

A FUNCTIONAL DESCRIPTION OF ADVERBIAL AND PREPOSITIONAL HOMOMORPHS IN ENGLISH

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1. Introduction

1.1. Adverbs: an understudied word category

As some linguists have already noted (Nakamura, 1997: 247) the adverb represents an understudied word category, in comparison to the noun, the verb or the adjective. As an example of this neglect Nakamura draws to our attention the reduced number of pages that Lyons (1977) devotes to the description of this part of speech in his standard treatise on semantics in comparison with other word categories.

Nakamura goes on to unfold some of the reasons that account for these lack of previous research among which this linguist highlights the fact that the adverbial group is heterogeneous. In other words, the adverb is frequently in collision with other word categories, namely with adjectives, verbs or prepositions. A good illustration of the overlapping of the adverbial word category with other word categories is the linguistic phenomenon of homomorphy.

1.2. Definition of homomorphy: the case of adverbs and prepositions

In this study, we understand homomorphy as the linguistic phenomenon that describes how

some words function most typically like words of a given class (for example that of adverbs), but that occasionally they realise syntactic functions which are normally realised by words of a different class (for example, adjectives). Such an item can therefore be regarded as two different 'words' having the same form, both written and spoken. The two words are called homomorphs. (Downing & Locke, 1992: 563)

Downing and Locke mention the overlapping of the adverbial and adjectival categories as an example to illustrate their definition of homomorphy, however, as they continue their analysis they identify which is the most frequent instance of homomorphy in English:

The phenomenon of homomorphy occurs in all English word classes, and is more frequent between adverbs and prepositions than between adverbs and adjectives. It is some cases difficult to say whether the following are adverbs having prepositional homomorphs or prepositions with adverbial homomorphs. (Downing & Locke, 1992: 564)

Our aim, as we describe below in more detail, is precisely to explore the phenomenon of homomorphy between English adverbs and prepositions.

1.3. Previous research in other languages

From a contrastive perspective, it must be noted that the blurred boundaries between the adverbial and the prepositional word classes represent a linguistic phenomenon to be found in many languages. Namely, Bosque (1992: 210-211) describes the overlapping of the adverbial and prepositional categories in Spanish¹, along with the description of other similar intersections between Spanish nouns and adjectives (*ibid.*, 105-124), adjectives and adverbs (127-145), nouns and verbs (147-161), adjectives and verbs (163-178), articles and pronouns (179-192), nouns and prepositions (208-209), and adverbs and conjunctions (212-217). Certainly, not all these pages are devoted to describe instances of homomorphy, but we find particularly relevant to our approach Bosque's systematic description of Spanish word classes in terms of the different

¹ Gamillscheg (1963) also acknowledges the close connexion between these two word categories when he presents a study on the Spanish adverbial word class in direct relation to the Spanish prepositional word class.

instances of overlapping and intersections which he is able to identify and illustrate. In the view of Bosque's account homomorphy represents just one of the multiple linguistic phenomena which support a more flexible description of word categories and their boundaries. More recent research is being carried out in the line of redefining traditional forms of distinctions between word categories, as Wunderlich (1997) suggested redefinition of the lexical categories of verbs, adjectives and adverbs drawing examples from a variety of languages (e.g.: Cayuga, Tongan, Hungarian, or Finnish among others).

The specific relationship between adverbs and prepositions has been identified and studied not in widely spoken languages such as English and Spanish, but accounts of this linguistic intersection have also been given in relation to some of the so called minority languages; for instance, Sancho Cremades (1994) describes and labels this word category in Catalan language as *adverbis preposicionals* (i.e. "prepositional adverbs"), and they support the existence of such category as the only means to account for the linguistic problems in defining some of the items in the Catalan prepositional word class.

In fact, the conflicting relationship between adverbs and prepositions is a well-acknowledged linguistic fact which has been analyzed in a substantial number of Indo-European languages, such as Russian (Ermolenko, 1963), classical Greek (Jaeger, 1957), Latin (Hiltbrunner, 1962), Rumanian (Bejan, 1976), Italian (Herczeg, 1969), French (Bel'skaja, 1955), Sweddisch (Bergh, 1940), Danish (Blass, 1965), and German (Holmlander, 1973), among others.

In English, adverbs and prepositions are described as inter-related word categories in a number of studies (Allen, 1964; Blass, 1965; Bruton, 1969; Bryant, 1946-47; Fairclough, 1964; Heaton, 1965; Hill, 1968, 1969; Jacobson, 1977, among others). As opposed to these accounts, Halliday (1985: 214) separates the prepositions and the adverbs in his description of word classes. He considers that the preposition is more related to the verb category whereas the adverb, together with conjunctions, constitutes what he labels as the adverbial category. We certainly agree when he underscores the close relationship between prepositions and verbs, but it is our contention that Halliday's classification oversimplifies the problem and that, for instance, the overlapping of prepositions and adverbs should not be overlooked, as the various studies (see above) describing this linguistic phenomenon in many different languages have shown.

Quirk et al. (1985) understand prepositional adverbs as having the same morphological form but different syntactic function; for example:

<i>fast</i>	⇔	<i>fast</i>
[adjective]		[adverb]
<i>down</i>	⇔	<i>down</i>
[adverb]		[preposition]

Quirk et al. (1985) take up this issue but speak of a 'prepositional adverb' as being "a particle which is formally identical to or related to a preposition, and which often behaves like a preposition with ellipted complement." For example:

<i>A car drove</i>	{	<i><u>past the door.</u></i>	[<i>past</i> = preposition]
		<i><u>past.</u></i>	[<i>past</i> = prepositional adverb]

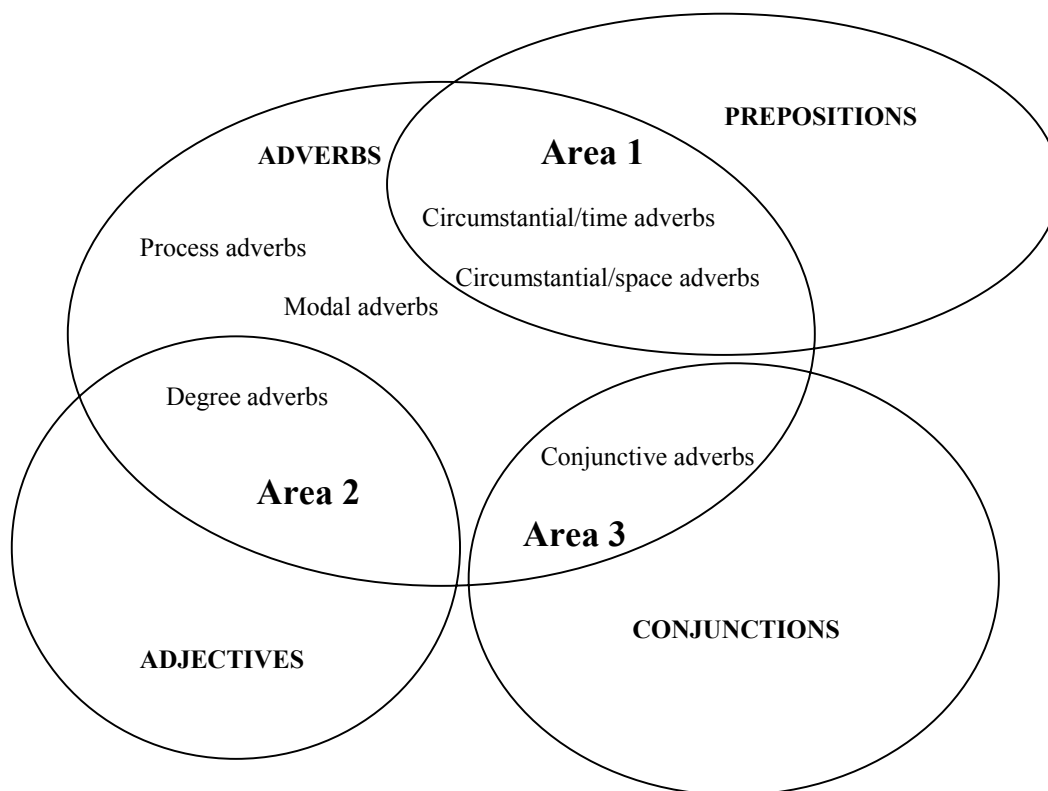
Homomorphy is closely related to the problem of categorization which, in turn could entail an approach from a cognitive point of view. A research question arises, however, and it is to empirically assess the limits of the problem.

1.4. Aims of this study

Our starting point is, therefore, to provide a description of the inter-relation between adverbs and prepositions in English focusing on those instances where homomorphy between these two word categories is to be found. Adverbs, however, overlap with other word categories as well, namely adjectives and conjunctions. Figure 1 below shows the different types of adverbs according to a semantic classification proposed by Downing and Locke (1992: 551-552) with three different areas of intersection between the adverb word class and other word classes such as adjectives (area 2 in the figure 1), conjunctions (area 3) or prepositions (area 1). In each

of these intersections instances of homomorphy are to be found, but the focus of this paper is to study the cases of homomorphy in area 1 in the diagram.

Figure 1. Overlapping areas between adverbs and other word categories.



More specifically, the objectives of this study may be summarized as follows:

- i) to classify the different adverbial-prepositional homomorphs according to whether they are more frequently used as either adverbs or prepositions;
- ii) to draw an ideational diagram –showing the intersection between the adverbial and the prepositional word categories– where the different homomorphs can be placed according to their different usage;
- iii) to identify if the same homomorph is used differently depending on the context (i.e., disciplinary variations)

2. Method of research

Downing and Locke (1992: 564, 590) mention the following examples of adverbial and prepositional homomorphs:

aboard, about, above, across, aboard, after, along, alongside, around, before, behind, below, beneath, besides, between, beyond, by, down, in, inside, near, off, on, opposite, outside, over, past, round, since, through(out), under, underneath, up

Following Quirk et al.'s (1985) suggestion, two more have been added to the analysis: *within* and *without*.

2.1. Method of analysis

The method of study we have been divided into three stages:

- i) firstly, we have carried out a corpus-based study to identify the different collocations of the adverbial and prepositional homomorphs mentioned above; we have used the *WordSmith Tools* software (Scott, 1996) in this process;
- ii) secondly, we have analyzed the specific function of each homomorph in each collocation (i.e., identifying if the term functions either as adverb or as preposition in each instance);
- iii) finally, we have drawn a classification of the homomorphs analyzed producing a diagram showing the distinct tendency of each homomorph to either function as adverb or preposition.

We have also taken into consideration the possibility of variations in usage depending on the context. In other words, we have studied how each homomorph tends to function in corpus of different contexts (e.g. from different academic disciplines) to see if any substantial variations were to be detected.

Scott (1996) provided us with the software package necessary for the detailed analysis of the corpus.

2.2. Corpus description

The speciality chosen for this study has been journalism, with newspaper columns selected at random from two British periodicals, *The Guardian & The Telegraph*, for a total of 99,797 tokens and 4,419 sentences. Sentence length: 22.19 words/sentence (standard deviation: 11.52).

3. Analysis of results

An initial analysis, taken in absolute numbers and percentages, yielded the following results (see table 1).

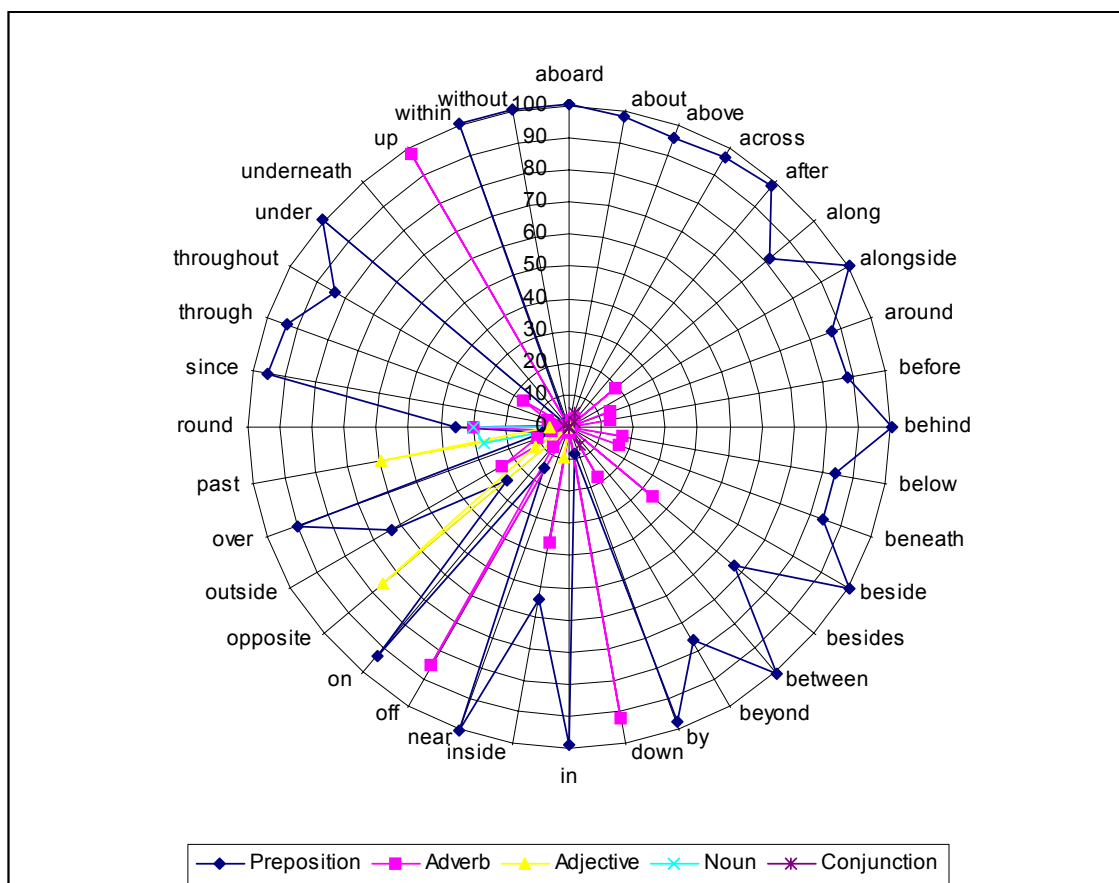
Table 1. Total number (*f*) and percentage (%) distribution of particles analyzed by word category.

	Preposition		Adverb		Adjective		Noun		Conjunction	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
<i>in</i>	1983	98.21	36	1.79	0	0	0	0	0	0
<i>by</i>	693	97.28	4	0.58	0	0	0	0	1	0.14
<i>on</i>	693	92.28	58	7.72	0	0	0	0	0	0
<i>about</i>	183	97.86	4	2.14	0	0	0	0	0	0
<i>over</i>	164	89.61	19	10.39	0	0	0	0	0	0
<i>after</i>	142	97.26	1	0.68	0	0	0	0	3	2.06
<i>between</i>	94	100.00	0	0	0	0	0	0	0	0
<i>before</i>	81	87.09	12	12.91	0	0	0	0	0	0
<i>through</i>	79	92.94	6	7.06	0	0	0	0	0	0
<i>under</i>	71	100.00	0	0	0	0	0	0	0	0
<i>since</i>	56	94.02	2	3.39	0	0	0	0	1	1.69
<i>without</i>	45	100.00	0	0	0	0	0	0	0	0
<i>across</i>	32	96.96	1	3.04	0	0	0	0	0	0
<i>around</i>	31	86.11	5	13.89	0	0	0	0	0	0
<i>along</i>	22	81.48	5	18.52	0	0	0	0	0	0
<i>behind</i>	22	100.00	0	0	0	0	0	0	0	0
<i>within</i>	21	100.00	0	0	0	0	0	0	0	0
<i>above</i>	20	95.24	0	0	0	0	0	0	1	4.76
<i>near</i>	20	100.00	0	0	0	0	0	0	0	0
<i>outside</i>	16	64.00	6	24.00	3	12.00	0	0	0	0

<i>throughout</i>	15	83.33	3	16.67	0	0	0	0	0	0
<i>beyond</i>	13	76.47	3	17.65	0	0	0	0	1	5.88
<i>off</i>	12	14.81	69	85.19	0	0	0	0	0	0
<i>down</i>	6	8.45	65	91.55	0	0	0	0	0	0
<i>inside</i>	6	54.55	4	36.36	1	9.09	0	0	0	0
<i>round</i>	6	35.30	5	29.41	1	5.88	5	29.41	0	0
<i>below</i>	5	83.33	1	16.67	0	0	0	0	0	0
<i>beneath</i>	5	83.33	1	16.67	0	0	0	0	0	0
<i>beside</i>	5	100.00	0	0	0	0	0	0	0	0
<i>up</i>	5	2.17	225	97.83	0	0	0	0	0	0
<i>alongside</i>	4	100.00	0	0	0	0	0	0	0	0
<i>past</i>	3	8.11	2	5.41	22	59.45	10	27.03	0	0
<i>besides</i>	2	66.67	1	33.33	0	0	0	0	0	0
<i>aboard</i>	1	100.00	0	0	0	0	0	0	0	0
<i>opposite</i>	1	25.00	0	0	3	75.00	0	0	0	0
<i>underneath</i>	0	0	0	0	0	0	0	0	0	0

In a graphical representation, the use of the above-mentioned particles can be seen in percentages in the radial graph 1 below.

Graph 1. Word category of homomorphs in our corpus (in percentages).



From the analysis of our corpus it can be seen that the majority of instances in the use of homomorphs are to be found in verbal phrases, particularly in phrasal verbs with particles such as *in*, *on*, *by*, etc.

The most typical examples occur with the duality of function, either as adverb or preposition, as in the following four examples:

[Adv.]	<i>outside enemies rather than any still lurking</i>	<u>inside</u>	<i>His message ...</i>
[Prep.]	<i>perfectly preserved airline food have been found</i>	<u>inside</u>	<i>Egyptian mummies...</i>
[Adv.]	<i>Occasionally they went</i>	<u>outside</u>	<i>and fell over.</i>
[Prep.]	<i>Sitting on the bench</i>	<u>outside</u>	<i>the church, you notice ...</i>

As can be seen in table 1 and graph 1, most homomorphs would favor to function as prepositions, some of which reach a 100% use in that word class, as in the case of *aboard*, *alongside*, *behind*, *beside*, *between*, *near*, *under*, *within*, and *without*. In contrast, in three instances these particles acquire an almost total adverbial use, as in the case of *up* (97.83%), *down* (91.55%) and *off* (85.19%).

In addition, *round* and *past* have a significant number of instances in which they perform as nouns (29.41% and 27.03%, respectively). In the following examples this diverse grammatical function is indicated:

[Adv.]	<i>An old Argentine man, who was walking</i>	<u>past</u>	<i>stopped and joined me ...</i>
[Prep.]	<i>young woman, saline drip in hand, wandered</i>	<u>past</u>	<i>me, dazed and ...</i>
[Adj.]	<i>political change in Eastern Europe in the</i>	<u>past</u>	<i>year had confronted ...</i>
[Noun]	<i>stumbles on the relics of an industrial</i>	<u>past</u>	<i>amid the bracken and ...</i>
[Adv.]	<i>from the injections. When I came</i>	<u>round</u>	<i>I asked how long I would bleed</i>
[Prep.]	<i>broadcast live to hundreds of millions</i>	<u>round</u>	<i>the world, is unquestionably ...</i>
[Noun]	<i>from Serbia and condemn it to a new</i>	<u>round</u>	<i>of economic misery.</i>

4. Conclusion

Our research so far has been purely empirical; however, those involved in the study of adverbial prepositions, the so-called homomorphs, will recognize it is an area that belongs to a wider problem we have not studied. In other words, the issue of grammaticalization, however complementary, is not addressed in this research. This is actually an exploratory analysis, a pilot study, and it is part of a broader research in which we are already involved in for a future publication.

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