is combined with an adjective inflecting in the IE (strong) pattern can be used both as definite and indefinite’. (Delbrück 1909: 189)

Klein (2007: 196), providing additional references and summarizing the state of the art in the literature, concludes:

Das starke Adjektiv war [...] in der älteren Zeit hinsichtlich der Definitheit offenbar noch nicht festgelegt. Das ergibt sich aus seiner resthaften Verwendung auch in definiten NPs in den altgerm[anischen] Sprachen

‘Obviously, in the earliest period, the strong adjective was not restricted regarding definiteness. This follows from its residual use in definite NPs as well, in the early Germanic languages’.

Evidence supporting the original semantic underspecification of the strong inflectional pattern is also found in Gothic (Ratkus 2011: 143–144, 167) and continues to exist as late as in the system of Old Swedish (Stroh-Wollin & Simke 2014).

Against the original situation found in Germanic, OHG is assumed to have established a kind of complementary distribution of the two paradigms, depending on the interpretation of the DP in terms of (in)definiteness (see Demske 2001; Braune 2018: 297). According to this view, the weak paradigm was associated with the definiteness of the DP, while the strong one was restricted to indefinite contexts. Hotzenköcherle (1968) shapes the term *Sinnregel* ('sense rule') to account for this situation in OHG, as opposed to the so-called *Formregel* ('formal rule') applying to Present-day German (PDG), in which the type of inflection of the adjective depends on the morphological form of the determiner. On the basis of these considerations, it is commonly assumed that German underwent a change from a semantically driven distribution of adjectival inflection in the earliest attestation to a morphologically driven one in the present-day stage of the language, although the precise time span during which this change must have taken place remains unclear.<sup>1</sup>

However, there is data contradicting the strict applicability of the semantic principle of distribution of adjectival inflection in the earliest vernacular attestation. The literature cites examples of strong adjectives found in definite environments in OHG (Wilmanns 1909: 750; Behaghel 1923: 185; Heinrichs 1954: 68–69; Dal 2014: 68–70; Braune 2018: 298), suggesting that the original semantic underspecification of the strong pattern in Germanic continues to exist in this variety as well. In addition, Demske (2001: 70) observes that adjectives preceding their head noun are more consistent with the semantic principle of distribution of adjectival inflection than those following their head noun. Finally, Klein (2007) considers an additional factor leading to cases of strong adjectives in definite DPs. He accounts for differences in the organization and spread of adjectival paradigms in Central and Upper German in the Middle High German period, showing that a levelling of the original paradigms in Central German leads to a preference for the strong forms and a partial loss of the weak ones. According to him, the resulting presence of strong adjectives in definite environments in Central German texts can already be found in late OHG documents of the respective dialectal area, see Klein (2007: 200).

These observations suggest that there is a degree of variability in the spread of inflectional patterns of adjectives in OHG, which has not been addressed on a

<sup>1</sup>Demske (2001) suggests that this process must have taken place during the Early New High German period (c. 1350–1650). On analyzing newly retrieved corpus data, Klein (2007) convincingly shows that the PDG standard distribution in indefinite contexts is in place much earlier, already in Middle High German (c. 1050–1350) documents of the Upper German area. Finally, Sahel (2022) shows that some additional principles underlying the present-day standard distribution (see Section 2.1) are established much later, during the New High German period (after 1650).

large scale by using the functionalities of corpus search. The aim of this study is to uncover the degree of variability in the distribution of inflectional patterns of adjectives in OHG by evaluating the evidence retrievable from the *Referenzkorpus Altdeutsch* (ReA 1.1, Donhauser et al. 2018).

The chapter is structured as follows. Section 2.1 discusses the principles of the morphologically driven distribution of adjectival inflection in PDG, focusing on the situation in the standard variety, but also accounting for some deviations attested in non-standard, colloquial style. Section 2.2 describes the basic facts underlying the notion of a semantically driven alternation of adjectival inflectional in Germanic and the respective situation in OHG, summarizing the statements of the previous literature. Section 3 presents the methods and results of the corpus study. Two basic types of datasets are distinguished: one involving demonstratives, possessive and indefinite pronouns used as determiners, and one involving bare DPs, allowing to investigate the distribution of the inflectional patterns of adjectives independently of the semantic type and the morphological properties of a determiner. Section 3.1 provides details on the various datasets, which are analyzed in Sections 3.2 and 3.3. Section 4 summarizes the results of the corpus study.

## 2 The principles of distribution of adjective paradigms in Present-day German and in early Germanic

### 2.1 The morphologically driven system of adjectival inflection in Present-day German

With some well-known exceptions,<sup>2</sup> adnominal adjectives in PDG obligatorily inflect, agreeing in case, number and grammatical gender with the respective head noun. The distribution of the strong and the weak paradigm is considered morphologically driven because the choice of the respective variant is determined by the morphological form of the accompanying determiner, more precisely by the presence or absence of overtly realized case, number and gender features on it. This is illustrated in (1)–(3) adapted from Rehn (2019), see also *Duden. Die*

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<sup>2</sup>The inflection is missing on adjectives in some idiomatic expressions of the type *auf gut-Ø Glück* ‘randomly’, but also on some loan adjectives like *prima* ‘great’, *extra* ‘additional’, and those denoting colours, such as *lila* ‘purple’, *rosa* ‘rose’, *pink* ‘pink’ etc. (see *rosa-Ø Brille* ‘pink spectacles’). Also, so-called toponymic formations ending in *-er* such as *Kieler-Ø Bucht* ‘Bay of Kiel’ are considered as a special class of adjectives which remain uninflected (see *Duden. Die Grammatik* 2016: 347–349; Fuhrhop 2001). On the lack of inflection in the Alemannic variety of German, see Rehn (2019, 2024 [this volume]).

*Grammatik* (2016: 369–370). The strong adjective variant appears whenever no distinct morphological features are realized on the determiner, either because the determiner is missing (1)<sup>3</sup> or because it carries no such features itself (2).<sup>4</sup> In the presence of an overtly inflected determiner of any type, the adjective appears in its weak and morphologically indistinctive variant, ending in *-e* in the nominative singular of all genders as well as in the accusative singular feminine and neuter, and in *-en* in all remaining cases, see (3).

- (1) gut-er                      Wein  
       good-M.NOM.SG.STR wine.M.NOM.SG  
       ‘good wine’
- (2) ein    gut-er                      Wein  
       INDEF good-M.NOM.SG.STR wine.M.NOM.SG  
       ‘a good wine’
- (3) ein-es/d-es/dies-es            gut-en                      Wein-s  
       INDEF/DEF/DEM–M.GEN.SG good-M.GEN.SG.WK wine-M.GEN.SG  
       ‘of a/the/this good wine’

In contexts involving some kind of determiner, a relevant property concerning the spread of distinct morphological features in the DP in PDG is observable, namely, that such features are coded only once, either on the determiner, or on the adjective, in case the determiner is uninflected as in (2).<sup>5</sup> The notion underlying this kind of division of labour between the determiner and the adnominal adjective is termed *single inflection* or *monoinflection* (*Monoflexion*) (see also *Duden. Die Grammatik* 2016: 954). At the same time, in the absence of a determiner,

<sup>3</sup>Forms of the genitive singular masculine and neuter are exceptional in that they display weak inflection although the determiner is missing, as in *gut-en Mut-es* instead of *gut-es Mut-es* ‘in a good temper’. Note that until the beginning of the New High German period, the strong inflection was present here as well, see Sahel (2022: 27–32) and the references therein.

<sup>4</sup>This pertains to the forms of the indefinite article *ein* ‘a(n)’, its negative variant *kein* and the possessive determiner series *mein* ‘my’, etc., in the nominative singular masculine and the nominative/accusative singular feminine and neuter (*Duden. Die Grammatik* 2016: 369). Some grammars consider the paradigm of adjectives following these determiners a mixed paradigm because it combines both weak and strong patterns. This is in contrast to the inflection of adjectives in determinerless (bare) environments in which the adjectives consistently display strong inflection, as well as to adjectives in overtly definite environments where only the weak pattern (ending in *-e* and *-en*) appears.

<sup>5</sup>Again, exceptions to this pattern are cases such as the genitive singular masculine and neuter presented in footnote 3, where the adjective has weak inflection although there is no determiner.

the features of the strong inflectional pattern are equally spread on each of the adjectives included in the DP, a phenomenon traditionally termed *parallel inflection* (*Parallelflexion*) and illustrated in (4) (see also Bildhauer et al. 2019).

- (4) mit gut-**em**                      spanisch-**em**                      Wein  
       with good-M.DAT.SG.STR Spanish-M.DAT.SG.STR wine.M.DAT.SG  
       ‘with good Spanish wine’

However, there are well-known violations of both principles in informal varieties of PDG. For example, the principle of monoinflection is violated in the way exemplified in (5), in that an inflected determiner is followed by an adjective displaying an ending of the strong paradigm, thereby instantiating a case of *double inflection* (*Doppelflexion*).<sup>6</sup> In addition, the principle of parallel inflection exemplified in (4) is suspended in favour of the so-called *variable inflection* (*Wechselflexion*) (see Bildhauer et al. 2019; Münzberg & Hansen 2020) in the way illustrated in (6), whereby the strong inflectional ending required on all modifiers in determinerless contexts is realized only once, on the leftmost one of several coordinated adjectives, while the subsequent ones bear weak inflection.<sup>7</sup>

- (5) mit ein-**em**                      sachkundig-**em**                      Referenten  
       with INDEF-M.DAT.SG professional-M.DAT.SG.STR guide.M.DAT.SG  
       ‘with a professional guide’  
       *Metallsenioren besuchen Museum, Wochenspiegel online*, September 28th, 2021, <https://www.wochenspiegelonline.de/news/detail/metallsenioren-besuchen-museum> [visited November 19th, 2021].
- (6) trotz fehlend-**em**                      direkt-**en**                      Beweis  
       despite lacking-M.DAT.SG.STR direct-M.DAT.SG.WK proof.M.DAT.SG  
       ‘despite the lack of direct proof’ (Bildhauer et al. 2019: 296, ex. (2))

As the examples suggest, the most common cases in which the principles of monoinflection and parallel inflection are violated in PDG are cases involving the dative singular of masculine and neuter nouns, i.e. those cases in which the strong ending *-em* alternates with the weak one *-en*. But other cases are not excluded, although they are less frequent in corpora (see Niebuhr 2021). However, all these instances concern language use and not the underlying system determining the distribution of the adjectival inflection in PDG.

<sup>6</sup>See Niebuhr 2021 for a corpus-based investigation of double inflection in overtly indefinite DPs from the end of the 15<sup>th</sup> century to PDG.

<sup>7</sup>The preposition *trotz*, originally selecting the dative case, is nowadays used both with the genitive and the dative. The latter, as in the example at issue, is considered more colloquial (see Vieregge 2019).

## 2.2 The distribution in early Germanic and in Old High German: The state of the art

As pointed out in the introduction, OHG displays two paradigms of adnominal adjectives: the strong one, including a subtype of uninflected (zero) forms, and the weak one. The endings of the strong paradigm were originally identical to those of the masculine and neuter nouns of the *a*-stems and of the feminine nouns of the *ô*-stems, including their *ja-/jô*- and *wa-/wô*- variants, with some exceptions in which adjectives inflected like nouns of the *i*- and *u*-stems (Braune 2018: 289). However, novel endings stemming from the pronominal paradigm entered the system and replaced the nominal ones, a process which was especially resilient in OHG in contrast to the remaining Germanic varieties (Klein 2007: 194–195). The nominal paradigm only survived in the nominative singular of all genders, the accusative singular, as well as the nominative and accusative plural of the neuter gender (Behaghel 1923: 170), where the original endings were lost due to phonological reduction, giving rise to uninflected (zero-inflected) forms, co-occurring with the new, pronominal ones (see also Wilmanns 1909: 441, 733).

The weak paradigm of adjectives, in turn, shares the inflectional behaviour of the nouns of the *n*-stems of all genders, a fact that plays a crucial role in explaining the emergence and the status of the weak pattern in Germanic. Already in Indo-European, the *n*-suffix was used to derive nouns with a special function, namely to refer to persons by assigning them a characteristic property expressed by the respective base word. Standard textbook examples are formations using the *n*-suffix in Greek *strábôn* ‘squinter’ derived from *strabós* ‘squinting’ or Latin *catonis*, the genitive singular of *cato* ‘the shrewd one’, derived from *catus* ‘shrewd’ (Braune 2018: 298). Osthoff (1876: 46–47), Delbrück (1909: 196) and Behaghel (1923: 171) provide many more examples of this type from Latin and Greek (see also the extended discussion in Trutmann 1972: 6–12). Crucially, it is assumed that the same word formation pattern was also used in Germanic, i.e., Germanic also employed the *n*-suffix to derive nouns referring to individuals, making these individuals distinguishable by virtue of some characteristic property. A significant part of these formations were nominalized adjectives, often used as by-names of persons or as parts of proper names referring to places, and attested in all early Germanic varieties (Wilmanns 1909: 746; Kögel 1889). This distributional observation gave rise to the following way of reasoning: Because individuation was a core function of appositive nouns derived by way of *n*-suffixation, and because the identifiability of the referent is linked to the definiteness of the DP used to denote it, adjectives sharing the inflectional behaviour of the nouns of the *n*-stems became associated with definiteness as their inherent property. Notably,

this process is assumed to have taken place prior to the emergence of a system of determiners and independently of the presence of demonstratives as overt markers of definiteness. The association of appositional adjectives with individuation and definiteness, and the subsequent spread of their inflectional behaviour to adjectives in definite environments is taken to represent the turning point in the process of the emergence of the weak inflectional pattern of adjectives in Germanic, and of dual adjectival inflection as a whole.<sup>8</sup>

According to standard textbooks, the use of the weak paradigm of adjectives is already strongly associated with the presence of some overt marker of definiteness in OHG (see Behaghel 1923: 183–184; Dal 2014: 68; Braune 2018: 297, 309). Some sporadic instances of weak adjectives in determinerless DPs are still found in formulaic expressions involving proper names, e.g. *druhtin nerrend-o Christ* ‘Lord, the saving Christ’ (Is. 17, 15, 11, cit. in Wilmanns 1909: 748), being considered as remnants of the original use of weak adjectives in bare definite contexts in Germanic.<sup>9</sup> The literature on OHG also suggests that, once the weak inflection was associated with definiteness, it was extended to adjectives in DPs introduced by demonstrative (or possessive) pronouns as markers of definiteness, while the strong pattern became restricted to indefinite contexts. In the course of this process, the use of the strong and weak pattern established a complementary distribution, depending on the semantic class of the accompanying determiner, irrespective of its morphological form.

Studying the diachronic development of the DP in the history of German, Demske (2001) also adopts this view. She describes the distribution of adjectival inflection in OHG as a semantically driven one, as according to her, the type of inflection depends on the semantic interpretation of the DP in terms of (in)definiteness, rather than on the morphological form of the accompanying determiner (see Demske 2001: 68). A basic consideration is that, in an example like (7), where the possessive determiner is considered a marker of definiteness but carries no morphological features on its own, the adjective nevertheless displays weak inflection, contrary to the distribution in PDG.<sup>10</sup>

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<sup>8</sup>But see Trutmann (1972) and Ratkus (2011) on alternative scenarios regarding the rise of dual inflection in Germanic. The more recent literature on the rise of the weak adjectival inflection is given and summarized in Ratkus (2011: footnote 1). See also Ratkus (2018) who argues in favour of a more general semantics of weak adjectives in bare DPs in Gothic and in early Germanic. According to him, only weak adjectives in determined DPs are firmly associated with definiteness.

<sup>9</sup>This use of the weak paradigm of adjectives is preserved, e.g. in modern Danish (Haberland & Heltoft 2008).

<sup>10</sup>All examples are cited according to ReA 1.1, including those taken from the previous literature.



- (7) mîn            liob-o            sun  
my.M.NOM.SG dear-M.NOM.SG.WK son.M.NOM.SG  
‘my dear son’ (T 14.5, cit. in Demske 2001: 67, ex. (39a))

To illustrate that the distribution of adjectival inflection in OHG is semantically driven, Demske (2001) first provides data from contexts involving overt adnominal pronouns used as determiners. She demonstrates that weak adjectives appear in overtly definite environments like those headed by possessive or demonstrative determiners, see (7) above, (8a) and (8b), whereas the strong inflectional pattern, including its zero variant, occurs in overtly indefinite environments such as those shown in (9a) and (9b). Demske (2001) also refers to the fact that in inflected indefinite contexts as in (10), adjectives in OHG display strong inflectional endings, violating the principle of monoinflection typical of the system of standard PDG.<sup>11</sup>

- (8) a. thes-er            firntatig-o            mán  
DEM-M.NOM.SG sinful-M.NOM.SG.WK man.M.NOM.SG  
‘this sinful man’ (T 118.2, cit. in Demske 2001: 67, ex. (38b))  
b. [in] thi-z            írthisg-a            dál  
[in] DEM-N.ACC.SG earthy-N.ACC.SG.WK valley.N.ACC.SG  
‘into this valley on Earth’  
(O V.23.102, cit. in Demske 2001: 67, ex. (38c))
- (9) a. ein            arm-az            wíb  
INDEF.N.ACC.SG poor-N.ACC.SG.STR woman.N.ACC.SG  
‘a poor woman’ (O II.14.84, cit. in Demske 2001: 67, ex. (42a))  
b. sum            árm            betalari  
a.certain.M.NOM.SG poor.M.NOM.SG.Ø beggar.M.NOM.SG  
‘a certain poor beggar’ (T 107.1, cit. in Demske 2001: 67, ex. (42c))
- (10) mít éin-emo            rôr-emo            tùoch-e  
with INDEF-N.DAT.SG red-N.DAT.SG.STR scarf-N.DAT.SG  
‘with a red scarf’ (N MC 56.15, cit. in Demske 2001: 67, ex. (67b))

In addition, Demske (2001) demonstrates that the above shown correlation between the semantic interpretation of the DP and the inflectional type of the adjective also applies in determinerless contexts. Especially important for her

<sup>11</sup>Sahel (2022) shows that the principle of monoinflection becomes the dominant pattern as late as in the 18<sup>th</sup> century.

analysis is the use of the weak inflectional pattern in vocatives (11), superlatives (12) and nouns with unique reference (13). In the seminal typology of definite expressions proposed by Löbner (1985), these classes of DPs represent the type of semantic definiteness, i.e. of expressions denoting referents which are identifiable on the basis of uniqueness and world knowledge. The opposite category is that of pragmatic definiteness, i.e. of DPs which acquire definite interpretation on the basis of previous mention. According to Demske (2001), pragmatic and semantic definiteness behave differently in the process of grammaticalization of the definite determiner in German. While anaphoric DPs systematically appear with a determiner already in OHG, representatives of the semantic type of definiteness reject the determiner until the end of this period. Therefore, Demske (2001) concludes that the weak adjectival inflection in bare DPs expressing the semantic type of definiteness acts as a substitute of the definite determiner during the OHG period:

- (11) *liob-o*                      *man*  
 dear-M.NOM.SG.WK man.M.NOM.SG  
 ‘dear man’ (O II.7.27, cit. in Demske 2001: 67, ex. (40a))
- (12) *in ira bárm si sazta barn-o*                      *bézist-a*  
 in her lap she set child-N.GEN.PL best-N.ACC.SG.WK  
 ‘onto her lap, she put the loveliest one of all children’  
 (O I.13.10, cit. in Demske 2001: 67, ex. (44))
- (13) *fon hímilisg-en*                      *liaht-e*  
 from heavenly-N.DAT.SG.WK light-N.DAT.SG  
 ‘by heavenly light’ (O I.12.4, cit. in Demske 2001: 67, ex. (45a))

But at the same time, there is variability in the data, which challenges the strict applicability of the semantic principle in OHG. Demske (2001: 70) accounts for some inconsistencies by taking into account differences in the positional realization of adjectives relative to their head nouns. She observes that the correlation between the semantic interpretation of the DP and the type of inflection on the adjective is more systematically established in DPs displaying prenominal modifiers than in those displaying postnominal ones. This is illustrated by the minimal pair in (14)=(7) and (15). In both cases, the DP is headed by the same type of determiner, namely the possessive one. However, the inflection of the adjectives differs. Only the prenominal one displays the weak inflectional pattern, whereas the corresponding postnominal one bears strong inflection, therefore violating the semantic principles of distribution of adjectival inflection:

- (14) *mîn liob-o sun* = (7)  
 my.M.NOM.SG dear-M.NOM.SG.WK son.M.NOM.SG  
 ‘my dear son’ (T 14.5, cit. in Demske 2001: 67, ex. (39a))
- (15) *min sun leob-ar*  
 my.M.NOM.SG son.M.NOM.SG dear-M.NOM.SG.STR  
 ‘my dear son’ (T 91.3, cit. in Demske 2001: 67, ex. (46a))

This explanation, however, fails to account for examples involving prenominal strong adjectives in definite environments, as those cited in the philological literature (see Wilmanns 1909: 750; Behaghel 1923: 185; Heinrichs 1954: 68–69; Dal 2014: 68–70; Braune 2018: 298). A representative example is given in (16). Note that the adjective modifies a noun with unique reference (*sunna* ‘the sun’), a representative of the semantic type of definiteness.

- (16) *thiu éwinig-u súnna*  
 DEF.F.NOM.SG eternal-F.NOM.SG.STR sun.F.NOM.SG  
 ‘the eternal sun’ (O IV.35.43, cit. in Heinrichs 1954: 69)

Additional evidence challenging the semantic principle of distribution of adjectival inflection comes from variation in multiple modification. The examples cited in (17)–(19) and found by way of corpus search show that adjectives varying regarding their inflectional features may alternate within one and the same DP, i.e. following the same semantic type of determiner. Note that this alternation equally applies to adjectives appearing both before (17) and after (18) the head noun. The variation increases if we take into account cases of possessive adjectives following a definite determiner, see (19).<sup>12,13</sup>

- (17) *thin-an uuar-an einag-un sun*  
 your-M.ACC.SG true-M.ACC.SG.STR only-M.ACC.SG.WK son.M.ACC.SG  
 ‘your true and single son’ (MH\_Murb.H.XXVI (edition 66–76))

<sup>12</sup>One might assume that the weak inflection of *einag* ‘single’ in (17) results from analogy with the numeral *ein*, which displays the weak pattern exclusively if used in the meaning ‘single, alone’ (Braune 2018: 322). But note that this does not apply to the derivational forms *einag*, *einig* or *eining* (see Braune 2018: 347).

<sup>13</sup>I follow ReA 1.1 in interpreting the forms *libhafte* and *redohafte* in (18) as inflected, displaying the weak ending of adjectives sharing the paradigm of *jung* ‘young’ (see Braune 2018: 305 on adjectives derived by the suffix-like element *-haft(ig)* in OHG), contra Klein (2007), who lists this example as one involving zero inflected adjectives, see the appendix sec. A 3.1.1. in Klein (2007: 217).

- (18) Ter mennisco ist ein ding libhaft-e,  
 DEF human is INDEF.N.NOM.SG thing.N.NOM.SG vivid-N.NOM.SG.WK  
 redohaft-e, totig lachenn-es  
 reasonable-N.NOM.SG.WK mortal.N.NOM.SG.Ø laughing-N.GEN.SG  
 mahtig  
 capable.N.NOM.SG.Ø  
 ‘The human being is something vivid, reasonable, mortal, capable of  
 laughing.’ (DD\_DeDefinitione (edition 168–180))
- (19) th-az mín-az heil-a múat  
 DEM-N.NOM.SG my-N.NOM.SG joyful-N.NOM.SG.WK temper.N.NOM.SG  
 ‘this joyful temper of mine’ (O\_Otfr.Ev.2.13 (edition 189–191))

Examples of this kind suggest that there are violations of the semantic principle of distribution of adjectival inflection in OHG which go beyond the ones accounted for in the previous literature. The present corpus study aims to re-examine the validity of the semantic principle of distribution of strong and weak adjectives in OHG, searching the OHG data in the *Referenzkorpus Altdeutsch* and using the functionalities of the searching platform ANNIS.

### 3 Corpus study

#### 3.1 The datasets

The present study distinguishes two types of datasets, differing regarding the presence or absence of an overt determiner.<sup>14</sup> The first one involves DPs displaying some kind of determiner, thus allowing an investigation of how the use of the various inflectional patterns depends on the semantic class of the determiner on the one hand, and on the presence of inflection on it on the other. The second

<sup>14</sup>It is controversial whether OHG displayed a system of definite and indefinite determiners comparable to the PDG one (see the most recent investigation by Flick 2020 on the rise of the definite determiner, and Petrova 2015, who argues that *ein* was determiner-like and clearly distinguishable from the numeral ‘one’), but it is well-known that different types of demonstrative and indefinite pronouns were used as markers of the semantic properties of the respective DP. In the face of the latter observation, the question is how the semantic class and the morphological properties of the accompanying adnominal pronoun influenced the type of inflection realized on the adjective. This means that, for the time being, the structural interpretation of the pronoun in terms of a representative of some class of functional element (e.g. D) heading the DP and taking an NP as its complement, will be ignored.

dataset involves bare DPs in which the morphological features on the modifier are not influenced by any property of the determiner.

Both datasets include prenominal and postnominal modifiers as well as instances of nominalized adjectives. In addition, not only canonical adjectives are tested but also past and present participles used as modifiers of nominal heads, or in nominalization constructions. For each dataset, the frequency of inflectional patterns of modifiers is determined and related to the semantic interpretation of the DP. The results of the corpus search and the semantic analysis are presented and discussed in the subsections below. For the sake of consistency, the database is restricted to DPs involving single modification. Modification by way of two or more coordinated categories, as exemplified in (17)–(19), is left aside for further research.

### 3.2 DPs containing a determiner

The following semantic classes of determiners distinguished in ReA 1.1 and tagged at the level of part of speech (pos) have been considered in the present analysis: i) the indefinite determiner *ein* ‘a(n)’ tagged as DIA (indefinite determiner), as well as its negative counterpart *nihein*, *nohein*, *niheinig* etc. ‘no one’ tagged as DINEG (negative indefinite determiner); ii) the definite determiner of the series of the simple demonstrative pronoun *der* ‘the’ tagged as DDA (demonstrative determiner), and iii) the possessive pronouns of the series *min* ‘my’, etc., interpreted as possessive determiners and tagged as DPOS (possessive determiner). In addition, the class of indefinite DPs was extended to the adnominal indefinite pronouns *sum/sumalih* ‘a certain one’ used as markers of indefiniteness of the DP.

Table 1 gives an overview of the occurrences of the inflectional patterns of strong, zero and weak adjectives in DPs headed by the three types of determiners distinguished above. The figures in Table 1 show that the strong pattern, both in its zero and pronominal variant, is widely preferred in indefinite DPs (94.2%), whereas the weak pattern predominates in the remaining types of DPs, amounting to 87.7% in definite DPs and 69.4% in possessive DPs. This distribution confirms the standard opinion according to which in OHG, the type of inflection of adjectives depends on the semantic type of the determiner.

But at the same time, the figures in Table 1 suggest that there are examples violating the semantic principle of adjectival distribution. On the one hand, there is evidence for weak adjectives in indefinite contexts, which is surprising, given the previous knowledge about the distribution of this inflectional pattern in early Germanic. On the other hand, there is evidence for strong adjectives in definite

Table 1: Strong (zero and pronominal) and weak adjectival inflection in DPs headed by an indefinite, definite, or possessive determiner in ReA 1.1 ( $n = 2,196$ )

Inflection	INDEF		DEF		POSS	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
strong	113	94.2	226	12.3	74	30.6
zero	59	49.2	16	0.9	13	5.4
pronominal	54	45.0	210	11.4	61	25.2
weak	7	5.8	1 608	87.7	168	69.4
Total	120		1 834		242	

contexts, which is as expected in the face of the previous literature, but which demands an explanation, given that the frequencies of the individual patterns in definite and possessive DPs differ considerably. At first glance, it seems that definite DPs are more consistent with the semantic principle of distribution of adjectival inflection in OHG than possessive DPs because the former correlate with the weak inflection more strictly than the latter ones. This observation, however, must be corroborated by looking into the effect of the presence of inflection on the possessive determiner and the linear order in the DP in both datasets, see Sections 3.2.3 and 3.2.4 below.

The following subsections will take a closer look at the patterns attested in the individual classes of DPs, focusing on those cases which contradict the semantic rule of distribution of adjectival inflection in OHG. In addition, some factors potentially explaining these inconsistencies will be addressed, such as the presence of inflection on the determiner and the positional realization of the modifier relative to the respective head noun.

### 3.2.1 The indefinite contexts

According to the numbers in Table 1, modifiers in DPs introduced by an indefinite determiner most often display a type of the strong inflectional pattern. But in addition, the corpus search reveals that there are cases of weak adjectives in indefinite contexts as well. Let us examine the properties of these examples in more detail.

There are seven instances of weak adjectives in indefinite DPs in the data. All share the property that they occur in DPs in the masculine or neuter singular.

Two of the examples, given in (20a) and (20b), involve DPs in the masculine nominative singular, i.e., the weak adjective follows an uninflected determiner.

- (20) a. Sum iung-o folgeta imo  
a.certain.M.NOM.SG young-M.NOM.SG.WK followed him  
‘A certain young one followed him.’ (T\_Tat185 (edition 251–262))
- b. da saz ein plint-e  
there sat INDEF.N.NOM.SG blind-M.NOM.SG.WK  
‘A blind man was sitting there.’  
(APB\_PredigtsammlungB (edition 1883–1894))

The example in (20a) is ambiguous because *iungo* can be interpreted both as a noun of the masculine *n*-stems meaning ‘young man, boy’, also accounted for in standard dictionaries of OHG (e.g. Schützeichel 2012: 170)<sup>15</sup> and a nominalized variant of the adjective *jung* ‘young’. In ReA, *iungo* is tagged three times as a noun and once as an adjective, i.e. in the example in (20a), but it is very likely that (20a) involves the noun *iungo*. In (20b), however, the form is unambiguous because the lemma *blind* is attested only as an adjective in the dictionaries, and never as a noun as well, differently from *iungo*. The nominalization of this adjective results in a pattern that is exceptional not only because it contradicts the semantic principle of distribution of adjectival inflection, but also because it is also incompatible within the morphologically driven one in PDG. Note that in PDG, weak adjectives following an uninflected indefinite determiner are ungrammatical.<sup>16</sup> At the same time, the figures represented in Klein (2007: 202) suggest that this pattern is not exceptional in the historical stages of German, as some additional instances of weak adjectives following uninflected *ein* can be found in Upper and Central German texts of the Middle High German period.

Consider that the property unifying the examples in (20a) and (20b) is the individualizing function of the DPs involved, i.e., both cases involve secondary formations which describe an individual as distinguishable by virtue of the property expressed by the base word. Recall that word formations of this type share the inflectional behaviour of the nouns of the *n*-stems, and that it is assumed that the weak adjectival paradigm evolved out of nominalizations of this type, displaying definiteness as its inherent property. Note, however, that while the two examples fit perfectly well into the nominalization pattern, they are overtly indefinite,

<sup>15</sup>See also the entry for *jungo* in the online version of the OHG dictionary: [http://awb.saw-leipzig.de/cgi/WBNetz/wbgui\\_py?sige=AWB&lemma=jungo](http://awb.saw-leipzig.de/cgi/WBNetz/wbgui_py?sige=AWB&lemma=jungo), visited on May 7<sup>th</sup>, 2022.

<sup>16</sup>The respective form would be *ein \*Blind-e* ‘a blind man’ instead of *ein Blind-er*, requiring the strong inflection on the nominalized adjective.

suggesting that the respective word formation pattern was not restricted to DPs which were inherently definite.

In the remaining five instances, the weak adjective follows an inflected indefinite determiner. In four of these, the DP is in the masculine accusative singular, as shown in (21a), and in one it is in the neuter dative singular, see (21b).

- (21) a. *Án dero uuínsterun trúog er éin-en rôð-en*  
           on DEF right           wore he INDEF-M.ACC.SG red-M.ACC.SG.WK  
           skilt  
           buckler.M.ACC.SG  
           ‘He wore a red buckler on his right arm.’  
           (N\_Mart\_Cap.I.64-72 (edition 1805–1816))
- b. *ûfen éin-emo blánc-en róss-e*  
           on INDEF-N.DAT.SG white-N.DAT.SG.WK horse-N.DAT.SG  
           ‘on a white horse’ (N\_DeCon\_II\_63–66 (edition 508–519))

All examples are found in texts of the late OHG writer Notker. The corpus search reveals that in Notker’s writings, *-en* is the default inflectional ending of adjectives in the accusative singular masculine, appearing in 202 of the total of 207 instances of this form.<sup>17</sup> Very probably, this ending results from formal overlapping of the original strong ending *-an* and the weak one *-un/-in*<sup>18</sup> in the course of phonological reduction of vowels in unaccented syllables to *schwa*, taking place toward the end of the OHG period and leading to the loss of formal distinctions in large parts of the inflectional system of the language. Consequently, the forms of the masculine accusative singular ending in *-en* are ambiguous, and we cannot tell whether the adjectival inflection is strong or weak in the respective examples. But in the case of the neuter dative singular in (21b), we observe a weak form ending in *-en* that is sufficiently distinguishable from the strong one ending in *-em(o)*, still present in texts by Notker. This means that by virtue of this example, we find conclusive evidence suggesting that the weak paradigm of

<sup>17</sup>See also Klein’s (2007: 291) remark on forms of the accusative singular masculine in Notker’s work: “Bei Notker sind starke und schwache Flexion nicht mehr unterscheidbar” (= ‘Strong and weak inflection is undistinguishable in work by Notker’). Unfortunately, the annotation in the corpus is inconclusive, tagging 57 of these cases as weak and 145 cases as strong. Needless to say, all hit lists that the corpus produced were checked manually while compiling the data and statistics of this chapter.

<sup>18</sup>In the texts written by Notker and included in ReA, the adjectival ending *-un* in the masculine accusative singular occurs once, annotated as weak, and the ending *-in* is found four times, all annotated as strong.



adjectives starts to spread after inflected indefinite determiners in the late OHG period. However, strong and weak forms after inflected indefinite determiners continue to compete for centuries. Demske (2001) shows that this variation is present as late as the Early New High German period. According to Sahel (2022), multiple inflection is still present until the 18<sup>th</sup> century.

### 3.2.2 The definite and possessive environments

The numbers in Table 1 show that weak adjectives represent the most common category in DPs headed by a definite and a possessive determiner. However, at the same time, strong adjectives, both pronominal and zero ones, are also possible in these two classes of DPs. In addition, the figures reveal significant differences regarding the frequency of strong and weak adjectives in definite and possessive DPs. This raises the question of whether the semantic class of the determiner is the single factor determining the distribution of inflectional patterns in these domains.

Let us start with the interpretation of zero-inflected adjectives in definite and possessive DPs. In both types of DPs, zero inflected adjectives constitute the most infrequent option. But there are quantitative and qualitative differences regarding the presence of zero-inflected adjectives in definite and possessive contexts. First, with a frequency of 0.9%, zero-inflected adjectives are practically non-existent in definite DPs, while their frequency in possessive DPs is higher, amounting to 5.4%. Second, there is a difference regarding the lexical inventory of adjectives displaying zero-inflection in these two groups of DPs. In definite DPs, seven of the total of 16 occurrences are cases of the adjective *frono* ‘divine, kingly’, which is indeclinable (see Braune 2018: 285 with references). An example is provided in (22a). In the remaining cases, the adjectives are declinable. But they display uninflected forms in poetic texts, probably due to metrical considerations or where they are used in a rhyme position, as the examples in (22b) and (22c) suggest.<sup>19</sup>

<sup>19</sup>The adjective *sconi* ‘beautiful, good’ in (22b), and also the majority of declinable zero-inflected adjectives in definite DPs, is a representative of the class of adjectives of the *ja-/jo-*stem. The uninflected form ends in *-i*, see Braune (2018: 289). The respective weak form ends in *-o* in the masculine nominative singular as well as *-a* in the feminine nominative singular and the neuter nominative and accusative. An example is given in (i).

- (i) *th-az            scon-a            séltsani*  
 DEF-N.ACC.SG good-N.ACC.SG.WK wonder.N.ACC.SG  
 ‘the good wonder’ (O\_Otfr.Ev.1.9 (edition 350–361))

- (22) a. d-es                      fraono                      capet-es  
 DEF-N.GEN.SG divine.N.GEN.SG.Ø prayer-N.GEN.SG  
 ‘of the Lord’s prayer’ (E\_Exhortatio (edition 129–139))
- b. ni    was imo ánwani    th-az                      árunti  
 NEG was him believable DEF-N.NOM.SG message.N.NOM.SG  
 sconi  
 good.N.NOM.SG.Ø  
 ‘he did not trust the good news’ (O\_Otfr.Ev.1.4 (edition 404–416))
- c. Zéinot    ouh thio dáti th-az                      púrpurin  
 denotes also DEM acts DEF-N.NOM.SG crimson.N.NOM.SG.Ø  
 giwáti  
 cloak.N.NOM.SG  
 ‘The crimson cloak also denotes these acts.’  
 (O\_Otfr.Ev.4.25 (edition 89–100))

In possessive DPs, in contrast, none of the zero-inflected adjectives are indeclinable, and the pattern is well-attested in prose as well, see (23a) and (23b). This suggests that there must be independent reasons responsible for the higher percentage of zero-inflected adjectives in possessive DPs, rooted in the morphological form of the determiner, or in the fact that possessive determiners do not assign the same kind of definite interpretation to the DP as definite determiners do.

- (23) a. únsér                      héilig                      sáng                      ze\_lóbenn-e  
 our.N.ACC.SG holy.N.ACC.SG.Ø song.N.ACC.SG to-praise-INF.DAT.SG  
 ‘to praise our holy song’ (N\_Mart\_Cap.II.106-110\_J (edition 932–943))
- b. Dîn                      guôt                      uuíllo                      . ist uns skérm  
 your.M.NOM.SG good-M.NOM.SG.Ø will.M.NOM.SG is us shelter  
 ‘Your good will is our shelter.’ (N\_Ps\_5\_16–19 (edition 789–800))

Let us turn to the instances of the pronominal variant of strong adjectives in definite contexts. In the introduction, it was outlined that such examples are cited in the literature (see Behaghel 1923: 185–188) and that they occur in Germanic as a whole. Note that the explanations put forward in the literature fail to explain the presence of these patterns in the data. First, recall Klein’s (2007: 200) observation that the replacement of the weak inflection by the strong one in some parts of the paradigm, taking place in Central German dialects, is already present in the late phase of OHG. But this consideration cannot account for the

presence of strong adjectives in definite contexts in the cases under investigation, because the examples are found outside the Central German dialectal area. Second, the previous literature has ascribed the use of strong adjectives in definite environments to Otfrid's *Gospel Book* (see Braune 2018: 298). But this argument must be rejected as well, because the corpus search reveals that the respective instances are attested in virtually all texts included in ReA. This suggests that the strong inflectional pattern is compatible with definite determiners throughout the OHG attestation.<sup>20</sup> Third, according to Wilmanns (1909: 750), strong adjectives in definite environments are due to a phonological resemblance of the respective endings of the weak paradigm, most obvious in the accusative singular of the masculine gender as in (24a) and (25a), where the strong ending *-an* is phonologically similar to the weak ending *-on*. But in the corpus, strong forms of adjectives are well-represented in virtually all paradigm positions. The examples in (24b) and (25b) illustrate strong forms in definite and possessive contexts in the genitive plural and the dative singular, respectively.

- (24) a. *th-en*            *líob-an*            *man*  
 DEF-M.ACC.SG beloved-M.ACC.SG.STR man.M.ACC.SG  
 'the beloved man' (O\_Otfr.Ev.1.22 (edition 413–423))
- b. *thie heroston the-ro*            *heithafte-ro*            *mann-o*  
 DEF first.ones DEF-M.GEN.PL serving-M.GEN.PL.STR man-M.GEN.PL  
 'the first ones among the priests' (T\_Tat124 (edition 253–264))
- (25) a. *thuruh sin-an*            *éineg-an*            *sun*  
 through his-M.ACC.SG single-M.ACC.SG.STR son.M.ACC.SG  
 'through his only son' (O\_Otfr.Ev.2.1 (edition 385–396))

<sup>20</sup>It might be assumed that a factor favouring the occurrence of strong adjectives in definite DPs in Otfrid's *Gospel Book* is the rhyming structure of this poem, as shown in the example in (i). Here, the strong adjective *guater* at the end of the first half-line rhymes with the noun *múater* in the end of the second half-line:

- (i) *Tho fuar ther*            *sún*            *guat-er*            // *thar ínan zoh sin*  
 then went DEF-M.NOM.SG son-M.NOM.SG good-M.NOM.SG.STR where him led his  
*múater*  
 mother  
 'Then the good son followed his mother everywhere.' (O\_Otfr.Ev.2.11 (edition 5–17))

However, note that the frequency of prenominal and postnominal strong adjectives in definite DPs in Otfrid's *Gospel Book* is 31 and 17, respectively; i.e., the pattern is not strictly attributed to postnominal occurrences of adjectives in rhyming positions.

- b. fona sine-**mu**      uuihe-**mu**      liham-in  
 from his-N.DAT.SG holy-N.DAT.SG.STR body-N.DAT.SG  
 ‘from his holy body’ (MH\_Murb.H.XVII (edition 12–22))

Finally, Braune (2018: 289, Anm. 1) suggests that there is a difference in the interpretation of strong and weak forms of adjectives in definite contexts, in that the strong ones refer to a temporary property of the object or individual denoted by the DP, whereas the weak ones apply to a permanent property. This opinion cannot be maintained in the face of examples like (24a) referring to Mary’s persistent love of her son Jesus, or (25a) referring to a permanent property (namely, that Jesus is the only son of God, see also the argumentation in Wilmanns 1909: 750–751).

Importantly, the strong inflection of adjectives occurs in overtly definite environments representing various subtypes of semantic definiteness. It is attested in DPs expressing uniqueness such as (26a) referring to doomsday (see also (16) referring to the sun), or in DPs referring to common knowledge, e.g. the old laws in (26b) or the names of customs and feasts in (26c).

- (26) a. an de-**mo**      giunstie-**mo**      tag-a  
 on DEF-M.DAT.SG youngest-SUPL.M.DAT.SG.STR day-M.DAT.SG  
 ‘at doomsday’ (KB\_KlosterneuburgerGebet (edition 48–58))  
 b. in th-**en**      ált-**en**      éw-on  
 in DEF-F.DAT.PL old-F.DAT.PL.STR law-F.DAT.PL  
 ‘in the old laws’ (O\_Otfr.Ev.1.20 (edition 238–249))  
 c. zi th-**en**      óstrig-**en**      gizít-in  
 to DEF-F.DAT.PL Easter-F.DAT.PL.STR holiday-F.DAT.PL  
 ‘to the Easter holidays’ (O\_Otfr.Ev.2.11 (edition 611–621))

This is similar in the possessive environments. Strong adjectives may occur in DPs denoting entities which are inferable in the context, as the dead body of Jesus in (27a), or the uniqueness of the son of God, see (27b). Note that zero-inflected adjectives may also denote unique referents, see (27c).

- (27) a. fona sine-**mu**      uuihe-**mu**      liham-in  
 from his-N.DAT.SG holy-N.DAT.SG.STR body-N.DAT.SG  
 ‘from his holy body’ (MH\_Murb.H.XVII (edition 12–22))  
 b. thuruh sin-**an**      éineg-**an**      sun  
 through his-M.ACC.SG single-M.ACC.SG.STR son-M.ACC.SG  
 ‘through his only son’ (O\_Otfr.Ev.2.1 (edition 385–396))

- c. Ich geloube an sin-**in**                      aininborn                      sun  
 I    believe   in   his-M.ACC.SG only-begotten.M.ACC.SG.Ø son.M.ACC.SG  
 'I believe in his only-begotten son.'  
 (GGB3\_SangallerGlaubenBeichteIII (edition 29–40))

This data suggests that the definite interpretation of the DP does not categorically trigger weak inflection on the adjective.

In addition, the question regarding the differences in the frequencies of strong, zero and weak adjectives in definite and possessive DPs remains unresolved. In Sections 3.2.3 and 3.2.4, two potential factors explaining this difference will be addressed, i.e. the morphological form of the determiner on the one hand, and the positional realization of the modifier relative to the head noun on the other.

### 3.2.3 The role of determiner inflection

Demske (2001) treats possessive determiners on a par with definite ones, arguing that they trigger weak inflection on adjectives included in such DPs. Table 1 reveals a frequency of 69.4% weak adjectives in DPs headed by a possessive determiner, which is the most frequent pattern in this class of DPs, but nevertheless lower than the frequency of weak adjectives in definite DPs, which is 87.7%.

Recall that in PDG, uninflected determiners require strong adjectival inflection, while inflected ones require weak inflection (Section 2.1). In OHG, the paradigm of the possessive determiner also displays uninflected forms, as does the paradigm of the indefinite determiner. By contrast, the definite determiner displays morphologically distinctive forms in its entire paradigm. Therefore, it might be suggested that the higher frequency of pronominal and zero-inflected adjectives in possessive DPs is due to the lack of inflection on the determiner, similarly to the situation in PDG. If this is true, the conclusion would be that at least within the class of possessive DPs, the morphological principle holding for PDG must have applied in OHG as well.

In order to investigate the relation between the lack of inflection on the determiner and the choice of the strong inflection on the adjective, possessive DPs will be compared with indefinite DPs, as they also display uninflected determiner forms.

Let us look at the distribution of adjectival inflection in indefinite contexts first. In OHG, bare forms of the indefinite determiner *ein*, its negative variant *nihein* and the markers of indefiniteness *sum* and *sumalih* are present in the nominative singular of all genders, including the feminine, and the accusative singular of the neuter gender.

Table 2 summarizes the occurrences of the strong (both zero and pronominal) and weak inflection in indefinite DPs, depending on the presence of inflection on the determiner.

Table 2: Strong (zero and pronominal) and weak adjectives in DPs headed by an uninflected or inflected indefinite determiner in ReA 1.1

	<i>n</i>	strong			weak
		zero	pronominal		
Uninflected indef. determiner	71	56 (94.9%)	13 (24.1%)	2 (28.6%)	
Inflected indef. determiner	49	3 (5.1%)	41 (76.9%)	5 (71.4%)	
Total	120	59 (100.0%)	54 (100.0%)	7 (100.0%)	

We will abstract away from the figures gained for weak adjectives in indefinite DPs because of the low number of instances and the special conditions under which they apply (see Section 3.2). If we look at the distribution of the remaining inflectional patterns, the figures in Table 2 suggest that there is a strong tendency for zero-inflected adjectives to occur with DPs headed by a bare indefinite determiner (94.9%), a fact that has also been noticed in the previous literature (see Klein 2007: 205). An example is presented in (28a). The exceptional pattern involving a zero-adjective after an inflected determiner is given in (28b) and only involves forms of the inflected indefinite marker *sum* ‘a certain’. In contrast, the pronominal variant of the strong adjectival declension is not as strictly linked to any form of the determiner. It is more frequently attested after an inflected indefinite determiner (76.9%), as in (29a), but it is also common in indefinite DPs displaying a bare determiner (24.1%), see (29b), especially in work by Notker, as also observed by Klein (2007: 205).

- (28) a. Chám óuh éin                      hálz                      smíd  
           came also INDEF.M.NOM.SG lame.M.NOM.SG.Ø blacksmith.M.NOM.SG  
           ‘Also, a lame blacksmith arrived.’  
           (N\_Mart\_Cap.I.75–79\_J (edition 408–419))
- b. Súm-ez                      réht                      zímilîh  
           a.certain-N.NOM.SG proper.thing.N.NOM.SG approved  
           ‘A certain proper thing is approved.’ (N\_Syl\_8 (edition 238–249))  
           (Lat. Quoddam iustum honestum)

- (29) a. in éin-ero            chûrz-ero            uuîl-o  
           in INDEF-F.DAT.SG short-F.DAT.SG.STR while-F.DAT.SG  
           ‘within a short period of time’  
           (N\_DeCon\_II\_45–48 (edition 1042–1053))
- b. éin                      fáleuu-er            stéin  
           INDEF.M.NOM.SG yellow-M.NOM.SG.STR stone.M.NOM.SG  
           ‘a yellow stone’ (N\_Mart\_Cap.I.64–72 (edition 290–301))

Let us compare this picture to the one gained for DPs headed by a possessive determiner. In OHG, the paradigm of the possessive determiner displays bare forms in the nominative singular and plural of the first and second person of all genders (*min* ‘my’, *din* ‘your’, *unser* ‘our’ and *iuwer* ‘your’), as well as in the nominative singular masculine and the nominative and accusative singular neuter of the third person (*sin* ‘his’). In the previous literature, it has been argued that the uninflected forms of the possessive determiners trigger weak inflection on the adjective, just like definite determiners. But the corpus data shows that next to weak forms as in (30a), both variants of the strong pattern may occur after an uninflected possessive determiner, see (30b) and (30c). The same applies to DPs involving an inflected possessive determiner. Next to the weak form as shown in (30a), we find both zero and pronominal forms of the strong inflection, see (31b) and (31c).

- (30) a. únser                      liob-o                      drúhtin  
           our.M.NOM.SG beloved-M.NOM.SG.WK God.M.NOM.SG  
           ‘our beloved Lord’ (O\_Otfr.Ev.3.21 (edition 7–18))
- b. hábe                      in geuuónehéite . únser héilig                      sáng  
           have.IMP.2SG in custom                      our    holy-N.ACC.SG.Ø song.N.ACC.SG  
           ze\_lóbenn-e  
           to-praise-INF.DAT.SG  
           ‘be accustomed to praising our holy song’  
           (N\_Mart\_Cap.II.106–110\_J (edition 932–943))  
           (Lat. *suesce probaresacros cantus*)
- c. químit uns thiz gúat            in unser                      ármilich-az  
           comes us    DEM goodness in our.N.ACC.SG poor-N.ACC.SG.STR  
           múat  
           mind.N.ACC.SG  
           ‘This goodness will enter our poor mind.’  
           (O\_Otfr.Ev.3.3 (edition 18–29))

Table 3: Strong (zero and pronominal) and weak adjectives in DPs headed by an uninflected or inflected possessive determiner in ReA 1.1

	<i>n</i>	strong		weak
		zero	pronominal	
Uninflected poss. det.	41	12 (92.3%)	10 (16.4%)	19 (11.3%)
Inflected poss. det.	201	1 (7.7%)	51 (83.6%)	149 (88.7%)
Total	242	13 (100.0%)	61 (100.0%)	168 (100.0%)

- (31) a. mít sîne-**mo** scôn-**en** suért-**e**  
 with his-M.DAT.SG beautiful-M.DAT.SG.WK sword-M.DAT.SG  
 ‘with his beautiful sword’ (N\_Mart\_Cap.I.85–89\_J (edition 314–326))
- b. Ich geloube an sin-**in** aininborn sun  
 I believe in his-M.ACC.SG only-begotten.M.ACC.SG.Ø son.M.ACC.SG  
 ‘I believe in his only-begotten son.’  
 (GGB3\_SangallerGlaubenBeichteIII (edition 29–40))
- c. fona sine-**mu** uuihe-**mu** liham-in  
 from his-N.DAT.SG holy-N.DAT.SG.STR body-N.DAT.SG  
 ‘by his holy body’ (MH\_Murb.H.XVII (edition 9–21))

The quantitative distribution of the various inflectional patterns of adjectives in DPs introduced by uninflected and inflected possessive determiners is shown in Table 3.

The numbers in Table 3 show that, similarly to the indefinite contexts, zero-inflected adjectives display a strong preference for DPs headed by an uninflected possessive determiner, applying in 12 out of 13 attested cases (92.3%). In contrast, the pronominal variant is less restricted with respect to the morphological form of the determiner. It is more common after an inflected determiner (83.6%) but is also present after an uninflected one (16.4%). Surprisingly, a similar frequency applies for weak adjectives in possessive DPs. The weak variant is much more common after an inflected possessive determiner (88.7%) than after a bare one (11.3%). Taking the two variants of the strong pattern together and performing a standard chi-square test reveals a statistically significant relation between the presence of inflection on the possessive determiner and the selection of the inflectional pattern on the adjective, see Table 4.

Given these figures, it can be concluded that in the domain of possessive DPs, the choice of the weak inflection is favoured by the presence of overt morpho-



Table 4: The presence of inflection on the possessive determiner as a factor influencing strong or weak adjective inflection.  $\chi^2(1, n = 242) = 12.387$ ,  $p = 0.000432$ , significant at  $p < 0.01$ .

	<i>n</i>	strong <sup>a</sup>	weak
Uninflected possessive determiner	41	22	19
Inflected possessive determiner	201	52	149
Total	242	74	168

<sup>a</sup>Zero and pronominal

logical features on the determiner. This, in turn, suggests that in the domain of possessive DPs, the association of the weak declensional pattern with the overt realization of morphological features on the determiner that is constitutive of the morphological principle of distribution of adjectival inflection in PDG already starts to evolve.

### 3.2.4 The role of the linear order in the DP

Recall that Demske (2001) observes that pronominal adjectives are more faithful to the semantic principle of distribution of adjectival inflection than postnominal ones are (see (14) vs. (15) in Section 2.2). Therefore, the positional realization of the modifier relative to the head noun will be examined as a potential factor determining the variability in the frequency of inflectional patterns in various types of DPs in the data.

Table 5 provides the absolute number of pronominal and postnominal modifiers of the various inflectional types in indefinite, definite and possessive DPs in ReA.<sup>21</sup> In addition, it provides the frequency of postnominal modifiers (as opposed to pronominal ones) of the respective inflectional class of the adjective for each class of DPs included in the dataset.

The figures for indefinite DPs are not very reliable because after leaving aside the cases of nominalization, the number of weak adjectives is very low, amounting to only five examples in total in adnominal use. None of the weak adjectives in indefinite contexts appear in postnominal position.

With the remaining types of DPs, the figures are more telling. In definite and possessive DPs, the frequency of weak adjectives in postnominal position is al-

<sup>21</sup>The numbers for nominalized adjectives in each type of DP are excluded because the property of the linear order relative to a head noun does not apply in these cases.

Table 5: Frequency of strong (zero and pronominal) and weak adjectives in postnominal position in indefinite, definite and possessive DPs in ReA 1.1

Inflection	INDEF		DEF		POSS	
	A-N	N-A	A-N	N-A	A-N	N-A
strong						
zero	26	2 (7.1%)	9	7 (43.7%)	10	3 (23.1%)
pron.	35	15 (30.0%)	85	35 (28.9%)	30	21 (41.2%)
weak	5	0 (0.0%)	1 000	30 (2.9%)	112	5 (4.3%)

most equally low, amounting to 2.9% and 4.3%, respectively. At the same time, in definite and possessive DPs, the frequency of strong adjectives, both zero-inflected and pronominal ones, increases whenever the adjective is postnominal. In other words, as already observed by Demske (2001), the strong pattern of adjectives is more likely to occur in postnominal position in definite and possessive DPs if it follows the head noun.

### 3.2.5 Interim conclusion

The corpus search revealed that the previously assumed correlation between the type of adjectival inflection and the semantic class of the determiner is only partly confirmed by the data. Crucially, there is variability in the distribution of the various inflectional patterns in each type of DP, suggesting that the semantic principle of distribution is subject to violations.

On the one hand, there are sporadic instances of weak adjectives in indefinite contexts. In the nominalization construction, these adjectives are used to introduce novel referents to the discourse; i.e. the semantics of the weak declension cannot be regarded as inherently definite. In addition, we find early instances of weak adjectives following inflected indefinite determiners, suggesting that the modern German pattern of monoinflection starts to spread already in this period.

On the other hand, strong adjectives, both zero-inflected and pronominal ones, are attested in definite and possessive DPs alike. This result is explainable as a continuation of the original Germanic situation in which the strong pattern is neutral with respect to the semantic interpretation of the DP. At the same time, there are differences in the frequencies of the various inflectional patterns of adjectives in definite and possessive DPs, although they are both considered as definite.

Two factors explaining these differences were tested. The first one was the morphological distinctiveness of the determiner. Definite DPs displaying determiners that are sufficiently distinguishable regarding case, number and gender in the entire paradigm also display the highest frequency of weak adjectives. Also, in possessive DPs, which display both bare and inflected determiners, the lack of inflection on the determiner results in higher frequencies of strong adjectives in the dataset, while the presence of inflection on the possessive determiner correlates with the choice of the weak inflection in a statistically significant way. This suggests that properties constitutive of the morphological principle of distribution of adjectival inflection governing the situation in PDG start to emerge already in the system of OHG.

The second factor was the positional realization of the adjective relative to the head noun. Weak adjectives are not attested in postnominal position in indefinite contexts, and appear in definite and possessive DPs in very low frequencies. At the same time, the frequency of strong adjectives in definite and possessive DPs increases when the adjective follows the head noun. This suggests that the weak inflection is strongly associated with the prenominal position of the modifier in these types of DPs, while the strong one is present on adjectives in both positions.

### 3.3 Distribution of adjectival inflection in bare DPs

This section investigates the principles underlying the distribution of adjectival inflection in bare DPs containing modifying or nominalized adjectives (the latter referred to by  $A_{\text{NOM}}$  in the tables). Both attributive adjectives and participles are considered, as well as the same categories used as heads of NPs in nominalizations.

Table 6 represents the quantitative distribution of inflectional patterns of adjectives in bare DPs found in ReA 1.1. The figures in Table 6 show that in the absence of a determiner, the strong pattern represents the predominant option, found at an average frequency of 87.0% in the entire sample, ranging between 77.5% and 93.8% in the individual types of DPs. This is in sharp contrast to the distribution of the strong pattern in DPs involving some class of determiner and analyzed in Section 3.2 (see Table 1 in Section 3.2), where the strong pattern was infrequent as a whole (18.8%) but highly frequent in one class of DPs, namely those introduced by an indefinite determiner (94.2%). Consider also that the high percentage of strong adjectives clearly goes back to the pronominal inflection which dominates in all types of bare DPs, while the zero one is underrepresented, obtaining its highest score in those cases in which the adjective is postnominal.

Table 6: Strong (zero and pronominal) and weak adjectival inflection in bare DPs in ReA 1.1

Inflection	A–N		N–A		A <sub>NOM</sub>		All	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
strong	1 814	93.8	356	81.5	881	77.5	3 051	87.0
zero	232	12.0	64	14.6	21	1.8	317	9.0
pron.	1 582	81.8	292	66.8	860	75.7	2 734	78.0
weak	120	6.2	81	18.5	255	22.4	456	13.0
Total	1 934		437		1 136		3 507	

At the same time, weak adjectives in bare DPs are infrequent as a whole (13.0%) as well as across the individual types of DPs (between 6.2% and 22.4%). This is in contrast to their distribution in DPs containing a determiner (see Table 1 in Section 3.2), where they were found in 81.2% in the entire sample, with a strong preference for DPs introduced by a definite or possessive determiner (87.7% and 69.4%, respectively).

These quantitative aspects of the distribution of adjectival inflection in bare DPs suggest that in the absence of a determiner, the adjective hosts the information specifying the morphosyntactic features of the entire DP. Note that the most frequently attested pattern, the pronominal type of the strong inflection, is the most distinctive one on formal grounds. This is compatible with the morphologically driven system of distribution of adjectival inflection as it applies to PDG.

Let us consider the qualitative distribution of the inflectional patterns of adjectives in bare DPs attested in the corpus. According to the previous literature, the weak pattern is associated with the definiteness of the DP already prior to the establishment of the definite determiner, as exemplified by weak adjectives as part of proper names in Germanic (Delbrück 1909: 191–196), e.g. in compound formations with an initial adjectival element like *Lutzelindorf*, etc. (Braune 2018: 310<sup>22</sup>, see also Kögel 1889), or formulaic expressions referring to God, e.g. *druhtin nerrend-o Christ* ‘Lord, the saving Christ’ (Is. 17, 15, 11, cit. in Wilmanns 1909: 748). In addition, the domain of weak adjectives in bare DPs is associated with vocatives and DPs denoting situationally inferable or unique referents, including superlatives (Demske 2001, see also Section 2.2).

<sup>22</sup>But see also compound names of places like *Altheim*, etc., referred to in Braune (2018: 299), in which the adjectival component bears zero inflection.

The results of the corpus search reveal, however, that the distribution of inflectional patterns of adjectives in bare DPs in OHG cannot be explained on the basis of the semantic principle only. Examples explainable along the lines of the semantic principle are found sporadically in the corpus, as e.g. the minimal pair in (32). Here, the adjective *tôter* ‘a dead one’ introducing a novel entity bears strong inflection, while on its second mentioning, when it resumes a notion already activated in the context, the same adjective bears weak inflection, namely *tôto*.

- (32) ámoso *tôt-er* [...] . daz chit . also *tôt-o*  
 like dead-M.NOM.SG.STR DEM says like dead-M.NOM.SG.WK  
*bestôzener* . unde ioh uzer hêrzen  
 banished and also without heart  
 ‘like some dead one, this means, like the dead one [who is] banished and heartless’ (N\_Ps\_30\_93 (edition 107–117))

However, as a whole, we discover variation between strong and weak adjectives in various domains considered inherently definite in previous research.

Consider adjectives in DPs used as appositions to proper names. As the examples in (33) and (34) suggest, both weak and strong adjectives may occur in these domains:

- (33) umbi *christ-an* himilisch-*un* druhtin  
 about Christ-M.ACC.SG heavenly-M.ACC.SG.WK God.M.ACC.SG  
 ‘about Christ, the heavenly Lord’ (I\_DeFide\_7 (edition 38–50))  
 (Lat. *christum deum celi*)
- (34) fona Mari-*un* macad-i euuik-*eru*  
 from Mary-F.DAT.SG virgin-F.DAT.SG eternal-F.DAT.SG.STR  
 ‘by Mary, the eternal virgin’ (GC\_SangalerCredo (edition 32–44))

The same alternation applies in DPs acting as proper names; i.e., in those displaying the property of monoreferentiality or direct referentiality characteristic of proper names as rigid designators in the sense of Kripke (1980), see Nübling et al. (2015: 29). In DPs referring to God, Jesus or the Holy Spirit, both weak and strong adjectives appear, see (35) versus (36a) and (36b). Note that in (36b), the nominalized strong adjective in the prepositional phrase *in uuihêmu* refers to Christ, translating the proper name contained in the prepositional phrase *in Christo* in the Latin original.

- (35) suueri            bi himilisch-**in**            got-e  
swear.IMP.2SG by heavenly-M.DAT.SG.WK God-M.DAT.SG  
'Swear by the heavenly God.' (I\_DeFide\_7 (edition 27–39))
- (36) a. Ther infanganer ist fona heileg-**emo**            geist-e  
who created is from holy-M.DAT.SG.STR ghost-M.DAT.SG  
'who is created by the Holy Ghost'  
(WK\_Weissenburger\_Katechismus (edition 546–558))
- b. alle in uuihe-**mu**            ein piru-mes  
all in holy-M/N.DAT.SG.STR one be-1PRES.IND.PL  
'we are all united in the name of Christ' (B\_2 (edition 414–424))  
(Lat. omnes in Christo unum sumus)

Furthermore, weak and strong adjectives alternate in DPs denoting situationally inferable entities or generally accessible notions. In (37), a weak adjective appears in a DP referring to a situationally accessible entity, the lectures of the holy text during church mass. In (38), a strong and a weak adjective alternate in the same semantic context. In (39a)–(39d), strong adjectives appear in DPs referring to well-known entities of Christian life and belief, such as the Scriptures, eternal life, the Jewish people, Passover, or the protagonists of the parable of the ten virgins going to meet their bridegrooms (Matthew 25:1–5), which are familiar to the assumed audience.

- (37) danna uurdun gilesan heileg-**o**            lection            in dero  
when were read holy-F.NOM.PL.STR lecture.F.NOM.PL in DEF  
chirihun  
church  
'when the holy texts were read aloud in church'  
(WB\_Wzb.Beichte (edition 134–146))
- (38) heilag-**a**            messa            enti heilag-**on**            uuizzod  
holy-F.ACC.SG.STR mass.F.ACC.SG and holy-M.ACC.SG.WK supper.M.ACC.SG  
nierita  
NEG.respected  
'[I confess that I] failed to respect the holy mass and the holy supper.'  
(FB\_Fuldaer\_Beichte (edition 137–149))
- (39) a. minneont            eouuesant-**an**            lip  
love.3PL.PRES.SBJV eternal-M.ACC.SG.STR life.M.ACC.SG  
'[They should] love the eternal life.' (MF\_5\_FH.XLI (edition 163–175))

- b. ist kúning er githiuto júdisg-**ero** líut-**o**  
 is king he obviously Jewish-M.GEN.PL.STR people-M.GEN.PL  
 ‘he is obviously the king of the Jewish people’  
 (O\_Otfr.Ev.4.27 (edition 273–285))
- c. fuorun sine eldiron giaro in Hierusalem in itmal-**emo**  
 went his parents every.year to Jerusalem in festive-M.DAT.SG.STR  
 tag-e ôstr-ono  
 day-M.DAT.SG Passover-F.GEN.PL  
 ‘His parents went every year to Jerusalem to spend the festive period  
 of Passover.’ (T\_Tat12 (edition 19–31))
- d. louffant uuuh-**o** magadi [...] tragante heitariu  
 go holy-F.NOM.PL.STR virgin.F.NOM.PL carrying bright  
 liotfaz tulisc-**o** auur pilibant  
 lamps foolish-F.NOM.PL.STR however stay.back  
 ‘The holy virgins go forth [to meet their bridegrooms], while the  
 foolish ones stay behind.’ (MH\_Murb.H.I (edition 112–123))

Finally, strong adjectives can also be found in vocatives, see (40):

- (40) du hoh-**er** truhtin  
 you supreme-M.NOM.SG.STR God.M.NOM.SG  
 ‘you, supreme Lord’ (MH\_Murb.H.XIV (edition 34–44))

To illustrate the variation of strong and weak adjectives in one and the same semantic domain, I provide the respective figures for bare DPs in vocatives. Table 7 gives the absolute numbers of pronominal, zero and weak patterns of adjectives in vocative bare DPs, including the frequency of the weak pattern. The numbers are provided individually for prenominal and postnominal modifiers as well as for nominalized adjectives.

The figures in Table 7 show that the proportion of weak adjectives in vocative DPs is around half of the instances per dataset, with a slightly higher frequency of weak adjectives than strong ones in postnominal position. However, the standard statistical test shows no significant correlation between the position of the adjective and its inflectional behaviour in vocative DPs.<sup>23</sup>

Analyzing the results of the corpus search, two domains can be identified in which the adjectives invariantly display weak inflection, without alternating

<sup>23</sup>Considering the occurrences of the strong (both pronominal and zero) and the weak inflection in prenominal (A–N) and postnominal (N–A) use, the chi-square result is as follows:  $\chi^2(2, N = 94) = 0.1843$ ,  $p = 0.667692$ . The result is not significant at  $p < 0.05$ .

Table 7: Distribution of strong (zero and pronominal) and weak inflection of adjectives in vocative DPs in ReA 1.1

Inflection	A–N	N–A	A <sub>NOM</sub>	All
strong	31	16	11	58
zero	22	7	0	27
pronominal	9	9	11	29
weak	28 (47.4%)	18 (52.9%)	9 (45.0%)	55 (48.7%)
Total	59	34	20	113

with strong ones. The first one is the adverbial use of nominalized adjectives as shown in (41a) and (41b); the second one is gradation, see (42).

- (41) a. *uuas giscriban in ebraisg-on inti in criehisg-on*  
           was written in Hebrew-N.DAT.SG.WK and in Greek-N.DAT.SG.WK  
           *inti in latinisg-on*  
           and in Latin-N.DAT.SG.WK  
           ‘was written in Hebrew and in Greek and in Latin’  
           (T\_Tat204 (edition 43–54))
- b. *táz in únruo-chesk-un únbedénchit stat*  
       which in disregardful-F.ACC.SG.WK neglected stays  
       ‘which is neglected in a disregardful way’  
       (N\_Syl\_14 (edition 289–299))
- (42) *Sie minnont furist-a sedal [...] inti*  
       they love front-SUPL.N.ACC.SG.WK seat.N.ACC.SG and  
       *furist-on stoola*  
       first-SUPL.M.ACC.PL.WK chair.M.ACC.PL  
       ‘They love the uppermost place [at feasts] and the chief seats [in the  
       synagogues].’ (Matthew 23,6) (T\_Tat141 (edition 89–99))

The pattern exemplified in (41a) and (41b) involves adverbial uses of nominalized adjectives displaying the derivational morpheme *-isk*, attested 23 times in the corpus. It is well-known that the suffix *-isk* is used to derive adjectives expressing provenience or affiliation to a well-established group (Braune 2018: 304). The respective base words refer to ethnic groups, names of places, geographic regions or theological spheres (e.g. *Heaven*). The example in (41b) is exceptional,



but it is found in late OHG, probably suggesting that the suffix *-isk* starts to attach to base words outside the original domain of words denoting provenience. The invariant use of the weak pattern in this sample can be taken to suggest that there is indeed a relation between the weak inflectional pattern and the familiarity with the notion denoted by the DP.

Gradation is the second domain in which adjectives consistently display weak inflection in bare DPs.<sup>24</sup> This is expected because it is well-known that comparatives inflect weak in Germanic as a whole and in OHG specifically (see Behaghel 1923: 172, *inter alia*), and because with some exceptions, superlatives in OHG also share this property (see Braune 2018: 315).<sup>25</sup>

The use of the weak inflection in comparatives and superlatives in OHG is explained on semantic grounds, see the argumentation put forward in Braune (2018: 314):

Die schwache Flexion der Steigerungsgrade (Komparativ und Superlativ) erklärt sich aus ihrer individualisierenden Bedeutung

'The weak inflection of the degrees of comparison (comparative and superlative) is explainable on the basis of their individualizing meaning'.

Recall that Demske (2001: 69–70) also explains the use of the weak inflection in superlatives on semantic grounds, arguing that DPs involving an adjective in the superlative grade display unique reference, i.e. one of the subtypes of semantic definiteness. In addition, the invariant weak inflection of adjectives in gradation occurs independently of the presence or absence of an article.

<sup>24</sup>DPs with graded adjectives may also involve determiners, contra Demske (2001: 69–70); see (i) for a comparative and (ii) for a superlative:

- (i) th-er iung-oro sun elilentes fuor  
DEF-M.NOM.SG young-CMPR.M.NOM.SG.WK son.M.NOM.SG abroad went  
'the younger son went into foreign countries' (T\_Tat97 (edition 37-48))
- (ii) scouuuonti uuio sie thiū furist-un sedal gicurun  
seeing how they DEF.M.ACC.PL high-SUPL.M.ACC.PL.WK seat.M.ACC.PL chose  
'observing how they chose the uppermost seats' (T\_Tat110 (edition 111-121))

The frequency of bare DPs including graded adjectives in ReA is 52.9% (99 out of 187) for comparatives and 32.4% (107 out of 330) for superlatives; i.e., bare DPs with adjectives in the superlative are even lower in frequency than those with comparatives. See also the discussion on the inflectional properties of the superlative in Germanic in Behaghel (1923: 173–175).

<sup>25</sup>See (26a) for an example of a strong adjective in the superlative, preceded by an inflected determiner.

Another observation regarding the inflection of graded adjectives is important, however. Note that we find examples like (43) showing that comparatives bearing the weak inflection may display indefinite interpretation as well. Note that the DP containing the adjective in the comparative grade is in the scope of negative operators.

- (43) Ni wárd io [...] giwíssar-a thing  
NEG became ever certain-CMPR.N.NOM.SG.WK thing.N.NOM.SG  
'Never has there been a more certain issue.'  
(O\_Otfr.Ev.2.3 (edition 444–456))

This data suggests that the use of the weak inflection in comparison is not strictly linked to the semantic interpretation of the DP, but rather appears as a formal property specifying the inflectional behaviour of this class of adjectives.

## 4 Conclusion

The present chapter addressed the distribution of inflectional patterns of adnominal adjectives in OHG by examining the evidence provided in the reference corpus ReA 1.1. Two datasets were considered, i.e. DPs displaying some kind of determiner, as well as determinerless DPs. The results challenge previous generalizations according to which the spread of the various inflectional patterns of adnominal adjectives in OHG is determined by the interpretation of the respective DP in terms of (in)definiteness. This so-called semantically driven distribution of adjectival inflection can be detected in a part of the data, most importantly in DPs displaying a definite or indefinite determiner, although there is variation in this domain as well. However, weak adjectives are not excluded in indefinite contexts, while strong ones are found in all kinds of definite contexts, suggesting that the strong pattern represents the unmarked, or default variant, as also described for early Germanic as a whole.

At the same time, properties of the PDG morphologically driven distribution were detected in OHG as well, most importantly in the domain of bare and possessive DPs, the latter displaying determiners which can be both inflected and non-inflected. It was shown that the lack of a determiner of any kind strongly correlates with explicit morphosyntactic marking on the adjective, which also holds for PDG. In addition, in possessive DPs, the distribution of adjectival inflection depends on the presence of inflection on the determiner. The lack of morphosyntactic features on the determiner favours the strong inflection on the

adjective, while the presence of inflection on the determiner triggers the weak, and less distinctive variant.

In the face of this observation, a scenario regarding the later development of adjectival inflection in the history of German can be sketched. In the process of reduction of vowels in inflectional syllables, the distinction between strong and weak adjectives is blurred, leading to formal overlapping of the two paradigms. At the same time, the morphological distinctiveness of the determiners is strengthened, in that the inventory of indistinctive forms of indefinite and possessive determiners is reduced, e.g. in the nominative and accusative singular of the feminine gender. In this way, the determiner system provides a transparent system of expressing the formal properties of the DP. As a consequence, the double realization of features in the DPs is suspended in favour of the more economical principle of monoinflection, exploiting the invariant version of the weak pattern in all cases in which the morphological properties of the DP are transparently assigned by the accompanying determiner. Basically, the main properties of this principle are already present in the system of OHG, although its full establishment lasted for centuries.

## Abbreviations

ACC	accusative	N	noun
A	adjective	M	masculine
A <sub>NOM</sub>	nominalized adjective	N	neuter
CMPR	comparative	NEG	negative particle
DAT	dative	NOM	nominative
DEF	definite	NP	noun phrase
DEM	definite	OHG	Old High German
DP	determiner phrase	PDG	Present-day German
F	feminine	PL	plural
GEN	genitive	PRES	present
IE	Indo-European	SBJV	subjunctive
IND	indicative	SG	singular
INDEF	indefinite	STR	strong
INF	infinitive	SUPL	superlative
IMP	imperative	WK	weak
Lat.	Latin		

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## References

- Bammesberger, Alfred. 1990. *Die Morphologie des urgermanischen Nomens*. Heidelberg: Winter.
- Behaghel, Otto. 1923. *Deutsche Syntax: Eine geschichtliche Darstellung*. Vol. 1: *Die Wortklassen und Wortformen*. A. Nomen. Pronomen. Heidelberg: Winter.
- Bildhauer, Felix, Eric Fuß, Sandra Hansen-Morath & Franziska Münzberg. 2019. Starke und schwache Adjektivflexion in neuem korpuslinguistischen Licht. In Ludwig Eichinger & Albrecht Plewnia (eds.), *Neues vom heutigen Deutsch: Empirisch – methodisch – theoretisch*, 293–312. Berlin: De Gruyter. DOI: 10.1515/9783110622591-014.
- Braune, Wilhelm. 2018. *Althochdeutsche Grammatik I. Laut und Formenlehre*. Neu bearbeitet von Frank Heidermanns. 16th edn. Berlin: De Gruyter. DOI: doi: 10.1515/9783110515114.
- Dal, Ingerid. 2014. *Kurze deutsche Syntax auf historischer Grundlage*. Neu bearbeitet von Hans-Werner Eroms. 4. Auflage. Berlin: De Gruyter.
- Delbrück, Berthold. 1909. Das schwache Adjektivum und der Artikel im Germanischen. *Indogermanische Forschungen* 26. 187–199.
- Demske, Ulrike. 2001. *Merkmale und Relationen. Diachrone Studien zur Nominalphrase des Deutschen*. Berlin: De Gruyter.
- Donhauser, Karin, Jost Gippert & Rosemarie Lühr. 2018. *Deutsch Diachron Digital. Referenzkorpus Altdeutsch*. Version 1.1. <http://www.deutschdiachrondigital.de/rea>.
- Duden. *Die Grammatik*. 2016. 9., vollständig überarbeitete und aktualisierte Auflage, hg. von Angelika Wöllstein und der Dudenredaktion. Berlin: Dudenverlag.
- Flick, Johanna. 2020. *Die Entwicklung des Definitartikels im Althochdeutschen: Eine kognitiv-linguistische Korpusuntersuchung*. Berlin: Language Science Press.
- Fuhrhop, Nanna. 2001. ‘Berliner’ Ballen und ‘Potsdamer’ Bürgermeister – Substantive oder Adjektive? *ZAS Papers in Linguistics* 21. 45–57.

- Haberland, Hartmut & Lars Heltoft. 2008. Die schwache Adjektivflexion im Dänischen und Deutschen: Eine Fingerübung in diachronischer Typologie. *Acta Linguistica Hafniensia* 40(1). 23–43. DOI: 10.1080/03740463.2007.10414617.
- Heinrichs, Heinrich Matthias. 1954. *Studien zum bestimmten Artikel in den germanischen Sprachen*. Giessen: W. Schmitz.
- Hotzenköcherle, Rudolf. 1968. Gegenwartsprobleme des deutschen Adjektivsystems. *Neuphilologische Mitteilungen* 69. 1–28.
- Klein, Thomas. 2007. Von der semantischen zur morphologischen Steuerung. In Hans Fix (ed.), *Beiträge zur Morphologie: Germanisch, Baltisch, Ostseefinnisch*, 193–225. Odense: University Press of Southern Denmark. DOI: 10.1075/nss.23.06kle.
- Kögel, Rudolf. 1889. Zur Ortsnamenkunde. *Beiträge zur Geschichte der deutschen Sprache und Literatur* 14. 95–121.
- Kripke, Saul A. 1980. *Naming and necessity*. 2nd edn. Oxford: Blackwell.
- Löbner, Sebastian. 1985. Definites. *Journal of Semantics* 4. 279–326.
- Münzberg, Franziska & Sandra Hansen. 2020. Starke vs. schwache Flexion aufeinanderfolgender attributiver Adjektive: Mit hohem technischen/technischem Aufwand. In Marke Konopka, Angelika Wöllstein & Ekkehard Felder (eds.), *Bausteine einer Korpusgrammatik des Deutschen*, Bd. 1, 99–130. Heidelberg: Heidelberg University Publishing.
- Niebuhr, Astrid. 2021. *Variation in der Nominalphrase. Untersuchungen zur Adjektivflexion nach unbestimmtem Artikel*. University of Marburg. (Doctoral dissertation).
- Nübling, Damaris, Fabian Fahlbusch & Rita Heuser. 2015. *Namen: Eine Einführung in die Onomastik. 2., überarbeitete und erweiterte Auflage*. Tübingen: Narr Francke Attempto. DOI: 10.1515/9783110197853.
- Osthoff, Hermann. 1876. *Zur geschichte des schwachen deutschen adjectivums*. Jena: Hermann Costenoble.
- Petrova, Svetlana. 2015. Synchronic variation and diachronic change in the expression of indefinite reference: Evidence from historical German. *Zeitschrift für Spracwissenschaft* 34(2). 213–246.
- Ratkus, Artūras. 2011. *The adjective inflection in Gothic and early Germanic: Structure and development*. University of Cambridge. (Doctoral dissertation).
- Ratkus, Artūras. 2018. Weak adjectives need not be definite. *Indogermanische Forschungen* 123(1). 27–64.
- Rehn, Alexandra. 2019. *Adjectives and the syntax of German(ic) DPs: A diachronic and dialectal perspective*. University of Konstanz. (Doctoral dissertation).

- Rehn, Alexandra. 2024. A new perspective on parallel inflection with reference to Old High German and Alemannic. In Kristin Bech & Alexander Pfaff (eds.), *Noun phrases in early Germanic languages*, 143–180. Berlin: Language Science Press. DOI: 10.5281/zenodo.10641191.
- Sahel, Said. 2022. Entwicklung und Durchsetzung der Monoflexion im 18. Jahrhundert. *Beiträge zur Geschichte der deutschen Sprache und Literatur* 144(1). 1–44. DOI: 10.1515/zgl-2021-2019.
- Schützeichel, Rudolf. 2012. *Althochdeutsches Wörterbuch*. 7., durchgesehene und verbesserte Auflage. Berlin: De Gruyter.
- Stroh-Wollin, Ulla & Rico Simke. 2014. Strong and weak adjectives in Old Swedish. In Petra Sleeman, Freek van de Velde & Harry Perridon (eds.), *Adjectives in Germanic and Romance*, 95–112. Amsterdam/Philadelphia: John Benjamins.
- Trutmann, Albertine. 1972. *Studien zum Adjektiv im Gotischen*. Berlin/Boston: de Gruyter.
- Vierегge, Annika. 2019. Speakers' doubts about prepositional case government in German. In Eleonore Schmitt, Renata Szczepaniak & Annika Vierегge (eds.), *Zweifelsfälle: Definition, Erforschung, Implementierung*, 69–96. Hildesheim: Olms.
- Wilmanns, Wilhelm. 1909. *Deutsche Grammatik, Abteilung 3: Flexion*. Strassburg: Trübner.