Particle-Bound Directions in German Particle Verb Constructions*

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0 Introduction

It is well known that German particle verbs, traditionally called separable-prefix verbs, function as complex predicates, not only shifting modes of directed actions, but also changing aspectual property of their base verbs. The extention of verb argument structures with particles can be widely observed in many other languages of various types (e.g. Olsen (1996a) for English and German; den Dikken (1995) for German and other languages; van Hout (1998) for Dutch; Ackerman & LeSourd (1997) for Hungarian; Ackerman & Webelhuth (1998) for Fox, Hungarian, German and other languages; Stiebels & Wunderlich (1994) and Stiebels (1996) for German), yet the pattern of extention differs from language to language.

This paper[1] focuses on directional PPs which are licensed by German particle verbs (henceforth: GPVs), particularly those GPVs that derived from their corresponding prepositions. Such GPVs include *ab*-Vs, *an*-Vs, *auf*-Vs, *aus*-Vs, *durch*-Vs, *ein*-Vs, *nach*-Vs, *über*-Vs, *um*-Vs, *unter*-Vs, *vor*-Vs, *zu*-Vs.[2] NPs in the directional PPs are arguments, to which a goal, a source or a path is usually assigned. Some of them allow pleonastic PPs and it is not, at first glance, obvious why particles

[2]*Bei*-Vs are excluded from the list because of its non-directionality.

are needed, as sentences with the base verbs also license such PPs. We would like to clarify roles of such PPs in the grammar. Furthermore, some arguments are newly introduced by particles in GPVs, expanding or enriching directional meaning, where not only PPs but also dative NPs appear. The purpose of this paper is to characterize three kinds of particle-bound directions and their functional significance.

This paper consists of four parts: section 1 examines some basic facets of GPVs in terms of lexicalization and compositionality. Section 2 discusses problems of pleonastic PPs in connection with their licenser, verb classes of GPVs, and problems of pleonasm. Section 3 handles other means of specifying directions together with GPVs and the last section sums up the functional significance of particle-bound directions.

1 Lexicalization and Compositionality

Extending argument structures by means of particles is, on one hand, a reflex of diachronic development of particular languages. In this respect German is no exception. Base verbs have been, in the process, extended and modified by attaching particles, acquiring a new status in its lexicon. Some particle verbs underwent a process of lexicalization and their meanings are not always transparent in the process of composition. The formation of particle verbs, on the other hand, is still a productive method for extending argument structures in the present German language. This can be clearly seen in the contrast in (1) and (2).

(1) a. Das Konzert fängt um 8 Uhr *an*.
        the concert catch at 8 o'clock AN-PAR
        'The concert will begin at 8 o'clock.'

     b. Thomas hat   das Rauchen *auf*gegeben.
        Thomas has-AUX the smoking AUF-PAR-give-PP
        'Thomas has stopped smoking.'

Anfangen 'begin' acquired, in the course of its historical change, a pure inchoative meaning and departed from its original meaning of the base verb *fangen* 'catch'. Even though the particle *AN* can be used as an indicator of the inchoative aspect, the composition does not result in the reading "*begin catching something*". *Anfangen* is thus lexicalized in the sense that the verb only refers to the beginning of an event. Likewise, *aufgeben* in (1b), consisting of the base verb *geben* 'give' and a particle *auf* 'onto', also lost the sense of the base verb, namely the sense of *giving*, even though the particle *AUF* seems to preserve its perfective meaning.

Another kind of examples can be found in the contrast between (2a) and (2b). While (2a), composed of the base verb *regnen* 'rain' and the particle *EIN* 'into', refers to going into a period of raining steadily, (2b) cannot be interpreted in the same way

and so is deviant from the standard usage, even though the particle verb *einschneien* does exist.

(2) a. Es hat   sich ***ein**geregnet.*
       it   has-AUX itself EIN-PAR-rain-PP
       "it has begun raining steadily."

   b. (*)Es hat   sich ***ein**geschneit.*
      it   has-AUX itself EIN-PAR-snow-PP
      "it has begun snowing steadily." (intended meaning)

Why an impersonal reflexive construction like (2b) is blocked is not due to any language internal reasons, but to their non-existent and/or unrecognizable situations. Therefore, we cannot completely rule out the possibility of reconstructing some plausible situations in our mind and accepting (2b) as a normal expression.[3]

Contrary to such examples of lexicalization, both sets of examples in (3) suggest that particles can still be compositionally used in the contemporary German. Both *anweinen* 'weep at' and *aufhämmern* 'hammer at' are not registered in any German dictionaries, yet they can be formed compositionally; directed action sense of *AN* and goal-directed sense of *AUF*.

(3) a. Mich   beschlich   das ungute Gefühl, dass ich –   wieder selbst
       me-ACC creep-up-on the uneasy feeling that I   — again   by-oneself
       20 Jahre zurückgeblickt, –   wohl   schreiend weggelaufen wäre,
       20 years looked-back-PP — surely crying   run-away-PP were-KONJ-2
       wenn mich   ein Alter   so ***an**geweint* hätte.
       if   me-ACC a   aged-man so at-weep-PP had-KONJ-2
       'The uneasy feeling crept upon me that I – looking back 20 years ago again by myself – would surely have run away crying, if an aged man had wept at me in such a way.'

   b. Wir müssen hart genug ***auf**hämmern,* um   die Note einigermaßen
      we   must   hard enough on-hammer   around the note to-some-extent
      laut erschallen.
      loud let-sound
      'We have to rap on it hard enough to let the note sound loud to some extent.'

Observing the examples above, we believe that GPVs are, in principle, compositional, but sometimes resulting in non-transparent expressions, some of which are products of historical change, some of which are affected by non-linguistic factors that block compositionality.

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[3]Lindemann (1998:129) regards (2b) as a parallel example of (2a).

2 What licenses pleonastic PPs?

2.1 Particles in GPVs and directional specifications

GPVs discussed here are derived from the base verbs and prepositions whose primary role is directional specification. Consider the following examples, where the verbs with PPs in the (a) examples are contrasted to the particle verbs without PPs. As can be seen, a goal is assigned to the argument in the PP in (4a) and (5a), while a source is assigned to the argument in the PP in (6a). Such a PP is headed by a specific P, which seems to be incorporated as a particle into the respective particle verbs in the (b) examples.

(4) a. Peter nagelte die Latte   **an** den Zaun.
         Peter nailed   the pale-ACC at the fence-ACC
         'Peter nailed the pale on the fence.'

     b. Peter ***nagelte*** die Latte   ***an***.
         Peter nailed   the pale-ACC at-PAR
         'Peter nailed the pale on something.'

(5) a. Peter klebte die Briefmarke **auf** den Umschlag.
         Peter sticked the stamps-ACC on the envelope-ACC
         'Peter sticked the stamps on the envelope.'

     b. Peter ***klebte*** die Briefmarke ***auf***.
         Peter sticked the stamps-ACC on-PAR
         'Peter sticked the stamps on something.'

(6) a. Peter presste den Rest der   Zahnpasta   **aus** der Tube.
         Peter pressed the rest of-the toothpaste-ACC from the tube-DAT
         'Peter pressed out the rest of the toothpaste from the tube.'

     b. Peter ***presste*** den Rest der   Zahnpasta   ***aus***.
         Peter pressed the rest of-the toothpaste-ACC out-PAR
         'Peter pressed the rest of the toothpaste out of something.'

(7) a. Peter ***lief*** durch   den Wald.
         Peter ran through the forest
         "Peter ran through the forest."

     b. Peter ***lief durch***.
         Peter ran through
         "Peter ran through somewhere."

As each translation suggests, a goal, a source or a path is present in the (b) examples; its argument is contextually given. This is regarded as essential property of GPVs:

> **(A)** *Essential property of GPVs:*
> The argument of a directional PP is contextually given, i.e. existentially bound, if GPVs are derived from direction-oriented prepositions and the base verbs.

Consequently, one may argue that the (b) form is the result of some syntactic contraction from the (a) form; an NP in the PP is deleted and a P is then attracted to the verb. Such an account is plausible, as long as there are no complex constructions of the form like (8):

(8) a. Peter *nagelte* die Latte   [PP **an** den Zaun]   *an*.
      Peter nailed   the pale-ACC   at the fence-ACC at-PAR
      'Peter nailed the pale on the fence.'

    b. Peter *klebte*   die Briefmarke [PP **auf** den Umschlag]   *auf*.
      Peter sticked the stamps-ACC   on   the envelope-ACC on-PAR
      'Peter sticked the stamps on the envelope.'

    c. Peter *presste* den Rest der   Zahnpasta   [PP **aus** der Tube]
      Peter pressed the rest of-the toothpaste-ACC   from the tube-DAT
      aus.
      from-PAR
      'Peter pressed out the rest of the toothpaste from the tube.'

    d. Peter *lief* [PP **durch**   den Wald] *durch*.
      Peter ran   through the forest through-PAR
      "Peter ran through the forest."

The PPs in (8) are, corresponding to the examples of (1) in Olsen (1996a), called "pleonastic directionals";

> Die in (1) unterstrichenen Präpositionalphrasen werden hier "pleonasti-sche Direktionale" genannt, um den (von der Grammatik aus gesehen) reduntanten Charakter, den sie im Zusammenhang mit einem Partikelverb zweifellos haben, hervorzuheben. Dieser Terminus deutet zugleich das Problem an, das von zentralem Interesse sein wird: Da die Verbpartikel in solchen Konstruktionen die Richtungsforderung des Verbs wortintern sättigt, ist es nicht klar, wie die volle Präpositionalphrase ihre Lizen-zierung im Satz erhält.   Olsen (1996; 304)

To sum up, (i) the PPs in (8) possess a redundant character which is undoubtedly included in GPVs; (ii) the GPVs in such a construction fulfill the directional require-ment of verbs word-internally. The question here is how the full PP is licensed in the sentence.

Pleonasm as is exemplified in (8) is supported by the intuition that directional specification is overtly expressed twice. It should be noted that the view offered in Olsen (1996b) is based on the idea that a particle verb is selected first and the PP in the sentence thus becomes redundant. This approach is regarded as a speaker-oriented view; selection of a verb takes place first, so that its argument structure can be determined.[4]

The notion of *pleonastic directionals* is redefined in terms of PPs as follows:

(B) *Pleonastic PPs*

A PP is *pleonastic*, if it is headed by a specific P, whose form is the same as the particle in a particle verb in a sentence, where the PP denotes the direction included in the particle verb.

The PP in the brackets in (8) is not obligatory and the sentences without such PPs are said to be much more natural than those with pleonastic PPs. The question is what licenses such PPs. To illustrate the point, consider the entailment relation behind (9a),(9b) and (9c).[5]

(9)   a. Peter klebte die Briefmarke **auf** den Umschlag.
            Peter sticked the stamps-ACC on the envelope-ACC
            'Peter sticked the stamps on the envelope.'

    b. Peter ***klebte*** die Briefmarke ***auf***.
            Peter sticked the stamps-ACC on-PAR
            'Peter sticked the stamps on something.'

    c. Peter ***klebte*** die Briefmarke [PP **auf** den Umschlag] ***auf***.
            Peter sticked the stamps-ACC on the envelope-ACC on-PAR
            'Peter sticked the stamps on the envelope.'

The PP in (8a) is undoubtedly licensed by the verb *kleben* 'stick', even though the status of the PP is adjunct. The event described in (8a) is a causative action of contact, whereas the NP *die Briefmarke* 'stamps' is a theme and *den Umschlag* 'envelope' a goal. In contrast, the particle verb in (8b), *aufkleben* 'stick-onto', entails that there is a goal which the stamps move onto. Then what licenses the directional PP in (8c)?

There are, at least, three ways of explanation.

(i) *Kleben* 'stick' licenses a directional PP in (8a). The particle *auf-* in *aufkleben* 'stick-onto' suppresses a directional PP in (8b), while it does not affect the predicate-argument structure in (8c).

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[4]There is an opposite view that a particle in a GPV is redundant, since the particle always comes after the (pleonastic) PP in the sentence; while decoding a sentence, we process it linearly. We do not commit ourselves in this perspective here, but this is also an important aspect of this phenomenon. cf. Sperber & Wilson (1995:14)

[5]For the sake of clarity, the previous examples of (5a),(5b) and (8b) are renumbered here.

(ii) *Kleben* 'stick' licenses a directional PP in (8a). The particle *auf-* in *aufkleben* 'stick-onto' suppresses a directional PP in (8b), while the directional PP in (8c) can no longer be suppressed by the particle *auf-*.

(iii) *Kleben* 'stick' licenses a directional PP in (8a). The particle *auf-* in *aufkleben* 'stick-onto' suppresses a directional PP in (8b), while the directional PP in (8c) is newly introduced by the particle *auf-*.

The first approach takes (9a) for the source of derivation and admits no positive role of the particle *auf-*; to copy a prepositional form to the position closest to the verb would be a possible operation. This is evidently an unsatisfactory solution for two reasons. Firstly, a preposition does not always supply the same form of a particle (cf. (10a) and (10b)). Secondly, it is highly unlikely to assume that a particle based on this view does not play any syntactic or semantic role at all. The second admits capability of the particle to suppress an implicit PP as (A) suggests, yet it appeals its weakness of the suppression. The third converges on a positive role of a particle, i.e. it brings in a new argument. The second and the third approaches look similar to each other on the surface, and no relevant empirical data seem to block either of them. Olsen (1996b) takes the third approach in the framework of Two-Level Semantics, because it is superior to the others for the reason of generality.[6]

There are, for instance, other cases of direction where a particle demands a preposition of different form. In (10a) the particle *ab-* 'off' is closely correlated with the preceding preposition *von* 'from' and in (10b) the particle *zu-* evidently licenses the PP headed by the preposition *auf*:

(10)　a.　Hinter dem Raum lag　tatsächlich ein Flur, und [PP **von** ihm] ***gingen***
　　　　　behind the room lay-PST in-fact　a floor and　from it　went
　　　　　mehrere Türen ***ab***.　(St.Nick,s142;8,ma)
　　　　　some　doors off-PAR
　　　　　"Behind the room lay actually a floor and some doors branched off from it. "

　　　b.　Dann hatte　das Flugzeug aufgesetzt, ***rollte***　[PP **auf** das
　　　　　then had-AUX the airplane landed-PP rolled-PST　onto the
　　　　　Flughafengebäude]　***zu***,　kam zum　Stillstand. (ALdW,s5;30,yo)
　　　　　airport-building　to-PAR came to-the standstill
　　　　　"Then the airplane had landed, moved to the airport building, came to a standstill."

German has a few sets of such correlated prepositions, as *von NP ab* 'from NP off' and *auf NP zu* 'onto NP to', where the preceding preposition specifies either a source or a goal.[7] Even though the latter preposition is built into GPVs, the particle in a

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[6]Olsen (1996b) suggests that there is a general rule of argument extention that applies to the GPVs as a functional composition.

[7]This specification is not always necessary, as is shown in section 3.

GPV still requires the preceding correlate.

In addition, there are GPVs that do not allow pleonastic PPs, even though they derived from the corresponding prepositions. Such GPVs are: *ab-* 'off', *nach-* 'after', *um-* 'around', *unter-* 'under', *zu-* 'to'.

The definition (B) of pleonastic PPs should thus be supplemented with the following list. The list is characterized in the negative, since the members of the list show another property of directionality, which will be discussed in detail in section 3.

Particles that do not license pleonastic PPs
Pleonastic PPs never appear, if particles in GPVs are members of the following list: *ab-* 'off', *bei-* 'near', *nach-* 'after', *um-* 'around', *unter-* 'under', *zu-* 'to'.

Interestingly enough, *ab-* 'off' and *zu-* 'to' are included in the list. The question is whether such correlated PPs should be handled in the same way as pleonastic PPs. Compare (11a) and (12a) with (11b) and (12b), respectively.

(11)   a.   Mehrere Türen ***gingen*** [$_{PP}$ **von** dem Flur] ***ab***.
             some   doors went   from the   floor off-PAR
             "Some doors branched off from the floor."

        b.   ?Mehrere Türen ***gingen*** [$_{PP}$ **von** dem Flur].
             some   doors went   from the   floor

(12)   a.   Das Flugzeug ist   [$_{PP}$ **auf** das Flughafengebäude] ***zugerollt***.
             the airplane is-AUX   onto the airport-building   to-PAR-rolled-PP
             "The airplane has moved to the airport-building."

        b.   Das Flugzeug ist   **auf** das Flughafengebäude] ***gerollt***.
             the airplane is-AUX onto the airport-building   rolled-PP
             "The airplane has moved to the airport-building."

(11b) is, in contrast to (11a), rather vague in meaning, even if the PP still shows the property of a source. The preposition *auf* 'onto' in (12b), on the other hand, serves as an indicator of a goal and the sentence itself preserves to be equally well-formed as (12a). It should be noted, however, that the choice of the preposition here depends on space-locational character of the NP inside the PP and of the V. Thus, it is possible to say *ins Flughafengebäude* 'into the airport-building' instead of *auf das Flughafengebäude* 'to the airport-building'. To put it another way, the preposition *auf* 'onto' in (12b) is not a unique choice. Another evidence against pleonastic PPs is that in connection with the observation cited above, GPVs without pleonastic PPs are much more frequently used and this does not apply to (11a) and (12a). The preceding correlates usually appears with the use of *ab*-Vs and *zu*-Vs.[8]

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[8]As for *zu*-Vs, dative NPs are alternately chosen. cf. section 3.

2.2 Verb classes

The verb classes in connection with pleonastic PPs do not constitute a single common group. Yet they often fall into causative motional verbs, verbs of contact and manner of motion verbs. Depending on a particular particle in GPVs, the share of a specific verb class changes. In addition, the class of verbs is semantically influenced by the character of the thematic role a particle supposes to play. *Aus*-Vs, unlike *an*-Vs and *auf*-Vs, are formed with the verbs which are more source-oriented, i.e. related to some activity of getting something out. *Durch*-Vs are more often combined with manners of motion verbs. Furthermore, they are formed with path-oriented verbs and perceptual verbs as well.

Verb classes for GPVs with directional PPs:

an-Vs: **causative motional verbs:** anbringen 'put up', anlegen 'place on', anstellen 'put against', etc;
verbs of contact: anbinden 'tie up', anhängen 'hang up', anheften 'clip to', anketten 'chain up', ankleben 'stick up', anknüpfen 'tie on', anleimen 'glue on', anlöten 'solder on', annähen 'sew on', anschlagen 'put up', anschrauben 'screw on', anschweißen 'weld on';
verbs of manners of motion: anfahren 'run into', etc.

auf-Vs: **causative motional verbs:** auflegen 'put on', aufstellen 'stand up', auftragen 'put on', aufziehen 'mount';
verbs of contact: aufkleben 'stick on', aufdrucken 'print on', aufdrücken 'stamp on', aufleimen 'glue on', aufnähen 'sew on', aufschlagen 'hit on', aufsprühen 'spray on';
verbs of manners of motion: auffahren 'run into', etc.

aus-Vs: **verbs of getting something out:**(source-oriented verbs) auspressen 'press from', ausgießen 'pour out of', ausgraben 'dig out', ausladen 'unload from', ausleeren 'empty out', auslöffeln 'spoon up of', auspumpen 'pump out', ausräumen 'clear out of', aussaugen 'suck out of', ausschaben 'scrape out', ausschöpfen 'scoop out of', ausschütten 'tip out', auswickeln 'unwrap from', etc.
verbs of manners of motion: ausziehen 'move out of', etc.

durch-Vs: **causative motional verbs:**(path-oriented verbs) durchreichen 'pass through', durchsieben 'sift through', durchstecken 'stick through', etc.
verbs of manner of motion: durchgehen 'go through', durchfahren 'drive through', durchmarschieren 'march through', durchreisen 'travel through', durchreiten 'ride through', durchschlagen 'come through', durchschwimmen 'swim through', durchsteigen 'climb through', etc.;

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> **perceptual verbs:** durchsehen 'see through', durchblicken 'look through', durchfühlen 'feel through', durchhören 'hear through', durchschmecken 'taste through', etc.

Among GPVs with pleonastic PPs, *ein*-Vs are the most frequently used and their verb classes are not limited to causative motional verbs and verbs of manner of motion. A large number of the constructions accompanying pleonastic PPs are also found in the verbs indicating metaphorical motion and change of state. Below are some of the examples of *ein*-Vs;

> *ein*-Vs: **causative motional verbs:** einbauen 'build in', einbetonieren 'concrete into', einbetten 'embed in', einbrechen 'break in', einlegen 'put in', einpflanzen 'implant into', einschrauben 'screw in', einstellen 'put in', einwickeln 'wrap up in', etc.
> **verbs of manners of motion:** einfahren 'pull in', einfliegen 'fly in', einlaufen 'run into', einsteigen 'get into', etc.
> **verbs of metaphorical motion:** einbeziehen 'include in', einbürgern 'naturalize', einplanen 'include in one's plan', einschreiben 'write one's name (on a list)', einsehen 'see in', etc.
> **change-of-state verbs:** sich einarbeiten 'become familiar with', sich einbrennen 'burn into', einfressen 'eat into', sich einlesen 'get into'; sich einfühlen 'empathize with', einsehen, etc.

In (13) the GPVs *einbeziehen* 'include in' and *einbürgern* 'naturalize' are used, both of which do not literally express any causative motion, i.e. *alle Teilnehmer* 'all of the participants' do not literally move into the place of the discussion, but the trace of this abstract motion is still existent. The same applies to (13b), where the person denoted by the subject *Sie* 'she' got the nationality of the U.S. Even though getting the nationality of a country does not necessarily mean that the person goes into the country in the process (for example, she/he may already stay in the country for long), one can still imagine that the person is metaphorically transfered. In (14) the change of state is expressed through the usage of *sich einarbeiten* 'become familiar with' and *sich einbrennen* 'be burnt into'. The state of not knowing a new method changed into the result state, in which the teacher became familiar with the new method in (14a). The result state in (14b) is that the picture (which presumably appears on the screen of a computer display) was burnt into the neon layer. The pleonastic PPs in (13) and (14) can be regarded as a goal and, interestingly, often appear on the surface.[9]

(13) a. Der Vorsitzende ***bezog***   alle Teilnehmer der   Veranstaltung
          the chairperson included-PST all   participants of-the event
          [PP **in** die Diskussion]   mit   ***ein***.   (LGDaF)
          into the discussion-ACC together into-PART

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[9]The reason for this occurrence will be discussed later in section 3.

"The chair included all the participants of the event in the discussion."

b. Sie wurde   [_PP **in** die USA] *eingebürgert*. (LGDaF)
she was-AUX   in the USA naturalized-PP
"She was naturalized in the U.S.A."

(14) a. Der Lehrer hat   sich   [_PP **in** die neue Methode] gut
the teacher has-AUX himself   into the new method   well
eingearbeitet.   (LGDaF)
into-PAR-worked-PP
"The teacher has become familiar with the new method."

b. Das Bild   hat   sich sozusagen [_PP **in** die Leuchtschicht]
the picture has-AUX itself so-to-speak   in the neon-layer
eingebrannt.
into-PAR-burnt-PP
"The picture was so to speak burnt into the neon layer."

It may be noteworthy to mention that verb classes related to *vor*-Vs and *über*-Vs can be accompanied by pleonastic PPs. The status of these two kinds of GPVs is, as a result, rather dubious. To exemplify this, Olsen (1996b) gives (15a) and (15b):

(15) a. In *Brot* wird   noch ein /b/ **vor**   die Lautfolge   /rot/
in bread is-AUX still a   /b/ in-front-of the sound-chain /rot/
vorgeschaltet.
front-PAR-connected-PP
"A /b/ is, in *Brot*, still connected with the chain of sound /rot/ in front of
it. "

b. Sie *setzten* nachts   unbemerkt **über** den Sund von Schweden *über*.
they put-PST at-night unnoticed over the sound of   Sweden   over-PAR
"They secretly went across over the sound of Sweden at night."

                                    Olsen (1996b: 303)

2.3   Core of pleonasm

The term 'pleonasm'(Lat. *pleonasmus*, Gr. *pleonasmòs*('more-ness')) is traditionally defined as in (16):

A traditional term for the use of more words than necessary, either for
effect or more usually as a fault of style, and any instance of that use, as
in: *Could you repeat that again?* rather than *Could you say that again?*;
McArthur (1992: 787)

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The core of pleonasm consists in, according to this view, the excessive amount of information that is either intended by a speaker for the reinforcement of a specific expression, or is unconsciously brought about by a speaker, as a result of stylistic fault.

It is generally believed that speakers of a language try to minimize their effort to convey certain information and do not try to convey information more than necessary (Maxim of Quantity in Gricean term). In the process of communication, however, there is a certain amount of noise disturbing the channel, as traditional Information Theory assumes. To overcome the danger of losing information, efficient transmission of information may always require redundant information. Based on this model, it can be said that redundant information is necessary to cover up possible loss in the communication channel.

In the case of pleonastic PPs in the construction of GPVs, redundant information is offered by a preposition and a particle in a GPV, both of which are concerned with directional meaning. If we assume that some information can be lost easily and some not so, some extra conditions for the occurrence of pleonastic PPs can be set up for its explanation. For instance, (i) a goal, a source, or a path argument cannot easily be inferred from the context; (ii) a PP is focused for some grammatical reason. In the data we have collected, passive sentences like (16) and (18) are found relatively often. In addition, as mentioned in section 3.2, the *ein*-Vs are frequently used with pleonastic PPs for its goal-oriented property. In (17) an NP *Plattformen* 'platforms' in the PP is focused, since the NP is an antecedent of the following relative clause. In all of the cases, the NPs in the PPs cannot be inferred contextually and they must be overtly specified, as otherwise they could not be interpreted appropriately.

(16) Mallory warf einen Blick auf Nicks Namensschildchen, das [PP **auf**
Mallory threw a glance on Nick's name-plate, which on
seinen Kampfanzug] ***auf**geklebt* war. (St.Nick,s122;35,ma)
his combat-uniform on-PAR-stuck-PP was.
"Mallory threw a glance at Nick's name plate which was stuck on his combat uniform."

(17) Als Hanna bei der Straßenbahn war, gab es Straßenbahnzüge mit zwei
when Hanna at the streetcar was, gave it streetcars with two
oder drei Wagen, Plattformen am Wagenanfang und -ende, Trittbretter
or three cars, platforms at-the front-of-the-car and end, steps
an den Plattformen, [PP **auf** die] man noch ***auf**springen* konnte, wenn
at the platforms, onto which one yet onto-PAR-spring could, as
der Zug schon abgefahren war,...(Vorleser,s167;18,jo)
the train already off-gone was...
"When Hanna was at the streetcar, there were streetcars with two or three

cars with platforms at the front and at the end, with steps at the platforms, on which one could spring, as the train has already started."

(18) Wurden   im   ersten Halbjahr 1998 32,694 Tonnen Rohkaffee [PP **in**
became-AUX in-the first   half-year 1998 32,694 tons   raw-coffee   into
die Schweiz] *ein*geführt,   waren es in den entsprechenden Perioden
the Switzerland into-PAR-led-PP, were it in the corresponding   periods
1999 und 2000 rund je   34,500 Tonnen.
1999 and 2000 about at-a-time 34,500 tons.
"When 32,694 ton of raw coffee was imported into the Switzerland in the first half-year in 1998, there was in the corresponding periods of 1999 and 2000 about 34,500 ton of it respectively."

(19) presents a case of a spurious pleonastic PP, since the GPV *durchmachen* 'undergo' is no longer responsible for a seemingly right-dislocated PP.

(19) Ich habe Phantasie genug, um   mir   vorzustellen, was sie in der
I   have fantasy   enough, around me-DAT to-imagine,   what she in the
letzten Zeit ***durchgemacht***   hat ... [PP **durch** Ihre Schuld, Krone,
last   time through-PAR-made-PP has ...   through your guilt   crest
durch   Ihr   Versagen]! (ALdW,s176;3,yo)
through your failure
"I can well imagine what she has recently gone through... through your guilt and crest, through your failure."

The GPV *durchmachen* 'undergo' cannot accompany a PP headed by *durch* 'through', which is exemplified in (20a). As in (20b), the verb is transitively used, taking an accusative NP.

(20) a. *Sie hat   **durch** Ihre Schuld, Krone, durch   Ihr Versagen
        she   has-AUX through your guilt   crest   through your failure
        durchgemacht.
        through-PAR-made-PP

      b. Sie hat   Ihre Schuld, Krone und Ihr   Versagen
        she has-AUX your guilt   crest   and your failure
        durchgemacht.
        through-PAR-made-PP
        "she has undergone your guilt, crest and your failure."

Therefore, the source of the *durch*-PP must be sought elsewhere. It is normally assumed that implicit motion can be expressed in German through the combination of a direction-oriented preposition and an auxiliary verb; in this case through *durchmüssen* 'must (go) through'. Thus (21) is the source of the PP at the end of (19) and is parallel to (22).

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(21) Sie hat   **durch** Ihre Schuld, Krone, durch Ihr Versagen
      she has-AUX through your guilt   crest   through your failure
      durchgemußt.
      through-PAR-must=(go)-PP

(22) Sie ***mußte*** **durch** diese Sache ***durch***,   komme, was da   wolle.
      she must-PST through this   thing through-PAR, come   what there will
      (St.Nick,s202;20,ma)

      "She had to go through with it, nothing will change it."

3 Particle-bound directions

As seen in the previous section, it is now evident that there are two kinds of direction with regard to GPVs. One is pleonastic, the other is correlative. Yet another kind of direction can be observed in (23):

(23)   a. Landgerichtsrat   Mergentheimer ***stand auf*** und reichte Ellen
          regional-court-councillor Mergentheimer stood up   and gave   Ellen
          die Hand. (ALdW,s17;17,yo)
          the hand.
          "The councillor of the regional court Mergentheimer stood up and gave
          Ellen the hand."
       b. Ihre Schultern ***sanken vor***,   sie preßte, um   ihre
          her shoulders sank   forwards-PAR she pressed around her
          Beherrschung zurückzugewinnen, die Handflächen gegeneinander.
          self-control   back-PAR-to-win   the palms   against-each-other
          (ALdW,s61;32,yo)

          "Her shoulders sank forwards, she pressed her palms in order to gain her
          self-control again."

Direction of this kind is determined by its general orientation. *Auf* in *aufstehen* describes not an *onto* direction, but *upward* direction relative to the location of a speaker. In the same way *vor* in *vorsinken* does not indicate the movement toward something, whose front plane is in sight, but rather the location relative to the body of a speaker. The same directional specification can be observed in regard to *unter*-Vs and *nach*-Vs, even though their directed sense may not be so productive as the GPVs in the previous section. It should be noted that the orientational direction thus established never appears as a pleonastic PP.

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> ***(C) Orientational direction of GPVs:*** The direction associated with GPVs can be determined relative to an orientational point, which stays implicit and never appears as a pleonastic PP.

From this perspective, correlative directional PPs can be handled in the same way. i.e. they are expected to fulfill a role of determining an orientational point, which may be either a source or a goal. Consider (24) where various forms of orientational direction occur; *von ihm* 'from him' in (24a) is a source, a dative NP *einem hübschen jungen Mädchen* 'a pretty young girl' in (24b) as a goal, *zu den übrigen Pinguinen* 'to the remaining penguins' in (24c) as a goal, a dative NP *mir* 'me' in (24d) as a goal and *auf das Flughafengebäude* 'to the airport building' in (24e) as a goal.

(24)   a. Hinter dem Raum lag   tatsächlich ein Flur, und [*von   ihm*] ***gingen***
            behind the room lay-PST in-fact   a floor and from it   went
            mehrere Türen ***ab***.   (St.Nick,s142;8,ma)
            some   doors off-PAR
            "Behind the room lay actually a floor and some doors branched off from it. '

       b. Seit Wochen ***steigt*** er schon   [*einem hübschen jungen Mädchen*]
            from weeks   climb he already a   pretty   young girl-DAT
            nach.   (LGDaF)
            after-PAR
            "He has been chasing a pretty young girl for weeks."

       c. Sie ***drehte***   sich   [*zu den übrigen   Pinguinen*] ***um***.
            she turned-PST herself   to the remaining penguins   around-PAR
            (St.Nick,s10;21,ma)

       d. Sie ***legte***   [*mir*] ein weiches Kissen   ***unter***.
            she put-PST me-DAT a   soft   cushion-ACC under-PAR
            "She put a soft cushion under me."

       e. Dann hatte   das Flugzeug aufgesetzt, ***rollte***   [*auf das*
            then had-AUX the airplane landed-PP rolled-PST onto the
            Flughafengebäude] ***zu***,   kam zum   Stillstand. (ALdW,s5;30,yo)
            airport-building   to-PAR came to-the standstill
            "Then the airplane had landed, moved to the airport building, came to a standstill."

To incorporate correlated prepositions and dative NPs as an instance of orientational direction, we revise its characterization as follows:
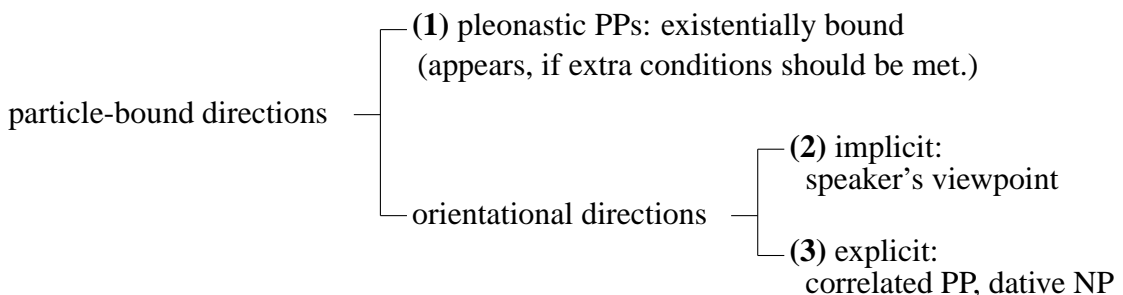
> ***(C') Orientational direction of GPVs (revised):*** The direction associated with GPVs can be determined relative to an orientational point, which stays implicit or emerges as a correlated PP or a dative NP. Pleonastic PPs never cooccur with GPVs whose particles serve as the orientational direction.

Both (25a) and (26a) are ambiguous; one is a particle-bound direction with the possible extention of a pleonastic PP. The other is based on the orientational direction defined in (C'). Once the particle *auf* in (25a) is interpreted as 'up' as an instance of orientational direction, it cannot coocccur with any pleonastic PP. The particle *unter* in (26a) behaves exactly the same way. The orientational point in both cases is the position of the speaker[10] who utters the sentence.

(25) a. Er ***springt auf***.
          he springs onto/up

  b. Er ***springt* auf** den Wagen ***auf***.
          he springs onto the car   onto-PAR Wunderlich (1983:453)

(26) a. Er ***legte*** beim Malen Zeitungspapier ***unter***
          he put-PST while painting newspaper   under-PAR

  b. Er ***legte*** beim Malen Zeitungspapier **unter** sein Bild   ***unter***
          he put-PST while painting newspaper   under his picture under-PAR

4 Concluding Remark

In this paper we examined directional PPs in the construction of GPVs and their status in the grammar. It has become clear that there are three kinds of particle-bound directions; one with pleonastic PPs, the other two with orientational directions, which is further devided into two classes, i.e. implicit and explicit orientational points.

particle-bound directions
— **(1)** pleonastic PPs: existentially bound
(appears, if extra conditions should be met.)

— orientational directions
— **(2)** implicit:
speaker's viewpoint
— **(3)** explicit:
correlated PP, dative NP

As for the license of pleonastic PPs, we take the position that particles in the construction of GPVs lose the ability of suppressing directional PPs, if functionally significant information is included in the PP. This view is consistent with the results

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[10]To be more precise, the viewpoint of the speaker may be the base of the orientation.

of the classification of three kinds of directions in the GPV constructions. Pleonastic PPs occur, only if they serve as necessary means to signify the existence of implicit arguments, which are otherwise unrecoverable from the context. On the contrary, the implicit argument in case of the orientational direction is recoverable in nature, since they are based on the perspective of the speaker. It is our future task to investigate in the present framework how far we can proceed to analyze directional PPs in other languages.

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