XVI. Word-formation in the individual European languages

Indo-European
Germanic

134. German

Abstract

This article gives a brief overview of important characteristics of word-formation in German and then describes the central models of compounding, derivation and conversion according to their morphosyntactic and semantic properties, specifically differentiated for the word classes noun, adjective, verb and adverb. Since the remaining kinds of word-formation only play a secondary role in vocabulary growth, they will be given a less detailed treatment.

1. Introduction

Word-formation in contemporary German is regarded as relatively thoroughly investigated, both from a diachronic and a synchronic structural-morphological perspective. Synchronic descriptions of different degrees of detail are provided by DWb 1−5 (1973−1992), Olsen (1986), Eichinger (2000), Motsch (2004), Donalies (2005), Erben (2006), Barz (2009), Elsen (2011), Fleischer and Barz (2012). Topical questions in research on the contemporary language include the relation between word-formation and inflectional morphology on the one hand and syntax on the other, as well as systematic variety-specific, pragmatic and text-oriented analyses. For historical word-formation in German, cf. article 109.

2. General overview

2.1. Structural and morphosyntactic aspects

Word-formation in German (also lexeme or stem formation) is characterized by the following characteristics. It has at its disposal a great wealth of productive models of formation, the quantitative and qualitative use of which are specifically regulated depending on the meaning and the word class of the output (nouns, adjectives, verbs and adverbs).

The largest number of models can be found for the formation of nouns, using compounding and derivation as well as conversion. Also the number of suffixes is largest for nouns in comparison to adjectives and verbs. Nominal conversion is distinguished by its diversity of models as well as by the fact that, for almost all kinds, unrestricted productivity can be ascertained.

Adjectives use compounding and derivation in a manner similar to nouns, although fewer models are available and these are subject to stronger restrictions. Conversion constitutes a peripheral phenomenon in the formation of adjectives.

The word-formation of verbs is organized in a completely different manner. In this case, compounding and suffixal derivation only play a subordinate role. Leftward expansion of verbs through prefixes and particles dominates, along with conversion.

Finally, relatively few suffix models are productive in the formation of adverbs.

Just as the models of word-formation, the means of word-formation are extraordinarily multiform, especially with regard to their morphological status, their meaning and their origins.

Beside uncontroversial affixes (*be-*, *-lich*, *-ung*) there are affixes with homonymous stems (*-los* vs. *los* 'rid of') and also bound elements which have both affix and stem properties (*Riesenapplaus* 'giant applause', *blitzschnell* 'lightning fast', *fettarm* 'low fat; lit. fat poor', *umweltfreundlich* 'environment(ally) friendly'). The latter are conceived diachronically as a sort of transitional category, as affixoids, without it being possible to determine clear boundaries to unambiguous affixes on the one hand and to stems on the other. Their status must still be clarified from a synchronic perspective.

The inventory of means of word-formation is also multiform because, in addition to the native affixes, a large number of non-native affixes exist which primarily combine with non-native bases (*re|vitalisieren* 'to re|vitalize', *affekt|iv* 'affect|ive', *Abstrakt|ion* 'abstract|ion') and in this way constitute a complementary system alongside the native constituents.

Word-formation in German is also distinguished by close links to syntax. An identical sequence of words in syntactic structures and complex lexemes and a lack of morphological marking of the constituents in particular syntactic structures lead to overlap. This is apparent in adjective-verb constructions, which exhibit both properties of lexemes and syntactic structures. In the case of semantic equivalence such as in *die Suppe warm stellen/warmstellen* 'to warm the soup; lit. the soup warm put', both interpretations are acceptable. In the case of prosodic and semantic differences, on the other hand, syntactic structures and lexemes must be differentiated: *frei sprechen* 'to speak without a manuscript; lit. free(ly) speak' vs. *freisprechen* 'to acquit; lit. free-speak'.

In the case of noun-verb constructions, the interpretation of the structure depends on whether the noun can be assigned complement status − then the construction is consid-

ered a syntactic structure (*Rad fahren* 'to cycle; lit. bicycle drive') − or whether the noun is syntactically and semantically dependent, then we have a product of word-formation (*eislaufen* 'to skate; lit. ice-run'; Pittner 1998: 106−109). Double interpretations are also possible with these structures (*Brust schwimmen* vs. *brustschwimmen* 'to swim the breast stroke; lit. breast-swim'). This is the case when the initial elements do not unambiguously behave as free nouns (Fuhrhop 2007: 52−55).

Word-formation and syntax interact additionally inasmuch as word-formation models can furnish their output with specific syntactic properties. For example, the valency of the verb in so-called government or rectional compounds with deverbal second elements provides the base for their semantic interpretation: *Kinder erziehen* 'to raise children; lit. children raise' → *Erziehung der Kinder* 'raising (of) the children' → *Kindererziehung* 'raising children; lit. children-raising'.

Further models involving specific syntactic properties of input or output are adjectival government compounds (*dem Gold ähnliches Material* 'material similar to gold; lit. the-DAT gold similar material' → *goldähnliches Material* 'material similar to gold; lit. gold-similar material'), phrase-based derivatives (*in Anspruch nehmen* 'to claim (something for someone); lit. in claim take' → *Inanspruchnahme* 'claims, demands') and participial compounds (*gegen Grippe geimpft* 'vaccinated against flu; lit. against flu vaccinated' → *grippegeimpft* 'vaccinated against flu; lit. flu-vaccinated'). And finally in verbal word-formation, especially derivation with prefixes and the formation of particle verbs often lead to syntactic restructuring with respect to the base verbs, cf. *jmdm. dienen* 'to serve somebody; lit. somebody-DAT serve' → *jmdn. bedienen* 'to serve somebody; lit. somebody-ACC serve', *sich jmdm. andienen* 'to offer somebody one's services; lit. REFL somebody-DAT serve'.

In German word-formation, a native and a non-native system of formation stand side by side as two relatively autonomous subsystems (Bergmann 2005: 168). A basic parallelism between the native and the non-native subsystems makes their complementary interaction possible (Seiffert 2008: 373) as, for instance, in the combination of native and non-native means of formation; the autonomy, on the other hand, provides for specific models of formation for each. On foreign word-formation in German, cf. article 93.

2.2. Semantic-functional aspects

From a semantic-functional perspective, products of word-formation can be classified into modifications and transpositions. This classification captures the semantic changes the original elements undergo during the process of formation. In modification, the lexical meaning of the input is nuanced within the same semantic category and word class (*Brot* 'bread' → *Roggenbrot* 'rye bread', *Ernte* 'harvest' → *Missernte* 'bad harvest', *klug* 'smart' → *unklug* 'not smart', *krank* 'sick' → *kränklich* 'sickly'). In transposition, formations result which belong to another semantic category and usually also another word class (*lesen* 'to read' → *Leser* 'reader', *lesbar* 'readable'; *binden* 'to bind' → *Band* '(bound) volume', *Stadt* 'city' → *Städter* 'city dweller'). Should the fact be taken into account that affixes can contribute to very different degrees to the semantic characteristics of the products of word-formation, then transposition is defined more narrowly − as morphosyntactic transformation (*klug* 'smart' → *Klugheit* 'smartness', *heute* 'today' →

heutig 'of today') − and a third functional-semantic class, mutation, is assumed (Dokulil 1968: 209). This comprises derivatives with a clearer semantic accretion with respect to the semantics of the base: *malen* 'to paint' → *Maler* 'painter'. The boundaries between the classes are fluid (Ohnheiser 1987: 131).

3.   Composition

3.1.   Nominal compounds

3.1.1. Morphosyntactic characteristics

Almost 80 % of all German nominal compounds consist of two nominal constituents (DWb 4: 37). The constituents are simplex or complex stems (*Haus|wand* 'house wall', *Schönheits|kult* 'beauty cult', *Frühjahrs|müdigkeit* 'spring tiredness', *Haustür|schloss* 'front door lock'). There are no structural restrictions with respect to the possible degree of complexity of a compound, as highly complex designations from technical vocabulary show (*Lebensmittelfarbstoffzulassungs|verordnung* 'food coloring approval regulation; lit. life-means-color-stuff-approval|regulation). Though for pragmatic reasons, especially due to a universal need of speakers for brevity and clarity of designations, compounds consisting of two or three simple or derived stems dominate in non-technical communication. Usually the first element is more complex (*Berufsunfähigkeits|versicherung* 'insurance against disability; lit. profession-un-able-ness|insurance', *Schadenersatz|summe* 'amount of compensation for damages; lit. damage-compensation|sum', *Hintergrund|artikel* 'background article'); right branching occurs less frequently (*Teppich|fachgeschäft* 'carpet shop; lit. carpet|specialization-shop').

   The first position can be occupied by stems of all word classes, by confixes, short forms, bound short forms and also by phrases: *Speise|saal* 'dining hall', *Ess|besteck* 'cutlery; lit. eat-instruments', *Fein|staub* 'fine dust', *Beinahe|zusammenstoß* 'near miss; lit. almost-collision', *Rundum|schlag* 'sweeping blow; lit. round-about blow', *Auf|wind* 'up|draft', *Stief|sohn* 'step|son', *AKW-|Debatte* 'nuclear power station debate', *US-|Marine* 'US Navy', *Vor-Ort-|Termin* 'on-site appointment', *Klarsicht|folie* 'transparent film; lit. clear-view film'. Morphological restrictions limit nominal compounding inasmuch as stems with particular structures are not allowed in the first position in communicatively unmarked formations, e.g., adjective stems ending with *-abel* (**Komfortabelhotel* 'comfortable hotel'), *-ant*, *-bar*, *-ent*, *-isch*, *-lich*, *-los*, *-mäßig*, neither are verbs ending with *-ig(en)*.

   German compounds are right-headed, that is, the second element determines the morphosyntactic properties of the compound. The first element is morphosyntactically dependent and is not inflected (except for the special case of phrasal compounds). It occurs either in the basic stem form (*Tag|falter* 'butterfly; lit. day lepidopter') or in stem variants (*Schul|buch* 'school book' vs. *Schule*, *Tage|geld* 'daily benefits', *Tages|reise* 'day trip' vs. *Tag*). Adjectival first elements occasionally occur in the superlative (*Schwerst|arbeit* 'hard labor; lit. hardest labor').

   The semantically empty elements which are added to the basic stem form are referred to as linking elements. These are, for nominal first elements, *-e-*, *-en-*, *-es-*, *-ens-*, *-er-*,

-s-; for verbal first elements *-e-*; adjectival and uninflectable first elements don't have linking elements. There are no strict rules for the placement of linking elements (Heringer 2011: 111), at best strong tendencies. Accordingly, properties of the constituents and the linking elements relating both to phonetics and syllabic phonology as well as paradigmatic-analogical aspects can be determining factors for the form of the linking elements. The syllabic linking elements *-e-*, *-en-*, *-er-*, *-ens-* ensure, for example, the trochaic disyllabicity which is preferred for monosyllabic first elements in German (*Tage|lohn* 'daily wage', *Helden|stadt* 'city of heroes', *Häuser|meer* 'sea of houses'). The non-syllabic linking element *-s-* on the other hand highlights the boundary between first and second elements (*Gehalts|liste* 'payroll', *Arbeits|zeit* 'work hours'; Wegener 2003: 446−456).

Polysemous first elements occasionally exhibit linking elements which are specific to a particular reading: (*Herz|chirurg* 'heart surgeon' − *Herz* 'heart' in the reading 'organ'; *Herzens|angelegenheit* 'topic close to one's heart; lit. heart matter' − *Herz* 'heart' in a metaphorical reading). Their use, which partially overrides phonotactic principles, can be explained with the help of analogy. Lexicalized compounds function as models for further formations, such as *Herzdiagnose* 'heart diagnosis', *-zentrum* '-center'; *Herzens-bildung* 'nobleness of the heart; lit. heart education', *-wunsch* '-wish' (Becker 1992: 14−16). For further discussions see article 32 on linking elements in Germanic.

3.1.2. Semantic characteristics

In the typical nominal compounds of German, the determinative compounds, the first element is semantically subordinate to the second element. The determined second element represents as a hyperonym the complex word, the determining first element restricts the extension of the second element, e.g., *Tagesreise* 'day trip' (i.e. 'trip which takes a day'). Compounds with a coordinative relation between the elements, i.e. coordinative compounds, are rare (*Hörerleser* 'listener-reader', *Spielertrainer* 'player-coach'); most of them can also be interpreted as determinative, depending on the context (Motsch 2004: 377).

The word-formation meaning of the nominal determinative compounds, that is, the semantic relation between first and second element, results from morphosyntactic and semantic properties of the immediate constituents.

In the case of nominal first elements, three groups can be distinguished:

In the first group, there are basic semantic relations between the constituents (Fandrych and Thurmair 1994: 39), e.g., local: *Straßenbelag* 'road surface', temporal: *Monatsplan* 'monthly plan', causal: *Schmerzensschrei* 'cry of pain', instrumental: *Handbremse* 'handbrake'. To this group belong as well metaphorical compounds, in which the first or second member is used figuratively: *Marathonsitzung* 'marathon session', *Kostenlawine* 'explosion of costs; lit. cost avalanche'.

In the second group the word-formation meaning is determined by properties resulting from the valency of the second element. The first element is the 'patient' of the indicated action, as in *Kinder erziehen* 'to raise children; lit. children raise' → *Kindererziehung* 'raising children; lit. children-raising' or 'agent', as in *Direktoren tagen* 'directors meet' → *Direktorentagung* 'meeting of directors; lit. directors-meeting'.

In the case of occasional compounds, not only the meaning of the constituents but also the context ultimately characterize the word-formation meaning: *der Streit um die Elefanten* 'the argument about the elephants' or *der Streit der Elefanten* 'the argument of the elephants' → *Elefantenstreit* 'elephant argument'.

In compounds with an adjectival first element, this first element characterizes either an outstanding property of the designated object (*Steilküste* 'cliff; lit. steep coast', *Süßkirsche* 'sweet cherry') or it expresses an intensification or a diminution (*Großbrand* 'large fire', *Schwachstrom* 'weak current').

Important word-formation meanings for compounds with a verbal first element are 'purpose' (*Rasierapparat* 'electric razor; lit. shave-apparatus'), 'active' (*Putzfrau* 'cleaning lady'), 'passive' (*Räucheraal* 'smoked eel'); cf. Fleischer and Barz (2012: 162−164).

3.2. Adjectival compounds

3.2.1. Morphosyntactic characteristics

As is the case for nominal compounds, compounding involving constituents of the same word class also dominates in adjectives (*dunkel|blau* 'dark blue'). Other first elements before adjectival second elements are nominal stems (*herz|krank* 'suffering from a heart condition; lit. heart-sick', *EU-|weit* 'EU-wide') and verb stems (*bügel|arm* 'iron-free'); very rarely uninflectable words (*vor|schnell* 'hastily; lit. pre-fast') and confixes (*thermo|elektrisch* 'thermoelectric').

Usually, compounds with a participle as second element are also counted among the adjectival compounds. These are then either isolated participle forms, which clearly have the status of adjectives (*hoch|begabt* 'highly gifted', *alt|bekannt* 'well-known; lit. old-known'), or which are also common as verb forms (*hände|ringend* 'imploring; lit. hand-wringing' − *um Fassung ringend* 'struggling to keep one's composure; lit. around composure struggling'). When the participles are not opaque, a phrase with identical or similar phonological form can be used (*besorgnis|erregende Zustände* 'alarming situation; lit. concern-raising states' − *Besorgnis erregende Zustände* 'alarming situation; lit. concern raising states', *ein fernseh|bekannter Moderator* 'a moderator known through television; lit. a television-known moderator' − *ein durch das Fernsehen bekannter Moderator* 'a moderator known through television; lit. a through the television known moderator'). While the phrase designates a temporary property, the compound tends to be conceptually fixed. If this difference is lacking, the combination can alternatively be used as a word or a phrase.

The adjectival compounds are, as are the nominal compounds, right-headed and not inflectable word-internally; superlative forms, though, can occur in first position: *schnellst|mögliche Entscheidung* 'fastest possible decision'. Compounds rarely consist of more than two stems, they are then usually left branching (*kornblumen|blau* 'cornflower blue').

Adjectival compounds can contain linking elements. As in the case of nouns, the form of the linking element usually depends on the phonological form and the morphology of the first element (DWb 5: 25−27); for the most part, the same linking elements occur.

Nominal first elements have the linking elements *-s-* (*bildungsfern* 'less educated; lit. education-far'), *-es-* (*tagesaktuell* 'on a daily basis; lit. day-current'), *-n-* (*taubenblau* 'pigeon blue'), *-ens-* (*herzensgut* 'kindhearted; lit. heart-good'). In the case of verbal first elements with stem final *b*, *d*, *g*, the linking element *-e-* can be inserted (*badewarm* 'warm enough to swim; lit. bathe-warm', *gebefreudig* 'generous; lit. give-joyful'; cf. also nouns such as *Badeschuh* 'bathe slippers', *Lebemann* 'playboy; lit. live-man', *Zeige-finger* 'index finger; lit. point-finger').

A special characteristic of adjectival word-formation is the strong tendency to form series with particular simplex and complex adjectives in second position. This concerns, among others, *-arm* 'poor', (*abgas-* 'exhaust', *alkohol-* 'alcohol', *antriebs-* 'propulsion', *arten-* 'species', *baum-* 'tree', *blut-* 'blood', *ehrgeiz-* 'ambition', *energie-* 'energy', *erleb-nisarm* 'uneventful; lit. experience-poor', etc.), *-fertig* 'finished', *-fest* 'solid', *-frei* 'free', *-gerecht* 'appropriate', *-intensiv* 'intensive', *-leer* 'empty', *-reich* 'rich', *-sicher* 'certain, safe', *-tüchtig* 'capable', *-weit* 'far', *-wert* 'worth', *-würdig* 'worthy'. Usually, independent lexemes occur along with these second elements (*arm* 'poor' − *-arm*), but some also develop through reanalysis of denominal derivatives (*Birnenform* 'pear shape' → *birnenförmig* 'pear-shaped' → *-förmig* 'shaped'). They differ from phonologically identical free lexemes by a more general meaning, occurrence in series, a characteristic distribution, a lack of ability to function as a base, as well as through a complementary distribution with affixes (Erben 2006: 144; Motsch 2004: 11), whereby not all of these properties are developed for each element. In comparison to affixes, these bound elements are mostly semantically more definite and precise, cf. *biegsam* 'flexible' vs. *biegefähig* 'able to be bent', *glockig* 'bell-like' vs. *glockenförmig* 'bell-shaped'. They establish − in contrast to suffixes − a clear semantic relation between the first member and referential noun and permit among other things the expression of relations, for which in German no suffixes are available (*baumarme Landschaft* 'landscape with few trees; lit. tree-poor landscape', *krisenfeste Stelle* 'crisis-proof position'). Because of their specific properties and their importance for adjectival word-formation, these formations should be treated as a special kind of word-formation, as lexematic nexus formations (Ger. "lexematische Junktionsbildungen", Fandrych 2011: 142). A pending task of synchronic research consists of working out their communicative functions more clearly than has been done until now.

3.2.2. Semantic characteristics

As in the case of nouns, one differentiates with adjectives between determinative and coordinative compounds (*blutrot* 'blood-red' vs. *süßsauer* 'sweet-sour'). The quantitatively dominating word-formation meanings of determinative compounds are 'similative' and 'intensive' (*aalglatt* 'slippery as an eel; lit. eel-smooth', *zitronengelb* 'lemon yellow', *hellblau* 'light blue', *hochexplosiv* 'highly explosive').

3.3. Verbal compounds

If one chooses stability as the central feature of compounding, only a few verbal products of word-formation can be called compounds, namely complex verbs consisting of two verb stems (*sprechsingen* 'to sing in a recitative style; lit. speak-sing', *grinskeuchen* 'to gasp with a grin; lit. grin-gasp'). They are morphologically and syntactically inseparable. More than two verb stems are not combined. One can interpret them as determinative or coordinative depending on the meaning of the constituents and the context: 'to sing in a speaking style' or 'to speak and sing'.

If, on the other hand, the word status of the constituents counts as a classifying feature, separable complex verbs with adjectival, adverbial and nominal first element also belong to compounding (*hochklappen* 'to fold up', *wegfahren* 'to drive away', *teilnehmen* 'to take part'; Eichinger 2000: 106−110).

3.4. Adverbial compounds

Compounding is limited in adverbs inasmuch as hardly any new formations occur.

To the adverbial compounds belong right-headed compounds such as *woher* 'wherefrom', *dahin* 'thither; lit. here-towards', *dorthin* 'thither; lit. there-towards' as well as compounds with prepositional second elements. These are the closed classes of prepositional adverbs with the first elements *da(r)-* 'there', *wo(r)-* 'where', *hier-* 'here' (*damit* 'therewith', *daran* 'thereon', *wogegen* 'against what; lit. where-against', *woran* 'whereon', *hieran* 'hereon') and prepositional second elements as well as others with adverbs, prepositions, adjectives and nouns as first elements and prepositions as second elements (*heran* '(come) close', *nebenan* 'next door; lit. besides-at', *kurzum* 'in short; lit. short-around', *bergauf* 'uphill; lit. hill-up').

Adverbial compounding deviates from nominal compounding in various ways. The degree of complexity of the formations is limited; adverbs consisting of two or three elements are common: *daher* 'therefrom', *überallhin* 'everywhere; lit. over-all-towards'. Adverbs consisting of three elements, combined in the same order as in phrases, can be separated, and then have phrasal accent: *sie gehen dorthinauf/dort hinauf* 'they go up-there/up there'.

A systematic semantic description is hardly possible, due to the frequent lack of motivation of the compounds. Only the expression of directional meanings of adverbs with *her* and *hin* as first or second element is relatively systematically developed; *her* designates a movement towards the speaker, *hin* away from the speaker: *herüber* 'over here', *dorther* 'from there'; *hinüber* 'across', *dorthin* 'thither'. But here as well there are many opaque formations, which are only formally segmentable: *immerhin* 'after all', *mithin* 'therefore', *nachher* 'afterwards', *vorher* 'before', *vorhin* 'earlier on'.

Adverbs with nominal first elements are on the other hand usually fully motivated. They correspond semantically to lexically identical phrases: *flussabwärts paddeln* 'to paddle downstream; lit. to stream-downwards paddle' − *den Fluss abwärts paddeln* lit. 'the stream downwards paddle'; *tagsüber nichts essen* 'to not eat anything during the day; lit. day-over nothing eat' − *den Tag über nichts essen* lit. 'the day over nothing eat'.

4. Derivation

Depending on the affixes which are involved, one differentiates between prefix derivation (*Glück* 'luck' → *Unglück* 'bad luck', *alt* 'old' → *uralt* 'very old', *grüßen* 'to greet' → *begrüßen* 'to welcome'), suffix derivation (*schön* 'pretty' → *Schönheit* 'prettiness', *erklären* 'to explain' → *erklärbar* 'explainable', *Krise* 'crisis' → *kriseln* 'to go through a crisis') and − rather a peripheral phenomena in German − circumfix derivation (*reden* 'speak' → *Ge|red|e* 'gossip', *aufhalten* 'to stop' → *un|aufhalt|sam* 'unstoppable', *Erde* 'earth' → *be|erd|igen* 'to bury'). Prefixes combine exclusively with bases in the form of words; in the case of suffixes, lexemes are derived from stems, confixes and phrases.

The most important productive derivational models of the contemporary language are collected in the following tables (cf. Barz 2009: 727−732).

4.1. Nominal derivation

Significantly more affixes are available for the derivation of nouns than for the derivation of adjectives, verbs and adverbs. The number of models is still greater due to the fact that most affixes are polyfunctional. The suffix *-er*, e.g., forms agent nouns, action nouns and instrument nouns from verbs (*Maler* 'painter', *Jauchzer* 'jubilant cheer', *Schalter* 'switch').

4.1.1. Denominal nouns

The bases of the denominal derivational models are nominal stems and noun phrases. Models of transposition and modification must be differentiated.

Tab. 134.1: Denominal nouns derived by transposition

Kind of transposition	Affix	Example
Status nouns	*-(er)ei*	*Tyrannei* 'tyranny' ← *Tyrann* 'tyrant'
		Paktiererei 'deal making' ← *paktieren* 'to strike a deal'
	-(i)at	*Patriarchat* 'patriarchy' ← *Patriarch* 'patriarch'
	-schaft	*Feindschaft* 'enmity' ← *Feind* 'enemy'
	-tum	*Abenteurertum* 'adventurousness' ← *Abenteurer* 'adventurer'
	-ismus	*Despotismus* 'despotism' ← *Despot* 'despot'
Personal nouns	*-ant*	*Asylant* 'asylum seeker' ← *Asyl* 'asylum'
	-er	*Musiker* 'musician' ← *Musik* 'music'
	-ler	*Künstler* 'artist' ← *Kunst* 'art'
	-iker	*Alkoholiker* 'alcoholic' ← *Alkohol* 'alcohol'
	-ist	*Gitarrist* 'guitarist' ← *Gitarre* 'guitar'
Place nouns	*-(er)ei*	*Ziegelei* 'brickworks' ← *Ziegel* 'brick'
		Käserei 'cheesery' ← *Käse* 'cheese'

Tab. 134.2: Denominal nouns derived by modification

Kind of modification	Affix	Example
Diminution	*-chen* *-lein*	*Kindchen* 'little child' ← *Kind* 'child' *Mäuschen* 'little mouse' ← *Maus* 'mouse' *Kindlein* 'little child' ← *Kind* 'child' *Mäuslein* 'little mouse' ← *Maus* 'mouse'
Augmentation	*un-* *erz-*	*Unsumme* 'enormous sum' ← *Summe* 'sum' *Erzfeind* 'archenemy' ← *Feind* 'enemy'
Gender marking	*-in* *-euse*	*Malerin* 'female painter' ← *Maler* 'painter' *Ärztin* 'female physician' ← *Arzt* 'physician' *Masseuse* 'female masseur' ← *Masseur* 'masseur'
Collectives	*-schaft* *-heit*	*Schülerschaft* 'student body' ← *Schüler* 'pupils' *Christenheit* 'Christendom' ← *Christ* 'Christian'
Negation	*un-*	*Unvermögen* 'inability' ← *Vermögen* 'ability'
Valuation	*miss-* *un-* *ur-*	*Missernte* 'bad harvest' ← *Ernte* 'harvest' *Untat* 'misdeed' ← *Tat* 'deed' *Urform* 'original form' ← *form* 'Form'

4.1.2. Deadjectival nouns

Tab. 134.3: Deadjectival nouns

Kind of transposition	Affix	Example
Quality nouns	*-heit/-keit/* *-igkeit* *-ismus* *-ität* *-e* *-nis* *-schaft*	*Dunkelheit* 'darkness' ← *dunkel* 'dark' *Sauberkeit* 'cleanliness' ← *sauber* 'clean' *Trostlosigkeit* 'hopelessness' ← *trostlos* 'hopeless' *Radikalismus* 'radicalism' ← *radikal* 'radical' *Naivität* 'naiveté' ← *naiv* 'naive' *Größe* 'greatness' ← *groß* 'great' *Düsternis* 'somberness' ← *düster* 'somber' *Bereitschaft* 'readiness' ← *bereit* 'ready'
Personal nouns	*-ling* *-chen* *-i*	*Fremdling* 'stranger' ← *fremd* 'strange' *Schwächling* 'weakling' ← *schwach* 'weak' *Frühchen* 'preemie' ← *früh* 'early' *Dummi* 'dummy' ← *dumm* 'dumb'

4.1.3. Deverbal nouns

Tab. 134.4: Deverbal nouns

Kind of transposition	Affix	Example
Action nouns	*-e* *-(er)ei* *-er* *ge-...-e/ge-* *-ion/-ation* *-ung*	*Absage* 'cancellation' ← *absagen* 'to cancel' *Hüstelei* '(repeated) coughing' ← *hüsteln* 'to cough' *Schufterei* 'drudgery' ← *schuften* 'to toil' *Seufzer* 'sigh' ← *seufzen* 'to sigh' *Gesinge* '(constant, annoying) singing' ← *singen* 'to sing' *Angebelle* '(constant, annoying) barking at' ← *anbellen* 'to bark at' *Gewimmel* 'bustling activity' ← *wimmeln* 'to swarm' *Diskussion* 'discussion' ← *diskutieren* 'to discuss' *Manipulation* 'manipulation' ← *manipulieren* 'to manipulate' *Deutung* 'interpretation' ← *deuten* 'to interpret' *Verlangsamung* 'slowing down' ← *verlangsamen* 'to slow down'
Agent nouns	*-er* *-eur* *-i*	*Maler* 'painter' ← *malen* 'to paint' *Kontrolleur* 'controller' ← *kontrollieren* 'to control' *Knacki* 'convict' ← *knacken* 'to crack'
Instrument nouns	*-e* *-el* *-er*	*Bremse* 'brake' ← *bremsen* 'to brake' *Deckel* 'cover' ← *decken* 'to cover' *Schalter* 'switch' ← *schalten* 'to switch'
Place nouns	*-e* *-(er)ei*	*Umkleide* 'dressing room' ← *umkleiden* 'to change clothes' *Bügelei* 'ironing shop' ← *bügeln* 'to iron' *Druckerei* 'printing shop' ← *drucken* 'to print'
Patient nouns	*-e* *-er* *(ge-)...-sel* *-ling* *-ung*	*Spende* 'donation' ← *spenden* 'to donate' *Aufkleber* 'sticker' ← *aufkleben* 'to stick on' *Anhängsel* 'appendage' ← *anhängen* 'to hang on' *Geschreibsel* 'scribblings' ← *schreiben* 'to write' *Impfling* 'vaccine recipient' ← *impfen* 'to vaccinate' *Sammlung* 'collection' ← *sammeln* 'to collect'

4.2. Adjectival derivation

The most important kind of derivation of adjectives is suffix derivation. Verbal and nominal stems are turned into adjectives with the help of the suffixes *-bar*, *-ig*, *-isch*, *-lich*, *-mäßig*. Only weakly productive are *-sam* (*heilen* 'to heal' → *heilsam* 'healing') and *-haft* (*Frühling* 'spring' → *frühlingshaft* 'spring-like'). Prefix derivatives are produced mainly via the negating prefix *un-*.

The following tables contain a selection of construction models. The adjectives are used in attribute position with a typical referential word.

4.2.1. Denominal adjectives

Bases are nominal stems and noun phrases.

Tab. 134.5: Denominal adjectives

Kind of transposition	Affix	Example
Adjectives of resemblance	*-haft* *-ig* *-isch* *-lich* *-mäßig*	*traumhaft*(*e Reise*) 'wonderful (trip)' ← *Traum* 'dream' *mehlig*(*e Birne*) 'mealy (pear)' ← *Mehl* 'flour' *träumerisch*(*e Augen*) 'dreamy (eyes)' ← *Träumer* 'dreamer' *kindlich*(*es Verhalten*) 'childlike (behavior)' ← *Kind* 'child' *geschäftsmäßig*(*es Vorgehen*) 'businesslike (approach)' ← *Geschäft* 'business'
Possessive (ornative) adjectives	*-haft* *-ig* *-isch* *-lich* *be-/ge-...-t*	*fehlerhaft*(*es Diktat*) 'flawed (dictation)' ← *Fehler* 'mistake' *ölig*(*e Substanz*) 'oily (substance)' ← *Öl* 'oil' *blauäugig*(*es Kind*) 'blue-eyed (child)' ← *blaue Augen* 'blue eyes' *neidisch*(*er Nachbar*) 'envious (neighbor)' ← *Neid* 'envy' *widersprüchlich*(*es Urteil*) 'contradictory (verdict)' ← *Widerspruch* 'contradiction' *bemoost*(*er Stein*) 'mossy (stone)' ← *Moos* 'moss' *genarbt*(*es Leder*) 'grained (leather)' ← *Narbe* 'grain'
Privative adjectives	*-los*	*humorlos*(*er Text*) 'humorless (text)' ← *Humor* 'humor'

4.2.2. Deadjectival adjectives

Tab. 134.6: Deadjectival adjectives

Kind of modification	Affix	Example
Negation	*un-* *a(n)-*	*unklug*(*e Entscheidung*) 'unwise (decision)' ← *klug* 'smart' *atypisch*(*e Form*) 'atypical (form)' ← *typisch* 'typical' *anorganisch*(*e Chemie*) 'inorganic (chemistry)' ← *organisch* 'organic'
Intensification	*erz-* *ur-* *-lich*	*erzreaktionär*(*er Politiker*) 'ultra-reactionary (politician)' ← *reaktionär* 'reactionary' *urkomisch*(*e Situation*) 'hilarious (situation)' ← *komisch* 'comical' *grünlich*(*es Sekret*) 'greenish (secretion)' ← *grün* 'greenish'
Quantification	*bi-*	*binational*(*e Konferenz*) 'bi-national (conference)' ← *national* 'national'

4.2.3. Deverbal adjectives

Bases are verbal stems and verb phrases.

Tab. 134.7: Deverbal adjectives

Kind of transposition	Affix	Example
Active-modal adjectives 'that can V'	-abel	rentabl(e Firma) 'profitable (company)' ← rentieren 'to be profitable'
	-bar	brennbar(e Flüssigkeit) 'flammable (liquid)' ← brennen 'to burn'
	-(er)isch	zänkisch(e Nachbarin) 'quarrelsome (neighbor)' ← zanken 'to quarrel'
Dispositional adjectives 'that tends to V'	-(er)lich	weinerlich(es Kind) 'whining (child)' ← weinen 'to cry'
	-haft	schwatzhaft(e Schülerin) 'chatty (pupil)' ← schwatzen 'to chat'
	-ig	rührig(er Chef) 'active (boss)' ← rühren 'to stir' leichtgläubig(e Partnerin) 'gullible (partner)' ← leicht glauben 'to believe'
	-iv	informativ(e Veranstaltung) 'informative (event)' ← informieren 'to inform'
	-sam	bedeutsam(e Entdeckung) 'significant (discovery)' ← bedeuten 'to mean'
Active adjectives	un-...-lich	unermüdlich(er Helfer) 'tireless (helper)' ← ermüden 'to become tired'
Passive-modal adjectives 'that can be Ved'	-abel	akzeptabl(e Lösung) 'acceptable (solution)' ← akzeptieren 'to accept'
	-bar	lieferbar(e Ware) 'deliverable (goods)' ← liefern 'to deliver'
	-lich	erblich(e Krankheit) 'hereditary disease' ← erben 'to inherit'
	-sam	biegsam(er Stab) 'flexible (staff)' ← biegen 'to bend'
	un-...-lich/ -bar/-sam	unglaublich(e Geschichte) 'unbelievable (story)' ← glauben 'to believe' unverkennbar(e Handschrift) 'unmistakable (handwriting)' ← verkennen 'to misjudge' unaufhaltsam(e Entwicklung) 'unstoppable (development)' ← aufhalten 'to stop'

4.3. Verbal derivation and particle-verb formation

Verbal prefix derivatives are morphologically and syntactically inseparable, the prefix is unstressed: *verbrauchen* 'to consume' − *verbrauchte* 'consumed' − *hat verbraucht* 'has consumed', *umrunden* 'to go around' − *umrundete* 'went around' − *hat umrundet* 'has gone around'. They are formed with prefixes without homonymous particles (*be-*, *ent-*, *er-*, *ver-*, *zer-*) and prefixes with homonymous particles (*durch-*, *über-*, *um-*, *unter-*). In the case of particle verbs, the verb particle carries word stress, the verbs are morphologi-

cally and syntactically separable: *anrechnen* 'to credit' − *rechnete an* 'credited' − *hat angerechnet* 'has credited'. Suffix derivatives are formed with *-(e)l(n)* and *-ier/-isier/ -ifizier(en)*: *lächeln* 'to smile', *computerisieren* 'to computerize'. The suffix *-ig(en)* (*festigen* 'to consolidate') is unproductive. In order to clarify each intended verbal reading, a context noun is added in the following summary.

4.3.1. Denominal verbs

a) Prefix and suffix derivation

Tab. 134.8: Denominal verbs derived with prefixes and suffixes

Word-formation meaning	Affix	Example
Ornative 'to provide with N'	be- über- um- unter- ver- -isier(en)	(*den Umschlag*) *beschriften* 'to write on (the envelope)' ← *Schrift* 'writing' (*den Vorbau*) *überdachen* 'to roof (the front building)' ← *Dach* 'roof' (*das Rohr*) *ummanteln* 'to sheathe (the pipe)' ← *Mantel* 'sheath' (*das Haus*) *unterkellern* 'to build (the house) with a cellar' ← *Keller* 'cellar' (*den Ring*) *vergolden* 'to gild (the ring)' ← *Gold* 'gold' (*den Fluss*) *kanalisieren* 'to canalize (the river)' ← *Kanal* 'canal'
Agentive 'to act as/in the manner of N'	be- ver- -ier(en)	(*den Sohn*) *bemuttern* 'to mother (the son)' ← *Mutter* 'mother' (*die Patientin*) *verarzten* 'to doctor (the patient)' ← *Arzt* 'doctor' *spionieren* 'to spy' ← *Spion* 'spy'
Privative 'to remove N'	ent-	(*den Fisch*) *entgräten* 'to bone (the fish)' ← *Gräte* 'fish-bone'
Causative 'to make into N'	ver- zer- -(e)l(n) -isier(en)	(*den Text*) *vertonen* 'to set (the text) to music' ← *Ton* 'tone' (*den Fels*) *zertrümmern* 'to smash (the rock)' ← *Trümmer* 'debris, rubble' (*die Erde*) *häufeln* 'to pile up (the dirt)' ← *Haufen* 'pile' (*das Material*) *pulverisieren* 'to pulverize (the material)' ← *Pulver* 'powder'
Inchoative 'to become N'	ver-	*versumpfen* (*Land*) 'to turn (land) into swamp' ← *Sumpf* 'swamp'
Instrumental 'to act with N'	über- ver- zer-	(*das Tier*) *überlisten* 'to trick (the animal)' ← *List* 'guile' (*die Tür*) *verriegeln* 'to bolt (the door)' ← *Riegel* 'bolt' (*das Gebäude*) *zerbomben* 'to bomb (the building)' ← *Bombe* 'bomb'

b) Particle-verb formation

Only prepositional verb particles combine with nominal bases. Adverbial and adjectival verb particles (*her* 'movement towards speaker', *hinauf* 'up there', *fest* 'firm', *frei* 'free', etc.) cannot on the other hand trigger a change in word class with respect to the base.

Tab. 134.9: Denominal particle verbs

Word-formation meaning	Verb particle	Example
Instrumental 'to act with N'	an- auf-	(*den Kletterer*) *anseilen* 'to rope up (the climber)' ← *Seil* 'rope' (*die Ausgaben*) *aufschlüsseln* 'to break down (the expenses)' ← *Schlüssel* 'key'
	ein-	(*die Initialen*) *einmeißeln* 'to engrave (the initials)' ← *Meißel* 'chisel'
	zu-	(*die Flasche*) *zukorken* 'to cork up (the wine)' ← *Korken* 'cork'
Locative 'to put into N'	ein-	(*die Ware*) *eintüten* 'to bag the goods' ← *Tüte* 'bag'
Privative 'to remove N'	ab-	(*Johannisbeeren*) *abbeeren* 'to destalk the currants' ← *Beere* 'berry'
	aus-	(*den Stall*) *ausmisten* 'to muck out the stall' ← *Mist* 'manure'

4.3.2. Deadjectival verbs

a) Prefix and suffix derivation

Tab. 134.10: Deadjectival verbs derived with prefixes and suffixes

Word-formation meaning	Affix	Example
Inchoative 'to become A'	er- ver-	*erbleichen* (*Person*) 'to blanch (person)' ← *bleich* 'pale' *vereinsamen* (*Person*) 'to become lonely (person)' ← *einsam* 'lonely'
Causative 'to make A'	be- durch-	(*das Kind*) *befähigen* 'to enable (the child)' ← *fähig* 'able' (*das Tragwerk*) *durchfeuchten* 'to soak (the supporting structure)' ← *feucht* 'damp'
	ent-	(*Fördergeld*) *entfremden* 'to misappropriate (aid money)' ← *fremd* 'strange'
	er-	(*die Spieler*) *erfrischen* 'to refresh (the players)' ← *frisch* 'fresh'
	ver-	(*das Unglück*) *verharmlosen* 'to play down (the accident)' ← *harmlos* 'harmless'
	-ier	(*das Team*) *komplettieren* 'to complete (the team)' ← *komplett* 'complete'
	-isier(en)	(*den Text*) *aktualisieren* 'to update (the text)' ← *aktuell* 'current'
Agentive 'to behave A'	-el(n)	*fremdeln* 'to be shy with strangers' ← *fremd* 'strange'

b) Particle-verb formation

Tab. 134.11: Deadjectival particle verbs

Word-formation meaning	Verb particle	Example
Inchoative 'to become A'	ab-	*abflauen* (*Sturm*) 'to wane (storm)' ← *flau* 'weak'
Causative 'to make A'	ab-	(*die Kante*) *abschrägen* 'to bevel (the edge)' ← *schräg* 'slanting'
	an-	(*die Oberfläche*) *anrauen* 'to rough up (the surface)' ← *rau* 'rough'
	auf-	(*den Kranken*) *aufmuntern* 'to cheer up (the sick)' ← *munter* 'cheerful'
	aus-	(*den Betrunkenen*) *ausnüchtern* 'to sober up (the drunk)' ← *nüchtern* 'sober'
	ein-	(*den Schüler*) *einschüchtern* 'to intimidate (the pupil)' ← *schüchtern* 'shy'

4.3.3. Deverbal verbs

a) Prefix and suffix derivation

Tab. 134.12: Deverbal verbs derived with prefixes and suffixes

Word-formation meaning	Affix	Example
Ingressive 'to begin to V'	ent-	*entbrennen* (*Machtkampf*) 'to erupt (power struggle)' ← *brennen* 'to burn'
	er-	(*den Vogel*) *erblicken* 'to catch sight of (the bird)' ← *blicken* 'to glance'
Egressive 'to stop Ving'	ver-	*verblühen* (*Blume*) 'to wither (flower)' ← *blühen* 'to bloom'
Intensive 'to V intensely'	be-	(*das Kind*) *beschützen* 'to protect (the child)' ← *schützen* 'to protect'
	ver-	(*im Betrieb*) *verbleiben* 'to remain (in the plant)' ← *bleiben* 'to stay'
	zer-	(*das Kabel*) *zertrennen* 'to sever (the cable)' ← *trennen* 'to separate'
Destructive 'to V into pieces'	zer-	(*Porzellan*) *zerschlagen* 'to smash (the porcelain)' ← *schlagen* 'to hit'
Negative 'not to V'	über-	(*die Kritik*) *überhören* 'to not hear (the criticism)' ← *hören* 'to hear'
	ver-	(*die Kunst*) *verachten* 'to despise (the art)' ← *achten* 'to respect'

Tab. 134.12: (continued)

Word-formation meaning	Affix	Example
Diminutive-iterative 'to V a little, repeatedly'	*-(e)l(n)*	*hüsteln* 'to cough a bit' ← *husten* 'to cough'

The prefixation of verbs is often accompanied by a restructuring of the valency frame of the base. The prefixes *be-*, *er-* and *ver-*, e.g., can make the base transitive: *auf der Straße fahren* 'to drive on the street' → *die Straße befahren* 'to drive on the street; lit. to drive the street', *um den Pokal kämpfen* 'to fight for the cup' → *den Pokal erkämpfen* 'to win the cup; lit. to fight the cup', *über jmdn. lachen* 'to laugh about someone' → *jmdn. verlachen* 'to ridicule someone'. Incorporation is present when the prefix shifts the meaning of a prepositional argument into the meaning of the verb: *Folie über das Loch kleben* 'to stick film over the hole' → *das Loch mit Folie be-/überkleben* 'to seal up the hole with film'.

b) Particle-verb formation

Prepositional, adverbial, adjectival and – in a very limited manner – nominal verb particles combine with verbal bases. The complex verbs designate particular phases or manners of progression of the occurrences expressed in the base verb. The valency of the verb can thereby change.

In view of the semantic and grammatical diversity of particle-verb formation in German only exemplary, important models of formation with prepositional verb particles are listed here.

Tab. 134.13: Deverbal particle verbs

Word-formation meaning	Verb particle	Example
Locative 'to V upwards or downwards'; 'to be brought in contact with'; 'to be placed in/ taken out of'	*ab-/auf-* *an-* *aus-/ein-*	*ab-/aufsteigen* (*vom Fahrrad/auf das Fahrrad*) 'to get off/on (the bicycle)' ← *steigen* 'to climb' (*den Hund*) *anbinden* 'to leash up (the dog)' ← *binden* 'to tie' (*das Geschenk*) *ein-/auspacken* 'to wrap/unwrap (the gift)' ← *packen* 'to pack'
Locative and temporal 'to V through N'; 'to V before/after N'	*durch-* *vor-/nach-*	*durchkriechen* (*durch die Öffnung*) 'to crawl through (the opening)' ← *kriechen* 'to crawl' (*eine Szene*) *vor-/nachspielen* 'to act out, imitate (a scene)' ← *spielen* 'to play'
Egressive 'to stop Ving'	*ab-* *aus-*	*abblühen* (*Rose*) 'to wilt (rose)' ← *blühen* 'to bloom' (*die Aufgabe*) *ausrechnen* 'to work out (the assignment)' ← *rechnen* 'to calculate'

Tab. 134.13: (continued)

Word-formation meaning	Verb particle	Example
Ingressive 'to begin to V'	*an-*	(*am Berg*) *anfahren* 'to start driving (on an incline)' ← *fahren* 'to drive'
	auf-	(*vor Schreck*) *aufschreien* 'to let out a shriek' ← *schreien* 'to shout'
Intensive	*ab-*	(*den Text*) *abändern* 'to revise (the text)' ← *ändern* 'to change'
	auf-	(*Fehler*) *aufzeigen* 'to point out (the mistake)' ← *zeigen* 'to point'

Especially *her* and *hin* as well as corresponding complex forms (*heran*, *hinauf*) are productive as adverbial verb particles, and specifically preferred with verbs of locomotion and verbs of transportation (*hinaufsteigen* 'to climb up', *herüberreichen* 'to hand over'), but also with verbs with other meanings. In each case, they add a directional component: *seinen Ärger herausschreien* 'to scream out in (his) anger', *Hilfe herbeirufen* 'to call for help (to come)'. Primarily adjectives occur as adverbial verb particles: *festfahren* 'to get stuck; lit. fixed-drive', *freisprechen* 'to acquit; lit. free-speak', *hochheben* 'to lift up; lit. high-lift'.

4.4. Adverbial derivation

A systematic differentiation between adjective and adverb in terms of derivational morphology as in English or French does not exist in German. Only a few suffix models are used for the formation of adverbs. Prefix and circumfix derivation do not occur.

The suffixes -*s* (*anfangs* 'initially' ← *Anfang* 'beginning'), -*halber* (*umzugshalber* 'due to the move' ← *Umzug* 'move'), -*wärts* (*himmelwärts* 'towards heaven' ← *Himmel* 'heaven'), -*weise* (*andeutungsweise* 'allusively' ← *Andeutung* 'allusion') combine with nouns. Adverbs with -*ermaßen* (*konsequentermaßen* 'consistently' ← *konsequent* 'consistent'), preferred bases are departicipial adjectives (*bekanntermaßen* 'as is generally known' ← *bekannt* 'known'), and -*(er)weise* (*angenehmerweise* 'pleasantly' ← *angenehm* 'pleasant', *berechtigterweise* 'in an authorized manner' ← *berechtigt* 'authorized') are derived from adjectives. Adverbs ending in -*(er)weise* are inflected like adjectives in attributive position before verbal nouns: *blattweises Scannen* 'scanning sheet by sheet' ← *Blatt* 'sheet'.

5. Conversion

In conversion, lexemes are shifted into another word class. In the case of morphological conversion, this occurs without morphological alteration of the input (*hoch* 'high' → *das Hoch* 'the high'); in the case of syntactic conversion, the output retains an inflection-

al feature of the input (*lesen* 'to read' → *das Lesen* 'the reading', *alt* 'old' → *der/die Alte* 'the old person', *ein Alter/eine Alte* 'an old person').

5.1. Nominal conversion

Words of all word classes can generally be the input to nominal conversion; most often verbs, adjectives and particles are converted. Also phrases occur as bases (*sich den Kopf zerbrechen* 'to rack one's brain' → *das Kopfzerbrechen* 'headache, worry').

Verbal base forms are the infinitive as well as also the present, preterite or participial stem (*benehmen* 'to behave' → *das Benehmen* 'the manners', *rufen* 'to call' → *der Ruf* 'the call', *binden* 'to bind' → *das Band* 'string, cord', *trinken* 'to drink' → *der Trunk* 'the drink', *Trank* 'drink'). In the case of adjectival or participial bases, inflected forms are the input (*der/ein fremde/r Gast* 'the unfamiliar guest' → *der/ein Fremde/r* 'the stranger', *angestellt* 'employed' → *der/ein Angestellte/r* 'the employee'). Only in the case of a few adjectives are uninflected base forms converted (*nass* 'wet' → *das Nass* 'the wetness').

Since syntactic conversion shares certain contexts with its input (*irren/Irren ist menschlich* 'to err is human', *der kranke Schüler* 'the sick pupil'/*der Kranke* 'the invalid'), its interpretation as a phenomenon of word-formation is controversial (Eichinger 2000: 39−40). The closeness to syntax is indicated in particular by a peripheral position in the secondary word class, as the forms don't have all inflectional properties: deverbal nouns don't generally have a plural (counterexample: *die Schreiben* 'the letters; lit. the write'), deadjectival or departicipial nouns retain adjectival inflection.

5.2. Adjectival conversion

Bases of adjectival conversion are mainly participles. Nouns are preferred for conversion to adjectives in the fashion industry for the production of color terms such as (*eine Handtasche in*) *creme/cognac/türkis* '(a handbag in) cream/cognac/turquoise', which is rare in other areas. Verbs don't occur as bases for conversion in the contemporary language.

The adjective status of the converted participles is developed to differing degrees. Prefixation with *un-*, the ability to form a comparative, predicative usage, gradability with *sehr* 'very' as well as the loss of semantic bonds to the corresponding verb count as typical features of adjectives. Not processuality, but quality is designated (Motsch 2004: 304), cf. *ein angemessenes Urteil* 'an appropriate, correct verdict', *ein bedeutender Autor* 'an important, eminent author'.

Denominal converted adjectives are neither morphologically nor syntactically full representatives of their word class. They do not form comparatives, are not declinable and usually cannot be used attributively (*der Film ist klasse, hammer* 'the film is classy, unbelievable'; Pittner and Berman 2006). For this reason, the model is relatively rarely used in the standard language. The conversion of designations for inhabitants ending in *-er* to indeclinable adjectives is on the other hand almost unrestrictively productive:

Prager Burg 'Prague Castle', *Berliner Bär* 'Berlin bear'. For the classification of these forms as derivation, cf. Fuhrhop (2003).

5.3. Verbal conversion

Bases for verbal conversion are nouns and adjectives; words from other word classes are rarely, and adverbs never converted (*Traum* 'dream'→ *träumen* 'to dream', *weit* 'far' → *weiten* 'to widen', *miau* 'meow' → *miauen* 'to meow').

The word-formation meanings of converted verbs correspond for the most part with those of prefix and particle-verb formation. Denominal verbs are ornative (*ölen* 'to oil'), agentive (*kellnern* 'to wait (tables)'), privative (*köpfen* 'to behead'), causative (*schroten* 'to grind coarsely'), instrumentative (*hämmern* 'to hammer'), locative (*wassern* 'to land on water'). Weather verbs such as *tagen* 'to become day', *stürmen* 'to be stormy', *donnern* 'to thunder' represent a special class.

Deadjectival verbs are stative (*gleichen* 'to be the same as'), ingressive (*faulen* 'to rot'), causative (*kürzen* 'to shorten'). In a few cases, not the adjectival base form, but rather the comparative serves as input (*mildern* 'to alleviate; lit. to make milder').

5.4. Adverbial conversion

Adverbial conversion does not occur in contemporary German. Only a few opaque individual cases such as *Morgen* 'morning' → *morgen* 'tomorrow', *Heim* 'home' → *heim* 'home' are found.

6. Backformation

Almost only verbs develop via backformation in German, and specifically from complex nouns. These are nominal compounds with deverbal, suffixed second elements, the suffix of which is deleted: *Zwangsernährung* 'force-feeding' → *zwangsernähren* 'to force-feed'. Backformations differ from derivatives of compounds (*schriftstellern* 'to write' ← *Schriftsteller* 'author; lit. writing putter') and particle verbs with nominal initial elements (*teilnehmen* 'to take part') in that their form paradigm is usually incomplete. Usually, backformed verbs are only used in the infinitive and in the past participle, and the finite forms are completely lacking. If finite forms do develop, they usually remain syntactically inseparable: *notlanden* 'to make an emergency landing; lit. to need-land' − *er notlandete* 'he made an emergency landing'.

Only occasionally do backformed participles arise from complex nouns: *Allgemeinbildung* 'general education' → *allgemeinbildend* 'providing general education'. Backformed nouns do not occur, with the exception of a few individual cases such as *hämisch* 'malicious' → *Häme* 'malice'. If one doesn't count the change in complexity of words or the change in word class as an obligatory feature of the word-formation process, then

substitutional formations such as *Territorialverteidigung* 'territorial defense' → *Territorialverteidiger* 'territorial defender' could be dealt with here as well (Becker 1993: 192).

7. Reduplication

Products of reduplication typically belong to the vocabulary of spoken language; many words of child language are also reduplicating. Nouns, verbs, adjectives, adverbs and interjections are produced. They can hardly be dealt with systematically. It is necessary to distinguish simple doublings (*Pinkepinke* 'money', *plemplem sein* 'to be nuts'), rhyme doubling (*Techtelmechtel* 'affair') as well as ablaut doubling (*Tingeltangel* pejorative 'honky-tonk music').

8. Blending

A blend is an interleaving of two lexemes, mostly combined with a shortening of one or both lexemes. Either an initial or a final segment of the source lexemes are thereby combined (*Europa* 'Europe', *Asien* 'Asia' → *Eurasien* 'Eurasia'; *ja* 'yes', *nein* 'no' → *jein* 'yes and no') or a segment which is identical in both lexemes is used only once in the new lexeme (*Computer* 'computer', *kompetent* 'competent' → *computent* 'computent'; Schmid 2003: 266).

Between the source lexemes one can find either paradigmatic semantic relations (*Demokratie* 'democracy', *Diktatur* 'dictatorship' → *Demokratur* 'democrature'), a factual connection (*Kur* 'course of treatment', *Urlaub* 'holiday' → *Kurlaub* 'holiday cure') or the amalgamation is facilitated by assonance and homophony (*Literatur* 'literature', *Tour* 'tour' → *Literatour* 'literatour').

Blends are often only understandable through contextual or factual knowledge. The discovery of their semantics can cause a pleasant surprise effect. As a result, they are particularly popular in the language of advertising.

For a sophisticated corpus-based formal and semantic modeling of blends, cf. Müller and Friedrich (2011).

9. Clipping

The creation of short forms is a special kind of word-formation, inasmuch as the output of most kinds does not allow the unequivocal reconstruction of the initial form. As there are no obligatory structural-morphological rules for shortening, it takes place on the basis of principles such as euphony and pronounceability. Above all, phrases and nouns are shortened (*größter anzunehmender Unfall* 'maximum credible accident' → *GAU* 'MCA', *Ultrakurzwelle* 'ultra-short wave' → *UKW* 'USW'), but increasingly adjectives are as well, especially in more colloquial registers (*asozial* 'asocial' → *aso*; Balnat 2011: 121). Shortened verbs rarely occur, they are mostly marked as technical or sociolectal (*schiedsrichtern* 'to umpire' → *schiedsen* 'to ump').

The dominating need for shortening is a striving for economical and playful forms of expression.

Short forms consist of segments of the full form. Different types of short forms result, depending on the kind and the number of segments used as well as on their position in the full form. Depending on the number of segments, one differentiates between unisegmental (*Universität* 'university' → *Uni* 'uni') and multisegmental short forms (*Schiedsrichter* 'umpire' → *Schiri* 'ump'). Multisegmental short forms are generally subdivided in abbreviations (*Allgemeine Ortskrankenkasse* 'general local health insurance company' → *AOK*), syllabic short forms (*Kriminalpolizei* 'Criminal Investigation Department' → *Kripo* 'CID') and mixed short forms (*Auszubildender* 'trainee' → *Azubi*). They can be spelled out (*NOK* 'National Olympic Committee') or read phonetically (*TÜV* 'Technical Inspection Agency', 'MOT' in the UK).

Short forms are often used in compounds, especially as first elements. When the full form is a phrase, as in *TÜV*, only the short form of the phrase is a possible first constituent: *TÜV-Plakette* 'MOT sticker', *TÜV-geprüft* 'MOT tested'. Short forms also occur as the bases for derivatives and conversions (*SPDler* 'member of the SPD', *SMS* 'SMS' → *simsen* 'to text').

Short forms differ from their full form at the time of coinage if not semantically, then at least usually in terms of connotation. Both, accordingly, present clear differences in usage (cf. Michel 2011). Unisegmental forms occur in verbal language and especially in intimate communication. The multisegmental abbreviations and syllabic short forms are rather bound to written formal language and occur, above all, in specialized contexts.

10. Word-creation

The assignment of word-creation (also: word invention, word manufacturing) to word-formation is controversial. Admittedly new words come into existence through word manufacture, but their formation does not take place in a rule-based manner on the basis of existing language material, as is the case in word-formation, but rather a content is assigned an arbitrary sequence of sounds, so that it acquires the character of a sign. Word-creation hardly plays a role in the expansion of the class of common nouns, as most formations remain occasional. Only a few, especially onomatopoetic nouns of child language as well as interjections are lexicalized (*Wauwau* 'bow-wow', *tatütata* 'nee-naw, nee-naw', *igitt* 'eww'). Recently, manufactured words are gaining increasing importance as company and product names: *Elmex* (brand of toothpaste), *Fa* (personal hygiene products), *Tchibo* (brand of coffee), *Cif* (scouring agent).

So-called pass words or code words, which are either customary lexemes or are constructed from numbers and/or letters, are not to be seen as word-creations. They do not have lexical meaning, but rather serve exclusively as a key for the identification of a person.

11. References

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