

Adjective + Noun constructions between syntax and word formation in Dutch and German

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1. Introduction

In his famous *Prinzipien der Sprachgeschichte* Hermann Paul emphasizes the importance of analogy in language. In his view, analogy is the driving force behind the production of both (complex) words and phrases.

"Die Wörter und Wortgruppen, die wir in der Rede verwenden, erzeugen sich nur zum Teil durch blosse gedächtnismässige Reproduktion des früher Aufgenommenen. Ungefähr eben so viel Anteil daran hat eine *kombinatorische Tätigkeit*, welche auf der Existenz der *Proportionengruppen* basiert ist. Die Kombination besteht dabei gewissermassen in der *Auflösung einer Proportionengleichung*, indem nach dem Muster von schon geläufig gewordenen analogen Proportionen zu einem gleichfalls geläufigen Worte ein zweites Proportionsglied frei geschaffen wird. Diesen Vorgang nennen wir *Analogiebildung*." (Paul 1920: 110)¹

Words and phrases are, according to Paul, taken from the lexicon (as learned entities) or produced by word formation or syntax through proportional analogy with existing words or phrases.

This view, dominant at the beginning of the twentieth century, has been largely replaced by rule-based approaches in structuralist and generative grammar and analogy was seen as synonymous to 'analogical change'.² Paul, however, saw (proportional) analogy primarily as a synchronic process, leading to regularity and productivity.³

In recent years, analogy as a structuring principle has again gained some popularity, especially in morphology, starting with work by Bybee and Skousen (Bybee 1988; Skousen 1989) and with Becker's (1990) dissertation. Now we find arguments in favour of the analogy approach even in a text book like Haspelmath (2002), and recent books like Esa Itkonen's *Analogy as Structure and Process* (2005) or Dieter Wanner's *The Power of Analogy* (2006) show the renewed interest in analogy in linguistics in general.

2 Matthias Hüning

The basic insight underlying these attempts to rehabilitate analogy is that existing words and phrases might play a much more important role in speech production and comprehension than assumed by abstract rule-based approaches. Laurie Bauer, for example, explicitly suspected a greater psychological adequacy of the analogy approach:

"It might [...] be worth speculating whether language users work by analogy whereas linguists interpret such behaviour in terms of rules, so that a linguist's description is inevitably a fiction." (Bauer 1983: 296)

And Raimo Anttila also stresses the psychological reality of analogy when writing:

"for all its limitations, proportional analogy is the only model that is spontaneously formulated by speakers themselves and thus has a greater psychological reality than any other model." (Anttila 1989: 105)

Recent developments in grammatical theory seem to point into the same direction. Construction grammar in particular emphasizes the importance of existing form-function units, of patterns and templates in language, like Paul did a hundred years ago. The basic claim of the constructionist approach is that grammar can be seen as a structured inventory of linguistic signs, i.e. as conventionalized pairings of form and meaning components (Fischer & Stefanowitsch 2007: 5).

"All levels of description are understood to involve pairings of form with semantic or discourse function, including morphemes or words, idioms, partially lexically filled and fully abstract phrasal patterns. [...] The totality of our knowledge of language is captured by a network of constructions: a 'construct-i-con'." (Goldberg 2003: 219)

In this constructionist view the boundary between lexicon and grammar begins to blur. There is no qualitative difference between words, idioms and grammatical (morphological and syntactic) rules. We have to deal with a continuum from unique to regular grammatical phenomena. And they can all be accounted for in the same manner, as constructions (Verhagen 2005: 210). Constructions are usually formalized as a template, and these templates can, in a way, be seen as an abstract formula for a proportional analogy. In a sense, construction grammar can be seen as a modern version of a very traditional view of language. Coseriu already saw language as a 'system of analogies',⁴ and in my view, the 'construct-i-con' in essence expresses the same insight.

In what follows, I will discuss A+N compounds and A+N phrases in Dutch and German. I will try to show that the different realizations of the Adjective + Noun pattern in Dutch and German illustrate the value of an approach that takes lexicon and grammar as a continuum.

2. The A+N pattern in Dutch and German

Like in other Germanic languages, compounding is a very productive word formation process in Dutch and German.⁵ This is especially true for determinative, endocentric N+N compounds, like Dutch *huisdeur* or German *Haustür* ('house door', front door), but endocentric A+N compounding is productive in both languages too, cf. Dutch *sneltrain*, German *Schnellzug* ('fast train', express train). Both types do exist in English as well, but A+N compounding (*blackbird*) seems to be unproductive.

A basic assumption in linguistics, one we find in many introductions to word formation, is that there is a division of functions between syntax and word formation. On the one hand compounding "is like syntax because they are both concerned with the collocation of lexemes" (Bauer 2003: 124), on the other hand they differ in principle with respect to their function.

"Like derivatives, compounds provide *names* for entities, properties or actions. This is opposed to providing *descriptions*, which is the function of syntax." (Bauer 2003: 135, my emphasis – MH)

When we compare an A+N compound with the corresponding A+N phrase these different functions become obvious. *Schnellzug* is the 'name' of a certain category of trains ('express train'), but a *schneller Zug* is not necessarily a *Schnellzug*, it is a 'description' which can be used in contexts like: *Der ICE ist ein sehr schneller Zug* ('a very fast train'). *Schnellzug* would not be possible in this context. And a *Dunkelkammer* is a 'darkroom', "a room with no light or with a safelight for handling and processing light-sensitive photographic materials" (Merriam Webster Dictionary). *Eine dunkle Kammer* could be every room with no (or sparse) light, like in *Sie verwendeten die dunkle Kammer als Abstellraum* ('they used the dark room as storage/storeroom').

These observations are confirmed in Erben (2000), who describes the alleged division of functions between word formation and syntax for A+N compounds and A+N phrases in German. According to him, the naming function is typical for the compounds. It is the task of compounds with an

adjectival first element to characterize or set apart something as a special category. In contrast, phrases have the task not to name, but to describe entities (Erben 2000: 43–44).

Contrary to this assumption, it has been pointed out time and again that there are noun phrases of the A+N type that seem to have the same function as compounds, like English *hard disk* or *yellow pages*. As Booij (2002a: 314) states, "they provide names for a relevant class of entities". Many of these phrases function as established, conventional names for these entities. They often have unpredictable meaning aspects and because of that they have, according to Booij, to be listed in the lexicon; thus they are lexicalized phrases.

Usually, the existence of one of the two possibilities blocks the application of the other. But even for strongly lexicalized concepts we find some, limited variation. The German word for *hard disk* for example is *Festplatte*. But occasionally also *feste Platte* is used:

- (1) Sagen wir mal die feste Platte gibt den Geist auf. Dann bootet der Rechner nicht mehr.
(<http://forum.de.selfhtml.org/archiv/2003/1/t36509/>)
'Let's say the hard disk crashes. Then the computer will not boot any longer.'

Or, the other way round, in Dutch the lexicalized expression for *hard disk* is the NP *harde schijf*, but incidentally we also find the compound *hardschijf*:

- (2) De Xbox lijkt niet op een PC, het heeft als enige console een hardschijf net zoals een PC.
(<http://forum.xboxworld.nl/archive/index.php/t-41683.html>)
'The Xbox is not like a personal computer, it is the only console with a hard disk like a personal computer.'

In these cases there is no referential difference between compound and phrase, but the use of the non-conventional form of course has some stylistic effect.

When A+N phrases are used as names, they exhibit specific formal characteristics which make them in a way behave like compounds. First of all, the adjective in these examples is always a bare A, without modifiers.

"As soon as we coin a phrase with a modified adjective like *een zeer rode kool* 'a very red cabbage', the phrase loses its classificatory function, its status as a name for a specific kind of cabbage. It becomes a descriptive ex-

pression that describes the (color) properties of a single cabbage." (Booij 2002a: 315)

Furthermore, it is not possible to separate adjective and noun by the insertion of a modifier: **een rode grote kool* ('a red big cabbage'). The phrase can only be modified as a whole: *een grote rode kool*.

For English, there is often discussion and uncertainty about the formal status of such A+N word sequences: compound or phrase? The main criterion is stress. Compounds are stressed on the first constituent, phrases on the second, compare the well known example *bláckbird* vs. *black bírd*. But in some cases this criterion conflicts with semantics. While one would probably analyze *short stóry* as a compound semantically, the stress pattern shows it to be a phrase.⁶

Johan de Caluwe (1990) has pointed out that lexicalized NPs in Dutch show a tendency to slightly change their stress pattern: while ordinary A+N phrases have a secondary stress on the adjective this seems to get lost through lexicalization.

- (3) *félle régen* – *zure régen* ('heavy rain' – 'acid rain')
metálen schijf – *harde schijf* ('metal disk' – 'hard disk')
gezéllige kámer – *donkere kámer* ('cosy room' – 'dark room')

This shift of accent might be seen as a formal effect of lexicalization, but it does of course not affect the difference between compounds and phrases.

Another formal difference between compounds and phrases concerns the kind of possible adjectives. In compounds it usually has to be monomorphemic, while in lexicalized phrases complex adjectives are possible, too.

- (4) (a) German:
die wissenschaftliche Hilfskraft ('graduate assistant')
**die Wissenschaftlichhilfskraft*
 (b) Dutch:
het wetenschappelijk(e) onderwijs ('university training / education')
**het wetenschappelijkonderwijs*

In German, we find one minor exception to this restriction. Adjectives with foreign suffixes like *-al* or *-iv* are possible in A+N compounds:

- (5) *Nationalstaat* ('nation state'), *Frontalunterricht* ('ex-cathedra teaching')
Relativsatz ('relative clause'), *Intensivkurs* ('intensive course'), *Exklusivvertrag* ('exclusive agreement')

For the distinction between phrase and compound, Dutch and German, in addition to stress, offer another (and even better) criterion: the adjective in phrases is inflected while it loses its inflection in a compound.

- (6) (a) German:
Schnéllzug, *Sáuerteig* (compound) vs. *schneller Zúg* (NP),
saurer Régen (lexicalized NP)
- (b) Dutch:
snéltrein, *ziúrdeeg* (compound) vs. *snelle tréin* (NP),
zure régen (lexicalized NP)

Contrary to the A+N compounds, the phrases – irrespective of their being a lexicalized 'name' or not – show inflection on the adjective and stress on the second constituent, the noun (cf. section 3 for some peculiarities in Dutch).

Furthermore, Dutch and German also reflect their status in orthography: compounds are written as one word, phrases as two. In English there seem to be no real rules in this respect; only very old compounds are always written as one word (*blackbird*); new compounds are sometimes written as one word (*software*), sometimes as two words (*free kick*), and sometimes with a hyphen (*fast-food*).

For lexicalized phrases that function as names (like *saurer Regen*, *zure regen* ('acid rain')) we can conclude that they share the properties of the ordinary NP. With respect to main stress, inflection of the adjective, and orthography they are NPs, while with respect to semantics and the possibility of modifying the adjective, they behave like compounds, as shown above (**sehr saurer Regen*; **saurer starker Regen*).

The sharp distinction between syntax and word formation (or, more generally, between grammar and lexicon) found in many grammatical theories fails to account for this in-between status of a subset of A+N phrases and for the functional similarities between these phrases and A+N compounds. Geert Booij therefore suggests

"to assume a constructional idiom in the lexicon with the form [A N]_{NP}, with two open positions, and no terminal element fixed. This template is a specific instantiation of the general syntactic template for NPs. The relation between the two can be expressed by making use of inheritance trees [...] It is only the name function that needs to be specified for the AN phrases."
 (Booij 2002a: 315)

I would like to argue in the same vein. Instead of forcing a decision between lexicon and grammar in cases like this, we should acknowledge that

there are (many) in-between phenomena. We are better off with an approach that treats lexicon and grammar as a continuum.

As far as A+N constructions are concerned, the comparison of Dutch and German shows that phrases and compounds are in competition with respect to the naming function. Moreover, it has been observed more than once that we find a distributional difference between Dutch and German. Geert Booij, for example, mentions this difference in his *Morphology of Dutch*.

"Dutch differs from German, which exhibits a more frequent use of A+N compounds, where Dutch uses A+N phrases (compare Dutch *harde schijf* with German *Festplatte* for 'hard disk', or Dutch *oude stad* with German *Altstadt* for 'old (part of the) town')." (Booij 2002b: 12)

Both naming strategies are (productively) available in both languages, but there are striking differences with respect to the use that the speakers of Dutch and German make of those strategies.

First of all, we find concepts that are expressed by equivalent compounds in Dutch and in German:

- (7) *dundruk* / *Dünndruck* ('lightface')
kleingeld / *Kleingeld* ('(loose) change')
groothandel / *Großhandel* ('whole sale')

Secondly, there are concepts for which both Dutch and German use a lexicalized NP:

- (8) *zure regen* / *saurer Regen* ('acid rain')
groene golf / *grüne Welle* ('phased traffic lights')
blinde passagier / *blinder Passagier* ('stowaway')

And finally, we find a lot of lexicalized phrases in Dutch which correspond to a compound in German:

- (9) *donkere kamer* / *Dunkelkammer* ('dark room')
harde schijf / *Festplatte* ('hard disk')
vreemd woord / *Fremdwort* ('foreign word')
vrije schop / *Freistoß* ('free kick')
wild zwijn / *Wildschwein* ('wild pig')
volle maan / *Vollmond* ('full moon')
oud papier / *Altpapier* ('waste paper')
kleine hersenen / *Kleinhirn* ('little brain')
korte golf / *Kurzwelle* ('short wave')
vrije tijd / *Freizeit* ('free, spare time')
rode wijn / *Rotwein* ('red wine')

dikke darm / Dickdarm ('large intestine')
lage druk / Tiefdruck ('low pressure')
rood wild / Rotwild ('red deer')
zwarte markt / Schwarzmarkt ('black market')
 etc.

Language comparison thus illustrates the functional overlap between A+N phrases and A+N compounds with respect to their use as 'names'. The abstract possibility of modifying a noun by a (relational) adjective can be realized by two different means. The following figure shows the relevant part of the network of constructions.

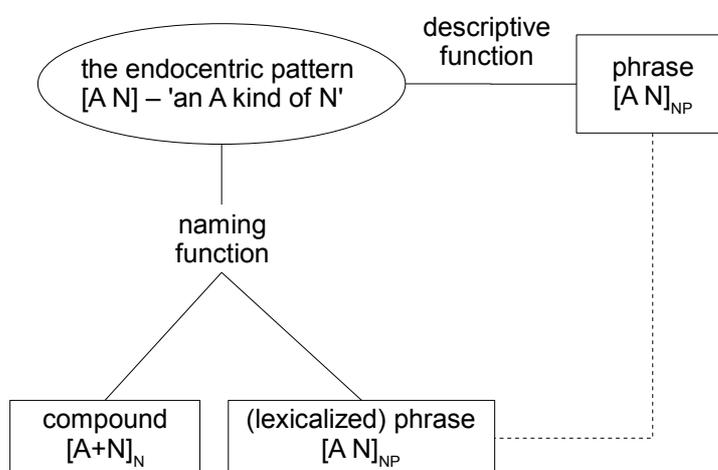


Figure 1: Types of A+N constructions

The rectangles indicate the templates used for the formation of words/phrases; the dashed line indicates the similarity of the phrasal templates. New words or phrases are coined on the basis of these templates and by analogy with existing examples. Compare compounds with *billig* ('cheap') in German: *Billigangebot* ('bargain offer'), *Billigflug* ('cheap/budget flight'), *Billigware* ('cheap goods') etc. This set can easily be extended with other compounds like *Billigfleisch* ('cheap/discount meat'), *Billiggemüse* ('cheap vegetables') or *Billigcomputer* ('cheap computer') and *Billigsoftware* ('cheap software'), which are not listed in the *Duden Unversalwörterbuch*, but Google returns a great many hits for them.

On the other hand, compounding with the adjective *frei* ('free') like in *Freibier* ('free beer'), *Freigepäck* ('free luggage') or *Freikarte* ('free ticket') is not extended to the neologism *Freisoftware* as translational equivalent for *free software*, presumably because of missing meaning components. *Free* in *free software* does not only and not in the first place mean 'free of charge' (that would be *freeware*) but also 'free to use, modify, distribute' etc. The intended association is *freedom* and *free speech*, not *free beer*. Both meanings are expressed by a phrase in English, but German distinguishes between them by using the compound for the 'free of charge' group and the phrase for the others. *Free speech* in German is *freie Rede* (or *Redefreiheit*); *free software* is *freie Software*. Especially in computer terminology, the same meaning of *frei* can be found in phrases like *freies Format* ('free format') and *freie Lizenz* ('free license'). These phrases form a proportional group of their own, a set that can be extended as well. Analogy with existing compounds and phrases thus controls the choice of the template (compound or phrase) in German.

While the analysis presented so far shows the functional overlap between compound and phrase and illustrates that both can be used in German as well as in Dutch, we still have no explanation for the different preferences found in the two languages. This question will be dealt with in the following section.

3. Searching for an explanation: a diachronic perspective

How can we explain the Dutch preference for A+N phrases compared to compounding which is so prominent in German?

The only attempts so far to explain this difference take into account an extra-linguistic factor. Van Lessen (1928), Staverman (1939) and Van Haeringen (1956) think that many of the existing A+N compounds in Dutch are borrowed from German. They consider the frequent use of phrases to be a reaction to this borrowing: A+N compounding is felt as a German word formation process and therefore avoided. To understand this, one has to know that in the first half of the 20th century there has been a strong puristic tendency in the Netherlands to avoid German influence on Dutch. And in this context there has been some discussion about the acceptability of loan words or loan translations like *grootstad*, *ruwbouw*, *snelverkeer* (cf. German *Großstadt*, *Rohbau*, *Schnellverkehr*). While this might be one factor, it doesn't explain the differences adequately, since

A+N compounding is an old word formation process in Germanic and we do indeed find many examples in older stages of Dutch, too (as has been pointed out by for example Van den Toorn 1970 or Steenbergen 1971). There are examples of this type in Middle Dutch; and we find dozens of A+N compounds in the 15th and 16th century (some of them apparently without an equivalent in Middle High German):

(10) (a) 14th and 15th century:

dundoec ('thin sheet')

goetdaet ('good deed'), *goetwerc* ('good work/deed'), *goetwoort* ('good word')

groenvisch ('green/fresh fish')

grootdade ('great deed')

outvader ('old father')

rootsteen ('red stone')

(b) 16th century

cortwile ('short while'; 'disport')

donkercamere ('dark room'; 'jail')

heethonger ('hot hunger', 'ravenous appetite')

soetwijn ('sweet wine')

suurdeech ('sour dough'; 'leaven')

While these are all endocentric compounds, we also find many exocentric A+N compounds (the so-called bahuvrihi compounds) in Middle Dutch and it looks like these are even older. They are especially used to name persons – but also animals or things – by characterizing them with respect to some remarkable attribute.

(11) (a) 13th and 14th century

cortarm (someone with short arms)

*groothoof*t (someone with a big head)

(b) 15th century

rootoge (name of a fish (with red eyes))

roothoet (someone with a red head/red hair)

This type became slightly outdated as a productive type of word formation in Dutch, but we still have dozens of examples like *bleekgezicht* ('paleface') or *dikkop* ('pigheaded person'). In the data we found so far, the exocentric type is the older one. If this proves true, it could be the starting point of A+N compounding in Dutch, which was then extended with endocentric A+N compounds, especially from the 15th century onwards. Some of the old endocentric compounds still exist (like *suurdeech*), but most of them

are nowadays expressed by a phrase (like *soetwijn* > *zoete wijn* or *goetdaet* > *goede daad*).

This still is a very premature sketch of the historical development of A+N compounding in Dutch; further research is needed to prove its validity. It shows, however, that A+N compounding is an old word formation process in Dutch. The diachrony of course is of no relevance for the speakers of modern Dutch who use (or avoid) A+N compounds, so the puristic explanation might still be true. But the fact that Dutch has been using A+N compounding as a productive means of word formation for at least 700 years renders it unlikely that the use of phrases instead of compounds can be (fully) accounted for by this puristic explanation.

Therefore I will present an alternative explanation, which admittedly still has the status of a hypothesis (cf. Hüning 2004). This explanation is based on an assumed interdependency of inflectional morphology and compounding and on the assumption that constructions (like compounds or phrases) have to be seen as linguistic signs, as conventionalized units of meaning and form.

(12) Hypothesis

The trend to use phrases instead of compounds can be linked to the loss of inflection in Dutch (and as a matter of fact in English, too). Or, the other way round: the extensive use of compounds in German can be related to the fact that German still has a complex system of inflectional morphology.

To illustrate this hypothesis, some aspects of Dutch inflection have to be shortly introduced. Middle Dutch still had an elaborate inflectional system with three genders. It had strong and weak inflection for nouns and the adjective showed regular inflection too, determined by gender, case and number.

This system has been reduced bit by bit and in present-day Standard Dutch we find the following situation: Dutch has lost the formal distinction between masculine and feminine gender, we distinguish so called *het-woorden* (neuter) and *de-woorden* (common gender; non-neuter: masc. and fem. converged). The only remaining inflectional category of the noun is number, and the inflectional system of the adjective is reduced to adding an inflectional schwa in all cases, except in one context: singular indefinite NPs with a neuter noun as their head.

(13) Inflection of *mooi* ('beautiful'):

(masc.) *een/de mooie man* (sgl. indef./def.) / *de mooie mannen* (pl.)
 (fem.) *een/de mooie daad* (sgl. indef./def.) / *de mooie daden* (pl.)

neut. *het mooie huis* (sgl. def.) / *de mooie huizen* (pl.)
 → neut. *een mooi huis* (sgl. indef.)

The reduction led to a system where the adjective in the vast majority of contexts has one form: the inflected form with schwa, *mooie*. For the non-neuter NPs this is even the only possible form of the adjective. Inside the NP there is no change of form of the adjective in any context.

In comparison, in German we find a much more complex system of inflection for the adjective, a system that resembles the Middle Dutch system in many respects. NPs with a masculine noun as their head show at least three different forms of the adjective:

- (14) *ein schöner Baum* (nom. indef.) – 'a beautiful tree'
der schöne Baum (nom. def.), *eines/des schönen Baums* (gen.), *die schönen Bäume* (pl.)

The German equivalent for the Dutch phrase *zwarte markt* ('black market') is the compound *Schwarzmarkt*. When we compare the phrase to its literal translation in different syntactic contexts we get something like this:

- (15) *Black market* in German and Dutch

<i>schwarzer Markt</i>	<i>zwarte markt</i>
da ist der <i>schwarze Markt</i>	daar is de <i>zwarte markt</i>
der Wert des <i>schwarzen Markts</i>	de waarde van de <i>zwarte markt</i>
ich verdanke das dem <i>schwarzen Markt</i>	ik dank dat aan de <i>zwarte markt</i>
ich suche den <i>schwarzen Markt</i>	ik zoek de <i>zwarte markt</i>

Contrary to the German NP, the Dutch phrase stays unchanged in all contexts. This stability of the form, according to our hypothesis, makes the Dutch A+N phrase more easily identifiable as unit, as a sign, as a name. Because of this the realization of the concept as compound is not necessary, the Dutch phrase already can function as a linguistic sign in the sense of De Saussure: a conventional unit of a constant form with a constant meaning.⁷ In German the compound is a much better candidate for the naming function. While there would be form variation inside the 'name' when realized as phrase, the compound has the preferred constant form: *Schwarzmarkt*. In this view, the need for compounding is more pressing because of the adjectival inflection. Of course form stability is neither a necessary nor a sufficient condition for the choice, but it might explain the preferences.

In the remaining part of this section, I will discuss some problems of the explanation presented so far. One might for example argue that the variation in the neuter gender undermines this explanation.

First of all, we find in Dutch a tendency to level away the remaining variation in the paradigm of the adjective, i.e. the variation with neuter nouns. We find two different strategies in the spoken varieties of Dutch. Some speakers of Dutch (in the Netherlands) tend to overgeneralize the schwa: *een mooie boek* instead of *een mooi boek* (cf. Weerman 2003). In Flemish Dutch in contrast we see the tendency to use the uninflected form: *het mooi boek* instead of *het mooie boek* (cf. Tummers 2005). Both variants are still substandard, but they show that the system of adjectival inflection is still subject to change. The first strategy would lead to a uniform inflected form of the adjective in all NPs. The second, Flemish, strategy would lead to a system where the so-called *de*-woorden (common gender) always receive an inflected adjective (*mooie*) and the form of the adjective with neuter nouns is always, in all contexts, uninflected (*mooi*). In the line of our argumentation, both strategies would lead to a 'one form one meaning' situation, which, in the case of idiomatic, lexicalized NPs would lead to a further acceptability of the NP as a classificatory name.

Regarding lexicalized A+N phrases, another peculiarity can be found. Some of the phrases lose their inflectional marking at the end of the adjective when used as names. This applies to neuter and non-neuter NPs. Sometimes the uninflected form is used to differentiate between a literal meaning and an idiomatic meaning:

- (16) *een/de grote man* – 'a tall man'
een/de groot-Ø man – 'a great man'

By and large, the loss of the inflectional schwa corresponds to the use of an NP as a somehow 'official' classificatory name. For example:

- (17) name for a certain function:
de wetenschappelijk-Ø directeur ('the scientific director')
 name for an institution:
het oudheidkundig-Ø museum ('museum of antiquities')
het academisch-Ø ziekenhuis ('the university hospital')
 name for a grammatical category:
het zelfstandig-Ø naamwoord ('the noun')
het bijvoegelijk-Ø naamwoord ('the adjective')
 other 'names':
het stoffelijk-Ø overschot ('the mortal remains')
het oud-Ø papier ('the waste paper')

The loss of the schwa helps to identify them as official names, it sets them apart as lexicalized units, designated to refer to some special entity or class of entities. Geert Booij interprets this as an approximation of the phrase to the compound:

"This lack of inflectional schwa suggests that such AN phrases are becoming more and more similar to AN compounds in that they have no internal inflection. This can be seen as a symptom of AN phrases having the status of classificatory lexical expressions." (Booij 2002a: 316)

My point is that it is not the loss of the schwa as such but the fact that there is no variation inside the NP that makes the phrase suitable as a 'classificatory lexical expression'. An analysis as compound is still out of the question because the adjectives in the given examples are morphologically complex and for A+N compounding we find the restriction that only monomorphemic adjectives qualify as first elements. Only *oud papier* would fit this requirement, but the stress pattern (main stress on the noun) still precludes it from being interpreted as compound.⁸

I would like to mention one more observation that might be seen as circumstantial evidence for the given explanation. Regarding to the use of compounds or phrases there is some regional variation in Dutch. The tendency to use phrases instead of compounds in Dutch is less distinctive in the southern, Flemish, part of the Dutch language area. In Belgium some compounds are used for which Dutch speakers prefer phrases. This can be illustrated with some data drawn from *Google*. The search (conducted in October 2006) was specified for hits in pages written in Dutch and bearing the domain name attribute .be or .nl.

(18) Variation in the Dutch language

Google hits (pages written in Dutch)	.nl	.be	
<i>kortfilm</i>	9560	83600	'short film'
<i>korte film</i>	270000	10600	
<i>dundarm</i>	77	450	'small intestine'
<i>dunne darm</i>	73100	24100	
<i>vrijschop</i>	285	12400	'free kick'
<i>vrije schop</i>	9420	1520	

<i>grootstad</i>	923	61000	'large city/metropolis'
<i>grote stad</i>	493000	54800	

While Flemish Dutch, like Netherlandic Dutch, in general shows a strong preference for phrases, in some cases the compound is stored as the conventional name (like *kortfilm* or *vrijschop*). In other examples only gradual differences can be observed, with Flemish Dutch (relatively) having a higher frequency of the compound. In line with my argumentation, this might be related to the fact that the Flemish *tussentaal* (a name for the spoken variety of standard Dutch in Flanders), still has remains of gender and case based inflectional distinctions:

- (19) Flemish Dutch: *ne kleinen bakker* – Netherlandic Dutch: *een kleine bakker* ('a small baker')
 Flemish Dutch: *een klein tafel* – Netherlandic Dutch: *een kleine tafel* ('a small table')

One might speculate about a possible impact of the inflectional remains in Flemish Dutch on the use of compounds.

A last problem that has to be addressed is the general question why functional doublets of compound and phrase exist at all. Such doublets seem to conflict with the 'one meaning one form' principle of linguistic efficiency.

For German the following question might arise: If inflection is really a problem for recognizing phrases as classificatory names, why does German have phrases like *grüne Welle* ('green wave', phased traffic lights), *rotes Tuch* ('red rag') or *wilde Ehe* ('wild marriage', concubinage)? As far as I can see, there is no general explanation. The examples have to be treated one by one. However, one reason for their being formed and for their not getting replaced by a compound might be their highly specialized, idiomatic meaning, which makes them eye-catching and precludes a literal interpretation. In addition, a phrase like *kalter Krieg* (Dutch *koude oorlog*, 'cold war') seems to be an internationalism, preserved by its relation with the equivalent phrase in other languages. Furthermore, phrases might also be preserved by their frequency (think of phrases like *große/kleine Zehe* ('big/little toe')).

4. Conclusion

It has been stated that, regarding language structure, Dutch stands in between English and German (cf. Van Haeringen 1956 and Hüning et al. 2006). This is definitely true for inflectional morphology: while English has lost almost all its formal inflectional markers through history and German has preserved the inflectional system to a large extent, Dutch stands in-between with respect to the richness of inflectional morphology.

As shown, the in-between status seems to hold for A+N constructions as well: in German A+N compounding is productive, whereas in English it is unproductive. Dutch is in-between German and English with respect to the use of phrases or compounds: compounding is still a productive word formation process, but Dutch speakers show a clear preference for the NP in most cases for which German speakers use a compound.

A+N phrases can become classificatory expressions through frequent use for a certain, well-defined set of entities, or through intentional coining as a 'name' for such a category. This is to be interpreted as a semantic specialization, and it has some formal effects (like the loss of the possibility to modify the adjective). The phrase can become lexicalized and be associated as the conventionalized form to that certain concept. Form and meaning are tied together and can be seen as a linguistic sign in the sense of De Saussure.

This interpretation as a linguistic sign (or as a constructional idiom) is facilitated by a constant surface form of the A+N phrase. Thus, the form is not liable to context dependent variation inside the NP (i.e. different inflectional forms of the adjective). In this respect, A+N phrases in Dutch and English are much better suited to function as classificatory 'names' than the German ones. This might explain the different naming strategies: while speakers of German tend to form a compound in order to achieve a constant form for a certain concept, speakers of Dutch and English content themselves with the phrase, which already has a constant form.

The hypothesis, presented here for A+N patterns, might be extensible to a more general hypothesis concerning the relation between compounding and inflection: the more inflection, the more compounding is needed to create 'names'. As for N+N compounds, the most productive class of compounding in Germanic, it is striking that again Dutch seems to take a middle position. German exploits this word formation pattern much more extensively than English, and Dutch again stands in-between. Many concepts expressed by a compound in German have a phrasal equivalent in Dutch,

like *Tagesablauf* – *verloop van de dag* 'routine of the day' or *Erfahrungsaustausch* – *uitwisseling van ervaringen* 'exchange of experiences'. Moreover, compounds with more than two elements are possible in Dutch, but speakers of Dutch are very cautious about actually coining them, while they are very common in German.

It has been stated more than once that the history of word formation is characterized by a trend towards univerbation in German (cf. for example Erben 2000 and Erben 2003). To me, the interdependency with inflection seems to be one key to a proper understanding of this trend, but of course much more research is needed to prove the validity of this hypothesis.

In the theoretical approach mentioned above, the differences between Dutch and German can be dealt with in a quite natural way. Since construction grammar does not see lexicon and grammar as two distinct modules of a language, the functional similarities between compounds and phrases are not problematic but to be expected, and the differences in use can be understood as gradual differences and shifts.

Notes

1. The words and word groups we use in speech, are only partly produced by reproduction from memory. Almost equally important is a combinatory act, which is based on the existence of proportional groups. The combination in a way exists in solving a proportional equation. Following the pattern of a familiar proportion, we take a familiar word and create freely a second proportional element. We call this process analogical coining. [My translation – MH].
2. Cf. the first sentence of Kiparsky (1992: 56): "Analogical change, or simply analogy, is a historical process which projects a generalization from one set of expressions to another."
3. Paul's theory of analogy has been examined in some detail by Wurzel (1988).
4. "Eine Sprache ist im Grunde ein System von Analogien." (Coseriu 1980: 131).
5. See Hüning & Schlücker (2008) for a comparative overview of compounding in Dutch and German.
6. Cf. the discussion of these 'exceptions' in Plag (2003: 137–141).
7. The lexical status of the NP is sometimes reflected in orthography: *blindedarm* ('blind gut') or *wittebrood* ('white bread') are written in one word, with the inflectional schwa still present. Incidentally we find an old example in German too, like *der Hohepriester* ('high priest').
8. We do find, however, some limited variation in orthography: *Google* (in August 2007) returns 80300 hits for "het oud papier" and 1440 hits for "het oudpapier", indicating a compound interpretation.

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