## 18

# Functional and lexical prepositions across Germanic and Romance 

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### 18.1 Introduction

The debate on the categorization and the structural representation of lexical items in terms of an opposition between lexical and functional categories has been a central one in many theoretical approaches to the 'structuralization' of lexical information (Corver 2013). Prepositions (Ps), however, have always posed a challenge to any attempt at their categorization as either functional or lexical: Jackendoff (1977) considers them a lexical category on a par with verbs, nouns, and adjectives, while Baker (2003: 304-5) argues that adpositions cannot be a lexical category as they 'do not take part in derivational morphology, as either inputs to or outputs of word formation rules'. Further evidence, pointing to their functional nature is the fact that the class of Ps, although relatively large in number in some languages, seems nonetheless to be restricted in comparison to that of Vs and Ns (see Svenonius 2006: 64; Cinque 2010a: 11). Moreover, though new Ps may be added to the lexicon, this is usually a rather long process, generally involving grammaticalization rather than productive morphological derivations or borrowings. ${ }^{1}$ On the other hand, their lexical nature can be supported by the fact that many Ps do seem to have a clear and specific 'descriptive' content, such as under and, at least in the Germanic and Romance domains, they can assign a thematic role, as, for instance, when introducing locative adjuncts. Thus, their categorization is by no means uncontroversial, and is still a matter of debate to this very day, with sound empirical evidence and argumentation not only for either side but also for a third 'mixed' way, that is, for considering a functional vs. lexical split within the category P. ${ }^{2}$

[^0]In the present chapter, the opposition between lexical and functional Ps will be explored, contrasting and comparing Germanic and Romance spatial adpositions. ${ }^{3}$ The choice of these language families follows from the fact that most of the literature on the lexical/functional divide in the category P is based on data from these linguistic families. Yet, most importantly, having no system of locative morphological cases, Romance and Germanic offer the possibility to test the difference between prepositional oblique case markers and independent prepositional functional heads at a syntactic level. It will be shown that, despite appearances to the contrary, 'lexical' or 'complex' Ps are fairly similar in both language families as result of being modifiers of an unpronounced null PLACE head (see Terzi 2008, 2010; Cinque 2010a, and $\S 18.3$ ), while functional Ps, despite similarities, are profoundly different. In this last respect, the discussion will be centred on the comparison between the directional/stative $a$ 'at, to' found in Italian (but also in most Romance varieties), and the Germanic counterparts of English to.

The chapter is organized as follows: $\$ 18.2$ briefly outlines and exemplifies the lexical vs. functional split in the category P , and presents the basic theoretical assumptions which will form the backbone of the discussion in the following sections. In $\$ 18.3$ the notion 'AxPart' is introduced, and Germanic and Romance elements of this type are compared. The conclusion will be that, despite superficial differences, these items are always nominal in nature. $\$ 18.4$ is dedicated to a comparison of Italian $a$ (<Lat. AD 'to') and English to. It will be shown that while the latter is a true expression of directionality, the Italian $a$ is a different item, more akin to an oblique case marker, even when used in directional and stative contexts. $\$ 18.5$ concludes the chapter.

### 18.2 The lexical-functional divide in the category $P$

As mentioned in $\$ 18.1$, adpositions challenge the postulation of a well-defined division of labour between functional and lexical elements, as empirical evidence seems to indicate that P items sit astride this divide. Many languages for instance present systematic semantic, phonological, and syntactic differences between 'small' Ps prototypically corresponding to English to, at, from, with, for, of, etc., and 'lexical' or 'adverbial' Ps, like behind, above, over, under, in front of, around. The debate over their classification as either purely functional or purely lexical has taken into account the properties mentioned in $\$ 18.1$, as well as categorically specific properties such as the optionality of their complement, that is the possibility for certain Ps to have 'intransitive' uses, or their relation with (morphological) case,

[^1]both in terms of case-marking of their DP complement and as instantiations of inherent case. In a language like English, for instance, the small P of is functional as it instantiates genitive case, does not assign a theta-role to its complement, and cannot be used intransitively, i.e. adverbially (see the discussion in Littlefield 2005, who takes of to be the only functional P of English; see also \$18.4).

In addition to intra- and inter-linguistic evidence, the hybrid nature of the category P seems to be further supported by neurolinguistic language acquisition and language contact evidence. Friederici (1982) was one of the first to show that the impaired production of different types of Ps correlates with the type of aphasia: while German agrammatic speakers performed better with 'semantic' (lexical) Ps and worse with 'syntactic' (functional) Ps, fluent aphasic speakers showed the opposite pattern. Similarly, Littlefield $(2005,2006)$ shows that English-speaking children acquire lexical Ps earlier than small Ps, and that the error rates for lexical Ps is lower. Recently, Deibel (2019) further shows that a Lexicon-Grammar mixed language like Media Lengua spoken in the Northern Ecuadorian region of Imbabura presents complex adpositions akin to English in front of, in which relexification only targets the 'adverbial' P: the counterpart of front surfaces with a Spanish lexeme, while the functional portion of the complex PP surfaces as a Quichua postposition. ${ }^{4}$

Thus, these studies point to the fact that there seems to be some psychological reality behind the lexical/functional divide in the category P. Yet at least some of these results have not gone unchallenged: both Friederici (1982) and Littlefield (2005, 2006) have considered data from Germanic languages, but more recent studies on the impaired production and on the acquisition of P items by Romance speakers present an apparently opposite picture. Zampieri et al. (2013) tested repetition of complex adpositions like lungo alla strada, 'lit. long to-the road, along the road' in an Italian agrammatic speaker, and show that lexical Ps are subject to a greater rate of omission than simple Ps. Similarly, Stewart (2015) shows that children acquiring Spanish do not show any delay in the acquisition of simple Ps like a 'to, at' or de 'of' comparable to the one described for English children by Littlefield (2005, 2006). The same lack of delay seems to hold also in French (cf. Stewart 2015: 136).

At first blush then, the Romance vs. Germanic differences just discussed could be accommodated into the lexical/functional debate by assuming for each language or language family a different clustering of Ps into lexical and functional. A consequence of this view is that there might be languages in which Ps are completely polarized, either all functional or all lexical-a typologically rather unwelcome result given that languages make systematic distinctions between these two types of Ps (Cinque 2010a: 4). Rather, the line to be pursued here is

[^2]that subtler categorizations are needed to capture the various behaviours of P items across languages in a principled way. More specifically, the basic cartographic proposal that different types of Ps occupy different positions in a fine-grained PP structure (Terzi 2008; 2010; Svenonius 2006, 2010; Cinque 2010a, among many others) will be adopted and further elaborated on by proposing that both functional and lexical Ps can be of different types according to the structural position they occupy in a universal PP structure.

In the introduction to Cinque and Rizzi (2010), Cinque (2010a) offers an insightful summary of the major achievements of various seminal studies on the internal architecture of spatial PPs over the previous 20 years. Most of these studies converge on one very significant result: 'that phrases composed of spatial prepositions, adverbs, particles, and DPs do not instantiate different structures but merely spell out different portions of one and the same articulated configuration.' (Cinque 2010a: 3). The proposed structural representations, though varying slightly, present the same type of projections in the same relative order. The following structures reproduce just two of these proposals, the one by Cinque (2010a: 10), (1a), and the one based on Svenonius (2010: 132-3), (1b), both of which encompass previous proposals by Koopman (2000) and Den Dikken (2006 [2010]):
 north [RelViewp $u p /$ down [RelViewP in/out [DecticP $h$ here/there ${ }_{\text {AxxPartP }}$ under $\mathrm{X}^{\circ}\left[{ }_{\mathrm{PP}} \mathrm{P}^{\circ}[\right.$ NPPlace Ground DP [PLACE $\left.\left.\left.\left.\left.\left.\left.\left.\left.] 1\right]\right] 1\right]\right]\right]\right]\right]\right]\right]$
b. [PathP [ $p \mathrm{P}$ [DegP [DeixP [LocP in [AxPartP front [KP of [Ground DP $]$ ] $]$ ] $]$ ] $]$

One of the most important insights captured in (1) is that the projection encoding directional meanings like PPdir/PathP precedes the projection for locational or stative meanings like PPstat or Deg/Loc-a 'syntactization' of Jackendoff's (1983) conceptual structure of Path built on top of Place. Other projections host specific items, like measure phrase, DegP, or deictic elements like here and there, DeixP.

The two proposals, however, present some significant differences in particular as regards the syntactic nature of the functional projections under Path/Place, with far-reaching consequences. Cinque's (2010a) hierarchy in (1a) essentially extends to all locative expressions the basic underlying structure proposed by Kayne (2004) for the English deictic elements here and there (see the compositional semantics of Katz and Postal 1964):
(2) a. [AT [THIS here [PLACE]]]
b. [AT [THAT there [PLACE]]]

Here and there contain the silent counterparts of two fundamental ingredients of any locative expression: the silent preposition AT for stativity, and the silent noun PLACE. The silent stative AT (as the silent directional TO in (1a)) is lexicalized in
the languages of the world by simple Ps or by locative case morphology. Lexical Ps are considered as modifiers of PLACE, just like the deictic here and there, as proposed in Terzi $(2008,2010)$, who also offers empirical evidence for the presence of PLACE in Modern Greek complex locative phrases. Thus, the locative interpretation of a preposition's DP complement, its Ground in Talmy's terms (1978, 2000), is dependent on its association with PLACE through a possession relation, that is, the Ground is the possessor of the head PLACE. ${ }^{5}$

By contrast, Svenonius' (2010) structure does not contain a PLACE element and the locative interpretation of the DP Ground and of the whole PP is dependent on the semantic components associated with the functional heads K , AxPart, Loc, and Deg on top of the Ground DP (Svenonius 2010: 132ff.), each one of them adding a semantic function. The K head, for instance, is a function which takes a DP and returns a region in space, i.e. the space occupied by the Ground. AxPart is another function returning subparts of the regions identified by K , generally the 'Axial Parts' of the Ground, that is, the front/bottom, interior/ exterior, up/down (see Jackendoff 1996; for the syntactic category, AxPart see Svenonius 2006). Loc and Deg are two further functions, respectively for projecting (directed) vectors starting from an Axial Part of the DP, and for turning these vectors into regions (for the vector semantics of adpositions see Zwarts \& Winter 2000; see also Svenonius 2010: 132ff. and references therein). In this sense, a PP is a sequence of functional heads in the nominal extended projection (Svenonius 2010: 144), converting a nominal expression into a locative expression.

Thus, the two models, though similar in the most important respects, make different predictions about the nature of lexical vs. functional Ps, and the movement/ lexicalization possibilities of the various items composing a PP, both within the same language and across different languages. These aspects will be addressed in detail in the following sections as regards the treatment of lexical Ps as Axial Parts in $\$ 18.3$, and the treatment of 'functional Ps', in particular as regards the K/P head under AxPart with respect to the higher Path and Place heads. In the remainder of this chapter, Cinque's model will be adopted. The basic tenets that will be the crucial ingredients of the discussion in the following sections are:
(i) the identification of two separate portions, one for highly functional elements like PPstat and PPdir, and one for more lexical items (or semi-lexical items), not only AxParts but also other PLACE modifiers like Relative Viewpoint, as down in down here behind the trees);

[^3](ii) the different natures of functional Ps, more specifically, different functional Ps can not only appear in different positions in (1a) but can also be structurally different.

In $\$ 18.3$, lexical Ps will be addressed. It will be shown that despite surface differences, lexical Ps show quite a lot of similarities, which are ultimately dependent on their nominal modifier nature.

### 18.3 Axial Parts across Germanic and Romance

### 18.3.1 Nouns, parts, and axes

The structures in (1) present a projection labelled AxPartP, which Svenonius (2006) argues is the projection for 'axial' parts in the sense of Jackendoff (1996: 14): ' [t]he 'axial parts' of an object-its top, bottom, front, back, sides, and endsbehave grammatically like parts of the object, but, unlike standard parts such as a handle or a leg, they have no distinctive shape. Rather, they are regions of the object (or its boundary) determined by their relation to the object's axes. The updown axis determines top and bottom, the front-back axis determines front and back, and a complex set of criteria distinguishing horizontal axes determines sides and ends' (cited in Svenonius 2006: 50). Put differently, axial items further specify the basic stative vs. directional relation holding between the Figure (the object whose location is at issue) and the Ground (the object providing the reference), with respect to one part of the latter and the region of space projecting from it. The example in (3a) models the Italian locative expression in fondo a 'at the end of' on the English in front of as discussed in Svenonius (2006:50-3). The PP in fondo alla strada 'at the end of the road' is predicated of the Figure la macchina 'the car', and is composed by a P in 'in', the AxPart fondo 'bottom' and the Ground la strada 'the road. ${ }^{6}$ Its underlying representation is given both in Cinque's (2010a), (3b), and Svenonius' (2010), (3c), structures.
(3) a. [ppstat $\mathrm{AT}\left[{ }_{\text {DPPlace }}\left[_{\text {RelView }}\right.\right.$ in $\left[_{\text {AxPart }}\right.$ fondo $\left[_{\mathrm{KP} / \mathrm{PP}}\right.$ a $\left[_{\text {GroundDP }}\right.$ la strada PLACE][]] ] $]^{7}$


[^4]The axial noun fondo identifies the portion of space picked up by vectors projecting from the back/end of the road along the front/bottom axis. Fondo is also a run-of-the-mill N in Italian, with the meaning 'bottom end'. Comparable examples can be found in various unrelated languages.

Svenonius (2006) argues that AxParts are often nominal in nature, but when used in locative expressions, they are exponents of a functional category. Following Borer (2005), he proposes that a lexical element like English front (and by analogy the Italian fondo) can be inserted either under an N node or under an AxPart node: their differences in semantic interpretation and morphosyntactic distribution follow accordingly. Although the properties of AxParts are to some extent language-specific, AxParts show some very strong tendencies in different languages, as they generally:
(i) resist coordination, modification or pluralization: *in cima e fondo alla via, lit. 'at the beginning and end of the road'; *in fondi alle vie, lit. 'at the ends of the roads'; *in (estremo) fondo (estremo) alla via, lit. 'at the very end of the road';
(ii) do not show determiners, quantifiers and other functional elements typical of the nominal domain;
(iii) cannot be replaced by pro-forms;
(iv) cannot be extracted.

These characteristics are considered to be indicative of AxPart's functional nature. Yet this assumption has received some criticism over the past years, in particular because there is indeed quite a lot of morphosyntactic variation crosslinguistically on each of the points just mentioned (variation that Svenonius himself acknowledges).

A recent criticism is found in Matushansky \& Zwarts (2019), who argue against a fully functional characterization of Axial Parts precisely because in some languages AxParts can show case affixes (e.g. Russian), can have determiners with gender/number morphology (usually with the same specifications as their fully nominal counterparts), and can have specific semantic selections on their complement. ${ }^{8}$ These characteristics are typical of a lexical category like N. Matushansky \& Zwarts (2019) argue therefore that AxParts are always nominal elements, but of a special kind: weakly referential nominals. Weak definitesnominals akin to bed in a PP like in bed, see references in Matushansky \& Zwarts (2019) -have concept (kind) reference, and, as such, show the same semantic and

[^5]syntactic restrictions observed by Svenonius (2006) on axial nouns (but see below for an alternative account).

From a more structural perspective, Svenonius (2006: 52-3) maintains that the functional AxPart head is only available for 'axial' elements like front and bottom. Consequently, the near-synonymical locative expressions found in many languages such as English in back of and behind are given two different representations: while behind is inserted in one of the Place heads, either Deg or Loc, and the K head remains silent, the complex PP in back of presents all the heads Loc-AxPart-K overtly expressed.

This structural distinction is explicitly ignored in Cinque (2010a: 13 n .7 ), see (1a), who treats both back and behind as items sitting in the Spec of AxPartP, as they both add a further specification with reference to the 'axes' projecting from the Ground. More specifically, back and behind are viewed both syntactically and semantically as phrasal modifiers of the null head PLACE, as in Terzi (2008, 2010). This proposal has serious consequences for the classification of AxParts, as they are still inside a functional projection, but they no longer take the DP Ground as their complements. Rather, the relation between the AxPart and the DP Ground is mediated by the null head PLACE, and AxPart is but one of the functional modifiers in a DP projected by the (semi-lexical) head PLACE, much like adverbs in the Specs of dedicated functional projections. Under this view, the semantic and syntactic idiosyncrasies observed among axial nouns can receive a rather straightforward account: AxParts are nominal and their 'locative' interpretation is dependent on the association with a PLACE head and at least a stative head outside the DPPlace.

Germanic and Romance languages, both old and modern, offer compelling evidence in favour of such analysis for AxParts items, which will be presented in the following subsections. It will also be shown that maintaining a (nominal) modifier nature for AxPart not only accommodates further minimal differences in AxPart behaviour within and across the considered languages but it will also shed light on the etymological origin of P elements, in particular as regards the grammaticalization processes into which certain nouns enter. The implication is thus that the observable (micro-)variation in AxPart syntax is the reflex of different steps in a long grammaticalization process, the extent and results of which ultimately depend on the features of the nouns becoming AxPart items.

### 18.3.2 Germanic Axial Parts

Most of the theoretical discussion on Axial Parts has developed around English nouns like front, top, back, etc. appearing in locative expressions of the (transparent) type P-N-K (in front of, on top of, in back of). Although lexical Ps like behind, beneath, around, or beside are not considered AxParts in Svenonius (2006: 52),
he notes that many of these Ps derive historically from an Old English (OE) preposition (or prefix) plus either a nominal or an adverbial item. One example of the latter type is beneath, which derives from OE be 'by' plus niðan, an adverb meaning 'from above', connected to the adjective niðer 'lower'. ${ }^{9}$ Svenonius (2006: 73-4) suggests that the historical recruitment of AxParts from lexical items different from nouns is expected if UG provides a functional lattice (Place-AxPart-K) to be filled. In other words, the historical recruitment of AxPart elements is better described as a grammaticalization process, turning lexical items, like adverbs and nouns, under a simple $P$ into AxParts and eventually into proper (univerbated) prepositions, that is, into Place heads.

English has various locative adpositions both at the ends and at intermediate steps along such a grammaticalization cline. The lower end of such cline could be represented by prepositional expressions such as at the bottom of or at the end of, where the nouns refer not only to the 'bottom part' or 'end' of something but also to the space around them (see Roy 2006 for French body parts with both interpretations). The axial nouns bottom and end can be pluralized (at the bottoms/ends of), can be found with indefinite determiners and QPs (at one bottom of, ${ }^{10}$ at all the ends of), and can even be modified (cf. at the extreme bottom of, at the eastern end of), pointing to their full nominal nature. Structurally, they are part of the Ground DP, where the P of encodes genitive, i.e. a possessive (or partitive) relation between a part and its whole.

The next step could be represented by in front of, with no definite determiner and with the characteristics discussed in Svenonius (2006). These adpositional expressions have both elements, small P and AxPart, very well recognizable. The next steps could be represented by (univerbated) lexical Ps in which either the AxPart is recognizable but syntactically inert, or the small $P$ is still visible but the AxPart item is no longer recognizable as such. Cases of the former type are Ps like beside and apart, where the AxParts -side and -part are recognizable but resistant to any further syntactic operation; cases of the latter type are Ps like beneath or among, where the P item is visible as be- or $a$ - but the AxPart is no longer recognized as such (among < OE on gemang 'in crowd', cf. German Gemenge 'mixture; crowd'). The final step is represented by down, where both P and AxPart were historically present but are no longer recognizable: down $<\mathrm{OE}$, prefix $a$-, a variant of of 'off' and dun-e 'mountain-DAT'. ${ }^{11}$ Summarizing, the

[^6]grammaticalization steps turning a nominal expression into a prepositional item can be represented as follows:

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- Step 1: [P [DP [P/K [Ground DP]]]]
    at the bottom of
- Step 2: [P [AxPart [P/K [Ground DP]]]]
    in front of
- Step 3: [P/AxPart [Gound DP]]
    beside; among
- Step 4: [P [Ground DP]]
    down
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Yet, when other languages are considered even within the Germanic family, it becomes clear that the AxPart inventory and the grammaticalization paths leading to new Ps show further fragmentations. In a language like German, for instance, many Ps are monomorphemic and, admittedly, with a simpler structure than their English (or Romance) counterparts. The list of German Ps in Zwarts (2006), although not exhaustive, offers a good example: the German counterparts of English Ps like in front of, out of, around or behind are respectively vor, aus, um, and hinter (all of which derive from a PIE adverbial/prepositional root). Prepositions involving recognizable AxPart items are rather scarce in the language, as German, for instance, does not seem to have a clear case of the in front type, that is of a P-N-K format. However, German seems to attest two types not present in English in a parallel fashion. The first case is adpositional expressions like am Ende 'at the end/bottom' or in der Nähe 'in the vicinity/near', all of which select for a genitive-marked Ground (either morphologically or analytically by the small P von). These clearly show an AxPart component, which contrary to the English type in front of displays the definite determiner, but, differently from the at the bottom type, is more restricted in that it cannot be inflected for plural (4a), or modified by adjectives, if not minimally, (4b) vs. (4c):

| a. *Keine | Autos | parken an den | Enden | der | Straßen. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| no cars park in the.dat ends | the.gen | roads |  |  |  |
| 'Do not park cars at the ends of roads.' |  |  |  |  |  |

[^7]b. *Ich habe mein Auto am letzten Ende der Straße I have my car at-the.dat far end the.gen road geparkt. parked
'I parked my car at the far end of the road.'
c. in unmittelbarer Nähe des Gebäudes.
in close.dat vicinity the.gen building.gen
'in the close proximity of the building'
Complex PPs like am Ende could be seen as an intermediate step between Step 1 and Step 2 in the proposed cline above: the nominal element is more functional, but not as much as an AxPart à la Svenonius (2006). Similar items are found also in Romance, specifically in French for instance, where the AxPart item can be introduced by a definite D (as bare Ns are not allowed in French, see Roy 2006: 113), and in Italian in a case like ai piedi di 'to-the.pl feet of' and nelle vicinanze di' in-the. pl vicinities of', which show parallel restrictions to the ones in (4). Semantically, the N Ende in (4) (and the similar cases in French and Italian) could be considered weak definites as proposed by Matushansky \& Zwarts (2019); syntactically, Ende is still part of the Ground DP, although in a different position within the functional DP spine than the one occupied by bottom in at the bottom of.

The second type of P with an AxPart element of sorts is represented by complex Ps in a series like the following: außerhalb 'outside'; innerhalb 'inside'; oberhalb 'above'; unterhalb 'under'; hinterhalb 'behind'. ${ }^{12,13}$ These items are composed of
${ }^{12}$ It should be pointed out that the -halb Ps at the extreme ends of the front/back axis, hinterhalb 'at the back of' and vorderhalb 'before, in front', are not very common in the modern language (most speakers find them obsolete, vorderhalb in particular). Nonetheless, these adverbs/Ps are reported for instance in the Deutsches Wörterbuch by Jacob Grimm and Wilhelm Grimm, and some sporadic examples can be found in a Google search.
${ }^{13}$ There are other two series of P which select for a genitive-marked Ground:
(i) one series with the element -seits, a form of the noun Seite 'part', with adverbial -s combining mostly with D elements jen- 'that', dies- 'this', and beid- 'both': jenseits 'beyond, on the other side'; abseits 'apart'; diesseits 'this side of'; beiderseits 'on both sides'.
(ii) one series with the adjectival/adverbial suffix -lich combining with cardinal points and the word seit 'side': nördlich 'north of', südlich 'south of', westlich 'west of', östlich 'east of', seitlich 'to the side of'.
The AxParts in these two series are adverbial in a sense, showing adverbial morphology, $-s$ and -lich. But, following Corver (2017), they could be argued to be nominal in nature. Extending Corver's analysis of the adverbial -s of the Dutch adverbial zacht-je-s, slow-dim-s 'slowly' to these series, the -s suffix on -seits could be the realization of $n^{\circ}$, with the -seit- part as a root carrying the abstract meaning 'part', a 'grammatical noun' as in Emonds (1985). The D elements are (adjectival) modifiers of this root. See the discussion around example (22) in Corver (2017):
(iii) $[\mathrm{nP}$ jen $[\mathrm{nP} \mathrm{n}(=-s)[\sqrt{ }$-seit- $]]]$

As for the -lich series, a similar proposal could be advocated, in which -lich is the root, the grammatical noun, and the cardinal point is a modifier. In such case, the $\mathrm{n}^{\circ}$ is silent as -lich is sufficient.
(iv) $[\mathrm{nP}$ nörd $[\mathrm{nP} \mathrm{n}[\sqrt{ }$-lich $]]]$

See Corver (2017) and references on the idea that English adverbs in -ly are nominal.
an element of nominal origin like -halb, meaning 'part, side', and a preceding element conveying the locative meaning, which in Modern German can also appear as an independent adjective (der innere Teil des Parks 'the interior part of the park'). These items are comparable to the English series containing side, but the nominal element is not attested in isolation. It is important to point out that, even if the nominal part is not found independently, the meaning of the adpositional compound is still compositional, as in the English series with -side, as shown by their incompatibility with Grounds that cannot be conceptualized as having sides, i.e. unbound and vague Grounds (for the contrast between in and inside in English, cf. Svenonius 2010: 156, n. 3):
(5) a. Der Vogel flog in der Luft. the bird flew in the.dat air
b. *Der Vogel flog innerhalb der Luft.
the bird flew inside the.gen air
c. Das Flugzeug kann nur innerhalb des deutschen
the plane can only within the.gen German
Luftraums fliegen.
airspace.gen fly.
(6) a. Das Kind schwamm innerhalb des Sees/Teiches/Baches. ${ }^{14}$ the child swam inside the.gen lake.gen/pond.gen/stream.gen

| b. *Das | Kind | schwamm | innerhalb | des | Meeres. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| the | child | swam | inside | the.gen | sea.gen |
| c. ?Das | Kind | schwamm | innerhalb | des | Flusses. |
| the | child | swam | inside | the.gen | river.gen |

The micro-variation briefly outlined so far-which has similar, if not identical, counterparts in the Romance domain, see $\$ 18.3 .3$-requires a unified treatment of the synchronic and diachronic link between relational Ns (like body parts), AxParts, and lexical Ps through the combination of both Svenonius' and Matushansky \& Zwarts' insights. A possible solution can be found in the more fine-grained architecture of PPs proposed by Cinque (2010a). In the structure in (1a) for instance, there are other projections dedicated to Viewpoint modifiers, that is, to modifiers of PLACE further specifying how the Ground is located with respect to some viewpoint, both relative as the speaker's (up/down and in/out), or absolute, like geographical points (north/south etc.), see Cinque (2010a: 9). Hence, the minimal differences in

[^8]the types of adpositions just described can be seen as successive small steps in a grammaticalization path of upper reanalyses in the prepositional functional sequence à la Roberts \& Roussou (2003). Specifically, particular relational nouns like end or bottom originate within the DP Ground (7), where they can be full-fledged Ns (as in the case of at the bottom of) or weak definites as in am Ende, a distinction possibly to be structuralized as different heights within the DP Ground. ${ }^{15}$
at the end of the road
$\left[_{\text {PPdir }}(\mathrm{TO})\left[_{\mathrm{PPstat}}\right.\right.$ at $\left[_{\text {DPPlace }} \cdots\left[_{\text {RelView }}\left[_{\text {AxPart }}\left[_{\mathrm{KP} / \mathrm{PP}}\left[_{\text {GroundDP }}[\mathrm{DP}\right.\right.\right.\right.\right.$ the end of the road] PLACE[]]]]]]

The structure in (7) is ultimately that of a regular PP of the type ${ }_{P}$ at ${ }_{\text {DP }}$ the end of the road]], where the Ground DP is the possessor of PLACE.

The next step is represented by German 'semi-compositional' Ps like innerhalb 'inside' (or jenseits 'on the other side'), where the nominal element -halb (or -seits) has grammaticalized into a functional noun, providing a syntactically and semantically adequate restriction for the modifier heads AxPart, Deix, RelView (and AbsView). In (8), -halb occupies AxPartP because of its semantic affinity with the prototypical AxPart side in English, but nothing prevents it from being a lexicalization of the PLACE head:
(8)

## innerhalb des Luftraums

 Luftraums [GroundDP der Luftraum PLACE]]]]]]]

Similar adpositions are found in English as well, not only in the -side series but also in cases like toward(s), outward(s), etc., which derive etymologically from OE adjectives of relative location.

Run-of-the-mill lexical Ps like behind, under, around, etc. and even particles like down have developed from a historical stage like (7), represented in (9a) and (10a), through upward reanalysis, either into stative/directional Ps (PPstat or PPdir), (9b), or into Relative Viewpoint modifiers, (10b).
(9) OE behindan
a. $\left[_{\text {PPdir }}(\mathrm{TO})\left[_{\text {PPstat }} b e-\left[_{\text {DPPlace }} \cdots\left[_{\text {RelView }}\left[_{\text {AxPart }}\right.\right.\right.\right.\right.$ hindan $\left[_{K P / P P}{ }_{[G \operatorname{GroundDP}}\right.$ PLACE[]]נ]]] behind the curtain
b. [PPdir (TO) [ ${ }_{\text {PPstat }}$ behind AT [DPPlace $\ldots\left[_{\text {RelView }}\left[_{\text {AxPart }}\right.\right.$ hind $\left[_{\text {KP/PP }}\right.$ [GroundDP the curtain PLACE]]]]]]]

[^9]
## OE ofdune/adune

a. [ppdir of $\left[_{\text {PPstat }}\right.$ AT [DPPlace $\ldots\left[_{\text {RelView }}\left[_{\text {AxPart }}\right.\right.$ dune $\left[_{\text {KP/PP }}\left[_{\text {GroundDP }}\right.\right.$ dunte PLACE[]]J]]] down the hill
 hill PLACE[]]J]]]

The structures just discussed simplify (and somehow trivialize) complex diachronic processes, since, for instance, many OE adpositions are already univerbated, with the small $P$ element surfacing as a reduced prefix and the AxPart items still showing inflection (cf. dun-e 'hill-f.sg.dat'). ${ }^{16}$

A promising, yet tentative line of research which accommodates the advantages of all the approaches to AxParts seen so far into a Cinquean hierarchy is to postulate that each specific modifier (AxPart, RelView, etc.) is associated with a series of (silent) little nouns à la Kayne (2005) (see also Leu 2005 and subsequent work; Kayne 2019b, on silent elements). ${ }^{17}$ More precisely, each feature associated with the heads in the layered PP structure could be encoded by a combination of a dedicated little $n$ and its modifier. This idea straightforwardly explains why the German -halb and -seits are found with specific groups of modifiers, and cannot be interchanged, cf. *innerseits, *jenhalb: -seits requires deictic modifiers, while -halb requires AxPart/ViewPoint items.

The most important aspect in the cases just examined is the fact that, independently of the grammaticalization stage instantiated, AxPart/lexical P items are ultimately nominal in nature by virtue of their modifier nature in a DPPlace. A further relevant aspect is that all these elements do not encode either stativity or directionality on their own, but are interpreted either as stative or as directional depending on the predicate with which they appear. Finally, their nominal nature could be also responsible for their intransitive, i.e. adverbial use: as various studies have proposed, adverbs are tightly linked to adjectives, as they are ultimately analysable as nominalized versions of adjectives (see Corver 2017 and references, in particular on the English $-l y$ suffix). In $\$ 18.3 .3$, Romance lexical Ps will be shown to have the same structural representations as the above Ps, despite some superficial differences.

[^10]
### 18.3.3 Romance Axial Parts

Romance languages exhibit a very similar picture to the one just described for Germanic, with adpositions ranging from transparent $\mathrm{P}+\mathrm{N}+\mathrm{K} / \mathrm{P}$ constructions to fully grammaticalized lexical Ps. Romance languages-showing number and gender on both D and N -offer various indications that AxPart are always nominal in character.

As pointed out in Roy (2006), Svenonius (2006), Matushansky \& Zwarts (2019), and many others, French offers various cases of adpositions featuring an AxPart item (be it of nominal or adverbial origin) with a definite determiner, which incorporates into the simple preposition $\dot{a}$ 'at/to', cf. (11) from Svenonius (2006: 63). This is also possible in Italian, (12), with the small P a 'at, to' (or the small P in), and in Romanian (13), with the simple P in (examples from Mardale 2013: 534-5): ${ }^{18}$
(11) a. Il y a du paprika à l'interieur (sic) de la casserole. (French) it there has of-the paprika at the interior of the pot
'There is paprika in the inside of the pot.'
b. Il tourne toujours au-tour de la maison.
he turns always at-the-turn of the house.
'He always makes a trip around the house.'
(12) a. Il sentiero inizia ai piedi della collina. (Italian) the footpath starts at-the feet of-the hill 'The footpath begins at the foot of the hill.'
b. Il supermercato è alle spalle della chiesa. the supermarket is to-the shoulders of-the church 'The supermarket is behind the church.'
a. în fața spitalului
(Romanian)
in face-the.f.sg hospital-the.gen
'in front of the hospital
b. in spatele casei
in back-the.m.sg house-the.gen
'behind the house'
Such cases parallel the ones in (7), where the AxPart item is either fully nominal or a weak definite. Further evidence comes from their behaviour with pronominal

[^11]Grounds: the Italian and Romanian Ps have pronominal Grounds expressed as possessive adjectives, agreeing in number and gender with the AxPart item. ${ }^{19,20}$
a. Ponte Morandi $\mathrm{i}_{\mathrm{i}} \mathrm{e}$ la città alle sue $_{\mathrm{i}}$ spalle. (Italian) bridge Morandi and the city to-the.f.pl his.f.pl shoulders 'Ponte Morandi and the city behind it.'
b. în spatele nostru
in back-the.m.sg our.m.sg
'behind us'
(Romanian)
(Mardale 2013: 535)

Italian has, moreover, a number of Ps of the in front type, that is, of Ps where the (univerbated) AxPart shows all the typical restrictions associated with AxParts: in cima a 'lit. in top to; on top of', di fronte a 'lit. of forehead to; in front of/opposite', affianco a 'lit. to-side to; beside', attorno 'lit. to-round to; around', etc. ${ }^{21}$ The AxPart items in these Ps show no determiner, no plural morphology (gender morphology is still recognizable), but, most importantly, they cannot take pronominal Grounds in the form of a possessive adjective. This is illustrated with the 'minimal couple', ai fianchi di 'lit. to-the.m.pl sides of' and affianco a 'beside':

$$
\begin{array}{llllll}
\text { a. } \begin{array}{lllll}
\text { ai } & \text { suoi } & \text { fianchi vs. \#ai } & \text { fianchi di lui } & \text { (Italian) } \\
\text { to-the.m.pl his.m.pl } & \text { sides } & \text { to-the.m.pl sides } & \text { of him }
\end{array}  \tag{15}\\
\begin{array}{lllll}
\text { b. affianco a lui } & \text { vs. } & \text { *affianco } & \text { suo } & \\
\text { to-side } & \text { to him } & \text { to-side } & \text { his.m.sg }
\end{array}
\end{array}
$$

The adpositions in (15) also exemplify, at least for Italian, a further important point of contrast between the 'more lexical' adpositions in (12) and those of the in front type: the small Ps introducing the Ground. While adpositions like ai piedi 'to-the.m.pl feet' and al fianco 'lit. to-the.m.sg side' take the small $\mathrm{P} d i$ which is the standard genitive/possession marker within DPs, lexical Ps like affianco 'beside' or

[^12]di fronte 'opposite/in front of' require before their Ground the small $\mathrm{P} a$ 'to', the standard dative/external possession marker (see Manzini \& Savoia 2010 on the idea that $a$ and $d i$ in Italian instantiate the same basic semantic relation, possession or 'inclusion'). It is tempting to interpret the emergence of the $a$-marking on the Ground in Italian as a hallmark of the first grammaticalization step in a cline similar to the one described above for Germanic. More precisely, the obligatory presence of $a$ under the in front type of Ps goes hand in hand with the loss of the nominal character of the small $n$ involved in these Ps: fianco 'side' in affianco 'beside', although still clearly recognizable as an N , cannot be modified, pluralized, extracted, etc. In the course of the grammaticalization process, these Ps may evolve into the class of Ps for which the selection of the small $\mathrm{P} a$ is optional: dentro (a) 'inside', sotto (a) 'under', dietro (a) 'behind', sopra (a) 'above, on', etc.

In general, most Romance languages-with the exception of Romanian which has morphological genitive-present a small P introducing the Ground, either a/à (<Lat. AD 'to') or de/di (< DE 'from'), mediating the relation between the Ground and the lexical/AxPart P. In French and Spanish, the selected small P is always the same, i.e. $d e$, independently of the type of Ground. But in Italian and ItaloRomance varieties the selection of this small P follows rather intricate patterns (Rizzi 1988; Folli 2008; Tortora 2008; Garzonio \& Rossi 2016, 2020; Franco 2016; Ursini 2017). Indeed, in Italian, complex PPs can be categorized according to these patterns, depending on the obligatory or optional presence of a small $P$, and on the small P itself (Rizzi 1988).

$$
\begin{array}{lll}
\text { a. fuori } & \text { *(da-)lla } & \text { stazione }  \tag{16}\\
\text { outside } & \text { *(from-)the } & \text { station } \\
\text { 'outside the station' } \\
\text { b. dentro } & \text { (a-)lla } & \text { stazione } \\
\text { inside } & \text { (to-)the } & \text { station } \\
\text { 'inside the station' }
\end{array}
$$

Even more interestingly, some of these Ps require a different simple P according to the type of Ground. This contextual variation is systematic: if the simple P is optional, it is always $a{ }^{22}$ however, if the Ground is a bare pronoun, the simple P is obligatory, and can be either $a$ or $d i$.

[^13]| dentro $\quad{ }^{*}(\mathrm{a} / \mathrm{di})$ | lui |  |
| :--- | :--- | :--- |
| inside | ${ }^{*}(\mathrm{to} / \mathrm{of})$ | him |
| 'inside him' |  |  |

Since both $a$ and $d i$ are also oblique Case markers, some authors (Garzonio \& Rossi 2016, 2020; Manzini \& Franco 2016) have proposed that in these complex PPs only the first P element contributes to the spatial meaning of the constituent, while the simple P is actually the same P found in genitive and dative PPs. This hypothesis is strongly supported by the fact that in Italo-Romance varieties the distribution of the simple $P$ is more systematic than in standard Italian and reflects the encoding of possessive relations. For instance, in Friulian varieties the simple P is always da/di 'of' (cf. Garzonio \& Rossi 2020): : ${ }^{23}$


On the other hand, Upper-Southern varieties ${ }^{24}$, like Verbicarese, only display $a$ 'to' with pronominal Grounds; 'this state of affairs is likely to be related to the mandatory dative marking of the possessor of a specific class of possessees, mainly kinship terms and other relational nouns like body parts' (Garzonio \& Rossi 2020, and references cited therein):

| M'aja | səduta | nnant'a jijiddə. |
| :--- | :--- | :--- |
| me=have | sat | before to him |

'I took a seat in front of him.'

[^14]The data from Italo-Romance dialects, when observed with the data from other Romance domains briefly mentioned above, strongly support two points: first, AxPart items are nominal, independently of the level of their grammaticalization, given the fact that the expression of possession is sensitive to the category of the Ground, just as in possessive constructions in regular DPs. This makes them very similar to their Germanic counterparts: both groups contain items with a different degree of grammaticalization, but with similar nominal properties. Second, the lower simple P of Romance complex PPs is never a locative P, but always encodes oblique Case, i.e. relation (or Inclusion, in the terminology of Manzini \& Franco 2016 in the nominal domain).

This conclusion entails a research question about the nature of the Ps that can correspond to English at and to, like Italian $a$ or French $\grave{a}$. A possibility that is explored in $\$ 18.4$ is that this is not a case of homophony, but these Ps are the same items encoding relation at the predicate level, i.e. oblique Case/dative markers.

### 18.4 Functional Ps: Germanic vs. Romance

In $\S 18.3$, two claims have been made regarding AxPart/lexical Ps and small functional Ps. First, it has been argued that, despite some rather marked differences, lexical Ps are particular kinds of nominal items in both Romance and Germanic, which start out as part of a Ground DP and can further grammaticalize into specific functional projections in a layered PP structure. As for small/ functional Ps, it has been suggested that despite broad similarities in grammatical function, they are not the same morphosyntactic elements in Romance and Germanic. This second claim will be considered in this section by comparing the English to with the Italian $a$ 'at, to'.

One of the consequences of the analysis proposed by Cinque (2010a) and adopted in this chapter, see (1a), is that a language like Italian has two different but homophonous $a$ items: the first is the element preceding the Ground under AxPart Ps, the second is the simple P used in directional and stative predicates, like vivere a Roma 'to live in Rome' and andare a Roma 'to go to Rome'. A similar conclusion is proposed by Cinque himself (2010a: 6). The difference between English and Italian could thus regard the polysemy of the simple Pa. In other words, English would lexically distinguish PPdir and PPstat (to and at), while in Italian $a$ would be a non-specialized item surfacing in both positions. ${ }^{25}$ There are, however, some clues suggesting that, contrary to English to, Italian a does not encode directionality.

[^15]English to must be PPdir/Path item as it is in complementary distribution with another Path element like from but more importantly it is incompatible with stative verbs (Svenonius 2010: 144, his examples (46c-d)):
a. *The boat remained to the edge.
b. *The boat remained up to the cave.

To encodes directionality also inside DPs: the train to London, the road to success. The same does not hold for Italian $a$, as witnessed by the strong ungrammaticality of the following:

# a. *Il treno a Roma the train $a$ Rome interpreted as 'The train to Rome' 

b. *La strada al successo the road to-the success 'The path to success'

Italian $a$ appears to be possible only when the DP contains a deverbal noun, or a noun associated with a verb obligatorily requiring dative case: l'accesso alla tribuna 'the access to the gallery' (cf. accedere alla tribuna 'to access to the gallery'); il regalo a Maria 'the present to Mary' (cf. regalare qualcosa a Maria 'to give a gift to Mary'). ${ }^{26}$ In all the other cases the directionality meaning is encoded by a specific P varying according to the properties of the higher noun and the Ground: il treno per Roma, la strada verso il successo. Notice also that even with standard direction predicates, the simple P introducing the Ground can be different according to the properties of the Ground itself: $a$ appears with cities, but countries and continents (and larger regions in general) require in: vado in Francia 'I go to France' (*vado a Francia), vado in Oceania 'I go to Oceania' (*vado a Oceania). When the Ground is human, the P is always da: vado dal medico 'I go to the doctor's' (*vado al medico), see also Franco \& Manzini (2017) on these last examples as DOM cases inside the locative system. What is relevant here is that the same 'dedicated' Ps appear with stative predicates: sono a Roma 'I am in Rome', sono in Francia 'I am in France', sono dal medico 'I am at the doctor's'. This strongly suggests that the simple $\mathrm{P} a$ appearing in all these cases encodes both directionality and stativity, that is, for Italian (and Spanish), Goal

[^16]and Place are syncretic (see Pantcheva 2011 on the Source, Goal, Place syncretisms cross-linguistically).

The tentative claim to be argued for here is that, at least for Italian, the small P $a$ does not encode either Place or Goal/Path, but is only related to the semantic and structural properties of the Ground as a possessor inside a DPPlace. That is, $a$ does not encode stativity either. The hypothesis to be pursued is in a sense close to the one proposed in Manzini \& Franco (2016), where the locative $a$ is like the dative $a$ an instantiation of the semantic relation, inclusion (XP), but of locative inclusion. The main idea is to extend to regular cases like those with the stative/ directional $a$ in (22) the same analysis proposed by Garzonio \& Rossi (2016, 2020) for the cases in which the [ $a$ Ground] under some AxParts can encode endpoint semantics, as in (23) (see Folli 2008 on such cases).
(22) Vado/Sono al supermercato. go.1.sg/Am.1.sg to-the supermarket 'I'm going to/I am at the supermarket.'
(23) La palla galleggia dentro alla grotta. ${ }^{27}$ the ball flaots inside to-the cave
'The ball is floating into the cave'.

In the above-mentioned studies, it was claimed that the Ground la grotta 'the cave' had an obligatory $a$-marking due to the fact that is was extracted out of DPPlace and moved into Spec-PPStat, receiving endpoint interpretation. The proposal was further supported by the fact that a Ground extracted from under AxParts in Italian must present the small $\mathrm{P} a$, an observation already present in Rizzi (1988). ${ }^{28}$ It could be argued, that in a case like (22), the semantics of the verb demands either PPstat or PPdir to be filled, and, in the absence of a closer suitable element (like an AxPart or a RelView point modifier), the DP Ground is displaced to those Specs and marked with $a$.

Under such a view, the difference between Italian $a$ and English to or at is the familiar one: while English has dedicated items in its lexicon for Spec-PPdir and Spec-Ppstat, Italian has none and has to resort to displacement from within DPPlace of the closest suitable item. This proposal has far-reaching consequences and implications, which however must be left for future research. Similarly, the applicability of this idea to other Germanic and Romance languages is to be left for further investigation.

[^17]
### 18.5 Concluding remarks

The rather succinct and by no means extensive comparison of Romance and Germanic spatial adpositions carried out in the above sections is meant, first and foremost, as an attempt at formalizing a series of important similarities and differences very often observed in the literature on the Ps of (members of) these language families. It has been shown that lexical Ps are subject to quite a lot of variation not only across the two families but also within the same family and the same language, so much so that it can be doubted that lexical Ps do really constitute a closed class. The view advocated here is that this variation is the product of a grammaticalization process (Vincent 1999), more precisely that of grammaticalization processes intended as upward reanalysis along a layered sequence of specialized functional projections à la Roberts \& Roussou (2003). The recent proposal in the cartography of PPs, in particular that of Cinque (2010a) (based on Kayne 2004 and Terzi 2008, 2010) offers the possibility to analyse different types of lexical Ps (from very transparent ones of the form $\mathrm{P}+\mathrm{N}$ $+\mathrm{K} / \mathrm{P}$ to the more univerbated and blurred ones) as nominal elements modifying a null noun PLACE (or its little-n equivalents).
The second, more tentative, proposal is to view the Italian functional $\mathrm{P} a$ 'at, to', not as the exponent of PPdir or PPstat, that is, as a case of syncretism, but as a sort of elsewhere element appearing on extracted Grounds. In more precise terms, Italian has no real syncretic counterpart of English to and at.


[^0]:    ${ }^{1}$ See for instance Zwarts (1997) who maintains that lexical categories are precisely those that admit new members by these processes.
    ${ }^{2}$ Ps are considered lexical elements, and hence projecting and theta-marking their complements just as nouns, verbs, and adjectives also in Déchaine (2005) and Den Dikken (2010) for instance. By contrast, for Grimshaw (1991), Ps are functional as they are the uppermost functional projection on top of NPs (corresponding to C in the verbal domain). Svenonius $(2006,2010)$ and Cinque $(2010)$ as well take them as functional items. For other scholars still, Ps may be either lexical or functional (van Riemsdijk 1990; Rooryck 1996).

[^1]:    ${ }^{3}$ We restrict ourselves to the locative domain primarily because most of the recent proposals on the (internal) structure of adpositions are based on the behaviour of spatial/locative items.

[^2]:    ${ }^{4}$ Media Lengua seems to wear the lexical/functional split on its sleeve as its lexical morphemes are relexified with Spanish roots couched in a Quichua morphosyntactic environment (for more details on relexification and mixed languages see Deibel 2019 and references therein).

[^3]:    ${ }^{5}$ Many languages present possessive markers inside locative adpositions. These possessive relations are realized with the typical possession marking strategies found in regular DPs: morphological case, prepositional case marking, structural configurations (cf. Construct State). Terzi (2008, 2010) for instance postulates the presence of an unpronounced PLACE precisely on the basis of genitivemarked pronominal clitics in adpositions. For Construct Case inside PPs see Botwinik-Rotem and Terzi (2008) for Hebrew and Garzonio \& Rossi (2020) for Italo-Romance.

[^4]:    ${ }^{6}$ The simple P a 'to, at' appearing in these complex adpositional expressions is addressed in the following sections, in particular $\$ 18.3 .3$ and $\$ 18.4$.
    ${ }^{7}$ The position RelViewP for in is a position for Relative Viewpoint modifiers, that is for particles or items that indicate how the Ground is located with respect to an 'up/down' or 'in/out' viewpoint, which can be the speaker's for instance (Cinque 2010: 9). See below.

[^5]:    ${ }^{8}$ One such example provided by Matushansky \& Zwarts (2019:272) is French au pied de 'to the foot of', which requires a tall Ground (or one with a part which could be seen as 'feet'). A further example the forms corresponding to along in English, such as entlang in German or lungo in Italian, which require an elongated Ground such as a river, a street, or a hedge.

[^6]:    ${ }^{9}$ The etymologies for the Modern English Ps in this chapter are taken from the online edition of the Oxford English Dictionary. The cited Old English Ps have been further checked in An Anglo-Saxon Dictionary by J. Bosworth and T. Northcote Toller, 1898, Oxford: Clarendon.
    ${ }^{10}$ An anonymous reviewer points out that this is ungrammatical in his/her variety. Although intuitively an object should not have more than one bottom, a Google search yields several examples.
    ${ }^{11} \mathrm{P}+\mathrm{N} /$ Adv is clearly not the only source of Ps. Under and over (or temporal after, which can also have locative uses in the dialects, see Wright's English Dialect Dictionary, s.v. after) have a prepositional or adverbial root (with cognates in many IE languages) and the suffix -er for 'comparatives', making

[^7]:    them relational. Other prepositions like through derive from a PIE root *tere- meaning 'to cross'. Some other cases are represented by the Northern English and Scottish locative till 'to' (see OED, s.v. till, prep., conj., and adv.), originally from Old Norse, where this nominal form meaning 'aim, limit' (cf. German Ziel 'aim') superseded the Germanic to, also in datives. Moreover, spatial adpositions can also derive from verbs, as for instance the Sicilian agghiri from the verb a jiri 'lit. to go.inf' meaning 'towards' (Rohlfs 1969: $\$ 821-\mathrm{b})$, or the Venetan rente and tacà, both meaning 'close, near', which derive respectively from a present participle of rasentare 'to go very close to, to skirt' (Rohlfs 1969: §875), and a past participle form of attaccare 'to join' (Rohlfs 1969: §827).

[^8]:    ${ }^{14}$ The judgements in (6) are from the German variety spoken in Vienna. In other varieties (for instance Hessisch), these are rejected, the only possible interpretation being if there is some sort of enclosure within the lake/pond/stream. Many thanks to Pamela Goryczka and Silvia Schaefer for their help with the German data.

[^9]:    ${ }^{15}$ Only the representation of at the bottom of is given as the German case presents a further complication regarding the dative case marked on the P an 'on'. On the dative/accusative alternation under certain Ps in German see Zwarts (2006), van Riemsdijk (2007), Caha (2010), among others.

[^10]:    ${ }^{16}$ The OE ancestors of the modern Ps often present the -an ending on AxPart items of prepositional/adverbial origin (cf. hind-an on behindan and many other cases, e.g. bufan 'above', be 'by' + uf 'up' $+a n$ ). The -an ending forms locative adverbs, originally with the meaning 'from' (Mitchell \& Robinson 1986: $\$ 135$ ), yet many of these adpositions were used both in locative and goal contexts.
    ${ }^{17}$ Such little ns are to be kept distinct from elements like English -body and -one in Qs such as somebody and everyone (Haspelmath 1997). These elements are more akin to numeral classifiers as they provide a minimal restriction for the quantifier. The little $n(s)$ in the PP can be considered more akin to sortal classifiers (see Svenonius 2008 for a short but informative review of the different types of classifiers).

[^11]:    ${ }^{18}$ Spanish presents cases of AxParts doublets like de(l)ante 'lit. of-front'/a(l)ante 'lit. at-front', both meaning 'in front', or debajo 'lit. of-low'/abajo 'lit. at-low', both meaning 'below', see Fábregas (2007).

[^12]:    19 The Italian examples are slightly awkward in the sense that, when the possessive adjective is involved, the Ground is mostly interpreted as [+human]. What is important, however, is that alle spalle di lei 'to-the.f.pl shoulders of her, behind her' is possible only when highly contrasted and focalized.
    ${ }^{20}$ Spanish has a number of lexical Ps with which the Ground can be expressed as a possessive adjective, as for instance:
    (i) El libro está delante suyo. the book is of-front his.m.sg 'The book is in front of him'

    The reader is referred to Fábregas (2007) for a description of which Ps allow possessive Grounds and for a Nanosyntactic treatment.
    ${ }^{21}$ The number is even higher when considering the dialects: Neapolitan 'ncoppa 'lit. in-head-to; on/ on top of', Marchigiano ma (< Lat. In medio AD, 'in middle of') 'to', Apulian mbarte (< Lat. IN parte(m), 'in part') 'towards'; see Rohlfs 1969: $\$ \$ 818-84$ for a detailed list, and Vincent (1997) for some further examples.

[^13]:    ${ }^{22}$ An anonymous reviewer points out, correctly, that this is true only of spatial adpositions, while some non-spatial prepositions like dopo 'after' and senza 'without' admit instead an optional di 'of' (cf. dopo (di) lui, Rizzi 1988: 523). It should be noted, however, that, at least in Standard Italian, this is possible only with pronominal Grounds: $d i$ is not an option when these two Ps are followed by a DP (*dopo della festa, *senza dello zucchero). Tra/fra 'between' show a similar behaviour: they do not require a simple P with Ground DPs, but do admit $d i$ with pronominal Grounds tra (di) noi 'between of us'. The optionality of $d i$ with pronominal Grounds in these Ps can be indicative of their slowly becoming simple Ps.

[^14]:    ${ }^{23}$ Interestingly, in Friulian the directional meaning of Ps like the Italian verso is encoded by the AxPart item bande 'sides', thus indicating even more clearly that such item still retains much of its nominal nature (signalled moreover by the presence of the definite singular feminine determiner $l a$ and the fact that the Ground is realized as a possessive pronoun):
    (i) L'ai vioduut c al ciaminave da la loor bande. Friulian him=have.1sg seen that he walked from the their side 'I saw him walking towards them.'
    ${ }^{24}$ In the by-now traditional classification of Italian dialects, Upper-Southern (or Intermediate Southern) varieties are the Italo-Romance dialects spoken in southern Marche, in Abruzzo, Molise, Lazio, Campania, Basilicata, northern Puglia and northern Calabria (to the exclusion of the most southern parts of these last two regions, which are classified as Extreme Southern varieties together with Sicilian).

[^15]:    ${ }^{25}$ On the basis of the same syncretism in Spanish, Romeu (2014) has proposed that there is no Path projection in the PP structure.

[^16]:    ${ }^{26}$ That goals and indirect objects/recipients share the same morphosyntactic encoding is a very well-known fact, with instances present not only in Latin with the preposition AD 'to' (Vincent 1999: 1115 and references) but also found in many different languages (see Quichua cited in Deibel 2019). In the Romance domain for instance, both Portuguese and Romanian do not have reflexes of Latin AD in directional contexts, presenting instead para 'for' and la 'to' (< Lat. ILLAC 'from there') respectively, which are also the small Ps introducing dative/recipients.

[^17]:    ${ }^{27}$ Galleggiare is no Manner of Motion verb in Italian. See Folli (2008) for a detailed discussion on these verbs admitting endpoint PPs in these cases.
    ${ }^{28}$ This is supported by Friulian data, where the AxPart Ps require only the small $\mathrm{P} d e$ 'of', but $a$ is the only possibility when the Ground is extracted. See Garzonio \& Rossi (2020).

