

Abstract

Most prenominal adjectives in Dutch have two distinct inflectional forms (e.g. *goed* and *goede* ‘good’) whose distribution is determined by several interacting lexical and contextual factors. This primarily descriptive study first traces the historical development of the patterns of adjectival inflections in early Germanic and reviews the system of strong vs. weak declensions in modern German, before turning to a detailed examination of the rules governing adjectival inflection in Dutch. The basic rules for the formation and distribution of the inflected forms are presented, followed by additional conditions that introduce complications and variation into the system. The paper concludes with a re-examination of the differences between Dutch and German NP structures, and a brief discussion of adverbial inflection in the Dutch adjectival phrase.

1. Germanic weak and strong declension

Adjectival inflection in Dutch is an extremely reduced manifestation of the weak and strong adjectival declensions that arose in early Germanic. This section examines the development of these declensions from a historical and comparative perspective.

1.1. Early Germanic

Adjectives in Proto-Indo-European (PIE) are believed to have been inflected like nouns, with much the same range of consonant and vocalic stems, combining with the same endings. (Unlike nouns, of course, a single adjective normally had forms for all three genders). In the common Germanic period, adjectives acquired two additional sets of forms.

First, for reasons that remain unclear, adjective stems also began combining with the endings of the demonstrative pronoun. Adjectival forms with pronoun-like endings displaced many of the forms in the original noun-like paradigm, and the resulting mixed paradigm is the source of the so-called “strong” inflection of Germanic adjectives. Table 1 presents the strong paradigm of the adjective ‘half’ in late Proto-Germanic (PGmc, end of 1st millennium BC), as reconstructed in Lehmann (2005 2007). The pronominal endings are shown in italics.

	singular			plural		
	masc.	neut.	fem.	masc.	neut.	fem.
N	halb-az	halb- <i>atam</i>	halb-ō	halb-ay	halb-ā	halb-ōz
G	halb-as	(= masc.)	halb- <i>aizōs</i>	halb- <i>aysam</i>	(= masc.)	halb- <i>aizō</i>
D	halb- <i>azmai</i>	(= masc.)	halb-āy	halb- <i>aymis</i>	(= masc.)	halb- <i>aimiz</i>
A	halb- <i>anōm</i>	halb- <i>atam</i>	halb-ōn	halb-anz	halb-ā	halb-ōz

Table 1: PGmc strong adjectival inflection, *halbs* ‘half’

Second, adjectives developed new forms with an augmented stem in *-n*, combining with the same endings as *n*-stem nouns. These forms are the source of “weak” adjectival inflection. The reconstructed Proto-Germanic weak paradigm of ‘half’ is shown in Table 2. The suffix *-Vn*

	singular			plural		
	masc.	neut.	fem.	masc.	neut.	fem.
N	halb-ō	halb-ō	halb-ōn	halb-aniz	halb-ōnō	halb-ōniz
G	halb-enaz	(= masc.)	halb-ōn(i)z	halb-anōm	(= masc.)	halb-ōnam
D	halb-eni	(= masc.)	halb-ōni	halb-ammiz	(= masc.)	halb-amm(iz)
A	halb-onun	halb-ō	halb-ōnum	halb-unz	halb-ōnō	halb-ōnz

Table 2: PGmc weak adjectival inflection, *halbs* ‘half’

seems to have had a specifying or individuating function in PIE. Weak adjectives thus came to be used to indicate specific or definite reference; strong adjectives tended to have generic or indefinite reference.¹ With the introduction of articles and the development of a more rigid NP structure in the various Germanic dialects, the choice of weak or strong inflection became grammaticalized in different ways.

1.2. Modern German

See Lehmann (2005 2007: §3.5) and Wohlgemuth (1998: §2.2.3) for an overview of the evolution of weak and strong adjectival endings in the High German branch. In Modern German the number of distinct endings is significantly reduced, but two separate paradigms, shown in Table 3, are still generally recognized for prenominal adjectives. As in PGmc, the endings of strongly

strong paradigm:						
	singular			plural		
	masc.	neut.	fem.	masc./neut./fem.		
N	gut-er	gut-es	gut-e	gut-e		
G	(gut-en)	(= masc.)	gut-er	gut-er		
D	gut-em	(= masc.)	gut-er	gut-en		
A	gut-en	gut-es	gut-e	gut-e		

weak paradigm:						
	singular			plural		
	masc.	neut.	fem.	masc./neut./fem.		
N	gut-e	gut-e	gut-e	gut-en		
G	gut-en	(= masc.)	gut-en	gut-en		
D	gut-en	(= masc.)	gut-en	gut-en		
A	gut-en	gut-e	gut-e	gut-en		

Table 3: German adjectival paradigms, *gut* ‘good’

inflected adjectives are very similar to those of demonstrative pronouns. The definite article and other determiners also have similar paradigms. Adjectival inflection in German is determined in large part by the properties of the preceding determiner (if any). The full details need not concern us here; I will give a brief description of the facts, with examples to illustrate.

Strongly inflected adjectives are found in determinerless NPs (1a), or following “uninflected” determiners. These include indefinite determiners (1b) but also possessives (1c), which are definite.

- (1) a. mit guter Laune / mit gutem Bier / für gute Kinder
 with good_{fem.Dsg} mood / with good_{neut.Dsg} beer / for good_{Apl} children
- b. ein guter Mann / kein gutes Kind / drei gute Kinder
 a good_{masc.Nsg} man / no good_{neut.NAsg} child / three good_{NApl} children
- c. mein guter Mann / unser gutes Kind
 my good_{masc.Nsg} man / our good_{neut.NAsg} child

Weakly inflected adjectives are used after “inflected” determiners. These include the definite article and demonstratives (2a), but also many indefinite forms (2b), in particular oblique and plural forms of the determiners mentioned above (2c):

- (2) a. der gute Mann / dieses gute Kind / jene guten Kinder
 the good_{masc.Nsg} man / this good_{neut.NAsg} child / those good_{NApl} children
- b. welcher gute Mann / jedes gute Kind / alles irdische Leben
 which good_{masc.Nsg} man / each good_{neut.NAsg} child / all earthly_{neut.NAsg} life
- c. mit einem guten Mann / unsere guten Kinder
 with a good_{masc.Dsg} man / our good_{NApl} children

While the choice between weak and strong inflection may have been semantically conditioned in earlier stages of Germanic (definite/specific vs. indefinite/generic), the preceding remarks show that in Modern German, adjectival inflection is determined by morphosyntactic and lexical factors. The situation can be described in functional terms. The strong endings are the most informative indicators of number, gender, and case within the NP (the noun itself having relatively poor inflection). Since the determiner generally appears initially, it makes sense for it to provide this information, leaving the following adjective to take the less distinctive weak inflection. If there is no determiner, or if for lexical reasons the determiner does not bear strong inflection, the adjective assumes a more important role.

This functional explanation gives insight into the “underlying” (or historical) motivation for the facts observed, but in synchronic German grammar, inflection in the NP is largely grammaticalized, displaying a number of idiosyncrasies. In particular, some determiners bear strong inflection, but are nevertheless followed by strongly inflected adjectives (with possible variation in some cases):

- (3) einige | mehrere gute Kinder / manche gute(n) Kinder / solcher gute(r) Wein
 some | several good_{NApl} children / many good_{NApl} children / such good_{masc.Nsg} wine

Uninflected determiners, on the other hand, are never followed by a weakly inflected adjective.

All prenominal adjectives in German are inflected (with one productive exception noted in fn. 13 below). Adjectives in predicative contexts, on the other hand, are left obligatorily uninflected:

- (4) {Der Mann | Das Kind | Die Frau} ist gut. / Die Kinder sind gut.
 the man | the child | the woman is good / the children are good

In archaic language, bare adjectives are also found prenominal, in nominative and accusative neuter singular NPs, instead of the expected strong form ending in *-es*:

- (5) lieb Kind / ein gut Ding / kein schöner Land
 dear child / a good thing / no finer country

Such examples are exactly parallel to the standard construction in contemporary Dutch, as we will see below.

1.3. Comparison of German and Dutch

As illustrated in Table 3, German preserves the four cases and three genders of early Germanic. The gender distinction is neutralized in the plural, and there is systematic syncretism between masculine and neuter (indicated in the paradigms) and between nominative and accusative neuter (singular). This leaves a total of 13 potentially distinct “slots” in the adjectival paradigm. In the strong paradigm, five distinct endings are available to fill these slots: *-e*, *-er*, *-es*, *-em*, *-en*. The weak paradigm offers only two distinct endings (*-e* and *-en*), but recall that these forms only appear in combination with a strongly inflected determiner. German prenominal inflection (on determiners and adjectives) can thus be considered to be reasonably informative as a marker of gender, number, and case.

Let us turn our attention, at last, to Dutch. Although there are significant remnants of morphological case, oblique case (genitive and dative) NPs are no longer productively formed,² and direct case (nominative/accusative) NPs exhibit identical inflection of determiners, adjectives, and the head noun (Van Eynde 2006). In this paper I will only look at direct case NPs. Furthermore, for the purposes of this study, we can assume that masculine and feminine nouns have merged into a single class of “common” gender nouns (“*de*-words” in traditional terminology, because the common gender definite article is *de*), as opposed to neuter nouns (“*het*-words”). As in German, gender distinctions are neutralized in the plural. The paradigm of Dutch adjectives therefore contains a three-way distinction between common singular, neuter singular, and plural. As we will see below, the weak vs. strong distinction inherited from Proto-Germanic can still be observed to some extent in Dutch. So there are six (3×2) potentially distinct paradigm slots to be filled.

At the same time, however, the number of distinct forms available in Dutch is severely reduced, because of the extreme phonological erosion of inflectional endings. Prenominal adjectives (in direct case NPs) have at most two distinct inflectional forms, typically the bare stem and the stem + *-e* (e.g. *goed* and *goede* ‘good’). With only two forms to fill six slots, a high degree of syncretism is unavoidable. We will see that, in the basic case, Dutch makes the best of this situation by maximally specializing one form, while leaving the other one highly ambiguous (and thus relatively useless an indicator of the morphosyntactic features of the NP). This leaves room for adjectival inflection to acquire other functions in Dutch grammar. In many contexts, adjectival inflection is now subject to semantic and lexical conditions, and the interaction of these with other (morpho-)phonological and stylistic constraints leads to considerable variation.

2. Basic rules for adjectival inflection

This section reviews the morphological aspects of the inflection of prenominal adjectives and the basic syntactic rules governing the choice of forms. The information is adapted from standard grammatical descriptions (Donaldson 1997; Haeseryn et al. 1997; Sonck 2003); see also the more analytical approach of Broekhuis (1999).

2.1. Morphological considerations

The basic form of the adjective is the bare, uninflected stem. In the simplest case, the inflected form is derived by suffixation of schwa, orthographically represented as “*-e*” (6a). This can trigger the application of regular spelling rules for indicating vowel quantity/quality (6b).

- (6) a. *nieuw* [ni:u] ~ *nieuwe* [ni:u(w)ə] ‘new’, *fout* [fvut] ~ *foute* [fvutə] ‘wrong’
 b. *wit* [vit] ~ *witte* [vitə] ‘white’, *groot* [γro:t] ~ *grote* [γro:tə] ‘big’

Schwa suffixation blocks final devoicing (which is not systematically reflected in Dutch orthography for all consonants), and so preserves voice distinctions in stem-final consonants (7a). A number of lexical patterns can be observed in the distribution of underlying voiced and voiceless consonants (7b)–(7c):

- (7) a. *dood* [do:t] ~ *dode* [do:də] ‘dead’, vs. *heet* [he:t] ~ *hete* [he:tə] ‘hot’
 b. underlying /v/ after long vowel or diphthong:
lief [li:f] ~ *lieve* [li:və] ‘dear’, *braaf* ~ *brave* ‘honest’, *doof* ~ *dove* ‘deaf’
 also: *half* ~ *halve* ‘half’, but not loanwords ending in *-troof* ~ *-trofe*
 c. underlying /z/ after long vowel or diphthong:
wijs [veis] ~ *wijze* [veizə] ‘wise’, *dwaas* ~ *dwaze* ‘foolish’, *boos* ~ *boze* ‘angry’
 but: *hees* ~ *hese* ‘hoarse’, *Parijs* ~ *Parijse* ‘Parisian’

Schwa suffixation is extremely widespread in Dutch morphology. Most infinitives, plural verbs, and plural nouns end in schwa, and schwa also occurs often as a linking vowel between the elements of a compound. Adjectival schwa must be distinct from these other morphemes, however. For example, the verbal suffix and the nominal suffix are both pronounced [ə] (in the standard variety), but their written form “-en” reveals a different origin from adjectival “-e”:³

- (8) *duizend doden_N* ‘a thousand deaths’, *de tijd doden_V* ‘to kill time’ vs.
dode_A hond ‘dead dog’ (all pronounced [do:də])

Adjectives of nationality in “-s” retain a voiceless stem-final consonant before the adjectival suffix (9a) (cf. (7c) above), but the corresponding nouns (with homophonous uninflected forms) are revealed to have an underlying stem-final [z] when pluralized (9b):

- (9) a. adjectives: *Chinees* ~ *Chinese* ‘Chinese’, *Libanees* ~ *Libanese* ‘Lebanese’, *Fries* ~ *Friese* ‘Frisian’, ...
 b. nouns: *Chinees* ~ *Chinezen* ‘Chinese (people)’, *Libanees* ~ *Libanezen* ‘Lebanese (people)’, *Fries* ~ *Friezen* ‘Frisians’, ...

A significant number of high frequency nouns show vowel changes in the plural, as a result of the historically productive processes of open syllable lengthening (10a) and umlaut (10b):

- (10) a. *dag* [dax] ~ *dagen* [da:γə] ‘days’, *god* [γot] ~ *goden* [γo:də] ‘gods’
 b. *stad* [stat] ~ *steden* [ste:də] ‘cities’, *schip* [sxip] ~ *schepen* [sxɛ:pə] ‘ships’

Strikingly, no such alternations are observed when common adjectives are suffixed by schwa. Grammars cite a single example (*grof* [γrɔf] ~ *grove* [γro:və] ‘coarse’), but in fact in contemporary speech the inflected form of this adjective is more likely to be realized as *groffe* [γrɔfə].

The morphosyntactic status of the adjectival schwa suffix is somewhat problematic. In all of the examples we have seen so far, it is a simple word suffix, and this is also the case when multiple adjectives appear prenominal: each adjectival head is inflected individually (11a). But in combination with more complex prenominal modifiers, the suffix can behave more like a phrasal affix, appearing just once at the right edge of the modifier phrase. The relevant examples involve compound adjectives, which can be treated as lexical formations (11b), but also less restricted combinations that must be formed syntactically (12).⁴

- (11) a. lekkere, rode appels / een lange (en) magere jongen
tasty-E red-E apples / a tall-E (and) skinny-E boy
b. de Frans-Duitse oorlog / een kant-en-klare maaltijd
the French-German-E war / a ready-made-E meal
- (12) a. die groen en rode luiken / een wit en blauwe zomerhemel
those green and red-E shutters / a white and blue-E summer sky
b. een zwart met bruine mantel / een goud met rode zonsondergang
a black with brown-E coat / a gold with red-E sunset
c. een zo getrouw mogelijke weergave
a so exact possible-E reproduction ‘as exact as possible a reproduction’

In (12b)–(12c), the inflectional suffix is obligatorily realized on a word that is clearly not the head of the adjective phrase, but simply the right-most word of the phrase. While clear instances of phrasal affixation (edge inflection) can be analyzed in various ways (Anderson 1992; Klavans 1985), an element like Dutch adjectival schwa, which is sometimes a word affix and sometimes a phrasal affix, presents a challenge (Miller 1992). This question requires a more thorough empirical investigation; in the remainder of this paper, I will restrict my attention to cases of word affixation.

2.2. Syntactic context

Now that we have seen how to construct the inflected form of (most) adjectives, we can turn to the basic contextual rules for choosing between the bare form and the inflected form.

First of all, as in German (4), adjectives in predicative position are always uninflected (13a), and the same is true ordinarily for postnominal adjectives (13b).⁵

- (13) a. {De man | De vrouw | Het kind} is goed. / De kinderen zijn goed.
the man | the woman | the child is good / the children are good.
b. God almachtig ‘God almighty’

Assuming that the position of an adjective (prenominal, postnominal, or predicative) is associated with distinct syntactic features (e.g. [+PRED] in HPSG), these cases present no particular difficulty for adjectival inflection, in the sense that the relevant constraints requiring uninflected forms to appear in non-prenominal contexts can be formulated very easily. As one anonymous reviewer of this paper pointed out, the real question is *why* Dutch should have such constraints. From a diachronic point of view, the explanation is two-fold: the weak vs. strong distinction developed only within NPs (as an indicator of definiteness), and the syntax of predicative constructions ensured the correct interpretation of predicative adjectives even after the loss of gender and number agreement.⁶ In the remainder of this paper I focus solely on prenominal adjectives.

In pedagogical grammars and descriptive treatments of Dutch, the distribution of uninflected and inflected prenominal adjectives is typically explained with a list of partially overlapping rules.⁷ In the following examples, note that *hond* ‘dog’ is a *de*-word (common gender), *paard* ‘horse’ is a *het*-word (neuter), and that the plural definite article is *de*, for both genders.

- (14) **inflected** adjectives appear with all *de*-words
- a. singular: Mooie hond! / een mooie hond / de mooie hond
 fine-E dog / a fine-E dog / the fine-E dog
- b. plural: met mooie honden / de mooie honden / drie mooie honden
 with fine-E dogs / the fine-E dogs / three fine-E dogs
- (15) **inflected** adjectives appear with all plural nouns
- a. *de*-words: see (14b)
- b. *het*-words: met mooie paarden / de mooie paarden / drie mooie paarden
 with fine-E horses / the fine-E horses / three fine-E horses
- (16) for singular *het*-words
- a. **inflected** adjectives appear in definite NPs:
 het mooie paard / ons mooie paard / Jans mooie paard
 the fine-E horse / our fine-E horse / Jan's fine-E horse
- b. **uninflected** adjectives appear in indefinite NPs:
 een mooi paard / geen mooi paard / Mooi paard!
 a fine horse / no fine horse / fine horse

What emerges from these rules is that adjectives almost always have to be inflected; only neuter singular NPs allow uninflected adjectives, and for these NPs, the choice is determined by definiteness. This last case is of course reminiscent of the Proto-Germanic strong vs. weak distinction.

The rules in (14)–(16) all refer to different grammatical features, and they have varying degrees of generality. One way to make sense of them is by using the same paradigmatic approach adopted for German in section 1.2. As explained earlier, the Dutch adjectival paradigm is much smaller (only three distinctions for the combined category of gender/number). Introducing a strong vs. weak distinction across the board results in the paradigm illustrated in Table 4. (The

	singular		plural
	common	neuter	
strong (= indefinite)	-E	-∅	-E
weak (= definite)	-E	-E	-E

Table 4: Basic paradigm for Dutch adjectives

motivation for using the somewhat abstract labels “-E” for the inflected form and “-∅” for the uninflected form of the adjective is discussed below in §3.2.) From a functional point of view, this distribution represents one of the optimal strategies for filling in a paradigm when only two forms are available. The uninflected form is maximally informative, but conversely, the inflected form is highly ambiguous.

Given the rules above, it seems that a strong vs. weak distinction can only be motivated for neuter singular NPs. There are reasons, however, for assuming a split for all persons and genders. Unlike in German, where strong and weak represent grammaticalized categories that do not exactly correlate with any independent semantic or syntactic notion, in Dutch the distinction is in fact quite closely linked to definiteness. The rules in (16) can be reformulated and expanded as follows:

- (17) in neuter singular NPs
- a. adjectives take the -E form when accompanied by one of the following determiners: definite article (*het* ‘the’), demonstratives (*dit* ‘this’, *dat* ‘that’), possessive determiners (*mijn/jouw/zijn/...*), preposed genitive NPs
 - b. adjectives take the -∅ form when accompanied by no determiner, or one of the following determiners:
een/n ‘a’, *geen* ‘no’, *één* ‘one’, *genoeg* ‘enough’, *veel* ‘a lot of’, *weinig* ‘a little’, *meer* ‘more’, *wat* ‘some’, *een beetje* ‘a bit of’, *zulk* ‘such’ *ieder* ‘every’, *elk* ‘each’, *enig* ‘some’, *menig* ‘many a’, *zeker* ‘a certain’, *zo’n/zulk een* ‘such a’, *wat een* ‘what a’, *wat voor een* ‘what sort of’, *welk* ‘which’

Note in particular that possessives (which pattern with indefinites in German, recall (1c) above) are grouped with other definite determiners. The classification of determiners is thus semantically motivated. The last determiner in (17b), *welk*, could in fact belong to both lists. The following examples show that it has both indefinite/generic (18a) and definite/specific (18b) uses, and its interpretation is correlated with the inflection of the adjective:⁸

- (18) a. *Welk ziek kind kun je in bed houden?*
 ‘What sick-∅ child can you keep in bed? (Sick children hate staying in bed.)’
- b. *Welk zieke kind is boven?*
 ‘(There are several sick children.) Which sick-E child is upstairs?’

The alternation in adjectival inflection in Dutch singular neuter NPs thus reflects a semantic distinction that is relevant for all NPs. We will also see below (§4.3) that the presence of a definite or indefinite determiner can have implications for adjectival inflection in common gender NPs as well.

The alternation of forms in the second column of Table 4 can be thought of as the last remnant of the Proto-Germanic weak/strong system in modern Dutch. This explanation is called into question by the existence of varieties of Dutch where the -∅ form is generalized to all neuter singular NPs:⁹

- (19) % ons mooi huisje / % het lief kind / % het bruin paard
 our pretty house-*dim* / the dear child / the brown horse
 (cf. the standard Dutch examples in (16a) above)

In such varieties, as shown in Table 5, adjectival inflection can be described using a simpler paradigm than the one in Table 4. According to Haeseryn et al. (1997: §6.4.1.3) and Sonck

singular			plural
common	neuter		common/neuter
-E	-∅		-E

Table 5: Adjectival paradigm (non-standard varieties of Dutch)

(2003: p. 97), this system is found primarily in regional Belgian varieties, but also in highly formal, archaic registers of the standard language. This would suggest that the Germanic weak/strong distinction was already totally lost in an earlier stage of Dutch, and that adjectival inflection had become an indicator of gender and number alone. The standard Dutch system in

Table 4 would then represent an innovative reintroduction of a morphological alternation conditioned by definiteness (as well as by number and gender). This hypothesis seems quite unlikely to be true, but further diachronic study would be needed to settle the issue.

Finally, a word should be said about determinerless NPs. According to (17b), which corresponds to the rule given in most grammars, such NPs contain $-\emptyset$ adjectives, like indefinite neuter singular NPs. If the choice of adjectival form is correlated with definiteness, however, we might expect to see some variation here, because determinerless NPs have many possible interpretations. Indeed, although the $-\emptyset$ form seems to be licensed in all cases, some definite NPs optionally allow the $-E$ form. For example, the following vocative NP allows both forms:¹⁰

- (20) lief kind / lieve kind
 dear- \emptyset child / dear- E child

The characteristic dropping of articles in “telegraphic” registers (such as newspaper headlines) also gives rise to variation:¹¹

- (21) a. Amsterdamse politiekorps te zwaar belast
 Amsterdam- E police-force overburdened
 b. Gents stadsbestuur ontslaat wijkagent
 Ghent- \emptyset city-council dismisses patrolman
 c. Gehandicapt kind te vondeling gelegd
 handicapped- \emptyset child to foundling laid
 ‘Handicapped child found abandoned’

In (21a), the understood definite article *het* triggers the use of the $-E$ form *Amsterdamse*, while in (21b), in spite of the definite interpretation, the absence of a determiner motivates the $-\emptyset$ form *Gents*.¹² In (21c) the $-\emptyset$ form is consistent with the indefinite reading of the NP.

3. Non-inflecting adjectives

The basic system presented in the preceding section must be revised in various ways in the light of additional data. This section discusses further morphological aspects of adjectival inflection, while §4 introduces contextual rules that can override the basic distribution of $-E$ and $-\emptyset$ forms given in Table 4.

3.1. Sub-classes

Although the $-E$ form of an adjective typically looks like the $-\emptyset$ form with a suffixed schwa, as discussed in §2.1, several sub-classes of adjectives exhibit no such morphological variation.

First of all, adjectives ending in certain vowels generally do not allow schwa suffixation:

- (22) a. ending in $-a$, $-o$, $-e$ [ə], $(-\acute{e})$, $-i$, $-y$ (no inflection):
een albino rat ‘an albino rat’, *een kaki broek* ‘khaki trousers’, *een sexy kerel* ‘a sexy guy’, *een tweede woning* ‘a second flat’
 b. ending in $-u$ [y], $-oe$ [u], $-ee$ [$e:$] (inflected normally):
een crue opmerking ‘a blunt remark’, *die weeë smaak* ‘that nasty taste’, *dat moeë gevoel* ‘that tired feeling’

This can be formulated as a purely phonological condition. Dutch grammars sometimes mention one lexical exception: the adverb *na* ‘near’, which has a suffixed -E form when used adjectivally (e.g. *naë bloedverwanten* ‘close blood relatives’). This use of *na* is not productive in contemporary Dutch, however (see fn. 14).

Most adjectives ending in *-en* are not inflected. This class is quite large, as it includes adjectives derived from the past/passive participles of strong verbs:

- (23) a. de dronken kerel / het bescheiden meisje / de open deur
 the drunken bloke / the modest girl / the open door
 b. de ervaren chauffeur / gesloten luiken / gebakken peren
 the experienced driver / closed shutters / baked pears

There is no phonological motivation for the behavior of these adjectives. For example, the stem *open* can be suffixed by schwa to form the verb *openen* ‘to open’ or the abstract noun *opene* ‘openness’. Moreover, when such adjectives are nominalized (or used in headless NP structures), they are inflected: *de overledene* ‘the deceased’, *de volwassene* ‘the adult’. And finally, there are lexical exceptions: for example, the adjective in *verscheidene talen* ‘different-E languages’ must take a schwa suffix.

Adjectives derived with the suffix *-er* denoting geographical origin are not inflected.¹³

- (24) Edammer kaas / het Groninger politiekorps
 from Edam cheese / the of Groningen police force

Again, this cannot be a phonological condition, since other adjectives ending in *-er* are inflected normally: *de lekkere soep* ‘the tasty-E soup’. Geographical adjectives in *-er* also do not undergo comparative and superlative suffixation, either (**Groningerder*, **Edammerst*), in contrast to other adjectives ending in *-er* (*lekkerder* ‘tastier’, *lekkerst* ‘tastiest’) and geographical adjectives derived using other suffixes (e.g. *Gronings* ‘from Groningen’ ~ *Groningser*, ‘more typically from Groningen’).

Finally, and rather curiously, the semantically-defined class of substance/material adjectives does not allow schwa suffixation:

- (25) a. gouden ringen / wollen sokken / een houten plank
 golden rings / woollen socks / a wooden board
 b. een platina horloge / een mica plaat
 a platinum watch / a mica plate
 c. een plastic beker / de nylon regenjas / rubber handschoenen
 a plastic cup / the nylon rainjacket / rubber gloves

The status of this constraint is not entirely clear, however, since most of these adjectives are recent loanwords or already belong to another category (adjectives ending in *-en* or a vowel).

3.2. Terminology

The non-inflecting adjectives discussed in this section that the terms “inflected” and “uninflected” are not necessarily appropriate for describing the actual form of a Dutch adjective in a given context. Based on the foregoing discussion, we can say that prenominal adjectives (in direct case NPs) in Dutch have an inventory of two inflectional forms, to which we could assign purely arbitrary and abstract labels (**A**-form and **B**-form, for example). This approach would allow the two forms to be, for a given adjectival lexeme, identical, systematically related, or

formally unrelated (suppletion). In fact, however, there are no cases of suppletion,¹⁴ and ordinary adjectives have forms that are systematically related by schwa suffixation, as described in §2.1. This is why I have adopted the more suggestive labels “-∅ form” and “-E form”, but it should be kept in mind that they are simply pointers to forms in the inflectional inventory of each adjective, and not descriptions of the morphological forms involved.

For the sub-classes of adjectives in this section, the -∅ form and the -E form are morphologically identical. For example, the adjective in *een Edammer kaas* ‘an Edam cheese’ is an -E form, by virtue of its context (modifying a common gender noun), even though it is identical to the -∅ form in the (singular neuter indefinite) example *een Edammer kaasje* ‘an Edam cheese-dim’. Note also that, in addition to -E forms with no overt suffix (such as *Edammer*), there are adjectives like *eerste* ‘first’ and *tweede* ‘second’ that have identical -E and -∅ forms, both ending in schwa (recall (22a) above).

For the sake of clarity, such adjectives will be avoided in the rest of the paper and all examples (unless noted otherwise) can be assumed to contain adjectives that do exhibit overt inflection in the -E form.

4. Additional contextual rules

We turn now to additional contextual constraints that complicate the basic distribution of adjectival forms presented in Table 4. While the use of -∅ form adjectives in indefinite neuter singular NPs is systematic, it turns out that under certain conditions, the -∅ form appears in other slots in the paradigm as well, instead of the expected -E form.

4.1. Neuter collocations

For one class of neuter singular Adj + Noun combinations, the adjective appears in the -∅ form, even following a definite determiner:

- (26) a. het hoger onderwijs / het openbaar vervoer / het medisch onderzoek
 the higher-∅ education / the public-∅ transport / the medical-∅ research
 b. het stedelijk museum / het centraal station / het heilig sacrament
 the municipal-∅ museum / the central-∅ station / the holy-∅ sacrament
 c. het bijvoeglijk naamwoord / het onbepaald lidwoord / het lijdend voorwerp
 the adjectival-∅ substantive / the unspecified-∅ article / the suffering-∅ object
 (= ‘the adjective’, ‘the indefinite article’, ‘the direct object’)

(The -∅ form also appears in indefinite and determinerless NPs, but this is what the basic rules of adjectival inflection predict anyway.) The combinations involved are all conventionalized, although not necessarily fully lexicalized collocations. The conventional nature can be illustrated by replacing the -∅ form of the adjective with the -E form, which forces a literal, compositional interpretation:

- (27) het centraal station vs. het centrale station
 the central-∅ station the central-E station
 ‘the main station’ vs. ‘the centrally-located station’

On the other hand, the collocations are not simply listed in the lexicon, because semi-productive patterns can be observed:

- (28) a. [*openbaar/koninklijk/sociaal/economisch* ____] ‘public/royal/social/economic X’
 b. [____ *instituut/museum/ziekenhuis*] ‘X institute/museum/hospital’

I will not address the question of how collocations become conventionalized, or what properties besides adjectival inflection can be used to identify collocations; these issues are crucial for a full understanding of this specific area of Dutch grammar, but they cannot be dealt with in the scope of this more general overview. Patterns like (28) constitute a variant of the Adjective-Noun “constructional idiom” defined in Booij (2002a).

If there is indeed a productive link between $-\emptyset$ form selection and conventionalized meaning, it must be restricted to apply only in the neuter singular. Common gender collocations that have the same kind of interpretation nevertheless contain $-E$ form adjectives (29a), and the same is usually true for plural NPs corresponding to the neuter examples above (29b):

- (29) a. common singular: *Koninklijke Marechaussee* ‘Royal- E Gendarmerie’, *onbepaalde wijs* ‘unspecified- E mood (= infinitive verb form)’
 b. neuter plural: *de koninklijke besluiten* ‘the royal- E decrees’, *twee bijvoeglijke naamwoorden* ‘two adjectival- E substantives (= adjectives)’

The inflection of the adjectives in these examples is consistent with the basic rules in Table 4. A lexical semantic account is likely to be available for cases like (26), but the mechanism must include purely morphosyntactic constraints to target only neuter singular NPs, the second column of Table 4.

If other adjectives are added to modify the Adj + Noun collocations in (26), they obey the normal rules of inflection for neuter adjectives — the $-E$ form in definite NPs (30a), the $-\emptyset$ form in indefinite NPs (30b) — unless they form a larger conventionalized collocation with the original sequence (30c):

- (30) a. *het gewone openbaar vervoer* ‘the ordinary- E public- \emptyset transport’,
het nieuwe Kunsthistorisch Instituut ‘the new- E art-history- \emptyset institute’
 b. *geen gewoon openbaar vervoer* ‘no ordinary- \emptyset public- \emptyset transport’,
een nieuw Kunsthistorisch Instituut ‘a new- \emptyset art-history- \emptyset institute’
 c. *het preventief medisch onderzoek* ‘the preventive- \emptyset medical- \emptyset examination’,
het regionale/regionaal openbaar vervoer ‘the regional public- \emptyset transport’

The examples in (30a) show that successive adjectives within a single NP can be inflected differently; the constraints on inflection must therefore refer to the hierarchical structure of the NP, and not simply to the entire “adjectival subfield” of the NP.¹⁵ The variation observed in the last example can be explained by the near-identity of the collocational reading of ‘regional’ and its ordinary compositional reading.

It should be kept in mind, finally, that varieties of Dutch that have the simpler basic system shown in Table 5 have no special rule for licensing $-\emptyset$ form adjectives in neuter collocations, since this is the regular inflection for adjectives in all neuter singular NPs.

4.2. Job titles

In Adj + Noun sequences identifying an official or otherwise established title, function, or profession, the adjective takes the $-\emptyset$ form. The NPs can be either definite (31a) or indefinite (31b).

- (31) a. de algemeen secretaris / de geheim agent / de chronisch zieke
 the general- \emptyset secretary / the secret- \emptyset agent / the chronic- \emptyset patient
 b. een commercieel directeur / een financieel expert / een scheikundig ingenieur
 a commercial- \emptyset director / a financial- \emptyset expert / a chemical- \emptyset engineer

Since the nouns involved in such sequences are almost exclusively common gender, the basic system of Table 4 would normally require -E form adjectives in all of the examples above. It should be noted that some official titles do in fact follow the ordinary rules: for example, *hoge commissaris* ‘high-E commissioner’.

The adjectives in (31) often have a non-intersective interpretation:

- (32) a. *plastisch chirurg* ‘plastic surgeon’ \neq chirurg die plastisch is ‘surgeon who is plastic’
 b. *sociaal werkster* ‘social worker’ \neq werkster die sociaal is ‘worker who is social’

On the other hand, a “secret agent” is in fact an “agent who is secret”, and the -E form would be possible in this example: *de/een geheime agent* ‘the/a secret-E agent’. Some other mechanism must be assumed, then, to account for the - \emptyset form in (31a).

As noted by de Swart et al. (2005), the Adj + Noun sequences that appear in full NPs as in (31) can also appear without a determiner in so-called “bare predicate nominal” (BPN) constructions. The adjective also takes the - \emptyset form in these cases (33a):

- (33) a. Hij is muzikaal leider / *muzikale leider.
 he is musical- \emptyset leader / musical-E leader (= ‘His job is conductor.’)
 b. Hij is een muzikale leider. (= ‘He is a leader with a feeling for music.’)
 c. Hij is een muzikaal leider / de muzikaal leider.
 ‘He is a conductor / the conductor.’

In a full predicate NP construction (33b), with the indefinite article and -E form of the adjective, the interpretation is compositional, with no “job title” reading. A full NP with an - \emptyset form adjective is possible as part of an ordinary copular construction (33c), without the specific interpretational constraints of the BPN in (33a). Adjectives that can only express qualitative judgments are excluded from job title NPs (i.e., they must appear in the -E form):

- (34) a. de uitstekende | *uitstekend leider
 the outstanding-E | outstanding- \emptyset leader
 b. *Hij is uitstekend leider. / Hij is een uitstekende leider.
 he is outstanding- \emptyset leader / he is an outstanding-E leader

A different contextual rule applies in indefinite NPs of the type in (34b), allowing the -E form variant *Hij is een uitstekend leider*. Such examples are discussed in the next section.

Additional adjectives to the left appear in the -E form according to the basic rules for common gender NPs:

- (35) *een succesvolle plastisch chirurg* ‘a successful-E plastic- \emptyset surgeon’

As in (30a) in the previous section, we have a case of distinctly inflected adjectives within a single NP.

In the plural, both - \emptyset and -E form adjectives can be found. The choice is in part determined by lexical factors, and the presence of a preceding overtly inflected element (adjective or determiner) appears to facilitate the appearance of the -E form (36b).

- (36) a. *sociaal werksters* ‘social- \emptyset workers’, *technisch ingenieurs* ‘technical- \emptyset engineers’,
financiële experts ‘financial-E experts’
 b. *sympathieke scheikundig(e) ingenieurs* ‘friendly-E chemical engineers’,
onze muzikaal/muzikale leider ‘our conductor’

In the analysis of de Swart et al. (2005), adjective inflection is associated with the NumP projection (which is naturally also the domain for plural marking). This is meant to account for the use of the $-\emptyset$ form in BPN constructions, where formally singular NPs can have plural reference:

- (37) *Ze zijn allebei technisch ingenieur.* ‘They are both technical engineers.’

The link between number indeterminacy and $-\emptyset$ form inflection breaks down in the general case, however. Outside of BPNs, job titles have fixed singular or plural reference (i.e., for de Swart et al., there must be a NumP projection), and yet $-\emptyset$ form adjectives are still used — systematically in the singular, more erratically in the plural.

Finally, the rule for $-\emptyset$ form adjectives in job titles is usually assumed to apply specifically to common gender NPs. This may simply be because the overwhelming majority of the nouns involved in this type of NP are common gender nouns. Diminutive suffixation, a standard trick for generating neuter nouns productively from common gender nouns, cannot be used in this case, because it introduces an expressive characterizing judgment that eliminates the possibility of a job title reading (e.g. *ingenieurtje*, *directeurtje*). One example of a noun that is only formally diminutive is *dienstmeisje* ‘servant-girl’, but it does not combine readily with adjectives to form established job titles. (There are no technical, chemical, or financial servant-girls, for example.) The following example, however, may be relevant:

- (38) a. ?Zij is inwonend dienstmeisje.
 she is live-in- \emptyset servant
 b. ?het inwonend dienstmeisje / ?inwonend dienstmeisjes
 the live-in- \emptyset servant / live-in- \emptyset servants

Speakers may not identify “live-in servant” as an established professional function, but this reading can be induced, e.g. by using a BPN construction (38a). This example reveals nothing about adjectival inflection, however, because the $-\emptyset$ form is required in any case in neuter singular indefinite NPs. The examples in (38b) suggest that the job title rule can in fact apply to neuter NPs, since the $-\emptyset$ form is (marginally) possible in definite and plural NPs (although the regular -E form is strongly preferred).

This question must remain open until more reliable evidence can be found. It should also be noted that, even with common gender nouns, the job title effect can be more or less robust with different morphological classes of adjectives. For instance, denominal adjectives formed with suffixes like *-isch* and *-aal/-eel* give rise to clearer judgments than participial forms in *-end*.

4.3. Qualifying NPs

The next contextual constraint also involves NPs with human reference, but with a much more specific structural description. The adjective can appear in the $-\emptyset$ form in NPs matching the following configuration, which I will refer to as “qualifying NPs”:

- (39) $\left\{ \begin{array}{l} \text{een/'n, geen, wat voor een} \\ \text{zo'n, zulk een, wat een/'n} \end{array} \right\} + -\emptyset \text{ form adjective} + \text{person-denoting noun}$

- (40) a. een oud en wijs man / een lastig persoon
 an old- \emptyset and wise- \emptyset man / a difficult- \emptyset person
- b. een beroemd(e) schilder / zo'n uitstekend(e) leraar / wat een slecht(e) schaker
 a famous painter / such an excellent teacher / what a bad chess player
- c. een Frans(e) filosoof / een Turks(e) edelman / een Zweeds(e) schrijfster
 a French philosopher / a Turkish nobleman / a Swedish writer

The “job titles” discussed in the previous section contain person-denoting nouns that can also appear in structures of the form in (39). The adjectives involved here are different, however. As the examples in (40) illustrate, they include expressions of subjective evaluation and geographical origin, and the resulting Adj + Noun combinations cannot be used in BPN constructions (41a) or in other “job title” contexts (41b) (recall also (34) in the previous section):

- (41) a. Hij is (*beroemd) schilder / (*uitstekend) leraar / (*Frans) filosoof.
 ‘He is a (famous- \emptyset) painter / an (excellent- \emptyset) teacher / a (French- \emptyset) philosopher.’
- b. (*Beroemd) schilder / (*Uitstekend) leraar / (*Frans) filosoof is een mooi beroep.
 ‘(Famous- \emptyset) painter / (Excellent- \emptyset) teacher / (French- \emptyset) philos. is a fine profession.’

The relevant semantic distinction is between “characterizing” adjectives, which can appear in qualifying NPs, and “classifying” adjectives, which can appear in job titles. Characterizing adjectives can appear predicatively and are compatible with degree modification (42a), while classifying adjectives are restricted to attributive use and do not accept degree adverbs (42b) (and (32) above):

- (42) a. Die schilder is beroemd. / een heel beroemd(e) schilder
 that painter is famous / a very famous painter
- b. *Die ingenieur is scheikundig. / *een heel scheikundig(e) ingenieur
 that engineer is chemical / a very chemical engineer

Within the class of characterizing adjectives, depending on the adjective itself, or on the particular Adj + Noun combination, the likelihood of using the - \emptyset form instead of the -E form appears to be subject to widely varying preferences. Further work must be done to establish a correlation between the behavior of the adjectives appearing in qualifying NPs and their precise semantic classification.

The nouns that appear in qualifying NPs include generic terms like *man* and *persoon*. There are additional restrictions on words referring to females. Words like *vrouw* ‘woman’ and *moeder* ‘mother’ are excluded from this construction (i.e., accompanying adjectives must take the normal -E form), while “role”-denoting nouns like *schrijfster* ‘(female) writer’ and *toneelspeelster* ‘actress’ are allowed (Van Eynde 2006). The noun *mens*, which normally means ‘person, human being’, is often interpreted as referring to a female referent in such structures:

- (43) een aardig mens / een kil mens
 a nice- \emptyset person / a cold- \emptyset person

According to Donaldson (1997), female interpretation is preferred only when the adjective expresses a positive quality, but in fact undesirable judgments are just as likely (if not more so) to trigger this interpretation. The explanation is that the noun *mens* can also be a neuter gender noun meaning ‘woman’ with pejorative connotation: *dat mens van Lewinski* ‘that Lewinski woman’. Examples like (43) can thus be analyzed as neuter singular indefinite NPs containing the expected - \emptyset form of the adjective.

the inflection of the adjective: they are either both $-\emptyset$ forms (47a), or both -E forms (47b). We will return to this issue in §5.2.

The remaining indefinite determiners in (17b) are excluded from the configuration in (39), because they cannot combine with singular count nouns: *genoeg* ‘enough’, *veel* ‘a lot of’, *weinig* ‘a little’, *meer* ‘more’, *wat* ‘some’, *een beetje* ‘a bit of’, *zulk* ‘such’.

And finally, something should be said about determinerless qualifying NPs. Singular count nouns typically require an overt determiner (as in English), but in certain contexts, the determiner is omitted. In syntactic contexts where this is possible (e.g. in coordinated NPs, or after some prepositions) the absence of the determiner also tends to block the appearance of a prenominal adjective, so the question of adjectival inflection does not arise. We have seen the case of BPNs (33a), where a person-denoting noun can appear with an adjective in a determinerless NP, but this context only accepts “job titles”, and not qualifying NPs (41a). Vocative NPs can have the form Adj + Noun, but they have definite reference, and so they also fall outside the class of qualifying NPs.¹⁸

With determinerless NPs in titles, headlines, and other “telegraphic” registers, we observe a great deal of variation. As discussed at the end of §2.2, such NPs can have both definite and indefinite interpretations, and this has an effect on adjectival inflection.

Want ads are a particularly rich context for determinerless person-denoting NPs:

- (48) a. goede leraar | eerlijke man gezocht
good-E teacher | honest-E man wanted
- b. enthousiaste | ambitieuze | serieuze medewerker gezocht
enthusiastic-E | ambitious-E | serious colleague wanted
- c. administratief | secretariael | wetenschappelijk medewerker gezocht
administrative- \emptyset | secretarial- \emptyset | scientific- \emptyset colleague wanted

Determinerless NPs of the form characterizing adjective + person-denoting noun (48a,b) overwhelmingly contain the -E form of the adjective. That is, they follow the ordinary inflectional rules, instead of the special rule for qualifying NPs in (39), despite the fact that these NPs are interpreted with an understood indefinite article. The special rule discussed in the previous section calling for $-\emptyset$ form adjectives in job title NPs continues to apply in this context (48c).

Determinerless NPs also appear as appositive NPs:¹⁹

- (49) a. De heer Smit, **Vlaams** minister van onderwijs, opende de vergadering.
Mr Smit Flemish- \emptyset minister of education opened the meeting
- b. Mevrouw Konings, **bekend** volksvertegenwoordigster, verdedigde het project.
Ms Konings famous- \emptyset member of parliament defended the project

The first example contains a job title, with definite interpretation, and the second contains an indefinite qualifying NP. In both cases the adjective is in the $-\emptyset$ form, but it is not clear if these are special cases of the contextual rules discussed here and in the previous section, or if $-\emptyset$ form inflection is licensed by separate constraints associated with the appositive construction.

4.4. Stylistic rules

Finally we come to a number of optional stylistic rules, motivated by (grammaticalized) prosodic preferences or associated with particular morphological classes of adjectives. Many, rather poorly understood factors interact to produce a wide range of variation across speakers and speech registers.

First, there is a tendency to avoid inflecting an adjective that already ends in two unstressed syllables. This applies, for example, to comparative adjective forms (in all genders and numbers). (Primary stress is indicated with acute accents in the following examples.)

- (50) a. een voorz**í**chtiger(e) formulering / onbetr**ó**uwbaarder(e) mensen
 a more careful formulation / more untrustworthy people
 b. de gebr**ú**ikelijker(e) gevallen / de v**r**íendelijker(e) woorden
 the more usual cases / the friendlier words
 c. de gew**ó**nerere procedure / het enthousi**á**stere deel van de bevolking
 the more ordinary-E procedure / the more enthusiastic-E part of the population

The examples above involve common gender, definite, and plural NPs, all of which normally call for -E form adjectives, according to Table 4. The prosodically motivated stylistic rule allows the schwa suffix to be omitted (resulting in a form identical to the -∅ form) in (50a) and (50b), but not in (50c), where the suffixed form ends in just two unstressed syllables.

A similar morphologically defined rule applies specifically to adjectives ending in *-ig* or *-lijk* in the neuter singular. The effect of the rule is only visible in definite NPs (since indefinite NPs invariably require -∅ form adjectives anyway):

- (51) a. het onverm**í**delijk(e) gevolg / het bel**á**chelijk(e) voorstel
 the unavoidable consequence / the ridiculous suggestion
 b. ons gen**ó**égljik(e) samenzijn / dat gez**é**llig(e) cafeetje / zijn **é**rljik(e) karakter
 our pleasant gathering / that cozy café-*dim* / his honest character

The examples in (51a) could be said to obey the prosodic constraint mentioned above (avoid sequences of three unstressed final syllables), but this is not the case in (51b). Moreover, the fact that *-ig/-lijk* adjectives appear regularly in the -E form in the neuter plural (52a), and with common gender nouns (52b), shows that this rule cannot be triggered simply by surface forms:

- (52) a. onvermijdelijke gevolgen / belachelijke voorstellen
 unavoidable-E consequences / ridiculous-E suggestions
 b. de onvermijdelijke teloorgang / een belachelijke prijs
 the unavoidable-E downfall / a ridiculous-E price

The omission of schwa in examples like (51) is subject to wide variation. Some speakers find the practice old-fashioned and “corny” and prefer the regular use of the -E form in examples like (51).²⁰ In contrast, Van Langendonck et al. (2005: VII, p. 44) report increasing frequency of schwa omission, and extend the rule to other adjectives with unstressed final syllables (e.g. *het komend(e) millennium* ‘the coming millennium’). Recall also that for dialects with the system described in (5) in §2.2, all adjectives take the -∅ form in neuter singular NPs.

Finally, superlative adjectives are also subject to a stylistic rule of schwa omission applying in a specific context. Synthetic superlative forms are usually derived by adding the suffix *-st* to the adjective stem. The derived adjective has an -∅ form and an -E form (in *-ste*), which obey the same distributional constraints as other adjectives. In particular, superlative adjectives combine typically with the definite article, and in these cases they appear in the -E form (53a). In predicative contexts and in adverbial use, the superlative combines with *het*, and the -E form and the -∅ form are both possible (53b):

- (53) a. de mooiste weg / Die weg is de mooiste.
 the prettiest path / this path is the prettiest
 b. Die weg is het mooist(e). / Hij werkt het hardst(e).
 this path is the prettiest / he works the hardest

According to Haeseryn et al. (1997: §6.4.3.4.(i.b.2)), the -E form is preferred in spoken Dutch, and the \emptyset form in written Dutch. The basic rules of adjectival inflection actually have nothing to say about this context: the element *het* is most likely not the definite article, and the entire combination is not an NP. Similar remarks reply to other syntactically exceptional superlative constructions:

- (54) a. op je mooist / ten strengste
 on your prettiest / to-the strongest
 ‘at your prettiest’ / ‘in the strongest manner (*formal*)’

In other words, superlative adjectives inflect like ordinary adjectives when they appear in ordinary NPs, as in (53a), but in other superlative structures, the choice of \emptyset form or -E form (or either) must be specified along with the other idiosyncratic properties of the construction.

5. Analytical approaches

It is clear from the preceding discussion that the factors influencing adjectival inflection in Dutch are diverse, and no simple, unified analysis will adequately account for all of the observed facts. The formal analysis of individual parts of the system requires investigation into the nature of definiteness, the theory of collocations, the lexical semantics of adjectives and the compositional semantics of Adj + Noun combinations, the integration of rhythm and prosody in grammatical analysis, and other topics that are beyond the scope of the present study.

In this final section, I will provide a descriptive summary of the results of the preceding sections, and address some remaining morphosyntactic issues.

5.1. Summary of constraints

Throughout this paper, I have assumed a minimal inventory of inflectional forms for Dutch adjectives (the \emptyset form and the -E form), keeping in mind that I have limited my attention to pronominal adjectives in direct case (nominative/accusative) NPs.

The basic distribution of \emptyset forms and -E forms is determined by number, gender, and definiteness, as described by Table 4, reproduced as Table 6. (We will return to the question of the synchronic relevance of the labels “strong” and “weak” in §5.2.) None of the additional rules

	singular		plural
	common	neuter	common/neuter
indefinite (“strong”)	-E	\emptyset	-E
definite (“weak”)	-E	-E	-E

Table 6: Basic paradigm for Dutch adjectives

identified in the preceding sections introduces any exceptions to the single \emptyset cell in this table. On the other hand, we have seen that \emptyset form adjectives can also be found in all of the other

cells of the table. The entire system can be described by taking the -E form as the default form, with the -∅ form licensed by the constraints summarized in Table 7. The formulations of the

	name	targets	conditions	see
strict constraints:	BASE	neut. sing. indef. NPs	all	Table 6
	COLL	neut. sing. (def.) NPs	conventionalized collocations	§4.1
	JOB	com. gender NPs	job titles	§4.2
optional constraints:	QUAL	com. sing. indef. NPs	qualifying NPs	§4.3
	ER	all NPs	long comparative forms	§4.4
	LIJK	neut. sing. (def.) NPs	adjectives in <i>-ig/-lijk</i>	
dialectal variation:	DIAL	neut. sing. (def.) NPs	all	Table 5

Table 7: Summary of additional constraints

constraints are necessarily simplified and idealized in various ways. For COLL and LIJK, it is technically unnecessary to specify the definiteness of the targeted NPs; including indefinite NPs will not change the overall effect of the constraints, in combination with BASE. Similarly, the target specification “all NPs” means that ER can apply redundantly to neuter singular indefinite NPs. It remains to be seen if having more than one “reason” to appear in the -∅ form has any empirical consequences for Dutch adjectives. In varieties of Dutch that include the constraint DIAL, these remarks are inapplicable.²¹

The constraint JOB is listed as obligatory here, but recall from §4.2 that it applies less systematically in plural NPs. Also, the discussion at the end of that section suggested that JOB may in fact apply to neuter NPs in addition to common gender NPs.

Table 8 incorporates the constraints above (with the exception of ER, which can apply everywhere).²² This revised table shows that the definite vs. indefinite distinction is relevant for

	singular		plural	
	common	neuter	common	neuter
indefinite	-E \ JOB, QUAL	BASE		
definite	-E \ JOB	-E \ COLL, LIJK (or DIAL)	-E \ JOB	-E

Table 8: Dutch adjectival inflection (final version)

adjectival inflection in the singular, but not in the plural. In the singular, the additional constraints also reinforce the gender distinction, which was only clearly motivated for indefinite NPs in Table 6.

On the other hand, because of the constraint JOB, it is necessary to introduce a gender distinction in the plural. This is somewhat unusual in modern Germanic (cf. the situation in German presented in §1.2), but if it turns out that JOB actually applies to all NPs, the two right hand columns of Table 5 can be further collapsed into a single cell for all plural NPs.

5.2. Strong vs. weak in Dutch

Recall from §1.2 that the system of strong and weak inflection in German NPs is governed by morphosyntactic rules and linear order. Determiners have either no ending or strong endings,

adjectives have either strong or weak endings, and roughly speaking, a strong ending will appear as early in the NP as possible. This gives rise to the following possible configurations:

- (55) a. (no Det) + **Adj-STRONG** see e.g. (1a)
 b. **Det-∅** + **Adj-STRONG** (1b,c)
 c. **Det-STRONG** + **Adj-WEAK** (2)
 d. **Det-STRONG** + **Adj-STRONG** (3)

The configuration required in a given NP depends on the lexical identity of the determiner (if any). Furthermore, as discussed in fn. 15, if there are several adjectives in a row, they will normally be inflected in the same way. In the relatively rare case of (55d), we could say that the determiner is exceptionally treated as an adjective; the strong-strong sequence can then be explained as an instance of (55a).

It is possible to establish a similar system for Dutch, if one takes into account the larger inventory of endings found on determiners and adjectives in genitive and dative NPs (in formal/archaic language and fixed expressions). Van Eynde (2006) presents an analysis of this type, motivated by examples such as the following:

- (56) a. de woordenschat der Nederlandse taal
 the vocabulary the_{fem.Gsg} Dutch_{fem.Gsg} language
 b. van ganser harte / te goeder trouw
 from whole_{fem.Dsg} heart / to good_{fem.Dsg} faith 'in good faith'

Example (56a) can be considered to be an instance of configuration (55c) in Dutch: the definite article *der* carries the feminine singular oblique strong ending *-r*, and the adjective is weakly inflected. The examples in (56b) correspond to configuration (55a): in the absence of a determiner, the adjective carries the strong ending. Oblique NPs in Dutch therefore have German-like morphosyntax. However, they reflect an earlier stage of the language and are at best semi-productive in contemporary Dutch. Speakers cannot spontaneously produce genitive and dative forms for arbitrary [Det + Adj + N] combinations.

If we consider only productive, direct case (nominative/accusative) NPs, a German-type inflectional system is harder to motivate. Recall from Table 6 that according to the basic rules for adjectival inflection, the “strong” form is the $-\emptyset$ form for singular neuter adjectives and the $-E$ form in all other cases, and the “weak” form is always the $-E$ form. The generalization that strong forms are more distinctive than weak forms is therefore still valid, but reduced to an absolute minimum. The existence of non-inflecting adjectives (see §3) further undermines the usefulness of strong vs. weak as a morphological distinction. And finally, the choice of strong or weak form is not based on a morphosyntactic classification of determiners, but on a (primarily) semantic notion of definiteness.

There are nevertheless traces of morphosyntactic interaction between the determiner and the adjective in Dutch. As we saw in (47) in §4.3, for indefinite determiners that have a bare form and a schwa-suffixed form, the bare form is always followed by an $-\emptyset$ form adjective, and the suffixed form is always followed by an $-E$ form adjective (in so-called “qualifying” NPs). In the general case, however, there is no correlation between the inflection of the determiner and that of the adjective: a determiner with no ending can be followed by an $-E$ form (57a), and a determiner with a schwa suffix can be followed by an $-\emptyset$ form (57b).

- (57) a. een mooie hond / ons mooie paard / mijn mooie paarden
 a fine-E dog / our fine-E horse / my fine-E horses
 b. welke plastisch chirurg / onze commercieel directeur
 which plastic- \emptyset surgeon / our sales- \emptyset director

The last configuration is admittedly rare, occurring perhaps only with “job title” NPs. In the vast majority of cases, an inflected determiner will indeed be followed by an -E form adjective.

Recall also that, unlike in German, sequences of adjectives modifying the same noun in Dutch do not always have the same inflectional form. The interaction of the various constraints in the revised table (8) means that in cases of recursive modification, we can observe -E form + \emptyset form sequences, as in (30a) and (35) above, as well as \emptyset form + -E form (or even -E + \emptyset + -E) sequences, e.g. in “extended” job title NPs:²³

- (58) de sympathieke waarnemend Hoge Commissaris
 the friendly-E deputy- \emptyset high-E commissioner

5.3. Adverb inflection

Another class of examples where an \emptyset form is followed by an -E form is illustrated by the following:²⁴

- (59) a. de katholiek godsdienstige uitzending / het toegepast taalkundige onderzoek
 the Catholic- \emptyset religious-E broadcast / the applied- \emptyset linguistic-E research
 b. katholieke godsdienst / toegepaste taalkunde
 Catholic-E religion / applied-E linguistics

Unlike the cases of multiple modification mentioned at the end of the previous section, the NPs in (59a) are not generated by successive left-adjunction of the two adjectives. Instead, they contain complex modifiers derived from the NPs in (59b). Note, however, that the -E forms in (59b) become \emptyset forms in (59a). There could be an additional contextual constraint requiring that an adjective that modifies another adjective must take the \emptyset form.²⁵ This could be considered as a particular case of the more general rule in Dutch (and in German) that adjectives used adverbially are uninflected.

An interesting exception to this rule, however, is provided by degree adverbs such as *erg* ‘very’ and *echt* ‘really’ that modify a following adjective. In informal registers, the inflection of the adjective can sometimes “spread” to the adverb. The following examples are from Corver (1997: p. 327ff):

- (60) a. een erg(e) dure fiets / een ontzettend(e) interessante opmerking
 a very expensive-E bike / a tremendously interesting-E remark
 b. een waarschijnlijk(*e) dure fiets / een tijdelijk(*e) goedkope fiets
 a probably expensive-E bike / a temporarily cheap-E bike

The possibility of inflection in (60a) is no doubt linked to the fact that the adverbs are used in other contexts as adjectives (*erg* ‘awful’, *ontzettend* ‘tremendous’). This idea of adjectival reinterpretation is suggested by Booij (2002b) and could also help explain some examples of non-head inflection as in (12c) above. However, the non-degree adverbs in (60b) can also be used elsewhere as adjectives, and yet they cannot receive inflection here. Corver uses these observations to argue that degree adverbs occupy specific positions in the extended projection

of the adjective, and he analyzes the appearance of the suffixed form of the adverb as an instance of optional agreement with the adjective.

Lexical idiosyncrasies must be incorporated into this account, however, because degree adverbs like *zeer* ‘very’ and *veel* ‘much’ cannot be inflected (61a). It is also unclear how examples with two inflected adverbs are to be analyzed (61b).

- (61) a. een zeer | *zere dure fiets / een veel | *vele duurdere fiets
 a very- \emptyset | very-E expensive-E bike / a much- \emptyset | much-E more-exp.-E bike
 b. hele erge mooie plaatjes
 very-E very-E pretty-E photos

In neuter singular indefinite NPs, the adjective appears in the $-\emptyset$ form, and the adverb must also remain uninflected:

- (62) een heel | *hele mooi plaatje
 a very- \emptyset | very-E pretty- \emptyset photo

Corver acknowledges that his proposals lead to a spurious structural ambiguity in such cases. The grammatical version of (62) has two structural analyses, one with and one without adjective-adverb agreement, just like the examples in (60a). In the $-\emptyset$ form case, however, agreement has no overt manifestation.

It can be further demonstrated that adverb inflection is made possible not by the presence of overt inflection on the adjective, but by its -E form status. The following four NPs all contain the non-inflecting adjective *open*, mentioned in (23) in §3, in combination with a common gender noun in (63a) and a neuter noun in (63b):

- (63) a. de heel | hele open sfeer / een heel | hele open sfeer
 the very- \emptyset | very-E open-E atmosphere / a very- \emptyset | very-E open-E atmosphere
 b. het heel | ?hele open klimaat / een heel | *hele open klimaat
 the very- \emptyset | very-E open-E climate / a very | very-E open- \emptyset climate

In the common gender examples, adverb inflection is possible, despite the absence of a schwa suffix on the -E form adjective. Speakers accept adverb inflection, with some hesitation, in the neuter definite NP (which also contains an -E form adjective), but they judge it to be totally incorrect in the neuter indefinite (with an $-\emptyset$ form adjective). Further empirical evidence is needed, however, before firm conclusions can be drawn.

Finally, it should be mentioned that for some speakers, the adverbial forms *heel* and *hele* may simply be in free variation. According to Haeseryn et al. (1997: §15.3.1.1), this is the case for the very informal adverbs *verdomd(e)* and *verrekt(e)* ‘damned’, which can appear in schwa-suffixed form even with $-\emptyset$ form pronominal adjectives and with uninflected predicative adjectives.

6. Concluding remarks

The goal of this paper was to provide a complete description of the interacting factors that determine the inflection of pronominal adjectives in contemporary Dutch. The system turns out to be quite complex, for example when compared to the rigid morphosyntactic rules of German, although elements inherited from their common Germanic ancestor are present in both languages.

The observations presented here suggest strongly that there can be no single, unified explanation for Dutch adjectival inflection. The various lexical and contextual rules must be analyzed independently, then integrated into a grammatical model capable of modeling their interaction. An adequate model must also be able to accommodate the high degree of stylistic and regional variation that characterizes this area of Dutch grammar.

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Notes

1. There were no definite or indefinite articles in the language at this stage. The use of adjectival inflection to express definiteness is also found in Balto-Slavic languages.
2. That is, with full inflection of pronominal dependents as in the examples in (56) below.
3. The anonymous reviewers of this article point out that the suffixes written *-en* also contain an underlying /n/ in their phonological representations (Booij 1995), so their status as distinct formatives is quite securely established.
4. Haeseryn et al. (1997: §6.4.1.2(iv) and §15.3.1.1). An anonymous reviewer suggests the example *een op zijn zoon trotse vader*, lit. ‘an of his son proud-E father’. Since the pronominal AP is head-final in this case, the inflection of the adjective *trotse* can be analyzed either as head-inflection or as right-edge affixation.
5. I leave aside the case of postnominal “partitive” adjectives, which can be analyzed as taking a genitive *-s* ending: *iemand anders* ‘someone different’, *wat lekkers* ‘something tasty’.
6. I would suggest that there is no “deep” synchronic explanation for the lack of inflection in Dutch (and German) predicative adjectives, although this question deserves closer investigation (including a comparison to the Scandinavian languages, where such adjectives do agree in gender and number).
7. See for example Haeseryn et al. (1997: §6.4.1.2(ii)).
8. Haeseryn et al. (1997: §6.4.1.2(iii))
9. The percent sign indicates non-standard usage. According to Sonck (2003), in such varieties, superlative adjectives still appear in the *-E* form, : *het liefste kind* ‘the dearest child’, *het goedkoopste boek* ‘the cheapest book’.
10. A reviewer points out that the variant with the *-E* form is probably a frozen expression.
11. Haeseryn et al. (1997: §6.4.1.2(iii)) and Van Langendonck et al. (2005: VII, p. 43)
12. The *-∅* form in (21b) may also be an instance of the dialectal variation described in Table 5.
13. The same rule exists in German, where it has a much more exceptional status as the only productive source of uninflected pronominal adjectives in the language.
14. The adjective *na* presents one possible case of defectivity, since it is found in some rare *-E* form contexts (*naë bloedverwant(en)* ‘close relative(s)’) but never in *-∅* form contexts (**een na land* ‘a near country’). However, the severe restrictions on such uses of the word cannot be explained by morphological defectivity alone; it appears to be simply obsolete (as a pronominal adjective).
15. In contrast, in cases of recursive pronominal modification in German, all adjectives appearing in the “adjectival subfield” (between the determiner and the noun) normally take the

same inflection: *ein neues kunsthistorisches Institut* ‘a new art history institute’ (strong), *das neue kunsthistorische Institut* ‘the new art history institute’ (weak). Distinctly inflected sequences of adjectives in determinerless NPs such as *nach gutem alten Brauch* ‘following good old custom’ (archaic or non-standard) can be analyzed in terms of linear order: the leftmost element in the NP takes the strong ending. This approach, which predicts only strong-weak sequences, cannot be applied to the Dutch examples in (30a), which contain weak-strong sequences.

16. <http://www.onzetaal.nl/advies/grootman.php>

17. Haeseryn et al. (1997: §6.4.1.3)

18. The inflection of adjectives in vocative NPs deserves further exploration. We have already seen variation in the neuter singular (20), and in the common gender, the “job title” effect may override the basic rules and give rise to $-\emptyset$ form adjectival inflection.

19. Examples adapted from Haeseryn et al. (1997: §6.4.1.2 (iii)).

20. <http://www.onzetaal.nl/advies/hachelijk.php>

21. The definition of DIAL in Table 7 does not take into account the exception for superlatives mentioned in fn. 9.

22. The backslash notation is to be read as follows: the -E form is appropriate by default, but this choice can be overridden by the effects of the constraint(s) specified after the “\”.

23. Adapted from Haeseryn et al. (1997: §6.4.1.3).

24. Haeseryn et al. (1997: §6.4.1.2 (iv))

25. A sequence of -E form adjectives is also possible, with an intersective reading: *het toegepaste taalkundige onderzoek* ‘(= research that is both linguistic and applied)’. Also, as discussed by Booij (2002a), Adj+N combinations of the form in (59b) can enter into compounding and derivational processes while retaining -E form inflection on the adjective.

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Jesse Tseng
CNRS, CLLE-ERSS UMR 5263
Université de Toulouse – Le Mirail
Maison de la Recherche
5, allées Antonio Machado
31058 Toulouse Cedex 9
France
email: Jesse.Tseng@univ-tlse2.fr