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Verb-noun compounds in English and German

Abstract: This paper provides a comparative analysis of verb-noun compounds and their distribution in English and German. It is shown that two major generalizations are possible along the endocentric/exocentric dimension: While the types of endocentric V-N compounds found in English form a subset of the relevant types found in German, exocentric V-N compounds constitute a substantial lexical class in English but not in German. The distribution of the two major types of V-N compounds is considered against the background of competing expressions such as *V-ing* N compounds (in English) and synthetic compounds of the type N-V-*er* (in both languages under comparison). The differences in the inventories of types are related to aspects of external language history (language contact), but the role of language-internal factors is also considered, in particular the greater disposition of English to allow conversion.

1. Introduction*

Word formation – or, more generally speaking, the lexicon-grammar interface – is one of the more poorly studied areas in the contrastive analysis of English and German. This may, to some extent, be due to the fact that it is hard to formulate generalizations in this domain. Even though a number of revealing studies on particular areas of the lexicon have been carried out – for instance, König’s (1982) contrastive analysis of focus particles and Plank’s (1984) observations concerning ‘semantic agreement’ between verbs and their arguments (cf. also König / Gast 2007, ch. 13)¹ – the lexicon seems to be too loosely structured a system to allow for any major generalizations. In many cases, the only thing we can say is that one language

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¹ This issue also contains some contributions dealing with either the lexicon or the lexicon-grammar interface. The papers by G. Rohdenburg and L. Gunkel/G. Zifonun deal with specific types of adjectives, E. König addresses some English-German contrasts in the domain of temporal prepositions, and F. Haas’ paper deals with the trade-off between lexical meanings and voice categories in the interpretation and distribution of specific verbs.

does, while the other does not, have a certain lexical opposition or subsystem, or a specific way of ‘communication’ between lexicon and grammar.

Word formation is probably one of those lexico-grammatical areas where most regularities can be found. Providing a comprehensive overview of this domain in English and German is therefore one of the major objectives pursued in the project that has given rise to this study (cf. Note * on p. 269). This article presents first results of this programme, focusing on one type of word formation which reveals rather clear-cut and relatively general contrasts between English and German, i.e. the area of verb-noun compounding.

After providing a first overview and addressing some central problems concerning the identification and analysis of V-N compounds in Section 2, Sections 3 and 4 present a comparison of the major types of compounds, i.e. endocentric and exocentric ones. Endocentric compounds exist in both languages under comparison but are much more widely distributed in German than in English, where they are subject to restrictions concerning both the verbal and the nominal constituent. Exocentric compounds exist only in English. This is, first and foremost, attributed to language contact with French, but also to the greater disposition of English to allow processes of conversion. In the comparison of both endocentric and exocentric compounds it will be pointed out that in order to fully understand the distribution of a given type, competing expressions with an overlapping range of denotation need to be taken into account. One generalization that emerges under this perspective is that the English system of word formation is characterized by a ‘division of labour’ between rivalling strategies whereas German tends to subsume a greater range of meanings under one type of word formation, in the domain of V-N compounding. The results of the study are summarized in Section 5.

2. V-N compounds in English and German: An overview

2.1 General remarks

In studies of English word formation, nominal compounds with a verb as left-hand member typically play a very minor role (cf. e.g. Marchand 1969, 72-4; Plag 2003, 145-6; Schmid 2005, 122). This seems to reflect the relatively marginal position that V-N compounds take up in the lexico-grammatical system of English and is indicative of their restricted distribution. In German, by contrast, V-N compounding is particularly productive and allows for a wide range of semantic patterns (cf. Donalies 2002, 72f.; Fleischer / Barz 1995, 108ff.). Some relevant examples from both languages are given in (1):

- (1) a. English: *cutthroat, carry cot, whetstone, scatterbrain, blowlamp, bumblebee, checklist, drawbridge, drift ice, flick knife*
 b. German: *Schleifstein, Schlafzimmer, Esszimmer, Zahntag, Denkweise, Waschmaschine, Bauart, Parkverbot, Nährwert*

The impression that V-N compounds are more widely distributed in German than in English is confirmed by a glance at the Europarl corpus (cf. Koehn 2005). More often than not, German V-N compounds (which are invariably endocentric) correspond to some other ‘strategy’ in the English component of the corpus. N-N compounds – especially the subtype $[_N[_N \text{ V-ing}] \text{ N}]$ – are most often found as counterparts of German V-N compounds (cf. [2a]), but simple (typically Latinate) nouns also provide a not uncommon encoding strategy (cf. [2b]):

- | | | |
|--------|---------------------|------------------------|
| (2) a. | <i>Park-ausweis</i> | <i>parking permit</i> |
| | <i>Trink-wasser</i> | <i>drinking water</i> |
| | <i>Nähr-boden</i> | <i>breeding ground</i> |
| b. | <i>Lauf-bahn</i> | <i>career</i> |
| | <i>Brenn-stoff</i> | <i>fuel</i> |
| | <i>Fahr-zeug</i> | <i>vehicle</i> |

This situation seems to suggest that the V-N compounds attested in English form a subset of those found in German. However, that this cannot be true can easily be shown by looking at less formal registers, where English features a number of V-N compounds that do not have a formally parallel counterpart in German. Typically, such – exocentric – V-N compounds correspond to ‘synthetic compounds’ of the form N-V-er in German (cf. [3]), but there are also other strategies used to render the relevant meanings (e.g. N-N compounds such as *Taschen-dieb* for *pickpocket*):

- | | | |
|-----|--------------------|--------------------------|
| (3) | <i>break-water</i> | <i>Wellen-brech-er</i> |
| | <i>cut-throat</i> | <i>Hals-abschneid-er</i> |
| | <i>spoil-sport</i> | <i>Spiel-verderb-er</i> |

A first generalization that emerges is, thus, that endocentric compounds are more widely distributed in German than in English, whereas exocentric compounds are more numerous in English than in German. This observation will provide the basis for a more detailed comparison in Sections 3 and 4. Before turning to this comparison we will, however, address some problems concerning the identification of V-N compounds in Section 2.2 and the endocentric / exocentric distinction in Section 2.3.

2.2 Identifying V-N compounds

V-N compounds cannot always be straightforwardly identified as such. The reason is that the lefthand member (of an endocentric compound) can sometimes be analysed as either a verb or a noun. Some pertinent examples are given in (4):

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|--------|--------|--|---|
| (4) a. | Engl.: | <i>callgirl, guideline, lovebird, punchball, workbench</i> | |
| | b. | Germ.: | <i>Antwortschein, Blickfeld, Filmstudio, Schlafzimmer</i> |

For instance, a *lovebird* is a bird species “noted for the affection that pairs show one another” (OED, s.v. *lovebird*). This could either mean that *lovebirds* are ‘birds that [_V love] each other’, or else ‘birds that display a great degree of [_N love] towards

each other'. Similarly, a *workbench* can be interpreted as either a 'bench that is used to [v work] on' or a 'bench that is used for [N work]'. Deciding one way or another seems pointless in such cases, as words such as *love* or *work* do not show any clear preference to function as either nouns or verbs.

Given that English (unlike German) allows for virtually unrestricted V-to-N conversion, the problem of identifying the lexical category of the lefthand member in compounds is non-trivial even in cases of apparently *bona fide* V-N compounds such as *whetstone*, *bakehouse* or *washday* – as there are also nouns corresponding to the lefthand members: (a) *whet* ('act of whetting'), (a) *bake* ('act/process/result of baking'), (a) *wash* ('act of washing'). Still, it seems reasonable to assume that *whet*, *bake* and *wash* are basically verbs, considering common diagnostics for the directionality of conversion (see e.g. Plag 2003, ch. 5). If we make the additional assumption that, all other things being equal, constituents of compounds typically retain their basic category, *whetstone*, *bakehouse* and *washday* can reasonably be classified as V-N compounds.

In German, the classification of endocentric V-N compounds is more straightforward than in English. In many cases there are different forms for nouns and corresponding verbs, typically distinguished by *ablaut* (vowel gradation). Some pertinent examples are given in (5). Accordingly, the compounds in (6) can clearly be classified as V-N compounds (left column) or N-N compounds (right column):

- | | | |
|--------|---------------------|--------------------|
| (5) a. | <i>brechen</i> | <i>der Bruch</i> |
| b. | <i>gehen</i> | <i>der Gang</i> |
| c. | <i>gießen</i> | <i>der Guss</i> |
| (6) a. | <i>Brecheisen</i> | <i>Bruchstelle</i> |
| b. | <i>Gehhilfe</i> | <i>Gangart</i> |
| c. | <i>Gießmaschine</i> | <i>Gusseisen</i> |

Note that such pairs also exist in English, e.g. in the case of *think* and *thought*. Given that *think* is a verb and *thought* a noun, *thinktank* can be classified as V-N and *thought experiment* as N-N. However, in English this criterion is not safe, since even in cases like these V-to-N conversion is possible: The OED also lists *think* as a noun ("Let's have a cigar and a quiet think"; s.v. *think*, n.).

In German, V-to-N conversion based on 'bare' verbal roots (i.e. roots without an infinitive ending) is heavily constrained. For instance, there are no direct nominal counterparts to the verbal roots *schleif-*, *back-* or *wasch-* (**der Schleif*, **der Back*, **der Wasch*), and the very few relevant existing cases are clearly conventionalized, e.g. *der Schwenk* and *der (Politiker-)Sprech* (cf. Donalies 2002, 128ff.).²

Still, there are also many cases of compounds that could be classified as either V-N or N-N in German (cf. [4b] above). Accordingly, we can distinguish three cases: (i) compounds for which a classification as either V-N or N-N would be more or less arbitrary (Engl. *lovebird*, Germ. *Antwortschein*); (ii) compounds which are V-N under the assumption that the lefthand member is basically (i.e. without

² Note moreover that *Sprech* may have emerged under English influence (cf. *speech*).

the application of conversion) a verb (Engl. *whetstone*, Germ. *Sprechgesang*); and (iii) compounds which are clearly V-N because there is a formal differentiation between verbs and nouns (Germ. *Gehilfe/Gangart*; Engl. *thinktank/thought experiment*, with the reservation made above).

As the above discussion has shown, the criteria for identifying V-N compounds are slightly different in English and German, and the class of V-N compounds can more easily be identified in the latter language. However, the existence of this category in both languages is beyond doubt. While English endocentric compounds of the type *whetstone* would in principle allow an interpretation as N-N compounds, such an analysis is out of the question in the case of exocentric compounds like those listed in (3) (*breakbones*, *catchpenny*, etc.). I will therefore assume that the category 'V-N compound' provides a reasonable basis for a comparison of English and German, i.e. it qualifies as a *tertium comparationis*. The discussion of endocentric compounds will largely be based on cases of types (ii) and (iii) distinguished above, i.e. those cases that are either plausibly or unquestionably instances of V-N compounding.

2.3 Types of V-N compounds

One of the most prominent criteria for the classification of compounds is the endocentric/exocentric dimension: Endocentric compounds are those compounds that denote a special case of their righthand member (their head) whereas exocentric compounds do not fulfill that condition, i.e. they do not have a head (see e.g. Plag 2003, 145; Schmid 2005, 123ff.; Booij 2007, 79). Accordingly, *whetstone* is endocentric because every *whetstone* is a stone while *pickpocket* is exocentric because a *pickpocket* is not a type of pocket. Under this criterion, both groups of compounds given in (7) are exocentric (cf. also Plag 2003, 145):

- (7) a. *breakbones*, *breakwater*, *turnpenny*
 b. *scatterbrain*, *draggel-tail*³

However, the compounds in the a-group are clearly different from those in the b-group. In the first type – sometimes also called 'imperative compounds' or, in the German tradition, 'Satzkomposita' – the noun functions as an argument of the verb, and the compound denotes an entity that can be characterized in terms of the resulting activity. In other words, these compounds are based on the corresponding VP-denotations – *break bones*, *break (the) water*, *turn (a) penny* – and their meaning can be regarded as a type of metonymy, say *actio-pro-agente*.

In the second type, which is illustrated in (7b) and whose representatives are often referred to as 'bahuvrihi' or 'possessive compounds', the verb modifies the noun, just as in the case of endocentric compounds of the *whetstone* type; but, again, the resulting compound is reinterpreted metonymically. These compounds are thus based on NP-denotations – (a) *scattered brain*, (a) *draggled tail* – and the

³ A draggel-tail is "[a] draggel-tailed person; a woman whose skirts are wet and draggled, or whose dress hangs about her untidily and dirty; a slut" (OED, s.v. *draggel-tail*).

relationship between the literal and the metonymical meaning can typically be regarded as an instance of *pars-pro-toto* (hence, ‘possessive compounds’).

The two instances of metonymy pointed out above are illustrated in (8):

- (8) *breakbones*: ‘an *x* that [VP_[PRED breaks] [COMP bones]]’
scatterbrain: ‘an *x* that has a [NP a [MOD scattered] [HEAD brain]]’

As (8) clearly shows, there is an important difference between the two types of exocentric compounds: One of them is (basically) category-preserving – the type *scatterbrain*, where both the input and the output of metonymical reanalysis are nominal denotations – whereas the other type is category-changing – the type *breakbones*, where a VP-denotation/action is reinterpreted as a nominal denotation/entity. In other words, in addition to a process of metonymical reanalysis (which also characterizes the *scatterbrain* cases), the interpretation of *breakbones* involves a process of ‘categorical transformation’. It is for this reason that V-N compounds of the type *breakbones* are often dealt with under the rubric of conversion or ‘derivation by zero morpheme’ (e.g. Marchand 1969, 380ff.).

The difference between the two types of exocentric V-N compounds pointed out above is highly relevant to a comparison of English and German. While English has both types of compounds, German only has representatives of the type *scatterbrain* (e.g. *Wendehals*, *Quatschkopf*). Under the assumption that possessive compounds are, structurally speaking, completely parallel to endocentric compounds, differing from the latter only in the presence of a process of metonymy which is independent of the operation of V-N compounding (cf. Marchand 1969, 386; Donalies 2002, 62 on this point), the possibility of forming compounds of the type *Wendehals* in German is not surprising, as they instantiate the same structural pattern as endocentric compounds of the type *Schleifstein*.

Given that possessive V-N compounds do not allow for any interesting generalizations in the context of an English-German comparison, we will not consider them any further. Suffice it to say that they are very rare in both languages under comparison, with the most typical German representatives being examples like *Quatschkopf* ‘blatherskite’, *Wendehals* ‘opportunist’ and *Hinkefuß* ‘limping person’. For English, Marchand (1969, 389) lists *crack-brain*, *shatterbrain*, *spring-tail* and *muddle-head* along with *scatterbrain* and *draggel-tail*, none of which is widely used in the contemporary language.

3. Endocentric V-N compounds

Endocentric V-N compounds were “not existent in Germanic and came into being through the reanalysis of N+N compounds” (Becker 1992, 16; cf. also Osthoff 1878 and Carr 1939, 175ff.). For instance, MHG *slāfhûs* can be interpreted either way, as *slāf* functioned both as a nominal and as a verbal stem. It is a matter of debate whether this development happened in Proto-West Germanic or later. According to Carr (1939, 175), there are two V-N compounds that are attested in both Old English and Old High German, namely OE *bernīsen* / OHG *brennīsarn* ‘branding

iron' and OE *hwetestān* / OHG *wezzistein* 'whetstone'. This could be taken as an indication that V-N compounding existed as early as Proto-West Germanic. However, given the general difficulty of distinguishing between N-N compounds and V-N compounds, the evidence is less than fully conclusive.

In contemporary English and German, the distribution of endocentric compounds differs along two dimensions: While V-N compounding is a virtually unrestricted word formation rule in German, it is severely constrained in English, in two respects: (i) it occurs only with a subset of verbs (Section 3.2), and (ii) it is only found with a reduced inventory of nouns, in comparison to German (Section 3.3). Before considering these differences in detail, some more general remarks on the productivity of this pattern will be made in Section 3.1.

3.1 Remarks on productivity

Endocentric V-N compounds exhibit a virtually unrestricted degree of productivity in German (see e.g. Donalies 2002, 72-3). There is hardly any combination that cannot, in some way or other, be interpreted. Even apparent nonce formations such as *Geb-tür* ('go-door') are attested, as a web search shows: *Gebtür* is used for a (man-sized) door within a larger gate that can be walked through when the gate is closed. Donalies (2002, 72) provides the *ad hoc* formations in (9), which are easily interpreted by native speakers:

- (9) *Umrühr-kakao* (lit. 'stir-cocoa'), *Mitklatsch-tempel* (lit. 'clap-along-temple'), *Ausdenk-sachen* (lit. 'invent-things')

Marchand (1969, 74) also attributes a high degree of productivity to endocentric V-N compounds in English: "The morphological type **whetstone** is very productive (one of my students has collected about 2600 examples), but most of the combinations are only in technical use" (emphasis original). While Marchand (1969) thus refers to the 'realized productivity' of V-N compounds – the number of existing elements of that pattern in the English lexicon, cf. Baayen (forthcoming) – V-N compounds are also productive in the sense that new words are formed ('expanding productivity'). For instance, the entry for *drop-* in the OED (online version) contains several formations from the twentieth century, some of which are listed in (10):

- (10) *drop handlebar*, *drop initials*, *drop-sonde*, *drop tank*, *drophead*, *drop safe*

3.2 Types of verbs found in endocentric V-N compounds

Even though endocentric V-N compounds display a certain degree of (expanding) productivity in English, they can only be formed with specific verbs as lefthand member (cf. Marchand 1969, 74). The verbs in (11) are not used in this structure but are regularly found in compounds consisting of a gerund and a noun (V-*ing* N compounds, e.g. *boiling point*, *dressing room*, etc.):

- (11) *boil, climb, dress, drink, eat, fight, fish, hear, hunt, look, read, ride, sew, sleep, spin, start, train, walk, write*

The following – much smaller – group of words only occurs in V-N compounds but not in the V-*ing* N pattern:

- (12) *drift, drip, pay, rattle, show, slip*

Finally, there are of course also verbs that are found in both types of compounds:

- (13) a. *draw* (*drawbridge, drawing room*)
 b. *swim* (*swimsuit, swimming style*)
 c. *wash* (*washcloth, washing machine*)

The domain covered by V-N compounds in German is thus distributed over two major rivaling types in English, V-N compounds and V-*ing* N compounds. As was pointed out in Section 2.1, English moreover often uses simple (usually Latinate) nouns to render the meanings of German V-N compounds (*Brenn-stoff* vs. *fuel*, *Buß-geld* vs. *penalty/fine*).⁴ Roughly speaking, we can thus say that, as far as the verbal component is concerned, the distribution of V-N compounds in English is a proper subset of the distribution of this type of compound in German.

3.3 Types of nouns found in endocentric V-N compounds

In English, V-N compounds are basically restricted to nouns denoting three types of referents: (a) concrete referents (persons, animals, objects), (b) locations and (c) points in time or time spans:

- (14) a. concrete referents: *grindstone, stopwatch, slapstick, washcloth*, etc.
 b. locations: *bakeshop, driveway, pay station, washhouse*, etc.
 c. time spans: *washday, leapyear, rush hour, workday*, etc.

Obviously, these types of referents are also covered by German V-N compounds, as there are German counterparts for most of the English examples in (14) (e.g. *driftwood* – *Treibholz*; *washhouse* – *Waschküche*; *washday* – *Waschtag*). However, in German endocentric V-N compounds are also found with a range of head nouns that do not have a counterpart in English. The following selection of examples covers the most frequent types documented in the CELEX database:⁵

(i) Compounds denoting dimensions of measurement

The compounds in (15) are abstractions over specific types of quantities (technically, second-order predicates). They can be used in sentential frames such as *The ___ is / amounts / has risen / dropped to n U* (where *U* stands for some unit of meas-

⁴ There are of course more than just those two translational strategies, e.g. *of*-genitives, as in *level of protection* for German *Schutzniveau*.

⁵ This database is maintained by the Dutch Centre for Lexical Information: <http://www.ru.nl/celex/>.

urement). Such compounds are based on nouns like *Kraft*, *Zeit*, *Wert*, *Quote*, *Frist*, *Last*, etc.:

- (15) *Kaufkraft* ('purchasing power'), *Laufzeit* ('operating time'), *Messwert* ('[measured] value'), *Nährwert* ('nutrition value'), *Nennwert* ('nominal value'), *Schlagkraft* ('strike capability'), *Sehkraft* ('eyesight'), *Spannkraft* ('clamping force'), *Sparquote* ('savings rate'), *Sperrfrist* ('blocking period'), *Stoßkraft* ('momentum'), *Tauschwert* ('exchange value'), *Tragkraft* ('carrying capacity'), *Traglast* ('bearing load'), *Tragzeit* ('gestation time'), *Wechselkurs* ('currency rate')

As can be seen from the translations provided, the English counterparts of the compounds listed in (15) are either N-N compounds (including the V-ing N type) or simple nouns. The only reasonable candidate for a V-N compound in (15) is *exchange rate*, but given that the word *exchange* is typically used as a noun in economic contexts, it is unlikely that it is here used with a verbal sense.

(ii) Compounds denoting abstractions over manner expressions

Like the nouns listed in (15), 'compounds denoting abstractions over manner expressions' are second order predicates. For instance, the noun *Baustil* ('construction style') stands for a set of (abstraction over) specific construction styles such as *Gothic* or *Romanesque* (*This church is Gothic* [first order predicate]. *Gothic is a construction style* [second order predicate]). The nouns most typically found in this function are *Stil*, *Weise*, *Art*, *Kultur* and *Kunst*:

- (16) *Baustil* ('construction style'), *Denkweise* ('way of thinking'), *Machart* ('working, production style'), *Schwimmstil* ('swimming style'), *Dichtkunst* ('poetry'), *Esskultur* ('gastronomic culture'), *Kochkunst* ('[art of] cookery')

Among the English renderings of this type, *of*-genitives are found as a relatively common strategy alongside V-ing N compounds and simple nouns.

(iii) Compounds based on the noun *Mittel*

This type of compound includes the following items:

- (17) *Nährmittel* ('nutriments'), *Reizmittel* ('irritant'), *Schlafmittel* ('soporific'), *Treibmittel* ('propellant'), *Waschmittel* ('detergent')

Interestingly, the English translations given in (17) are relatively homogeneous, insofar as they are based on derived Latinate words which were originally adjectives (e.g. *irritant*, *soporific*, *propellant*, *detergent*). These expressions have probably resulted from ellipsis of a generic noun like *agent* (e.g. $[_N'[_A\textit{soporific}]] \textit{agent} \rightarrow [_N'[_A\textit{soporific}]] \emptyset \rightarrow [_N\textit{soporific}]$).

(iv) Compounds denoting relations between persons and activities

Many German endocentric V-N compounds are based on relational nouns, with the verbal component functioning as one of the arguments required by that noun:⁶

- (18) *Parkverbot* ('parking prohibition'), *Fressgier* ('gluttony'), *Habgier*,
Raffgier ('avarice'), *Schaulust* ('curiosity')

The compounds in (18) can be paraphrased by using an infinitival construction: *Parkverbot* – *das Verbot, (sein Auto) zu parken*; *Fressgier/Habgier/Raffgier* – *die Gier, (etwas) zu fressen/haben/raffen*; *Schaulust* – *die Lust, (bei) etwas (zu) zu schauen*. They denote relations between persons and activities. For instance, the noun *Parkverbot* corresponds to the verbal three-place predicate *verbieten*, which requires two animate arguments and an activity: *Karl* (Agent) *verbot Fritz* (Recipient) *zu rauchen* (Theme). English – again – has no corresponding V-N compounds and typically uses either V-*ing* N compounds or simple (Latinate) words.

The four types of compounds distinguished above can be grouped into two major categories: First, there are two types of second order predicates (types [i] and [ii]); second, there are two types of relational nouns (types [iii] and [iv]). The distributional differences pointed out in this section can thus be summarized by saying that English does not have endocentric V-N compounds denoting either second order predicates or relations, whereas such compounds do exist in German. Given that all of the relevant items are relatively young (dating back only to the 17th cent.), we are obviously dealing with a distributional extension of V-N compounds from concrete to abstract denotations that took place in German but not in English.

3.4 Summary

As has been seen, the distributional difference between endocentric V-N compounds in English and German is related to the fact that in German, unlike in English, there is no serious competitor (such as V-*ing* N compounds). In fact, German does not even have a category comparable to English gerunds. In English, V-*ing* N compounds are attested from Old English times onwards and have, according to Marchand (1969, 72), always been prevalent over V-N compounds (cf. also Sauer 1992, 196). A compounding pattern corresponding to English V-*ing* N compounds did not exist in either OHG or MHD (cf. Carr 1939, 221).⁷ Some relevant examples are found in the sixteenth century – e.g. *Warn-ung-s-schrift*, *rat-ung-s-mann* and *beswer-ung-s-bahn* – but this type never even came close to the productivity of V-N compounding. The wide distribution of V-N compounds in German is thus at least partially motivated by the lack of alternative expressions.

⁶ Note that English also has a noun that fits into the group in (18), but it is clearly a loan word (*wanderlust*).

⁷ There are singular relevant examples in OHG, which Carr (1939, 221) attributes to language contact with OE.

Another contrast between English and German can perhaps be explained on the basis of considerations relating to argument structure. Two types of compounds that exist in German but not in English (types [iii] and [iv] in Section 3.3) have been said to be ‘relational’. In these cases the verb does not function as a modifier of the head noun but as a complement/argument of it (e.g. *Parkverbot*, *Schlafmittel*). It is possible that English does not allow these compounds because leftward complementation is generally disfavoured (though supposedly not impossible; cf. Lieber 1983, 263, Note 18). German, unlike English, allows object incorporation of the type *staub-saug-en* (‘hover, vacuum-clean’, lit. ‘dust-suck’), which is parallel to *Park-verbot* insofar as the left element (*Staub* ‘dust’) functions as a complement of the right one (*saugen* ‘suck’).

4. Exocentric V-N compounds

The domain of exocentric V-N compounds allows for an (almost) categorical generalization: While there are many representatives of this type in English, German (almost) completely lacks this category. This generalization is hedged by the adverb *almost* only because of less than a handful of exceptions. The following German examples are commonly treated as instances of exocentric V-N compounds (cf. Fleischer / Barz 1995, 109):

- (19) *Habenichts, Taugenichts, Störenfried* (< *stör-den-Fried[en]*)

Exocentric V-N compounds were rather productive in MHG (cf. Fabian 1931), and the examples in (19) are remnants of this pattern. Relevant cases have also been preserved in some proper names, e.g. in *Störtebeker* (< *stürz-den-Becher*). Otherwise, however, they are basically non-existent in the German lexicon.

In English, the class of exocentric compounds is considerably larger, even though the type is also unproductive in the contemporary language (but see below on child language). My database compiled on the basis of the collection provided by Uhrström (1918) and the OED contains more than 400 items (some of which are obsolete or dialectal, however). Note that most of the relevant compounds are found in more ‘peripheral’ parts of the lexicon, e.g. among nouns denoting plants and animals (e.g. *eat-bee*, *pick-cheese*, *suck-egg*, *tell-tale* [animals]; *heal-all*, *stop-blood*, *catchfly*, *trouble-belly* [plants]). Still, some exocentric V-N compounds have found their way into the core vocabulary of English, even though their status as exocentric V-N compounds may not be transparent in all cases (e.g. *breakfast* < *break fast*, i.e. the first meal after fast).

While exocentric V-N compounds are unproductive in adult language, they provide a more commonly used strategy for identifying objects or persons in child language. For instance, children sometimes use compounds such as *kick-ball*, *bug-kid* and *break-bottle* in experiments when referring to persons carrying out the relevant activity (cf. Clark et al. 2001). This shows that the pattern is, to an extent, still active. In German, the use of compounds such as *Treteball* (as an agent nominalization) in child language has, to my knowledge, not been reported.

(Note that this word is possible, but only if interpreted as an endocentric compound, i.e. as a ball one can kick.)

One interesting feature of exocentric V-N compounds is that they “have at all times a pejorative tinge” (Marchand 1969, 380) when referring to persons. This means that they either denote concepts that are *per se* negative (*pickpocket*, *cutthroat*, *spoilsport*), or else they carry a negative connotation (e.g. *sawbones* for ‘surgeon’, *whiparse* for ‘schoolmaster’, *kill-calf* for ‘butcher’). This generalization also applies to the very few relevant German cases mentioned above, i.e. *Habenichts*, *Taugenichts*, *Störenfried* and *Störtebeker* (someone who turns the cup upside down, i.e. a drunkard).

The fact that exocentric V-N compounds are much more numerous in English than in German can easily be explained in historical terms: Even though singular instances of such compounds are attested from pre-Norman times – e.g. the proper names/epithets *Clawecunte* and *Cunnebried* (cf. Dietz 2002, 398-99) – the pattern is generally assumed to have been borrowed from French, or at least to have been strengthened by French influence (cf. also Carr 1939, 171-3; Sauer 1992, 246-50). Three types of French influence can be distinguished:

- (i) Direct borrowings, e.g. *cheuer-chef* (‘cover-chef’, contemp. *kerchief*), *chaunte-cler* (‘sing-clear’, contemp. *chanticleer*) and the more obvious case *ward-robe*;
- (ii) hybrid formations (which are now obsolete), e.g. †*steal-placard* (‘someone who has stolen a begging licence/*placard*’), †*dobbe-dent* (‘dentist’; *dub* here means ‘beat’);
- (iii) loan translations, e.g. *cut-throat* (Fr. *coupe-gorge*), *bere-blisse* (Fr. *porte-joie*), *kindle-fire* (Fr. *attise-feu*).

The history of exocentric V-N compounds in English can thus be sketched as follows: There was (probably) a certain inventory of relevant items even before the Norman conquest, esp. in proper names and epithets. Under French influence, the pattern was ‘upgraded’, i.e. it became more productive and frequent and was used in more (esp. higher) registers. The productivity of exocentric V-N compounds increased steadily in the 14th and 15th centuries and reached a peak in the 16th century (e.g. *kill-courtesy*, *lack-brain*, *lack-beard* in Shakespeare). From the 17th century onwards, its productivity decreased considerably, resulting in the *status quo* of the contemporary language, where an inventory of relevant forms is still preserved, but hardly any new words are created.

The decline of exocentric V-N compounds was accompanied, and perhaps partly also caused, by a strong increase of ‘synthetic compounds’ of the form N-V-*er*. The two types have existed side by side for many centuries, sometimes providing alternative terms for one meaning (e.g. *breakstone* [1688] and *stone-breaker* [1827]). However, at the time of the Industrial Revolution synthetic compounds gained ground and took over great parts of the denotational domain previously covered by exocentric V-N compounds. Synthetic compounds are also typically used in German to render the relevant meanings (e.g. agent nominalizations derived from

transitive verbs such as *Knochen-brech-er* for *breakbones*). This distribution of types is reminiscent of the situation observed for endocentric V-N compounds: German has only one pattern where English has two. The difference is, however, that synthetic compounds have a basically unrestricted distribution in contemporary English and completely cover the denotational range of exocentric V-N compounds, whereas the distributional relation between endocentric V-N compounds and V-*ing* N compounds is one of overlap (with V-*ing* N compounds being more widely distributed than V-N compounds).

5. Conclusions and outlook

The most important contrasts between English and German in the domain of V-N compounding can be summarized as follows:

- In German, endocentric V-N compounds are virtually unrestricted in their distribution whereas in English there are clear constraints concerning both the verbs and the nouns involved. The types of endocentric V-N compounds found in English consequently form a subset of the relevant German types. In English, endocentric V-N compounds compete with V-*ing* N compounds, among other (minor) types, whereas in German, V-N compounding is clearly the primary strategy for the expression of the relevant meanings.
- In English, exocentric compounds are relatively numerous – though largely unproductive in the contemporary language – whereas they are virtually non-existent in German. German typically uses synthetic compounds of the type N-V-*er* to render the relevant meanings.

The question of *why* English and German differ the way they do has also been addressed. The contrast relating to exocentric compounds has been shown to be at least partly due to language-external factors, esp. influence from French. However, it has also been pointed out that the disposition of English to allow conversion may also be relevant, as exocentric compounds involve the reanalysis of a VP-denotation as a nominal one. In the domain of endocentric V-N compounding, the availability of a strong competitor in English was identified as a major factor, but the question remains *why* such a competitor exists in the first place. While answering this question is obviously beyond the scope of this paper, it has been pointed out that German not only lacks V-*ing* N compounds but also a category comparable to English *ing*-forms. These forms are characterized by a high degree of polyfunctionality (cf. König / Gast 2007, ch. 4.4), thus mirroring the loose association between form and meaning in English that has repeatedly been claimed to constitute a major difference to German (cf. Rohdenburg this issue). Given that the disposition to allow conversion can also be regarded as an instance of the general vagueness in form-meaning mappings typical of English, the two major contrasts pointed out above may not be totally unrelated after all.

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