

# Chapter 26

## Prepositions and Particles

Place and Path in English, German, and Dutch

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### 26.1 Introduction

All Germanic languages have a set of nondeclinable words or expressions with a spatial meaning, like the English elements in (1). A fairly exhaustive list is presented in (1), to give an impression of the size and variety of this class.

- (1) abaft, aboard, about, above, abreast, abroad, across, adjacent, adrift, aft, after, against, aground, ahead, aloft, along, alongside, amid(st), among(st), apart, around, ashore, aside, astride, at, atop, away, back, backward(s), before, behind, below, beneath, beside, between, betwixt, beyond, by, chez, close, down, downhill, downstage, downstairs, downstream, downward(s), downwind, east, eastward(s), far away, forth, forward(s), from, heavenward(s), hence, here, hither, home, homeward(s), in, in back, indoors, in front, inside, into, inward(s), left, leftward(s), near(er/est), nearby, north, northward(s), off, on, onward(s), onto, on top, opposite, out, outdoors, outside, outward(s), over, overboard, overhead, overland, overseas, past, right, rightward(s), round, roundabout, seaward(s), sideways, skyward(s), south, southward(s), thence, there, thither, through, throughout, to, together, toward(s), under, underfoot, underground, underneath, up, uphill, upon, upstage, upstairs, upstream, upward(s), upwind, via, west, westward(s), whence, where, whither, with, within, without, yonder

When combining with a noun phrase (*from* and *inside* in (2a)) these items are traditionally classified as prepositions and as adverbs when they do not combine with a complement (*in*, *back*, *inside*, *upstairs* in (2b)–(2d)). Within the latter class, those items that can combine more tightly with a verb are known as particles (*in* and *back* in (2b)), as demonstrated by their ability to

occur before a (nonheavy, nonpronominal) direct object [(2c), as opposed to *inside* and *upstairs*, (2e)] (adapted from McIntyre 2015: 235–236):

- (2) a. We pushed the box from the shelf/inside the room.  
 b. We pushed the box in/back.  
 c. We pushed in/back the box.  
 d. We pushed the box inside/upstairs.  
 e. \*We pushed inside/upstairs the box.

Some elements in (1) have both prepositional and adverbial uses (like *inside*), while others are exclusively prepositional (like *from*) or exclusively adverbial (like *back* and *upstairs*).

I will call the items in (1) Ps, following a tradition that sees spatial prepositions, adverbs, and particles as instances of the same syntactic category P: Prepositions are transitive Ps and adverbs (including particles) are intransitive Ps. The label P can also be taken to apply to prefixal (*bypass*, *underbelly*) and maybe even bound forms (*enfold*, *defriend*). Here, the label P also descriptively covers fixed multiword elements like *in front* and *on top*, ignoring the syntactic structure that these might have.

The primary function of Ps is to help communicate where something is (*place*) or where it is going (*path*). The goal of this chapter is to describe (with a minimum of theory, especially on the syntactic side) how Ps do this, focusing on standard, present-day English, German, and Dutch, the three languages that probably have been most intensively studied in this respect. After a section with basic semantic preliminaries (Section 26.2), Section 26.3 is devoted to Ps for place and Section 26.4 deals with Ps for path. It is impossible to do justice to the rich literature on the syntax and semantics of Ps in this chapter see Zwarts (2017) for a review of recent semantic literature.\*

## 26.2 Figures and Grounds, Places and Paths, Functions and Arguments

Describing where something is or is going usually involves an asymmetric spatial relation. One entity serves as the ground (landmark, reference object) with respect to which another entity, the figure (trajector, located object) is located or moving (Talmy 1975). If expressed, the ground corresponds to the object (internal argument) of the P and the figure to an argument external to the whole PP (Svenonius 2007):

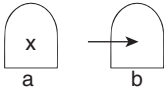
- (3) a. The bird<sub>figure</sub> was [PP in the cage<sub>ground</sub>] / was [PP inside].  
 b. The bird<sub>figure</sub> flew [PP into the cage<sub>ground</sub>] / flew [PP in].

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The figure can be realized as the subject of the sentence, as in (3), but there are other explicit or implicit elements in a sentence outside the PP that can be the figure of a spatial relation. I use the term “PP” (“prepositional phrase”) descriptively here, ignoring the possibility that particles like *in* in (3b) might not be phrases in a theoretical sense.

Spatial relations come in two types. Example (3a) involves a place, the interior of the cage, where the figure was located (4a). In (3b) the figure followed a path that ends in the interior of the cage (4b). It will be convenient to refer to the PPs in (3a) as PlacePPs and to those in (3b) as PathPPs, and to the Ps that head them as PlacePs and PathPs, respectively.

- (4) in the cage (a), into the cage (b)



If we represent the interior of the cage as  $IN(TH\text{-}CAGE)$ , with  $IN$  standing for the place function that maps an object to its interior place, then the bird can be related to this place with a general location relation  $LOC$ , as shown in (5a) (e.g., Jackendoff 1983 and many others).

- (5) a.  $LOC(TH\text{-}BIRD, IN(TH\text{-}CAGE))$   
 b.  $LOC(TH\text{-}BIRD, TO(IN(TH\text{-}CAGE)))$

The path relation can be decomposed as in (5b). The part  $TO(IN(TH\text{-}CAGE))$  makes explicit that the “into” path is defined on the basis of the “in” place:  $TO$  maps the interior of the cage to the set of paths that have their end point in its interior. In other words, at the end of the path of (4b), we are at the place of (4a). The  $TO+IN$  decomposition of *into* in (5b) exemplifies a semantic layering that is typical for many path relations: A path function (here  $TO$ ) applies to the result of a more basic place function (here  $ON$ ). In (5b), the predicate  $LOC$  represents that the bird is “located” at the path, which in this case boils down to the bird moving along the path (obviously, a simplification of the way paths function in sentential semantics).

There are contexts in which the figure of the spatial relation is the *event*  $e$  described by the sentence, which is definitely needed for (6a), and maybe also for (3b) (instead of analysis (5b)), representing that the motion event  $e$  stretches out along the path:

- (6) a. The bird sang in the cage / inside.  
 $\exists e [SING(TH\text{-}BIRD, e) \ \& \ LOC(e, IN(TH\text{-}CAGE))]$   
 b. The bird flew into the cage / flew in.  
 $\exists e [FLEW(TH\text{-}BIRD, e) \ \& \ LOC(e, TO(IN(TH\text{-}CAGE)))]$

In both (6a) and (6b), the bird is then indirectly related to the (interior of the) cage, through its involvement in an event  $e$  that has that relation more directly.

IN and TO are both unary functions, taking one argument. There are no spatial functions with more than one ground argument. *Between* requires minimally two reference objects, but these are always part of a conjunction (*between Brussels and Paris*) or plural (*between the two cities*). *From . . . to . . .* might behave as a discontinuous P requiring two noun phrases, but its semantics is a combination of two unary functions. There might be “nullary” path functions, corresponding to adverbial Ps like *backward* and *up*, which require no ground argument (but see Section 26.4.1). It is not obvious that there are also nullary place functions. The only expressions that can refer to places in an absolute way, without the help of a ground, are nouns like *place* and the pronominal form *where* (in *somewhere*, for instance). In addition to this basic type of argument structure functionality, Ps may also depend on the spatial point of view of the speaker (or another contextual participant), most directly in forms like *here* and *there*, but also in *abroad*, *home*, *upstairs* and in PPs like *beyond the ocean*.

Note that quite a few Ps in (1) might have a semantic structure that involves the application of a more general spatial function to a more specific ground, as partially and opaquely reflected in the incorporation of a noun in a (possibly affixal or empty) P, like *underground*, *outdoors*, *downhill*, *ashore*, *heavenward*, *home*. However, such structures do not always correspond to a saturated spatial function, as illustrated by the prepositional use of such forms in *aboard the ship*, *beside his son*, *inside the box*, and *on top of it*.

In this chapter, I will henceforth mostly ignore the Ps that involve a very specific nonspatial component (like “shore”) and focus on the Ps that help to express more general spatial meanings. Given (5) and (6), I assume that the place or path meaning of PPs is given by representations like  $IN(TH\text{-}CAGE)$  and  $TO(IN(TH\text{-}CAGE))$ , respectively, and I take it for granted that these will be related to a figure as part of the compositional sentential semantics. This allows me to concentrate on the question of how English, German, and Dutch express their place and path meanings through Ps, addressing the following two clusters of questions.

**Transitivity:** Given that the class of Ps involves both transitive (prepositional) and intransitive (adverbial, particle) elements, as well as elements doing double duty, the question is how this grammatical distinction relates to the semantics of place and path functions. Under what conditions does a P allow for an implicit ground argument, like the cage of *inside* in (3a) and *in* in (3b)? Is intransitivity always a matter of an implicit ground or are there intransitive Ps that denote “ground-less”, zero-place spatial functions? In other words, what is the role of transitivity and intransitivity in the P-domain?

**Complexity:** How are spatial distinctions and relations reflected in the system of Ps, through lexical and grammatical means? This question does not only concern the way the three languages relate places to paths (like English *in* and *into*), but also the distinctions among different types of place functions (like *in* versus *inside*) and path functions (like *into* versus *from*). In general, the question will be what the complexity and

combinatorics of Ps can reveal about the underlying spatial system of places and paths.

These two questions will be addressed separately for places and paths. Since paths are often defined on the basis of places, we start with the latter.

## 26.3 How Ps Express Places

### 26.3.1 More About Places

In order to explore how English, Dutch, and German express place functions, it is useful to have some sort of shared semantic “grid.” There is a rich set of geometric and nongeometric features that define place functions and they may pattern in different ways across languages. In this section, I will work with a set of about 20 place functions, labeled with unanalyzed markers, like *AT* and *BEHIND*, standing for complex bundles of features, as customary in the semantics of Ps. The only distinction that I will make at this point is between topological and projective functions (Herskovits 1986).

Topological relations, like contact, containment, and their negations (*AT*, *ON*, *IN*, *OUTSIDE*), are geometrically the most basic spatial relations between objects, definable (in some formal geometric frameworks) on the basis of a primitive notion of *connection* (Randell et al. 1992), that is insensitive to distance and direction. *AT* represents a loose and general notion of spatial connection, without a commitment to either inclusion (*IN*) or contact (*ON*). *OUTSIDE* is the complement of *IN*. Much research (see for instance Garrod and Coventry 2004 and Carlson and van der Zee 2005) has demonstrated the influence of nongeometric (functional and force-dynamic) factors like containment and support in the application of *IN* and *ON*, respectively. This is one thing that should be kept in mind when we are using such capitalized markers to stand for the bundles of features that define particular place functions.

Projective relations involve a direction (axis, reference frame) defined by properties of the environment (absolute frame, (7a)), the ground object (intrinsic frame, (7b)), or by an observer (relative frame, (7c)). These reference frames have received much attention in the literature (e.g., Levinson 1996). Apart from the place relations *OVER*, *FRONT*, and *LEFT* in (7) and their inverses *UNDER*, *BEHIND*, and *RIGHT* we also find *BESIDE* here, the cardinal directions (*NORTH*, etc.), and *OPPOSITE*.

- (7)      a. The bird is above the cage. (as determined by gravity)  
           b. The bird is in front of the cage. (where its door is)  
           c. The bird is left of the cage. (from my point of view)

Note that one and the same relation (like *LEFT*) can be used with different frames. *Left of the car* might be intrinsically defined (with respect to the driver’s side in a US context) or relatively (as seen from my point of view).

The status of some place relations with respect to this distinction is unclear. Mathematically speaking, proximal (NEAR), distal (FAR), and comitative relations (WITH, e.g., *I'm with John*) are neither topological nor projective. NEAR and WITH share with IN and ON a notion of “closeness” to the ground that correlates with their resistance to certain distal modifiers, like measure phrases (e.g., *\*a mile in the city*, *\*an inch on the ground*, *\*a yard near the house*, *\*a foot with John*), but this notion of closeness is not part of topology in the strict sense. The relation denoted by BETWEEN could be approached from a projective angle (involving a bounded axis connecting two objects) or a topological angle (the smallest convex region including two or more objects). The latter approach would also cover *among(st)* and *amid(st)*, that require a plurality of objects as a ground.

In the following two sections I describe English, German, and Dutch Ps that express these place relations. Items that are archaic, regional or specialized (like English *abaft*, *abroad*, *aboard*, *astride*, for instance) are mostly left out, as well as transparent multiword expressions, like instances of the pattern *in the N (of)* in English (with N = *back*, *midst*, *vicinity*, ...). Also omitted are *together* and *apart* and their German and Dutch counterparts, because of the central role that the nonspatial notion of collectivity plays in their meaning. The Ps for “north” will be taken as representative for all the cardinal direction Ps. With these restrictions, let us now consider the behavior of PlacePs, from the perspectives of *transitivity* (whether and how they express their ground, Section 26.3.2) and *complexity* (how spatial distinctions are reflected in their relative phonological, morphological, and syntactic complexity, Section 26.3.3).

### 26.3.2 The Transitivity of Places

PlacePs always require some sort of reference point, typically the ground. However, whether and how this reference point is made explicit or not varies across the classes of Ps in the three languages. Starting with English, we can first make a distinction between *transitive* and *ambitransitive* PlacePs (examples (8a) and (8a') from Svenonius 2010 and (8b) and (8b') from Griffiths and Sailor 2015, for British English):

- (8) a. I saw a small house. Beside \*(it) was a gas pump.  
 a'. There was a beach. Above (it), the cliffs swarmed with birds.  
 b. A kangaroo with a joey with \*(it) just hopped through the park.  
 b'. The notebook of Dali's with doodles on (it) should sell for millions.

*Beside* and *with* are transitive PlacePs (and so are *among(st)*, *amid(st)*, *at*, *beside*, *next*, and *upon*): They always have an object that expresses the ground explicitly. *Above* and *on* are ambitransitive PlacePs: They can optionally leave an inanimate ground argument implicit by picking it up from the linguistic context, like the beach in (8a') and the notebook in (8b'). Most English PlacePs are actually ambitransitive (with some regional and syntactic restrictions).

In Dutch, ambitransitivity is much more restricted. With most Ps, the counterpart of the covert ground in examples like (8a') and (8b') is a neuter pronoun, spelled out as *er* before the P (van Riemsdijk 1978).

- (9) a. Er was een strand.  
 there was a beach  
Er boven krioelden de kliffen van vogels.  
 there above swarmed the cliffs of birds
- b. Het notitieboek van Dali met doedels er op  
 the notebook of Dali with doodles there on  
 moet miljoenen opbrengen.  
 must million bring.in

In Dutch, ambitransitivity can be found with compound-like Ps, as illustrated in (10).

- (10) a. een driehoek, met een tekening (er) binnenin  
 a triangle with a drawing there inside-in  
 'a triangle with a drawing inside it'
- b. een doos, met een label (er) bovenop  
 a box with a label there above-on  
 'a box with a label on top of it'
- c. een optocht, met een muziekkorps (er) achteraan  
 a procession with a band there behind-on  
 'a procession with a band behind it'

These Ps refer to particular regions of the interior (*in*) or exterior (*op, aan*) of the ground through modification by one of the Ps *binnen* 'inside', *buiten* 'outside', *boven* 'over', *onder* 'under', *voor* 'in front', *achter* 'behind'. The resulting ambitransitivity is surprising, since the component Ps themselves are not ambitransitive (as we will see below).

Also ambitransitive are a few Ps that mark their object with *van* 'of':

- (11) Ik zie een kasteel en een meertje ...  
 I see a castle and a lake-DIM ...  
 'I see a castle and a small lake ...'
- a. links (er van)  
 left (there of) 'left of it'
- b. terzijde (er van)  
 at-side (there of) 'beside it'
- c. ten noorden (er van)  
 at north-EN (there of) 'north of it'

Most Dutch PlacePs are not ambitransitive, unlike most English PlacePs. However, these nonambitransitive Ps *do* alternate between a transitive and an intransitive use, but with a strongly restricted implicit argument and sometimes a different meaning. I will call these PlacePs (*in*)transitive. Their

implicit argument is not simply a covert version of an overt pronominal object which could pick up any object from the linguistic context, but it is a narrowly described contextual parameter. (English also has (in)transitive PlacePs, but they are more difficult to recognize because of their ambitransitivity.)

One class of intransitively used PlacePs refers to regions in relation to the house ('home', or a suitable generalization of that notion):

- (12) Zij is ... 'She is ...'
- |                               |                              |
|-------------------------------|------------------------------|
| a. voor                       | b. achter                    |
| 'in (the) front of the house' | 'in (the) back of the house' |
| c. boven                      | d. beneden                   |
| 'upstairs'                    | 'downstairs'                 |
| e. binnen                     | f. buiten                    |
| 'in the house, inside'        | 'outside the house, outside' |

These intransitive uses are not elliptical versions of transitive counterparts with the complement *het huis* 'the house'. (12c), for example, refers to a region *inside* the house, *boven het huis* 'above the house' only to a region *outside* the house. (12e) functions as the intransitive counterpart of *in het huis* 'in the house' and not of *binnen het huis* (which does not have a clear spatial meaning). We could say that these intransitive Ps do not just "spell out" place functions, but place functions in combination with particular grounds: e.g., *binnen* is the P that spells out IN(HOME).

Another class involves implicit body parts in a stereotypical relation with clothes or similar items:

- (13) Hij heeft ... 'He has ...'
- |                                 |                         |
|---------------------------------|-------------------------|
| a. een hoed op                  | b. een jas aan          |
| a hat on (his head)             | a coat on (his body)    |
| c. een bit in                   | d. schaatsen onder      |
| a bit in (his mouth)            | skates under (his feet) |
| e. een schort voor              |                         |
| an apron in front (of his body) |                         |

To the limited extent that the ground can be made explicit, it is restricted to a body part of the possessor.

The domain of sport provides another illustration of the narrow interpretations that intransitively used PlacePs can get: *de bal is naast / in / uit* 'the ball is wide / in / out', which requires a ball as the figure and a goal or field as the implicit ground. In general, most PlacePs have highly restricted intransitive uses, sometimes only in morphological contexts: For instance, *tussen* 'between', is only used intransitively in nominal compounds, like *tussendeur* 'dividing door' (lit. between-door). If we recognize these intransitive uses, then only very few PlacePs remain that are exclusively transitive in Dutch, namely *te* 'at' (see Section 26.3.3) and the archaic form *benoorden* 'to the north of'. The status of comitative *met* 'with' depends on whether we count *mede* in *mede-student* 'fellow student' as an intransitive comitative allomorph.



What German adds to the picture is first a small class of PlacePs that are exclusively *intransitive* (“adverbial”), morphologically related to (in)transitive PlacePs (Eschenbach 2005), and semantically similar to the Dutch forms in (12):

- (14) oben (ob, über, ‘above’)      unten (unter, ‘below’)  
 vorne (vor, ‘in front’)      hinten (hinter, ‘behind’)  
 draußen (außer, ‘outside’)      drinnen (in, ‘inside’)

We do not find such exclusively intransitive PlacePs in English and Dutch (apart from incorporation structures with more specialized meanings, like *abroad* and *(at) home* in English, *thuis te-huis* ‘home’ in Dutch).

The case government distinction that German makes within the class of PlacePs also involves the transitivity dimension:

- (15) a. an ‘on’, auf ‘on’, außer ‘outside’, bei ‘near’, hinter ‘behind’, in ‘in’, mit ‘with’, neben ‘beside’, unter ‘under’, über ‘over’, vor ‘in front of’, zu ‘at’, zwischen ‘between’  
 b. innerhalb ‘inside’, außerhalb ‘outside’, unterhalb ‘below’, oberhalb ‘above’, diesseits ‘on this side’, jenseits ‘on the other side’, beiderseits ‘on both sides’, links ‘left’, rechts ‘right’, nördlich ‘north’, östlich ‘east’, südlich ‘south’, westlich ‘west’, eingangs ‘at the start’, ausgangs ‘at the end’, abseits ‘aside, away’, fern, weitauf ‘far away’

Class (15a) governs dative case (when referring to places), as illustrated in (16), class (15b) governs genitive case (17) or marks the object with *von* (18). Only *gegenüber* ‘opposite’ fits neither class because it alternates between *von* and *dative* case. It is also special in being the only PlaceP-element that can be postpositional.

- (16) a. bei      einem      Baum      b. hinter      dem      Haus  
       near      a.DAT      tree      behind      the.DAT      house  
       ‘near a tree’      ‘behind the house’
- (17) a. innerhalb des      Hauses      b. nördlich des      Flusses  
       inside      the.GEN house-GEN      north-ly      the.GEN river-GEN  
       ‘inside the house’      ‘north of the river’
- (18) a. innerhalb von      Berlin      b. nördlich von dem      Fluss  
       inside      of      Berlin      north-ly      of      the.DAT river  
       ‘inside Berlin’      ‘north of the river’

The dative Ps are all morphologically simplex (apart from *außer* ‘outside’ < *aus* ‘out’) and more common, the genitive/*von* Ps are all morphologically complex (but *fern* ‘far’ only historically so) and less common. Crucially, the dative Ps are transitive or (in)transitive, the genitive/*von* Ps are ambitransitive.

The resulting picture for the three languages is that (in)transitivity (restricted alternation, with a deictic implicit ground) is typical for the

core PlacePs. Both transitive and intransitive PlacePs are less common, and ambitransitivity (free alternation, with an anaphoric implicit ground) is a special feature of (varieties of) English and of noncore PlacePs.

### 26.3.3 The Complexity of Places

In order to get an impression of the distribution of formal complexity over the different place relations, I have organized the most important PlacePs on the basis of their formal complexity in Tables (19)–(21). The rows of the tables group PlacePs with roughly similar meanings, ignoring many finer distinctions. For instance, German and Dutch divide up the ON function along force-dynamic lines, by distinguishing (roughly speaking) between support from below (*auf*<sup>G(erman)</sup>, *op*<sup>D(utch)</sup>, for a cup on the table) and support from above (*an*<sup>G</sup>, *aan*<sup>D</sup>, for a picture on the wall), but this is not reflected in the table. The two columns separate simple Ps from complex Ps. Simple Ps are monosyllabic and monomorphemic and do not mark their object with an additional P (like *north of Paris*, *close to London*). All the other Ps are complex. In the complex column we find many types of morphological and syntactic complexity, but also a fair number of basic monomorphemic disyllabic forms ending in *-ər* or *-ən*, in all three languages.

#### (19) Complexity of PlacePs in English

	Simple	Complex
AT	at	
ON	on	on top
IN	in	inside, within
NEAR	by	near(by), close
WITH	with	together
FRONT		before, in front
BESIDE		next, beside, aside
NORTH		north
FAR		far away
LEFT/RIGHT		(to / on the) left / right
OUTSIDE		outside
BEHIND		behind
OVER		above, over
UNDER		below, beneath, under(neath)
BETWEEN		between, among, amid
OPPOSITE		opposite

(20) **Complexity of PlacePs in German**

	Simple	Complex
AT	zu	
ON	auf, an	obendrauf
IN	in	innerhalb
NEAR	bei	nahe(bei)
WITH	mit	zusammen
FRONT	vor	vorne
BESIDE		neben, beiseite, abseits
NORTH		nördlich
FAR		fern, weit weg / von
LEFT/RIGHT		links / rechts
OUTSIDE		außer(halb), außen
BEHIND		hinter, hinten
OVER		über, oben, oberhalb
UNDER		unter(halb), unten
BETWEEN		zwischen
OPPOSITE		gegenüber

(21) **Complexity of PlacePs in Dutch**

	Simple	Complex
AT	te	
ON	op, aan	bovenop
IN	in	binnen(in)
NEAR	bij	nabij, dichtbij
WITH	met	samen
FRONT		voor
BESIDE		naast, terzijde
NORTH		benoorden, ten noorden
FAR		ver weg / van
LEFT/RIGHT		links / rechts
OUTSIDE		buiten
BEHIND		achter
OVER		boven
UNDER		onder, beneden
BETWEEN		tussen
OPPOSITE		tegenover

The tables highlight, along the vertical dimension, a distinction between two groups of place functions. At the top we find a handful of functions (AT, ON, IN, NEAR, WITH, and FRONT to some extent) that can be expressed by a simple (monosyllabic and monomorphemic) P combining with its object in a direct way, without the help of an additional P, in contrast to the functions further down in the tables.

At first sight, this grouping seems to align with the topological/projective distinction. However, NEAR and WITH are expressed by simple forms, but they are not topological, while OUTSIDE and BETWEEN are topological but not expressed in a simple way. Instead, I suggest that one of the major semantic factors promoting a simple P-form is *closeness* to the ground (with contact as maximal closeness). The functions AT, ON, IN, NEAR, WITH deliver places that are always necessarily close to the ground, which is not generally true for the other functions (although individual functions, like FRONT and BETWEEN, require more study).

The functions AT, ON, IN, NEAR, and WITH form a tight semantic field and the rows are not always as neatly separated as in the tables. AT, the most general place function, is lexicalized as *at* in English in a variety of uses and by *zu* in German and *te* in Dutch in archaic and fossilized uses (*zu Köln<sup>G</sup>*, *te Keulen<sup>D</sup>*; *zu Hause<sup>G</sup>*, *thuis<sup>D</sup>* ‘home’). However, other “close” Ps can also be used to express the AT-relation, in ways that can be idiomatic and subject to variation between the languages:

- (22) a. at the corner – an der Ecke<sup>G</sup>, at school – in der Schule<sup>G</sup>, at the party – auf der Party<sup>G</sup>, at the finish line – bei der Ziellinie<sup>G</sup>  
 b. at the entrance – aan de ingang<sup>D</sup>, at the hotel – in het hotel<sup>D</sup>, at the corner – op de hoek<sup>D</sup>, at the station – bij het station<sup>D</sup>

This gives rise to an ambiguity of such PlacePs between a more general (AT) and a more specific meaning (e.g., IN or ON). In Dutch, this ambiguity can be demonstrated through pronominalization. Pronominalizing the ground with the pronoun *er* is possible with an IN/ON interpretation, as shown in (23), but with an AT interpretation the whole place must be pronominalized (24).

- (23) a. Ze zit in de kist / er in.  
 she sits in the box / there in  
 ‘She is in the box / in it.’  
 b. Hij zit op de tafel / er op.  
 he sits on the table / there on  
 ‘He is on the table / on it.’
- (24) a. Ze zit in de kamer / er (\*in).  
 she sits in the room / there (\*in)  
 ‘She is in the room / there.’  
 b. Hij zit op Texel / er (\*op).  
 he sits on Texel / there (\*on)  
 ‘He is on Texel / there.’

Something similar can be seen in the German examples in (25) and (26). The IN/ON use can be strengthened with a postposition (*drin* in (25a), *drauf* in (26a)), but not the AT use ((25b), (26b)). At the same time, the “doubling” in (25a) and (26a) makes the topological meaning IN of *in* and ON of *auf* more specific or emphatic.

- (25) a. Sie ist in der Kiste (drin). (Noonan 2010: 164–165)  
 she is in the.DAT box DR-in  
 ‘She is inside the box.’  
 b. Luisa ist in Frankfurt (\**drin*).  
 ‘Luisa is in Frankfurt.’
- (26) a. Hans war auf dem Tisch (dr-auf). (Haselbach 2016)  
 Hans was on the.DAT table there-on  
 ‘Hans was on top of the table.’  
 b. Hans war auf den Kanaren (\**dr-auf*).  
 Hans was on the.DAT.PL Canaries there-on  
 ‘Hans was on the Canary islands.’

This is part of a more general phenomenon that is visible in the horizontal dimension of the tables (19)–(21): there are often two forms for a particular function, differing in complexity. This is not only true when we compare the simple and complex columns (e.g., *on* and *on top*), but also within the complex column (e.g., *under* versus *below*). The more complex P often identifies a more specific place than the simpler P, in a hyponymic fashion. This is illustrated in (27), with  $\Rightarrow$  standing for the entailment from the more specific PlaceP (hyponym) to the more general PlaceP (hypernym).

- (27) a. within the city  $\Rightarrow$  in the city  
binnen de stad<sup>D</sup>  $\Rightarrow$  in de stad  
 b. inside the box  $\Rightarrow$  in the box  
in der Kiste drin<sup>G</sup>  $\Rightarrow$  in der Kiste  
 c. on top of the roof  $\Rightarrow$  on the roof  
bovenop het dak<sup>D</sup>  $\Rightarrow$  op het dak  
 d. in between Mom and Dad  $\Rightarrow$  between Mum and Dad  
tussen mama en papa in<sup>D</sup>  $\Rightarrow$  tussen mama en papa  
 e. below my window  $\Rightarrow$  under my window  
beneden mijn raam<sup>D</sup>  $\Rightarrow$  onder mijn raam

The more complex forms impose additional spatial requirements, concerning boundaries (27ab), vertical orientation (27c), alignment/proximity (27d), or noncontact (27e). A spoon covered by a napkin cannot be *below* or *beneden* that napkin, but only *under/onder* it. Throughout such examples, English, German, and Dutch often use different formal ways (descriptively, at least) to make the same sort of semantic distinction. For instance, English has the

P+N structures *in+side* and *on+top* where German has the postpositions *dr+in* and *dr+auf* and Dutch has the compounds *binnen+in* and *boven+op*. Furthermore, the English compound *with+in* has the German compound *in+er+halb* and Dutch derivation *be+in+en* as its counterparts. What seems to be important, is that the grammar provides a formal asymmetry (in whatever way) that can be used to mirror the semantic asymmetry between a general meaning (simpler form) and a more specific and emphatic submeaning (complex form). Together with the formal differentiation between close ( $\approx$  topological) and nonclose ( $\approx$  projective) functions and the transitivity variations, this results in classes of PlacePs in English, German, and Dutch that are much richer in various respects than the closed lists of short function words that they are often assumed to be.

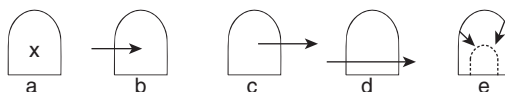
## 26.4 How Ps Express Paths

### 26.4.1 More About Paths

The places that we discussed in Section 26.3 are systematically related to paths (e.g., Kracht 2002; Gehrke 2008). We saw in Section 26.2 how an IN place (example (28a), (29a)) is mapped to an “into” path by means of the path function TO ((28b), (29b)), which is also known as the goal, cofinal, or allative function. The opposite path function is FROM (source, coinitial, ablative, (28c), (29c)). Because of the complementariness of the inside and outside of the ground, I assume that FROM(IN(THE-CAGE)) = TO(OUTSIDE(THE-CAGE)). The function VIA (route, transitory, perlative) is illustrated in (28d) and Figure (29d). The REFL(EXIVE) path function is a bit different, because it does not involve distinct figures and grounds, but situations where the path of a figure is described in terms of its initial position. The figure is its own ground, hence the term reflexive (Lindner 1983). As illustrated in (29e), (28e) involves a path where the cage ends up being inside its own earlier place.

- (28) a. The bird is in the cage.  
           IN(THE-CAGE)  
 b. The bird flew into the cage.  
           TO(IN(THE-CAGE))  
 c. The bird flew out of the cage.  
           FROM(IN(THE-CAGE))  
 d. The bird flew through the cage.  
           VIA(IN(THE-CAGE))  
 e. The cage caved in.  
           REFL(IN(THE-CAGE))

- (29) Path relations based on IN



I ignore a few less important part functions: approximative (*towards*), recessive (*away from*), terminative (*up to*), egressive ('starting from'), and make no distinction between VIA paths that are bounded (*past*) and those that are not bounded (*along*). It is also important to realize that not all paths might be related to places in this way. The paths described by *along*, *across*, and *around* seem to be based on the overall orientation or shape of the path with respect to the ground object: With *along* the path is parallel to the main axis of the ground, with *across* it is orthogonal, and with *around* it is (roughly) circular with the ground in its center.

It is also possible to use paths to describe places. In (30a) a figure is positioned at the end point of an imaginary path leading from a perspective point ("here") across the street to the location of the bird: END is the place function that takes a path and gives a place. In (30b) the path gives us an "linear" place providing a distributed location for the shops, as represented through the function EXT ("extension") here.

- (30) a. The bird is across the street (from here).  
 END(ACROSS(THE-STREET))  
 b. There are shops along the street.  
 EXT(ALONG(THE-STREET))

Like I did in Section 26.3 for places, I will now explore what role transitivity (26.4.2) and complexity (26.4.3) play in the way paths are expressed in English, German, and Dutch.

### 26.4.2 The Transitivity of Paths

We saw in Section 26.3.2 that places are almost always defined with respect to a ground (though not necessarily an explicit one). The same is obviously true for most paths, because they involve a sequence of positions of a figure with respect to a ground. We can generalize the notion of a reflexive path in such a way that all paths involve a ground, but that this ground can sometimes be the figure itself, as illustrated in (31).

#### (31) Reflexive PathsPs

	English	German	Dutch
REFL+IN	cave <u>in</u>	<u>ein</u> stürzen	<u>in</u> storten
REFL+OUTSIDE	spread <u>out</u>	<u>aus</u> breiten	<u>uit</u> spreiden
REFL+OVER	go <u>up</u>	<u>auf</u> steigen	<u>op</u> stijgen
REFL+UNDER	push <u>down</u>	<u>nieder</u> drücken	<u>neer</u> drukken
REFL+FRONT	go <u>forward</u>	<u>vorwärts</u> gehen	<u>vooruit</u> gaan
REFL+BEHIND	shrink <u>back</u>	<u>zurück</u> schrecken	<u>terug</u> deinzen
REFL+NORTH	fly <u>north</u>	<u>nach Norden</u> fliegen	<u>naar het noorden</u> vliegen
REFL+ROUND	turn <u>around/</u> <u>over</u>	<u>um</u> drehen	<u>om</u> draaien

In all of these cases the figure is changing shape (*in, out*), moving (*up, down, forward, backward*), or rotating (*around, over*) with respect to its initial position. If I fly north, for instance, then my later position is to the north of my earlier position.

These reflexive PathPs are always intransitive, with a few idiomatic exceptions (like Dutch *in elkaar storten* literally in each.other collapse ‘cave in’, with the idiomatic reciprocal *elkaar*). For instance, independent of their shape (monomorphemic (32a), suffixed with *-ward* (32b) or phrasal (32c)), the expressions in (32) are consistently intransitive because of their exclusively reflexive path semantics (i.e.,  $\text{REFL}(\text{FRONT})$ ).

- (32) a. forth, fort<sup>G</sup>, voort<sup>D</sup>  
 b. forward, vorwärts<sup>G</sup>, voorwaarts<sup>D</sup>  
 c. nach vorne<sup>G</sup>, naar voren<sup>D</sup>

Apart from these reflexive cases, there are PathPs of which the intransitivity might be the result of an explicitly “‘incorporated” nominal ground, as *board* in *overboard*. The more productive examples of this involve the suffixal P *-ward* (33a) and the Ps *up/au<sup>G</sup>f/op<sup>D</sup>* and *down/ab<sup>G</sup>/af<sup>D</sup>* (33b):

- (33) a. heavenward, heimwärts<sup>G</sup> ‘homeward’, zeewaarts<sup>D</sup> ‘seaward’  
 b. upwind, flussab<sup>G</sup> ‘downstream’, bergop<sup>D</sup> ‘uphill’

The noun in (33a) designates the goal of the path. In (33b) it provides a directed spatial dimension (wind, stream, slope) along which a reflexive path is defined. The forms in (33b) are “reduced” versions of full PathPPs, like those in (34), omitting the referential elements (the determiner and the deictic elements *hin<sup>G</sup>* ‘away from speaker, thither’ and *her<sup>G</sup>* ‘toward speaker, hither’).

- (34) a. up the mountain, den Berg hinauf<sup>G</sup>, de berg op<sup>D</sup>  
 b. down the river, den Fluss herab<sup>G</sup>, de rivier af<sup>D</sup>

On the other side of the transitivity spectrum we find PathPs that are exclusively transitive, but there are not many. The set includes Ps that correspond more or less to the three path functions  $\text{FROM}$  (*from, von<sup>G</sup>, van<sup>D</sup>*),  $\text{VIA}$  (the Latinate P *via*, in all three languages), and  $\text{TO}$  (*bis<sup>G</sup>, nach<sup>G</sup>, tot<sup>D</sup>, naar<sup>D</sup>*), as well as some composite forms (*toward(s), into, onto, upon* in English, *vanaf, vanuit, vandaan* in Dutch). The simple Ps combine with noun phrases (with an implicit  $\text{AT}$  (35)) or with a PP (36). (The asterisk in  $\text{TO}^*$  indicates that this is a slightly different type of (terminative) path function, ‘up to’.)

- (35)  $\text{FROM}(\text{AT}(\text{NY}))$ : from/von<sup>G</sup>/van<sup>D</sup> New York  
 $\text{VIA}(\text{AT}(\text{NY}))$ : via<sup>E,G,D</sup> New York  
 $\text{TO}(\text{AT}(\text{NY}))$ : nach<sup>G</sup>/naar<sup>D</sup> New York  
 $\text{TO}^*(\text{AT}(\text{NY}))$ : bis<sup>G</sup>/tot<sup>D</sup> New York



- (36) FROM(UNDER(TABLE)): from under the table, von unter dem Tisch<sup>G</sup>,  
van onder de tafel<sup>D</sup>  
 TO(OUTSIDE(HOME)): nach außen<sup>G</sup>, naar buiten<sup>D</sup>  
 TO\*(BEHIND(HOTEL)): bis hinter dem Hotel<sup>G</sup>, tot achter het hotel<sup>D</sup>

Most PathPs alternate between a transitive use (with the ground realized as a complement within the PathPP) and an intransitive use (where this is not the case). In the transitive use the complement can be realized as a noun phrase (*off the wall*, *down the tree*), or as a PP (e.g., *out of the box*, *away from the house*). There are at least three different types of intransitivity with PathPs.

First, with some PathPs, any type of ground object can be anaphorically picked up from the context, as illustrated in the English example (37a) from Huddleston and Pullum (2002: 283) and similar examples in (37b), where *off*, *in*, and *out* behave as ambitransitive PathPs.

- (37) a. She climbed onto the wall and immediately jumped off.  
 b. I fell in (the dam), I got out (of the box)

The Dutch translations in (38) require the pronoun *er* to make the ground explicit, which demonstrates again (like Section 26.3.2 did for PlacePs) that English allows more ambitransitivity in the P domain.

- (38) a. Ze klom op de muur en sprong er meteen af.  
 she climbed on the wall and jumped there immediately off  
 b. Ik viel er in, Ik kwam er uit  
 I fell there in, I came there out

Second, the implicit ground can be a more restricted deictic parameter, especially with PathPs that are used as resultative particles, as illustrated with the Dutch examples in (39).

- (39) a. de hond uit laten 'take out the dog' (out of the house)  
 b. een bezoeker binnen laten 'let in a visitor' (into the house)  
 c. in ademen 'breathe in' (into the body)  
 d. onder dompelen 'immerse' (under the water surface)  
 e. geld weg gooien 'throw away money' (away from agent)  
 f. over drijven 'drift over' (over point of view)  
 g. langs lopen 'walk past' (past point of view)

All of these examples involve a more specific ground than when the object pronoun *er* would have been used, often functioning as part of a more stereotypical event. (39a), for example, does not just refer to taking the dog outside of the house, but to the activity of walking the dog.

Third, the ground of an intransitive PathP that is used as a particle can also be expressed as the direct object of the verb (what is sometimes known as "ground promotion", because the ground is "promoted" to the object position of the verb):

- (40) a. een formulier in vullen ‘fill in a form’ (letters into a form)  
 b. een doek uit knippen ‘squeeze out a rag’ (liquid out of a rag)  
 c. een tafel af vegen ‘wipe off a table’ (dirt off a table)  
 d. een woord door strepen ‘strike through a word’ (line through a word)  
 e. een woord onder strepen ‘underscore a word’ (line under a word)  
 f. een rivier over bruggen ‘bridge a river’ (bridge over a river)  
 g. een kind om armen ‘embrace a child’ (arms around a child)

The alternation between transitive and intransitive uses might sometimes involve allomorphy, with the German *in* /*ein* ‘in’, Dutch *naar/toe* ‘to’, *met/mee* ‘with’, and *van/af* ‘off’:

- (41) a. in einem Kreis ‘in a circle’ – ein Wort einkreisen ‘to encircle a word’  
 b. wuiven naar iemand – iemand toewuiven ‘wave to someone’  
 c. lopen met iemand ‘walk with someone’ – meelopen ‘walk (with someone)’  
 d. van de muur breken ‘break off the wall’ – afbreken ‘break off’

These allomorphs might also co-occur, one as a particle or prefix and the other heading the PP that optionally complements it:

- (42) a. in das Zimmer eintreten ‘enter into the room’  
 b. toegang naar/tot iets ‘access to something’  
 c. met iemand meegaan ‘go with somebody’  
 d. van de muur afbreken ‘break off from the wall’

The path domain partially confirms what we saw in the place domain: Transitivity is limited, ambitransitivity is restricted, and core Ps are (in-)transitive. However, the application of the reflexive path function gives rise to a relatively large and prominent class of intransitive PathPs in all three languages.

### 26.4.3 The Complexity of Paths

Given that (most) paths are semantically composed of a path function applying to a place, we can ask how the different path+place combinations are expressed by means of Ps in the three languages and what this shows about the structure of the P domain.

We can distinguish five different ways in which this is done. I first describe the situation with the path functions FROM, VIA, and TO. I will ignore combinations of Ps like *in down into the darkness* or *back in the box*, which I take to involve intersection of two path categories. The first path, for instance, is a path that goes both “down” and “into the darkness”, but these are two independent characterizations, irrelevant for the kind of

complexity that I am interested in here. The same is true for German *auf das Dach hinunter* ‘down onto the roof’, which describes a path as being *auf das Dach* ‘onto the roof’ and *hinunter* ‘down’ (van Riemsdijk and Huybregts 2007).

**Marking expression:** The path function can be expressed most transparently through a separate PathP that combines with and “marks” a PlaceP(P). In other words, the path and place function are expressed analytically (separately), although sometimes tied more closely together.

- (43) FROM from between the clouds, von zwischen den Wolken<sup>G</sup>, van tussen de wolken<sup>D</sup>, zwischen den Wolken hervor<sup>G</sup>, tussen de wolken vandaan<sup>D</sup>  
 VIA unter dem Fluß durch<sup>G</sup>, onder de rivier door<sup>D</sup> ‘under the river’  
 TO to behind the cage, into the cage, onto the cage, nach hinten<sup>G</sup>, naar achteren<sup>D</sup> ‘to the back’

All three languages use this strategy prepositionally for FROM and German and Dutch also postpositionally. VIA is expressed through a postpositional P in German and Dutch. English has an overt TO in *into* and *onto* and marginally with other PPs; in German and Dutch it is restricted to intransitive PlacePs. This formally more complex strategy occurs mainly with the “secondary” type of places of Section 26.3.3. The expression of path confirms here the observation that formal complexity correlates with semantic “markedness.”

**Zero expression:** When the path function is left unexpressed, we have a path expression that has the form of a place expression. This is never possible with FROM paths in any of the three languages. Only English uses it for VIA, instead of the postpositional option that we just saw for German and Dutch.

- (44) a. VIA (go) under the river (to the other side)  
 b. TO (dive) under the table, onder de tafel (duiken)<sup>D</sup>  
 c. TO (breathe) in, ein(atmen)<sup>G</sup>, in(ademen)<sup>D</sup>

It occurs fairly often in English and Dutch TO paths, but only if licensed by appropriate verbs. The intransitive Dutch PathP *binnen* ‘inside’, for instance, can only drop the TO marker *naar* with certain verbs (45a), but not with others (45b), and definitely not in contexts where it is not governed by a verb (45c, 45d).

- (45) a. (naar) binnen komen/stappen ‘come/walk in’  
 b. ?(naar) binnen gaan/dansen ‘go/dance in’  
 c. de weg \*(naar) binnen ‘the way in’  
 d. Gauw, \*(naar) binnen! ‘Quick, get in!’

The particle examples in (44c) illustrate that the particle position neutralizes the TO+IN versus IN distinction, at least in English and Dutch, because

it uses *in* for TO+IN. This holds for German too if one views *ein* as only a superficial allomorph of *in*.

**Case expression:** Several core PlacePs in German refer to a TO path by using accusative case on the noun phrase instead of dative case.

- (46) a. in die<sub>ACC</sub> Stadt<sup>G</sup> (gehen) '(go) into the city'  
 b. unter den<sub>ACC</sub> Tisch (tauchen) '(dive) under the table'

This alternation occurs with most of the dative PlacePs identified in Section 26.3.2 (*an, auf, hinter, neben, in, über, unter, vor, zwischen*) and it is the German counterpart of the English and Dutch zero expression of TO that we saw in (44b).

**Postpositional expression:** It is possible that Dutch expresses the TO versions of IN and ON by putting the corresponding PlacePs *in* and *op* postpositionally:

- (47) a. de stad in (gaan)<sup>D</sup> 'go into the city'  
 b. de tafel op (klimmen)<sup>D</sup> 'climb onto the table'

It is not always easy to distinguish these (transitive) postpositional Ps from (intransitive) particle Ps because postpositions can also incorporate in the verb in the same way as particle Ps, as shown in (48), where the postpositional Ps have become part of the progressive verb form *aan het V-INF*.

- (48) a. de stad [aan het in gaan]  
 the city on the in go-<sub>INF</sub>  
 'going into the city'  
 b. de tafel [aan het op klimmen]  
 the table on the on climb-<sub>INF</sub>  
 'climbing onto the table'

**Suppletive expression:** The path and place function can together be expressed as one special form. This happens most clearly with the FROM/VIA+IN/ON combinations:

- (49) FROM+IN out of the garden, aus dem Garten<sup>G</sup>, uit de tuin<sup>D</sup>  
 VIA+IN through the garden, durch den Garten<sup>G</sup>, door de tuin<sup>D</sup>  
 FROM+ON break off, abbrechen<sup>G</sup>, afbreken<sup>D</sup>  
 VIA+ON over the bridge, über die Brücke<sup>G</sup>, over de brug<sup>D</sup>

We see here again a reflection of the "closeness" of the place relations involved (see Section 23.3). Not only places but also paths based on the "closer" place functions (especially AT, ON, IN) are expressed by shorter, tighter forms than the other place functions.

**Cumulation:** Finally, the path can be expressed in a cumulative way, using more of these mechanisms at the same time.

- (50)
- |   |                            |
|---|----------------------------|
| a. <u>vanuit</u> de kamer <sup>D</sup>                          | ‘out of the room’          |
| b. in das <sub>ACC</sub> Zimmer <u>hinein</u> <sup>G</sup>      | ‘into the room’            |
| c. de kamer <u>door</u> <sup>D</sup>                            | ‘through the room’         |
| d. de brug <u>onderdoor</u> <sup>D</sup>                        | ‘(via) under the bridge’   |
| e. <u>durch</u> den Wald <u>hindurch</u> <sup>G</sup>           | ‘through the forest’       |
| f. unter den <sub>ACC</sub> Schrank <u>drunter</u> <sup>G</sup> | ‘(via) under the wardrobe’ |
| g. <u>um</u> den Tisch <u>drum rum</u> <sup>G</sup>             | ‘around the table’         |

In (50a) *van* marks FROM and *uit* expresses it again in a suppletive way. In (50b) TO is expressed through accusative case, but also through the complex postpositional *hinein* form. Example (50c) illustrates a combination of marking the path (VIA) with the suppletive form *door* and postpositioning the item. In (50d) there is a combination of marking (by *door*) with a phrase-final position. Note that *door* functions as the suppletive expression of VIA+IN in (50c), but as the marking of VIA in (50d). Examples (50e) and (50f) show that the same Ps can be circumpositionally reduplicated, or even triplicated (50g) (Noonan 2010: 169).

Because of their postpositional options, German and Dutch have rich possibilities of “overexpressing” path information, creating room for interpretive asymmetries, such as those in (51):

- (51)
- |  |
|--|
| a. Wij reden <u>door</u> België. ‘We drove through Belgium.’               |
| a’. Wij reden <u>door</u> België <u>heen</u> . ‘We drove through Belgium.’ |
| b. Hij kwam <u>op</u> de berg. ‘He came on the mountain.’                  |
| b’. Hij kwam de berg <u>op</u> . ‘He came up the mountain.’                |

Example (51a’), with the postposition *heen*, has a stricter meaning than (51a): It can only be true if we drove from one end of the country to the other end, e.g., from the Netherlands to France (Claessen and Zwarts 2010: 35–36). Example (51b’) also has a stricter meaning than (51b): It can only be true if we reached the top by climbing up the mountain, not if we arrive on the top by helicopter. This illustrates a specialization of shorter and longer forms that we already observed in the place domain in Section 26.3.3. Also here we can observe that languages differ in how they express a particular distinction (if they make it at all), as illustrated in (52):

- (52)
- |  |
|--|
| a. <u>herum</u> laufen – <u>umher</u> laufen <sup>G</sup> ‘walk round’ |
| b. <u>om</u> lopen – <u>rond</u> lopen <sup>D</sup> ‘walk round’       |

Both German and Dutch (but not English) make a distinction between ‘detour round’ and ‘crisscross round’ with a range of verbs. German uses the morphological contrast between *herum* and *umher*, while Dutch uses the lexical contrast between *om* and *rond*.

The reflexive PathPs show such contrasts more extensively. I have tabulated the more common reflexive PathPs in Tables 26.1 and 26.2,

Table 26.1 *Simple reflexive PathPs*

	English	German	Dutch
IN	in	ein	in
OUTSIDE	out	aus	uit
OVER	up	auf	op
UNDER	down	nieder	neer
FRONT	forth	fort	voort
BEHIND	back	zurück	terug

Table 26.2 *Complex reflexive PathPs*

	English	German	Dutch
IN	inward	hinein	naar binnen
OUTSIDE	outward	hinaus	naar buiten
OVER	upward	hinauf, nach oben	naar boven, omhoog
UNDER	downward	hinunter, nach unten	naar beneden, omlaag
FRONT	forward	vorwärts, nach vorn	voortuit, naar voren
BEHIND	backward	rückwärts, nach hinten	achteruit, naar achteren

separating simple forms in Table 26.1 from complex forms in Table 26.2, treating *zu-rück* and *te-rug* as synchronically simple.

Tables 26.1 and 26.2 show different strategies for encoding the REFL path function relative to the PlaceP: marking (e.g., REFL+voor = *voortuit*), zero (e.g., REFL+in = *in*), suppletion (e.g., REFL+under = *down*). The simple, but not the complex reflexive PathPs can enter into the close combination with verbs that is characteristic for particles. When we compare a simple form with its complex counterpart, as illustrated in (53) for Dutch, we can see that the simple forms have more stereotypical and idiomatic meanings than the complex forms, irrespective of how those complex forms are built up.

- (53)
- in*kijken ‘take a look at’ – *naar binnen* kijken ‘look inside’
  - uit*gaan ‘go out at night’ – *naar buiten* gaan ‘go outside’
  - op*kijken ‘look up by lifting the eyes’ – *omhoog* kijken ‘look upward’
  - neer*komen ‘come down to the ground’ – *omlaag* komen ‘come downward’
  - voort*bewegen ‘move on’ – *voortuit* bewegen ‘move forward’
  - terug*lopen ‘walk back to origin’ – *achteruit* lopen ‘walk backward’

In this respect, particles are not so special within the wider landscape of Ps, because we have seen that intransitive and simple Ps in general often have such specialized meanings with respect to their transitive and complex counterparts.

## 26.5 Conclusion

This overview of place and path expressions is necessarily restricted in many ways, because of its descriptive focus on the internal structure of spatial PPs in three Germanic languages. Due to time and space restrictions, I could not pay attention to the sophisticated approaches to the syntax and semantics of PPs that have developed over the past decades, especially for these three languages, to the interaction of PPs with the larger sentential context, in particular with verbal semantics, aspect, and argument structure, and to the position of English, German, and Dutch Ps within a wider typological and grammaticalization setting, including also the other Germanic languages. But most obvious is what remains to be said about the nonspatial part of category P: the way prepositions and particles are also used to talk about time, aspect, quantity, force and other nonspatial domains and the grammatical roles they are often required to play. Hopefully, this overview of the spatial P system of English, German, and Dutch can also help to deepen our understanding of this bigger picture.

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