
Prepositional Phrases as Complements in Prepositional Phrases

Matjaž Zgonc

University of Ljubljana

matjaz.zgonc@gmail.com

ABSTRACT The paper explores the instances where a prepositional phrase has its headword complemented by another prepositional phrase. Typically, grammars explaining this phenomenon focus primarily on either spatial or temporal (as extensions of the spatial relations into the temporal sphere) meanings that the complements carry. Hence, grammars routinely identify prepositions which may be complemented by a PP and, consequently, those which may not. The paper looks at the conceptual structures of the prepositions which the grammars claim to be able to take prepositional phrases as complements. All those prepositions are lative and reduce the landmarks to zero-dimensionality. The paper then tests the thesis that all prepositions with such conceptual structures allow complementation by prepositional phrases. A small-scale survey is included in the paper's appendix to boost the credibility of its main thesis.

KEYWORDS prepositional phrase, ablativity, allativity, dimensionality, complementation

1. INTRODUCTION

This paper aims to discover the common characteristics shared by prepositions that may take a prepositional phrase, hereinafter referred to as PP, as their complement. First, it exposes the similarities between prepositions complemented by PPs in instances which are either documented in grammars or accepted in general usage. Afterwards, the paper discusses if the prepositions which share the aforementioned similarities can also be complemented by PPs even if such usage is not common and/or attested to in grammar books. This part of the paper will be supported by corpora examples and a small-scale survey on the degree of acceptability of usages, conducted on native speakers of English.

2. THE DESCRIPTIVE GRAMMAR OF PREPOSITIONS COMPLEMENTED BY PREPOSITIONAL PHRASES

The PP is a very versatile syntactic item. It is able to function in several different functions on both sentence and phrase level. Still, all PPs share a common syntactic structure: each is headed by a preposition and each has an obligatory complement to the headword. The complement is typically nominal and either phrasal or clausal in form. However, in some cases, the complement may also not be nominal. The ones I am particularly interested in are the examples where the complement is realised by another PP:

(1) The X-ray emissions can only be detected from above the Earth's atmosphere. (British National Corpus)

Both Quirk et al. (1973) and Huddleston and Pullum (2008) acknowledge in their grammars the prepositions which take PPs as complements. They list three prepositions which readily accept PPs as their complements: "from", "since", and "till/until".

I will use the terms *trajector* and *landmark* throughout the paper, hereinafter referred to as TR and LM respectively, alongside *headword* and *complement*. A PP may be viewed as a relation between two items where one is the more involved, the one on which the speaker places the focus, while the other is used as a reference point for the former one. The latter is called the landmark and the former the trajector (Lindstromberg 2010; Langacker 2000, quoted in Lipovšek 2014a).

All the listed prepositions describe the relations in space and/or time. I will call the relations in space the *locative domain* and those in time the *temporal domain*. The two are connected: “The locative domain is the source for a large variety of semantic extensions to non-locative domains” (Huddleston and Pullum 2008, 643; see also Kemmerer 2004).

I believe that what makes some prepositions able to take PPs as complements is the *conceptual structure* of the prepositions. While prepositions are lexicalisations of different relations between TRs and LMs, a preposition’s conceptual structure is an abstraction of identical relations between different TRs and LMs, lexicalised as the preposition in question. If there is a pattern of common features in conceptual structures of the prepositions this paper deals with, there is reason enough to believe that whatever allows a preposition to take PPs as the complement lies in its conceptual structure, regardless of which domain it belongs to.

3. COMPARING THE CONCEPTUAL STRUCTURES OF PREPOSITIONS THAT MAY BE COMPLEMENTED BY PREPOSITIONAL PHRASES

In comparison to other prepositions from the locative domain, “from” is unique because it allows LMs of different dimensionalities. The LM encompassing “from” may be zero-dimensional, two-dimensional, or three-dimensional, but always ablative (Lindstromberg 2010). Furthermore, the *proximity schema* (Lipovšek 2013) of TR and LM is left largely *unspecified* with regard to spatial dimensions.

Consider the following uses of “from” (see also Lipovšek 2014b):

- (2) Jenkins ran the race from start to finish.
- (3) Donald picked up a book from the shelf.
- (4) Take the tray from the oven.

The LM in (2) is a point-in-space entailing no dimensions. The starting and the finish lines are depicted in speech as *points*, even if in reality they are two- or three-dimensional. In (3), the LM (shelf) is necessarily two-dimensional as a shelf is a surface offering support for the TR. Similarly, in (4), the LM (oven) is a necessarily three-dimensional space the TR is about to leave. The use of “from” alone tells the addressee nothing about the dimensionality of the LM.

The reduction of the LM to zero-dimensionality is a key feature of the conceptual structure of “from”. Indeed, “the major feature that sets *from* apart from *off* and *out of* is that of reducing the LM’s dimensionality in space to a mere point in line” (Lipovšek 2013, 194).

Even though the LM is two- or three-dimensional in physical reality, this does not affect the addressee’s understanding of it as zero-dimensional (Lipovšek 2013). From a large enough distance, everything appears as nothing more than a *point*. This brings the paper to an interesting observation for PPs as complements: when Lipovšek (2013) compares “from”, “off”, and “out of”, she concludes that when dimensionality is irrelevant, prepositions may complement “from” to lexicalise the relation between the TR and LM which “from” alone is unable to specify. The other PP will compensate the dimensionality not included in the meaning of “from”. When, on the other hand, the dimensionality of LM is relevant, another preposition has to be used.

To demonstrate:

- (5) Donna fished the remote from (the place) behind the couch.

(6) *Donald picked up a book from (the surface) on the shelf.

(7) *Take the tray from (the place) in the oven.

Sentences (6) and (7) would be unacceptable in the form in which they are now because they are illogical: there is a clash of meaning between “from” and “on” or “in”. The default scheme of “from” is lative and zero-dimensional while “on” and “in” are necessarily dimensional: “on” is a lexicalisation of “support” (on a two-dimensional surface) and “in” is a lexicalisation of “containment” (in a three-dimensional space).

The use of “since” is very similar to the use of “from”. “Since”, too, is ablative as it denotes a starting point of a stretch of time (Quirk et al. 1973). But is it also like “from” in that it entails a zero-dimensional LM? The answer is almost definitely yes because time is understood as events which cannot deviate in any direction other than from the present to the past.¹ Events are viewed as “points in line” in relation to time. The conceptual structure of prepositions in the temporal domain entails either zero- or one-dimensional LMs: when no emphasis is put on the duration of the event-as-LM, it is perceived as zero-dimensional; when there is duration involved, it is perceived as one-dimensional.

A prepositional complement adds dimension to the LM of “since” similarly to how it does to “from”. “Since” describes an ablative relation between a TR and a zero-dimensional LM, what can be seen in the following sentence:

(8): Food has been scarce since the war.

Now, compare (8) to (9) and (10):

(9) Food has been scarce since (the time) before the war.
(Quirk et al. 1973, 658; parentheses added by the author)

(10) Food has been scarce since (the time) after the war.

The ellipted complement “the time” is one-dimensional as opposed to zero-dimensional. By adding the complement, a PP, the void of dimensionality in “since” was filled and the LM now isn’t a zero-dimensional point-event (the war) but a one-dimensional *ray*: either all the time *before* the war including the war in (9) or all the time *after* the war including the war in (10).

It seems that PPs as complements of prepositions add dimensionality to the prepositions they complement². If there is dimensionality already present in the meaning of a preposition, a clash in meanings occurs, and this could be the reason why only zero-dimensional prepositions apparently take PPs as complements.

There is another preposition which is in one of its meanings ablative and zero-dimensional, and that is “for”, but only when its meaning is “intended destination” (Lindstromberg, 2010). Lindstromberg (2010) explains how “for” stems from an Old Scandinavian preposition meaning “in front of”. As gifts were given to their recipients from the front, “for” came to be associated with intended recipients. “For” can therefore also be understood as a lexicalised ablative relation between a TR and a zero-dimensional LM, exactly like “from” and “since”. That it can be complemented by a PP should therefore come as no surprise:

(11) Australia are calling it a warm-up game for before the world cup.
(British National Corpus)

(12) Chandeliers are also a wonderful option for inside the home.
(English Web Corpus 2013)

Admittedly, these examples come from spoken English. However, the fact that a language is spoken makes it no less a language, of course, and if native speakers of English deem such usage acceptable, it can be said that PPs may sometimes complement “for”.

The final preposition which Quirk et al. (1973) and Huddleston and Pullum (2008) claim can take PPs as its complements is “until” – or its

variation “till”. This preposition³ is not *ablative* but *allative*: the relation between TR and LM is not “in the direction away from LM” but “in the direction *towards* LM”. Still, a PP as the complement of “until” adds dimensionality to LMs of “until” just as it does to the LMs of “since”.

(13) The Xbox 360 event lasted until before the end of chapter 2.
(English Web Corpus 2013)

(14) We didn’t meet until after the show. (Quirk et al. 1973, 658)

The final preposition this paper is concerned with is “to”. There is a certain congruency to be observed in the relations between “from” and “to”, and “since” and “until”. Because both the pair of ablative prepositions and the pair of temporal ones can take PPs as complements, one would expect “to” to adhere to the pattern. However, grammars do not attest to that.

“To” does, in fact, differ from the rest quite significantly: the TR and LM it selects do not necessarily coincide and whenever that is the case, “to” may be substituted with “towards”, which never implies coincidence (Lindstromberg 2010). Whenever there is an unavoidable distance between two objects, they together have to be understood as at least one-dimensional and certainly not as a single point in place. The LM of “to” is therefore not always zero-dimensional, and thus, dimensionality may not always be added.

However, there are examples of “to” being complemented by a PP:

(13) And then his hand moved to under her chin.
(Lipovšek 2014b, 30–31)

(14) Pure monosilane is heated to above its decomposition temperature then cooled. (English Web Corpus 2013)

In (13) and (14), the TR does end up coinciding with the LM. Substituting every “to” with “towards” drastically alters the meaning of the examples above. It appears that if and only if the relation between TR and LM lexicalised by “to” entails eventual coincidence, “to” may be complemented by a PP.

(15) And then his hand moved to (the place) under her chin.⁴

The evidence gathered leads me to believe that it is possible for locative⁵ prepositions to be complemented by a PP where there is a dimensional nominal phrase ellipsed, whenever the LM is zero-dimensional, and where there is earlier or eventual coincidence between the TR and the LM.

4. TOWARDS APPLICABILITY: RESEARCH SURVEY RESULTS

In order to test how well the theoretical considerations of locative zero-dimensional prepositions reflect the linguistic reality of English, I have constructed a survey comprised of 45 sentences which native speakers evaluated according to how acceptable they perceived the sentences to be. They were able to choose the degree of acceptability on a scale from –3 (completely unacceptable) via 0 to 3 (completely acceptable). The survey received 33 replies in total. For a detailed analysis and the examples used, see Appendix.

There were three categories in total. The first one included sentences with all the prepositions I was testing. Because they appear in grammars as prepositions accepting complements as PPs, “from”, “since”, and “until” were tested with five sentences only. Conversely, “to” and “for” were tested with ten sentences.

The second category included five sentences containing phrasal-prepositional verbs. Since phrasal-prepositional verbs are completely acceptable in English, the analysis of the data those five sentences provided was used as the benchmark for acceptability.

The third category consisted of five sentences with completely unacceptable usages of two adjacent prepositions. Either they conveyed paradoxical situations or included more than one place value per locative relation (Zhang 1996). The results obtained from these sentences were intended to represent the benchmark for unacceptability.

4. 1. BENCHMARKS FOR ACCEPTABILITY AND UNACCEPTABILITY

Regarding the sentences with phrasal-prepositional verbs, one would expect both a high degree of agreement among respondents, as well as them by and large deeming the sentences acceptable. Fortunately, this is exactly what happened: on average, the arithmetic mean amounted to 2.40, and the standard deviation to 0.96. The median was always at 3.

With the unacceptable sentences from category 3, the picture should be a mirrored image of the one the sentences with phrasal-prepositional verbs have painted. The results were not quite as perfect here: the median was in fact always -3 or -2, but the average arithmetic mean amounted “only” to -1.81. Still, I decided to accept the value -1.81 as the benchmark of unacceptability.

The gravitation of the scores of tested sentences towards either acceptability or unacceptability is a sufficient indicator of the actual acceptability of those sentences. As such, if most sentences where a particular preposition is complemented by a PP tend to be acceptable, it is possible to conclude that it is more acceptable than not for the preposition in question to be complemented by a PP.

4. 2. RESULTS BY PREPOSITION TESTED

The results for the prepositions “from”, “since”, and “until” have proven to be less conclusive than I had hoped. This is partly due to the mistakes I had made when constructing the sentences for testing, but partly also due to unforeseen developments.

There were three sentences where “from” was complemented by a PP which the native speakers found highly acceptable (average score: 2.22; average standard deviation: 1.33). One of those which was most often deemed unacceptable contained a reduplication of a place value (“from at”). The redundancy of the preposition was too unacceptable for most

respondents and hence the low scores (average: -1) with high degrees of variation among them (standard variation: 1.97).

Drawing conclusions from the data collected for both temporal prepositions proved even more troublesome. All examples bar one tended towards either marginal acceptability or unacceptability (the absolute value of the arithmetic mean rarely exceeded 0.85) with very high standard deviations (none under 1.92, only two under 2.02). The tendencies I was still able to observe include:

- a) Complementation by a PP headed by "before" tends to be more acceptable than complementation by one headed by "after".
- b) Complementation by a PP headed by "during" tends to be unacceptable.
- c) Complementation by a PP headed by "by" tends to be unacceptable. Such complementation is unacceptable even if the complemented preposition is "from".

With the preposition "to", one would expect the results to be leaning towards unacceptability, except in cases where the meaning of "to" is more clearly lative than it is orientational. In either case, the standard deviation should be high, with speakers who understand it as orientational finding the usage in the test sentences unacceptable, while those who see it as lative find the uses more or less acceptable.

The actual results were surprisingly accurate: all but two sentences were found to be either marginally acceptable or marginally unacceptable (average absolute value of the arithmetic mean was 0.60) with relatively large values of standard deviation (average: 1.92).

The results for the preposition "for" are even more stunning. I expected the results to be similar to those for "to", perhaps leaning more towards unacceptability. However, the sentences with "for" leaning towards acceptability turned out to be on average twice as acceptable as

those with “to” (0.80 as opposed to 0.40), while there was almost no difference in the perceived unacceptability of the unacceptable sentences (–0.73 with “to” versus –0.735 with “for”). Furthermore, the unacceptability of the latter was exacerbated by a grammatical mistake of which I am guilty, and a sentence where the meaning of “for” was not “intended destination” but probably “appropriacy” (Lindstomberg, 2010, 225). See Appendix for details.

Having all these data analysed, one can observe how complementation of lative and zero-dimensional prepositions with PPs gravitates towards acceptability when the complement actually adds dimensionality to the headword. Even though this survey is way too small-scale to ever be considered conclusive, it does at least support the original thesis this paper is based on.

5. CONCLUSION

The common characteristics of the conceptual structure of prepositions which are able to be complemented by PPs remain elusive. Some PPs mysteriously do not seem to be acceptable complements, and the sample size of the survey is far too small to be conclusive. However, there is still some merit in the paper’s main thesis. For now, I can claim with certainty that there are more prepositions which can take those complements than listed in grammar books.

This possibly has useful implications for translating prepositions. See Appendix for details.

NOTES

- ¹ Because of this, the passing of time is often represented with a line.
- ² Keep in mind that "from" may also have a temporal meaning. For the sake of brevity, I will not analyse its temporal occurrences separately.
- ³ Everything stated about "until" is true for "till", as well. For the sake of brevity, only "until" is discussed here.
- ⁴ Compare sentences (15) and (13).
- ⁵ Used by Lipovšek in Lipovšek 2014b to avoid a terminological pile-up.

REFERENCE LIST

- British National Corpus. <https://www.sketchengine.co.uk/british-national-corpus/>.
- English Web Corpus 2013. <https://www.sketchengine.co.uk/ententen-english-corpus/>.
- Gigafida Corpus. <http://www.gigafida.net/>.
- Huddleston, Rodney D., and Geoffrey K. Pullum. 2008. *The Cambridge Grammar of the English Language*. New York: Cambridge University Press.
- Kemmerer, David. 2005. "The Spatial and Temporal Meanings of English Prepositions Can Be Independently Impaired." *Neuropsychologia* 43:797–806. doi:10.1016/j.neuropsychologia.2004.06.025.
- Langacker, Ronald W. 2000. *Grammar and Conceptualization*. Berlin, New York: Mouton de Gruyter. Quoted in Lipovšek, Frančiška. 2014a. "Prepositional Use with the Object-of-activity Function of the Landmark in English and Slovene." *Jezikoslovlje* 15(2–3): 153–171. <https://hrcak.srce.hr/131351>.
- Lindstromberg, Seth. 2010. *English Prepositions Explained*. Amsterdam, Philadelphia: J. Benjamins.
- Lipovšek, Frančiška. 2013. "Movement out of, off and from the Landmark: Conceptualisation of the Departure Point." *AAA: Arbeiten aus Anglistik und Amerikanistik* 38(2): 187–205. <http://www.jstor.org/stable/43025857>.
- Lipovšek, Frančiška. 2014b. "Defining the Conceptual Structure of from and to." *ELOPE* 11(1):25–38. doi: 10.4312/elope.11.1.31-43.
- Randolph Quirk, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik. 1973. *A Grammar of Contemporary English*. London: Longman.
- Zhang, Ning. 1996. "Semantic Structures of English Locative Prepositional Phrases." *Toronto Working Papers in Linguistics* 15:141–152. <http://twpl.library.utoronto.ca/index.php/twpl/article/view/6311>.

APPENDIX

Survey data

Table 1. From

Sentence	Average	Standard Deviation	Median
Mother heard a noise coming from behind the door.	2.27	1.05	3
Donald got the flowers from by the lake for Donna.	-.127	1.90	-2
You're not from around here, are you?	2.45	1.23	3
Bring me the box from at the back of the warehouse, please.	-1	1.97	-2
Donald fished out an old, yellowed piece of paper from behind the wardrobe.	1.94	1.70	3

Table 2. Since

Sentence	Average	Standard Deviation	Median
Not much has changed in the pub since during my time here.	-1.33	1.95	-2
He hasn't been this happy since before you two broke up.	0.72	2.02	2
I haven't really partied since after Christmas.	-0.58	1.92	-1
I haven't seen her since between 6 PM and 9 PM yesterday.	0.21	2.33	1
Haven't you been seeing each other since after you moved to Australia?	-0.67	2.01	-1

Table 3. Until

Sentence	Average	Standard Deviation	Median
You're not going to have any pudding until after you've finished your meat!	1	2.12	1
Donna never gets nervous until before she actually has to perform.	0.42	2.08	1
Until during the holidays, I was only able to get 5 hours of sleep every night.	-0.85	2.20	-1
You have to answer me until by Tuesday.	-2.33	1.24	-3
Do not get back into the pool until after two hours have passed from your last meal!	-.036	2.13	-1

Table 4. To

Sentence	Average	Standard Deviation	Median
The administrative region stretches from the desert to behind those mountains.	1.03	1.81	2
Donna averted her eyes to above Donald's shoulder.	0.09	1.91	0
The bed can retract to under the sofa.	-0.36	2.19	-1
Grandpa's memories fled to before the war he fought in.	-0.88	1.69	-1
Donald's chair was moved to opposite Donna's.	-0.15	2.20	0
The sign has been moved to in front of the statue.	0.09	2.01	1
The teacher decided to move our lesson to outside the classroom today.	0.39	2.11	0

Table 4. To (continued)

Sentence	Average	Standard Deviation	Median
We were invited for a visit to inside the studio this time.	-1.12	1.67	-1
Donna placed the jar to below the shelf.	-1.55	1.62	-2
Donna's reign of terror stretches to over the Himalayas.	-0.33	2.01	-1

Table 5. For

Sentence	Average	Standard Deviation	Median
I made you something to snack on for after swimming.	-0.09	2.07	-1
This foundation is for under the eyes.	0.91	2.19	2
Donna brought along a banner for over the entrance to the driveway.	-0.39	1.87	-1
This polish is for inside the car.	1.39	1.73	2
This nozzle is for behind the couch and other places difficult to reach.	0.94	2.00	2
Donald has always wanted a large painting of the beach for behind the glass door.	0.58	2.16	2
There is no more floor tiles for between the bathroom and Donald's room! *	-0.88	2.09	-1
Trousers are an article of clothing for under the waistline.	0.52	2.11	1
The planes are carrying relief packages for across the border.	0.45	1.91	1

Table 5. For (continued)

Sentence	Average	Standard Deviation	Median
Donald was carrying a flask of brandy for before facing the crowd of angry protesters. **	-1.58	1.68	-2

* The sentence contains a grammatical error.

** Not "intended destination."

Table 6. Phrasal-prepositional verbs

Sentence	Average	Standard Deviation	Median
Was Donald in on this all along?	2.09	1.33	3
The company CEO goes out of his way to employ as many workers as possible.	2.18	1.31	3
Donald wanted to take Donna out on a date.	2.72	0.62	3
The French were out for revenge.	2.24	1.05	3
We're running out of ideas!	2.76	0.49	3

Table 7. Unacceptable

Sentence	Average	Standard Deviation	Median
The cat jumped to in the box.	-1.58	2.35	-3
Donna placed the painting over above the fireplace.	-2.18	1.29	-3
I come from since before computers were invented.	-1.73	1.88	-3

Table 7. Unacceptable (continued)

Sentence	Average	Standard Deviation	Median
During before your wedding, you were simply unbearable!	-1.79	1.57	-2
The Jack O’Lantern was left by under the bridge to rot. *	-1.79	1.51	-2

* The sentence contains a spelling error.

Applicability

For languages in which the compounding of prepositions and clusters of prepositions are much more common than in English, relative solidity of this paper’s main thesis means good news because the mutual intelligibility with English is better when prepositions are involved. An example I can expound on is my native language, Slovene, especially spoken Slovene. See the following examples. (Taken from the Gigafida Corpus, an online corpus of Slovene. Translations are marked with “e” next to the number of the example.)

- (1) Sonce je vzšlo *izza* gora.
- (1e) The Sun rose *from behind* the mountains.

- (2) Vzemi moj nahrbtnik *izpod* postelje.
- (2e) Take my backpack *from under* the bed.

- (3) *informal* Ostalo je pa bolj *za pod* predpražnik. (Gigafida Corpus)
- (3e) The rest only really belongs *under* the doormat.

(4) Gledalci so na teren začeli metati modro-rumene blazinice *za pod* rit. (Gigafida Corpus)

(4e) Spectators started to toss the blue and yellow cushions *for under* one's buttock onto the pitch.

(5) Pojdiva in si spravi piškot *za po* večerji. (Gigafida Corpus)

(5e) Let's go now, and save the biscuit *for after* dinner.

(6) Dobra dušica Ivo pripravi tudi seveda nekaj *za pred* in nekaj *za po* golažu. (Gigafida Corpus)

(6e) Being a good fellow, Ivo naturally prepares something *for before* and *for after* goulash.

In (1), (1e) and (2), (2e), there is almost a word-for-word parallel between English and Slovene. Prepositions from the locative domain often form compounds in Slovene and when these compounds consist of two prepositions, the first of which is ablative and zero-dimensional, there are no restrictions regarding the translations of such a compound into English.

However, examples (3) and (3e) are very different from the aforementioned compounds. The most obvious difference is the number of prepositions, two in Slovene and only one in the translation. This is so because informal Slovene readily allows clusters of *za* ("for") and other prepositions.

When at work, the translator is faced with two competing options. They may choose to include the meaning of *za* in another word – in (3e), the verb "belong" has this purpose – or another approach. In (4e), (5e) and (6e), both prepositions were directly translated into English. The contribution this paper has made states that this approach works only if the first preposition is lative and zero-dimensional, which "for", in fact, is.

That is why (4e), (5e) and (6e) can be taken into account as legitimate translations of their Slovene counterparts. Of course, such an approach can be met with some reservation as it is unclear whether more formal contexts will allow it, but in all the cases above, the translator need not worry about that, as the informality of the text itself persevered the translation from one language into another