

SOME REMARKS ON THE SPATIO-RELATIVE SYSTEM IN ENGLISH AND POLISH

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All spatial relationships are those relationships which are held between some object that is talked about and some element of space that has been chosen as a point of reference. Information about spatial relationships necessarily consists of three types of information:

- a) it indicates the object to which the function of a reference has been ascribed. This object will be called a localizer in accordance with the terminology employed by A. Weinsberg (1969 : 29) and B. Klebanowska (1971: 6);
- b) it denotes the nature of the relation linking the object which is being localized with the localizer. For this A. Weinsberg (1968 : 29) has introduced the term of neighbourhood
- c) it specifies whether or not the passing of time affects the distance between an object and a localizer.

On the basis of a speaker's relevant perceptual recognition of spatial relationships we assume that three kinds of semantic oppositions may arise in the system of spatial expressions in a given language. Accordingly, they arise because of

- a) the variety of objects that may be isolated from the space as points of reference, i.e. localizers,
e.g. *the roof: the table*, in:
 - (1) Our cat is sitting on the roof.
Nasz kot siedzi na dachu.
 - (2) Our cat is sitting on the table.
Nasz kot siedzi na stole.
- b) The nature of the neighbourhood
e.g. *under: in*, in:

(3) Our cat is mewling under the chestnut tree.

Nasz kot miauczy pod kasztanowcem.

(4) Our cat is mewling in the chestnut tree.

Nasz kot miauczy na kasztanowcu.

Sentence (3) localizes our cat in the space which is understood to be a patch of ground shadowed by the chestnut tree. Sentence (4) tells us that our cat is above the ground, at a height defined by the top and the bottom branches of the tree. In this part of information various concepts, geometrical in character as e.g. dimensions, contiguity, surface, point and line, are utilized to characterize the neighbourhood of the object. They are encoded in (and make up the semantic value of) the spatial constructions of a given language. Thus information about the shape of the localizer or its relevant part is sometimes implied in the constructions. The spatial constructions may also reveal whether the neighbourhood involves contact with a surface or with a point or whether the object is interior or exterior to a localizer. Moreover, the information included in the given type of spatial constructions may also specify the degree of immediacy of contact, or the position of an object in relation to a localizer in terms of plane and level, i.e. with the aid of concepts of vertical and horizontal positions.

Another semantic ingredient of spatial constructions concerns primarily their division into two kinds of situations: a spatial construction denoting (1) the location of a given object or (2) the direction of a given object when in motion, i.e. a *static* : *dynamic* contrast.

c) *Relative motion* observable in:

(5) Tom is going to school.

Tom idzie do szkoły.

(6) Tom is at school now.

Tom jest w szkole.

Spatial relationships seem to be more or less adequately expressed with respect to these three kinds of information. In each language locative constructions with underlying spatial relationships form a specific system determined by and dependent on the resources within the range of the formal means of a given language. The aim of the present paper is to characterize the two systems, i.e., to specify the extent to which the above mentioned semantic categories are expressed by syntactic exponents in Polish and English. The considerations will be confined to morphosemantic oppositions which result from the opposition within the two categories of *relative motion* and *dimensionality*. A few more words will be devoted to the nature of the categories used.

The application of a category of motion enables one to perceive two kinds of situations, the characters of which have already been mentioned before. In one case the distance between the object and its localizer changes, while in the other it is constant. Accordingly, the opposition *direction* : *location*

or *dynamic* : *static* arises. In the former situation covered by the opposition, there are again two possibilities:

(1) The moving object is localized by indicating the point of its destination or goal.

(2) The moving object is characterized with respect to its location negatively, i.e. by the point of departure.

According to this division direction can be split up into two meanings: (1) *adlative* which may be defined as denoting the process of the decreasing of the distance between an object and its localizer; (2) *ablative* which expresses the process resulting in the increase of the distance between two objects. Further consideration of the second member of the opposition *direction* : *location* will lead us to recognize another possibility of the opposition, i.e., *locative* : *perlative*. The difference is illustrated by the following examples:

(7) Tom is sleeping in the forest.

Tom śpi w lesie.

(8) Tom is going through the forest.

Tom idzie przez las.

It seems as if the opposition *perlative* : *locative* was combined with a semantic opposition of verbal contexts — *motion* : *position*. But the next pair of examples points to a different line of division:

(9) Tom is walking in the forest.

Tom spaceruje w/po lesie.

(10) Tom is going through the forest.

Tom idzie przez las/lasem.

The *perlative* meaning presupposes the notion of a one-way-motion (destination of motion is implied here). Thus the *perlative* : *locative* opposition implies a semantic opposition of contextual verbs, *one-way motion* : *not one-way motion*. The application of this psychologically founded analysis within the category of relative motion leaves us with four basic meanings, *locative* : *perlative* : *adlative* : *ablative*, the semantic essence of which is realized in four corresponding label-like pronouns, *where* : *which way* : *where to* : *where from* (gdzie : któredy : dokąd : skąd).

The category of dimensionality undeniably offers a greater choice of overlapping criteria to the linguist who challenges the attempt to classify grammatical units in regard to this category. Among the criteria which have already been employed there are: the criterion of coherence and incoherence, of subjectivity and objectivity, of interiority and exteriority and the criterion of proximity. For the needs of the present paper the following criteria will be utilized to characterize the relationship between an object and its localizer:

(1) Criterion of proximity which sets the opposition of immediate : proximate contact. Within the first unit of this opposition another contrast is related, i.e. interior : exterior (to the localizer).

- (2) Level and plane category to characterize vertical and horizontal relations
 a) higher than : neutral : lower than
 b) in front of : mid : behind.
- (3) The criterion of dimension which gives the following opposition:
 3 : 2 : 1 dimension.

The third criterion concerns the shape of the localizer or that part of a localizer which is significant to the spatial contact. This category as a matter of fact has more to do with the human apparatus of visual perception, i.e. the mental picture of an object reflected in the speaker's memory, than with the objective physical properties of objects. Thus the contact may be perceived as a relationship involving a point, line, a surface, or a volume.

The next part of this paper will review the formal means of expression in Polish and English with respect to the framework of the criteria already introduced. References to the second criterion of the dimensionality category (place and level) will be made only when one of the polar meanings is involved.

I

In English, besides context prepositional morphemes are the only available formal means of setting up oppositions between spatial constructions (prepositional phrases). The limitations of space and scope of the present article do not allow consideration of all the spatial prepositions; therefore, the present analysis will be confined to a discussion of only the following group of prepositions: *in, into, out of, from, to, at, on, off, onto, above, below, under, over, across, along, through, in front of, behind, by/beside*. Examples of their usage as illustrated in the enclosed class of sentences, are taken from grammar books and fiction.

- (11) She sat rigidly in her seat.
 Siedziała sztywno na swoim miejscu.¹
- (12) At night ships carry a red light on the port side.
 W nocy statki mają czerwone światło na lewej burcie.
- (13) David paused at the edge of the clearing.
 Dawid zatrzymał się na brzegu polany.
- (14) Jane is standing by the door.
 Jane stoi koło drzwi.
- (15) The family portraits hang over the fireplace.
 Portrety rodzinne wiszą nad kominkiem.

¹ The Polish under English examples and the English under Polish examples is a literal translation rendered by the author and consulted with several native speakers of English.

- (16) The swimmer keeps his head above water.
 Pływak trzyma głowę nad wodą.
- (17) Some of the land in Holland is actually below the sea level.
 Część obszaru Holandii znajduje się poniżej poziomu morza.
- (18) John is standing under an apple tree.
 John stoi pod jabłonią.
- (19) He got stuck behind the bus.
 Stał zablokowany za autobusem.
- (20) You'll find the newspaper in front of the house.
 Znajdziesz gazetę przed domem.
- (21) The Nile flows into the Mediterranean.
 Nil wpływa do Morza Śródziemnego.
- (22) Step onto the ladder (23) but be careful you don't fall off it.
 Wejdź na drabinę, ale uważaj żebyś nie spadł.
- (24) At last he came to the road.
 Wreszcie dotarł do drogi.
- (25) The moon is rising over a hill.
 Księżyc wschodzi nad wzgórzem.
- (26) Put the magazines on the shelf above the books.
 Połóż pisma na półkę nad książkami.
- (27) A diver is careful not to go below a certain depth.
 Nurek uważa, aby nie zejść poniżej pewnej głębokości.
- (28) Why don't you come under my umbrella?
 Dlaczego nie wejdiesz pod mój parasol?
- (29) Tom went behind the school to play football.
 Tom poszedł za szkołę grać w piłkę.
- (30) The children ran in front of the house.
 Dzieci biegały przed domem.
- (31) We are driving out of the city.
 Wyjeżdżamy z miasta.
- (32) They emerged at last from the dark avenue.
 Wyłonili się w końcu z ciemnej alei.
- (33) He heard some suspicious murmur coming from above his head.
 Usłyszał jakiś podejrzany pomruk dochodzący z nad głowy.
- (34) He crawled out from under the bush.
 Wyczołgał się spod krzaka.
- (35) This voice came from over a barricade.
 Ten głos przyszedł zza barykady.
- (36) He appeared suddenly from behind Tom's back.
 Pojawił się nagle zza pleców Toma.
- (37) He hurried from in front of the house to the garden at the back.
 Pospieszył sprzed domu do ogrodu z tyłu domu.

- (38) John jumped over a fence.
Janek przeskoczył przez płot.
- (39) They were going along the path by/beside the river.
Szli ścieżką wzdłuż rzeki.
- (40) They drove through the country.
Jechali przez wiejską okolicę.
- (41) Bobby ran across the farmyard.
Bobby pobiegła przez podwórze.
- (42) They went to Bristol via Tewkesbury.
Pojechali do Brystolu przez Tewkesbury.

A brief scrutiny of the data indicates to us that the prepositions fall into four semantically contrasting groups which correspond to the category of relative motion, perhaps the most demonstrative with respect to the semantic content of the sentences. Thus *in* (11), *on* (12), *at* (13), *behind* (19), *in front of* (20), *by* / *beside* (14), *over* (15), *above* (16), *below* (17), and *under* (18) form a class of locative prepositions.

Into (21), *onto* (22), *to* (24), *above* (26), *below* (27), *under* (28), *over* (25), *behind* (29), *in front of* (30) appear in adlative constructions. Ablative meaning is expressed by *off* (23), *out of* (31), *from* (32), *from behind* (36), *from above* (33), *from over* (35), *from under* (34), *from in front of* (30).

Across (41), *along* (39), *through* (40), *over* (38), *by/beside* (39), *via* (42) express perlative meaning.

The members of these four groups form a network of dimensional characteristics; each of the prepositions occupies a certain position in the intricate structure of dimensional concepts. The category of dimension and proximity overlapping with the criterion of interiority (or inessiveness) appears to be the most universal and pervading in each of the groups of prepositions.

The following table shows how these criteria overlap in the exponents of adlative, ablative and locative meanings.

		Immediate		Proximate
Interior		Exterior		
Volume		Surface	Point/Line	
L	<i>in</i>	<i>on</i>	<i>at</i>	<i>by/beside</i>
Ad	<i>into</i>	<i>onto</i>	<i>to</i>	
Ab	<i>out of</i>	<i>off</i>	<i>from</i>	<i>by/beside</i>
P	<i>through</i>	<i>across</i>	<i>along (via)</i>	

Polar meanings of the plane category are borne by *in front of* : *behind*, *from in front of* : *from behind*.

Polar meanings of the level category are carried out by:

on : *under*
over : *under*
above : *below*
from : *from below*
from over : *from under*.

A quick comparison of the effects of this classification encourages one to draw the conclusion that English prepositions are to a much greater extent the explicit carriers of the category of dimensionality than the category of direction (relative motion). In the system of directional constructions only ablative prepositions contrast at all points with locative and adlative morphemes. This opposition is best seen in the case of prepositions denoting polar meanings of vertical and horizontal relations where compound morphemes are used: *from above*, *from below*, etc. Ablative direction is conveyed by an individual subcomponent *from* which thus may be recognized as a regular exponent of the ablative meaning. In the case of prepositions expressing movement from the surface or from inside a volume no individual exponent of the category of direction can be seen. *Off* and *out of* are examples of a combination of two functions expressing both the category of dimensionality and the category of direction. There may be some doubt about the equivalence of *from* and *at* in terms of dimensionality. Similar doubts may arise in the case of *to* as the adlative equivalent of *at*. The range of application of *to* and *from* is in fact much wider than that of *at*. "This can be attributed to the distancing effect of regarding a place as a destination rather than a position", according to Leech (1970: 193). In other words, besides the cases when *to* and *from* occur in an equivalent function to *at*, they function merely as the indicators of direction and are devoid of any notion of dimensionality. Since in the present article the compound prepositions, e.g. *from behind*, *from below*, are treated as one morpheme and there is no question of neutralization except for one point (*by* / *beside*) in the ablative framework of the category of dimension, the background for the comparison is set up by the locative set of prepositions for they reflect the structure of the dimensional criteria most fully.

The opposition between the adlative and the locative meanings is only fragmentary. Practically at all points of the dimensional structure, except for exponents of immediate contact *into* : *onto* : *to*, there occurs a neutralization of the adlative meaning. Analogous to *from* in the ablative meaning, *to* plays the role of the carrier of the adlative meaning. In the remaining number of cases the contrast of directional meanings and the locative nature of prepositions (conveying information in terms of plane and level) may be signalled solely by the verbal context of spatial constructions, e.g.,

- (42) I'm under the umbrella.
Stoję pod parasolem.

- (43) Why don't you come under it too?
Wejdz także pod mój parasol.

or

- (44) The portraits hang over our fireplace.
Portrety wiszą nad kominkiem.

- (45) Hang the portraits over the fireplace.
Powieś portrety nad kominek (kominkiem).

Notice that in (44) and (45) we are dealing with two different verbs: *hang* in (45) is the causative verb denoting movement, while *hang* in (44) denotes the position caused by this movement. Thus the ambiguity of the following example is a function of a systemic neutralization of directional opposition.

- (47) We are running behind the barn.
Biegniemy za stodołę.

or

Biegamy za stodołą.

The sense of this sentence can be explained either as:

- (47a) We are on the way to the ground behind the barn.

or as:

- (47b) We are playing on the ground behind the barn.

Adlative constructions occur in the context of verbs which denote one-way motion. So when the verb of a given sentence is unmarked for this feature, ambiguities arise. Weak individuation of the adlative system results in the reduction of the dimensional correspondences within it. If we assume *to* to be the exponent of adlativity, we are left with three adlative prepositions: *onto*, *into*, *to* (corresponding to *at*) which are marked for the category of proximity and differentiated among themselves by the criterion of dimension.

Prepositions which on a semantic basis have tentatively been ascribed the function of denoting the perlocative meaning in 38 - 42, cause the most trouble in the classification. They form the most heterogeneous group with respect to the semantic and syntagmatic properties they reveal. The perlocative class includes *along*, *across*, *through*, *via*, *by/beside*, but also *over*, *under*, *in front of* in:

- (48) The ball rolled under the hedge (Leech 1970 : 197).
Piłka potoczyła się pod żywopłot.

or

Piłka toczyła się pod żywopłotem.

- (49) We were flying over far-stretching marshes.
Lecieliśmy nad rozległymi moczarami.

or

Lecieliśmy nad rozległe moczary.

- (50) They marched in front of the barracks (Leech 1970 : 197).
Maszerowali przed koszarami.

or

Maszerowali przed koszary.

Of this group only *via* is a morpheme which definitely rejects the static verb context in contradistinction to *across*, *through*, *along* (not to mention *over*, *under*, *in front of* which have been previously discussed in their locative usage) which can be found in such sentences as the following:

- (51) The post office is across the street.
Poczta znajduje się po drugiej stronie ulicy.
(52) The castle is through the forest.
Zamek jest po drugiej stronie lasu.
(53) The office is along the corridor.
Biuro mieści się dalej w korytarzu.

while

- (54) **They are via Tewkesbury*, is grammatically incorrect.

This might lead to the conclusion that perhaps the prepositions in 51 - 54 belong with the same class as *in front of*, *behind*, *under*, *above*, *by beside*. But this suggestion is untenable in view of the fact that *across*, *through* and *along* in 48 - 49 denote a position which is the result of motion to a certain point and the character of which is defined by the preposition in question. They differ from the prepositions primarily denoting locative meaning, in that they bear the implication of motion encoded in their meaning, while the latter are devoid of any such connotations. It seems that the locative usage of *across*, *through* and *along* is the consequence of ellipsis, cf.

- (51) The post office is across the street.
Poczta jest po drugiej stronie ulicy.

in fact means:

- (51a) Go across the street and the post office is there.

The same holds true for *through* and *along* in (52) and (53) respectively. It should not be overlooked that the prepositional phrase *across the street* in (51a) allows an adlative interpretation (it can be substituted for *there* used in the adlative sense). Compare also the following set of examples:

- (55) John went across the street.
Jan przeszedł przez ulicę.
(55a) John went across the street to the shop.
Jan przeszedł przez ulicę do sklepu.
(55b) John went along the path not across the lawn.
Jan poszedł ścieżką a nie trawnikiem.

Although the verbal context in all three sentences is identical, *across* permits adlative interpretation only in (55). In (55a) where its meaning is restricted by the co-occurrence of an adlative expression and in (55b) where it appears as the semantic equivalent of another perlocative expression, its perlocative

character does not give rise to any doubts. The same property is revealed by *through* and *over* in:

(56) He went through the woods.

Poszedł przez las.

(38) Tom jumped over the fence.

Tom prze/skoczył przez płot.

Sentences (56) and (38) are ambiguous in the sense that the opposition *perlative* : *adlative* seems to have been obliterated in them. The question arises whether the phenomenon illustrated by the above sentences (56, 38) does not resemble the ambiguity inherent in the following sentences:

(48) The ball rolled under the hedge.

(57) John went by/beside a sign-post not looking at it.

Janek przeszedł obok kierunkowskazu nie patrząc nań.

Janek podszedł do kierunkowskazu nie patrząc nań.

(58) The boys ran behind the house.

Chłopcy pobiegli za dom.

Chłopcy biegali za domem.

(50) They marched in front of the barracks.

Maszerowali przed koszarami.

Maszerowali przed koszary.

In the case of (58) and (50), in which the verbs are unmarked for one-way motion, the spatial constructions permit three readings and can be labelled by any of the interrogative pronouns *where* : *which way* : *where to*. In reconsidering two sets of sentences, (56, 38) and (48, 57, 58, 50), a very important distinction therein must not be missed, i.e., the *perlative* meaning rendered by the latter group of prepositions is in complementary distribution with the *adlative* interpretation. Sentences 48, 57, 58, 50 allow only one of two plausible interpretations at one time, whereas the former set of prepositions *across* (55), *through* (56), and *over* (38) expresses *perlative* and *adlative* meanings simultaneously. Another fact which deserves attention is that neither *via* nor *along* in the context of a dynamic verb leaves any doubt concerning their *perlative* character. Accordingly, the comparison of the semantic value of *along* and *across* promises to be quite revealing. The opposition is demonstrated by the following pairs of sentences:

(55) John went across the street.

Jan przeszedł przez ulicę.

(59) John went along the street.

Jan szedł ulicą.

The opposition *across* : *along* necessitates the introduction of a new notion into the category of dimensionality, i.e. the notion of parallelism and criss-crossing. In the case of a noun denoting a one-dimensional localizer *along* and

across realize two alternate relations of a localized object to the horizontal axis, parallel and criss-crossing. In the case of a noun denoting a two- or three-dimensional localizer, the choice between *across* and *along* is dependent on the shape of the localizer which determines the direction of the horizontal axis (Leech 1970 : 185).

The essential task of a *perlative* expression is to define the object on its way to some goal. The different character of *across* compared with *along* lies in its implication of two points. *Along* characterizes the motion of a localized object not with respect to the 2 points of the way it covers but the actual location of a process visualized as a line between those points. Due to this implication of a point of departure and a point of arrival (goal) inherent in the semantic content of *across*, its *perlative* meaning frequently turns into an *adlative* one whenever the speaker's /listener's intention stresses the goal of movement as significant for information. It is clear now that the element which differentiates the *perlative* — such as the morphemes *through*, *across*, *over* from the *adlative*, is the co-existence of *ablative* information side by side with *adlative* one inherent in the members of the former group, e.g.,

(55) *John went across the street*, requires the following explanation:

(55c) *John went from one side of the street to the other side of the street*?

In the light of the present discussion on *perlative* prepositions the claim about the *quadri-partite* character of the English spatio-relative system is not unfounded. At least this claim can be justified by the unambiguous character of *via* which contrasts with *locative* and *ablative* constructions as illustrated below:

They are	at	}	Tewkesbury
go	to		
	from		
	via		

Undoubtedly *via* analogous to *to* and *from* functions as the exponent of a relative motion category. The existence of an opposing class of *perlative* morphemes is accordingly possible to sustain. It is interesting to note that the nominal distributions of *via*, *across*, *along* and *through* reveal considerable parallelism to the distribution of *at*, *on*, and *in* respectively, as well as *to*,

² The final remarks on the nature of *across*, *through* and *over* invite the hypotheses that maybe English prepositions, articulations of *adlative* and *perlative* meanings can be well envisaged as a continuum of meaning in which a clear-cut borderline between the *perlative* and the *adlative* is difficult to delineate since there are cases in which it runs across the morphological units *across*, *through*, *over*.

onto, into or from, off and out of within the framework of locative, adlative and ablative relations³.

- | | |
|--|--|
| (60) They are in the woods.
Są w lesie. | (60a) They went through the woods.
Poszli przez las. |
| (61) They are on the road.
Są na drodze. | (61a) They went across/along the road.
Przeszli przez drogę / Poszli drogą. |
| (62) They are at Tewkesbury.
Są w Tewkesbury. | (62a) They go via Tewkesbury.
Przejeżdżają przez Tewkesbury. |

From this juxtaposition there follows the conclusion that the perlative system coincides with the category of dimension, but that it undergoes complete neutralization within the spheres of the other dimensionality categories which coincide within the framework of the locative system. In all the perlative instances discussed the category of relative motion and the category of dimensionality co-occur and are expressed by one single morpheme representing thereby an accumulation of functions. The perlative class of prepositions lacks a morpheme such as *from* or *to* in the ablative and adlative classes respectively, which would function as the formative of the perlative meaning in combination with other morphemes, exponents of dimensionality. This shortcoming is responsible for the failure to recognize the perlative meaning as the fourth component of the English category of relative motion.

II

The second part of this paper is devoted to the problem of how Polish expressions of location express two general semantic categories: dimensionality and relative motion. It will start with a projection of the exponents of the relative motion category as opposed to the field of dimensional relations. Several illustrative examples are necessary in order to provide material for the discussion.

- (1) Pociąg zatrzymał się w Nairobi.
The train stopped in Nairobi.
- (2) Na wieży ratuszowej był kiedyś blaszany kurek.
On the Town Hall tower there was once a tin weather-vane.
- (3) Przy stole siedział ktoś tak niespodziewany.
They were surprised to see somebody sitting at the table.

³ It is possible to view the perlative set of morphemes as consisting of two subsets, differentiated with respect to their semantic complexity:

- (1) Perlative proper sub-set, including *via* and *along*
- (2) The subset of perlative derivatives, in the case where the perlative meaning is the effect of a condensation of ablative and adlative information.

- (4) Widzimy go tutaj jak stoi na moście pochylony nad wodą.
Here we see him standing on the bridge leaning over the water.
- (5) Codziennie przechodził koło starego wiatraka.
Every day he passed by the old windmill.
- (6) Pod ławką znaleźli gotowaną słoninę i chleb.
Under a bench they found some salt bacon and the bread.
- (7) Piękny widok na dolinę rozciągał się za zakrętem.
A beautiful view of the valley stretched round the bend.
- (8) Dzieci bawiły się przed domem od godziny.
The children were playing in front of the house for an hour.
- (9) U ciotki zabawiał godzinę, może dwie.
He stayed an hour at his aunt's place, perhaps two.
- (10) Rzucił się do okna.
He rushed to the window.
- (11) Nad rzekę chodzono zwykle o zmierzchu.
They usually went at dusk to the river.
- (12) Na wszelki wypadek zaglądnął pod łóżko.
He looked under the bed just in case.
- (13) Ogromna limuzyna zajęła przed stacją.
A large limousine drove up in front of the station.
- (14) W niedzielę wyjeżdżali za miasto.
On Sunday they usually went out of town.
- (15) Z daleka od białej wieżyczki kościoła doleciał dźwięk dzwonu.
From the distance came the sound of a bell from the small white tower of the church.
- (16) Wyjechali nareszcie z lasów.
At last they came out of the woods.
- (17) Na zewnątrz, sprzed piwnicy, dolatywały niewyraźne okrzyki strzelców.
Outside from in front of the basement came the faint cries of the shooters.
- (18) Patrzył surowo spod zmarszczonych brwi.
He looked severely from under his wrinkled brows.
- (19) Znad półek dobiegł go podejrzany szelest.
He heard a suspicious rustle from above the shelves.
- (20) Zza rogu wyskoczył motocykl.
A motor-cycle dashed from around the corner.
- (21) Idzie żołnierz polem, lasem.
A soldier goes across the field and through the woods.
- (22) Szli przez pola pełne słońca.
They were walking across the fields in the sun.

- (23) Szedł po rozgrzanym słońcem chodniku.
He went along the pavement which was heated by the sun.
- (24) Podróżni przechodzili koło kuźni.
The travellers passed by the forge.
- (25) Nad miastem płyną chmury.
Clouds are floating over the town.
- (26) Szli pod dachem z gałęzi.
They were walking under a roof made of branches.

The above sentences fall into four semantically opposing groups (each of them designated by one of the four interrogative pronouns: *where* : *where to* : *where from* : *which way*) and exemplifying the four groups of locative (1 - 9), adlative (10 - 14), ablative (15 - 20), and perlative (21 - 26) constructions. Even a very casual glance at the examples given reveals that in Polish both prepositions and inflexional endings play certain function in setting up morphosemantic oppositions. It is assumed that prepositions and inflexional endings do not differ functionally; they are exponents of spatial relations in the sentence. But this brings us to the problem of whether the components of preposition + inflexional ending should be kept apart and analyzed independently as autonomous linguistic units, or should they be treated as one functional unit. This problem was dealt with by J. Kuryłowicz (1960) in his "Le problème du classement des cas". The present approach will be based on the Kuryłowicz's statement that a preposition implies the case ending, and this implication has a purely formal character⁴. One of the consequences resulting from the adoption of this point of view is the rejection of a semantic equivalence of e.g. *pod* (under) in the two following combinations:

pod dom — \emptyset *pod* + acc
pod domem *pod* + instr

The present approach has the advantage over the one adopted by A. Weinsberg (1968) in that it ensures the possibility of comparing exponents consisting of two components: preposition + inflexional ending with exponents consisting of one morpheme only and their treatment as two functionally equivalent units.

The above remarks should not be interpreted as an assertion that there is no point in trying to distinguish parts of meanings whose exponents are the subcomponents of the whole combination, and which will be referred to as submorphemes⁵.

⁴ Il en suit (...) que la préposition n'est pas le regens de la forme casuelle, mais, qu'elle est un sous-morphème, bien que principal, du morphème, composé II (consistant de préposition + désinence casuelle). Ce qu'elle régit ou plutôt implique c'est donc uniquement la désinence casuelle et non pas le cas (la forme casuelle) (Kuryłowicz 1960 : 134).

⁵ Sous-morphème — the term suggested by J. Kuryłowicz (1960 : 134).

This consideration will be analysed in the present paper. This study was suggested by S. Karolak's considerations on cases and prepositions in which the author asserts that in some cases there exists a bilateral disjunction of morphemes consisting of a preposition and an inflexional ending (Karolak 1966 : 87).

The sentences expressing locative, adlative, and ablative meanings contain the following sets of morphemes:

$\left. \begin{array}{l} w \\ na \\ przy \end{array} \right\} +loc$	$\left. \begin{array}{l} do \\ koło \end{array} \right\} +gen$	$\left. \begin{array}{l} z \\ od \end{array} \right\} +gen$
$\left. \begin{array}{l} koło \\ u \end{array} \right\} +gen$	$\left. \begin{array}{l} nad \\ pod \\ przed \\ za \end{array} \right\} +acc$	$\left. \begin{array}{l} znad (z+nad) \\ spod (z+pod) \\ sprzed (z+przed) \\ zza (z+za) \end{array} \right\} +gen$
$\left. \begin{array}{l} nad \\ pod \\ przed \\ za \end{array} \right\} +instr$		

The sets of morphemes are far from being homogeneous. On the one hand, certain submorphemes occur in more than one group; on the other hand, there are certain submorphemes whose occurrence is confined to only one group. In each group there is a sequence of four morphemes which contrast their inflexional subcomponents with respect to the corresponding morphemes of the two other sets, i.e.,

$\left. \begin{array}{l} nad \\ pod \\ przed \\ za \end{array} \right\} +instr$	$\left. \begin{array}{l} nad \\ pod \\ przed \\ za \end{array} \right\} +acc$	$\left. \begin{array}{l} znad \\ spod \\ sprzed \\ zza \end{array} \right\} +gen$
---	---	---

It seems that in the case of these four morphemes the inflexional endings may be responsible for the opposition *locative* : *adlative* : *ablative*; thus instrumental is the indicator of locativeness, accusative of adlative meaning, and genitive presumably expresses ablative meaning. It should be noted, however, that in the case of the ablative morphemes, which consist of three submorphemes, the contrast with locative and adlative meanings is indicated also by means of a prepositional subcomponent *z*. This element, common to the corresponding morphemes within each group, is actually a prepositional submorpheme — the exponent of dimensionality, it would seem. *Nad* (over), *pod* (under), *przed* (in front of), *za* (behind) express horizontal and vertical

relationships and are thus marked for the plane and level category. Locative meaning can also be expressed by

$$\left. \begin{array}{l} w \\ na \\ przy \end{array} \right\} +loc \quad \text{and} \quad \left. \begin{array}{l} koło \\ u \end{array} \right\} +gen.$$

If the inflectional ending is used as a formal criterion for division, the set of locative morphemes splits into three subsets. These groups coincide with the resultant division of locative morphemes based on the application of the semantic criterion of dimensionality. So, accordingly, the first and second groups taken together (*w/na/przy+loc* and *koło/u+gen*) differ from the third in that the latter is marked for the plane and level category whereas the first and second subclasses are on the two poles of a proximity category in such a way that *w/na/przy+loc* denotes immediate contact⁶, while *koło/u+gen* expresses proximate relation. In other words, both *koło/u+gen* and *przed/za/nad/pod+instr* express proximate contact in contradistinction to *w/na/przy+loc* which denotes immediacy of contact, tangency.

The relations expressed by *koło/u+gen* and *przed/za/nad/pod+instr* contrast by the degree of definiteness. *Przed/za/pod/nad+instr*, unlike *koło/u+gen* imply contact which is proximate but specified (in terms of plane and level). It is worth noting that *koło+gen* may in some cases, where the specification of the kind of proximity is irrelevant, be substituted with *za/przed+instr* and on some rare occasions with *nad+instr* (greater restrictions being imposed by situational context), e.g.

(27) Dzieci bawily się za/przed domem.

The children played behind/in front of the house.

(27a) Dzieci bawily się koło domu.

The children played beside the house.

(28) Samolot przeleciał nad naszym domem.

A plane flew over our house.

(28a) Samolot przeleciał koło domu.

A plane flew by near our house.

Similarly *u+gen* expresses a relation which can otherwise be paraphrased

⁶ In fact, *przy+loc* in numerous cases appears to be synonymous with *koło+gen*, i. e., it expresses a relation which is proximate, not immediate, but in these constructions the localizer evokes the impression of being relatively (in relation to the localized object) bigger in size or functionally important e. g. *przy maszynie* (at the machine), if compared with the localizer which is denoted by a noun in the latter construction, i. e. *koło+gen* (cf. Klebanowska 1971: 57-58).

by 'within the reach of...' or 'in the sphere of...'. The localizer in this expression reveals itself as a complex formation — the centre and its vicinity — but considered as a whole, e.g.,

u ciotki	means: <i>in the place the centre (soul) of which</i>
at my aunt's place	<i>is my aunt</i>
u progu	means <i>in close proximity to the doorstep</i>
at the doorstep	
u pasa	means: <i>close to the belt/waist</i> and the belt
at the belt/waist	<i>is the centre of the space in which there is</i>
	<i>a localized object</i>

The two latter examples do not exclude tangency with the centre of a localizer, but the stress is on its location (pointing to the outside of the centre of a localizer).

It appears that the irregularities manifesting themselves in the inflexional endings — the subcomponents of locative morphemes — reflect the internal division into appropriate categories within the structure of dimensionality.

It is interesting to see whether the analogous phenomenon is revealed within two other classes of morphemes — adlative and ablative. Let us compare:

Siedzę	w pokoju	Idę	do pokoju
I am sitting	in the room	I am going	into the room
	na fotelu		do fotela
	in the armchair		to the armchair
	przy lustrze		do lustra
	at the mirror		to the mirror
	koło domu		do domu
	by the house		to the house
	u ciotki		do ciotki
	at my aunt's		to my aunt's place

The above juxtaposition shows that five locative morphemes marked for proximity are substituted by one adlative morpheme: *do+gen*.

Now compare the first set of expressions, locative, with ablative correspondences.

Wracam	z pokoju
I am returning	out of my room
	z fotela
	from the armchair
	od lustra
	from the mirror
	od drogowskazu
	from the signpost

od ciotki
from my aunt's place.

In the case of the carriers of ablative meaning the same five locative morphemes get reduced to two: *od+gen* and *z+gen*. What happens is the neutralization of the dimensional category of proximity and dimension in adlative, and category of dimension in ablative constructions quoted above. In the ablative class there is an opposition of *z+gen* and *od+gen* which probably reflects the semantic opposition of *immediate definite: proximate*, but not the opposition of *dimension*. When speaking about adlative constructions one should not forget about the co-existence of the following pairs of expressions: 29 and 29a, 30 and 30a:

- (29) Wszystko pakowano od razu w skrzynie i walizy.
Everything was being packed at once into boxes and suitcases.
- (29a) Wszystko pakowano od razu do skrzyń i waliz.
Everything was being packed at once into the boxes and suitcases.
- (30) Skoczył w pobliskie krzewy.
He jumped into the nearby bushes.
- (30a) Podszedł do pobliskich krzewów.
He went to the nearby bushes.

Or:

- (31) Dotarliśmy na granicę.
We came to the frontier.
- (31a) Dotarliśmy do granicy.
We came to the frontier (we reached the frontier).
- (32) Załadowali bagaże na wózek.
They loaded the luggage onto the cart.
- (32a) Załadowali bagaże do wózka.
They loaded the luggage into the cart.

Examples (29a), (30a), (31a) and (32a) when considered together with (29), (30), (31) and (32) show that *do+gen* in comparison with *na+acc* and *w+acc* is more general and representative in expressing adlative sense. This comparison invites the inference that *do+gen* is the exponent of a solely directional aspect. When the dimension of a localizer becomes relevant for the information, it is substituted by an adlative morpheme corresponding to the locative appropriate morpheme and is marked for dimension:

- (33) Jesteśmy w lesie.
We are in the woods.
- (33a) Idziemy w las.
We are going into the woods.
- (34) Siedzimy na ławce.
We are sitting on a bench.

- (34a) Idziemy na ławkę.
We are going to sit on a bench.

$\left. \begin{array}{l} w \\ na \end{array} \right\} +loc$ are opposed to $\left. \begin{array}{l} w \\ na \end{array} \right\} +acc$

the inflexional ending takes over the function of representing the directional aspect just as in the case of the five prepositions mentioned at the beginning of the present analysis.

Within the class of adlative constructions two kinds of morphemes contrast with respect to their submorphemes: *prep+gen* : *prep+acc*. All morphemes following the *prep+acc* pattern denote relations both immediate (*na/w+acc*) and proximate (*nad/pod/przed/za+acc*), but both degrees of proximity are specified in character. It looks as if *prep+gen* i.e. *do+gen* is reserved for describing relations which are immediate but unspecified in character⁷.

As far as the class of ablative morphemes is concerned, the situation is somewhat different. The case submorphemes seem to be a matter of a purely formal implication determined by the ablative submorpheme *z*. The ablative morphemes acquire three forms which contrast with each other: *z+Ø+gen* : *z+prep+gen* : *od+gen*, where first two parts of the opposition represent a semantic opposition *immediate specified* : *proximate specified*; whereas *z+prep/Ø+gen* : *od+gen* contrast with respect to *presence* : *lack of specification of immediacy/proximity of contact*. The function of the genitive submorpheme here as well as within adlative morphemes seems to be confined to the indication of directional meaning. If the consideration of *prep+gen* extended to the members of locative class *kolo/u+gen* this statement demands further generalization and amendment, namely that the genitive submorpheme signals a lack of semantic structural complexity with respect to the dimensionality category but in the case of ablative morphemes its function cannot be considered anything more than redundant in all instances of morphemes consisting of the three subcomponents.

Perlative meaning is inherent in the following constructions:

- (21) polem lasem
(22) przez pola
(23) po chodniku
(24) koło kuźni
(25) nad miastem
(26) pod dachem

This perlative meaning is rendered by the following morphemes:

- (21) instr

⁷ *Do+gen* implies the eventual tangency (in the effect of the process of approaching) with the goal-localizer.

- (22) *przez* + acc
 (23) *po* + loc
 (24) *koło* + gen
 (25) *nad* } + instr
 (26) *pod* }

At the same time note that constructions (22) and (23) are both synonymous with (21), i.e., *po* + loc and *przez* + acc can be replaced by *instr*. The relation which holds between (22) and (21) as well as between (23) and (21) seems to be weak synonymy though (22) and (23) cannot be replaced by one another as in the following examples:

- | | | | | | |
|------------------|--|--------------------|-------|--|------------|
| (35) | | po trawie | (35a) | | trawą |
| | | across the grass | | | |
| (36) | | po chodniku | (36a) | | chodnikiem |
| Idę | | along the sidewalk | Idę | | |
| (37) I'm walking | | przez pole | (37a) | | polem |
| | | across the field | | | |
| (38) | | przez tunel | (38a) | | tunelem |
| | | through the tunnel | | | |

It looks as if the choice of morphemes *po* + loc or *przez* + acc is determined by the semantic character of the noun, or rather by the connotation it evokes in the speaker's mind. The relation of *instr* to *przez* + acc and *po* + loc resembles that of *do* + gen to *na* + acc and *w* + acc. *Przez* + acc precedes nouns which evoke an impression of volumes or areas, whereas *po* + loc is followed by nouns creating associations of line or surface. But the examples quoted do not exhaust all the possibilities of expressing perlocative meaning. Compare sentence (40) which cannot paraphrase sentence (39) according to the rule:

- (39) Płyn przez rzekę.
 Sail across the river.
 (40) Płyn rzeką.
 Sail up/down the river.

Both sentences (39) and (40) are grammatically correct, but their sense is different. In the light of (39) *po* + loc and *przez* + acc turn out to be the semantic opposites for a semantic feature of orientation in relation to the horizontal axis. Similarly as in the case of the English prepositions *across* and *along*, at the bottom of this opposition there lies a notion of parallelism and criss-crossing. Undoubtedly, the idea of criss-crossing is implicit in cases of nouns denoting volumes and areas. That is why one cannot speak about different morphemes in the case of *przez* + acc in (37), (38) and *przez* + acc in (39) where it cannot be replaced by the instrumental case. The morphemes in (22), (37), and (38) and, on the other hand, in (39) present two different usages of a semantically equivalent unit. It is interesting to note, however, that *przez* + acc

represents a different morpheme in the context of perfective derivatives of verbs, e.g.:

- (41) Przejdź przez ulicę zebra/po zebraze

which can be paraphrased as:

- (41a) Przejdź na drugą stronę ulicy zebra/po zebraze,

where *instr* and *po* + loc (*zebra/po zebraze*) are exponents of perlocative meaning, while *przez* + acc (*przez ulicę* — across the street), equivalent to *na drugą stronę ulicy* (to the other side of the street), expresses adlocative meaning.

Po + loc also has a homonym which co-occurs with the static verbs and the verbs denoting multidirectional motion, e.g.:

- (42) Baby płakały po chatach

The old women were crying in their houses.

And

- (43) Włóczył się po lesie w zamyśleniu.

He wandered around the woods deep in thought which when paraphrased by locative constructions

- (42a) W chatach płakały baby.

The old women were crying in their houses.

- (43a) Włóczył się w lesie zamyślony.

He wandered in the woods deep in thought

differ from them only in that they, i.e. (42) and (43), are marked for the category of random distribution. In neither of these two constructions (42), (43) can *po* + loc be replaced by the instrumental. Thus it has been established that only the morpheme *po* + loc which is synonymous with *instr*, is of interest from the point of view of a perlocative meaning.

Coming back once again to the confrontation of the three morphemes considered above: *po* + loc (35, 36), *przez* + acc (37, 38, 39) and *instr* (35a - 38a), what conclusions can be drawn from this analysis with respect to the semantic characteristics of *instr*? The only logical deduction from the discussion is that *instr* is definitely marked for proximity and in general denotes immediate contact, interior in case of volume and exterior in case of surface, i.e. immediate contact but unspecified in terms of dimension. The lack of symmetry in the mutual relations of *przez* + acc, *po* + loc, and *instr* can be accounted for by a difference in the depth of the overlapping meanings within the category of dimensionality in case of the morphemes in question.

It will be revealing to juxtapose the classes within the category of relative motion in order to compare how the structures of dimensionality — with special acknowledgment to category of proximity — is rendered within each of them.

- | | | | |
|-------------------|------------------------------|------------------------|----------------|
| Jestem w lesie | Idę lasem | Idę w las/do lasu | z lasu |
| I am in the woods | I am going through the woods | I'm going to the woods | from the woods |

na łące in the meadow	łąką across the meadow	na łąkę to the meadow	z łąki from the meadow
przy biurku at the desk	koło biurka by the desk	do biurka to the desk	od biurka from the desk
koło drzewa by a tree	koło drzewa by a tree	do drzewa to the tree	od drzewa from the tree
u ciotki at my aunt's		do ciotki to my aunt's	od ciotki from my aunt's

This can be presented in the form of the following table of grammatical exponents:

Locative	Perlative	Adlative	Ablative
w } +loc na }	instr przez + acc po + loc	w + acc (do + gen) na + acc	z + gen
przy } +gen koło } u }	koło + gen	do + gen	od + gen
5	3 1	3	2

This analysis permits one to accept the quadripartite character of a relative motion opposition within the Polish grammatical system of spatial relations — perlative meaning being the fourth distinctive part of relative motion category. The opposition *perlative : locative* holds only at one point in the dimensional structure — the category of proximity (i.e. in the case of the morpheme denoting immediacy of contact, *prep + loc : instr*). The opposition is completely neutralized at other points in the dimensionality structure, i.e. level category and proximity without immediacy; in other words, specified and unspecified proximity. Further analysis reveals the susceptibility of the perlative system to the category of dimension (3 : 2/1 = *przez + acc : po + loc*), or rather analogously to English *along : across*, the capability of conveying geometrically oriented notions of parallelism vs. criss-crossing. It is worth noting that a neutralization also extends to the exponents of the plane category. The relations covered by the plane category are expressed by the exponent of proximity in general, i.e. *koło + gen*. The scope of the neutralization of perlative morphemes compared with locative exponents within the category of dimensionality corresponds to the ratio 9 : 5. The neutralization of the category of dimensionality within the three distinct parts of the relative motion opposition, the perlative, the adlative and the ablative viewed against the fourth, the locative, can be represented as 5 : 9, 7 : 9 and 6 : 9, respectively.

SUMMARY

In both Polish and English spatio-relative systems there exists a quadripartite opposition within the category of motion resulting from a recognition of four basic meanings: *locative : perlative : adlative : ablative*.

As for the structure of dimensionality, both languages render the opposition *tangency : proximity*. It seems that the Polish system reflects an overlapping of the category *tangency : proximity* with the category of *specified : unspecified* relation (except for a perlative system).

The opposition *locative : adlative* in the Polish system is best manifested at those points in the dimensional structure which express specified proximity (vertical and horizontal relations). In the English system just the reverse is true: the corresponding points of the dimensional structure reveal vast neutralizations with respect to the category of relative motion (except for the ablative system). This opposition is more clearly expressed in the set of morphemes marked for tangency.

The opposition *tangency : proximity* is revealed by all classes of the four meanings of relative motion in English. In Polish the locative and ablative systems consist of three classes of meaning — *immediate : proximate : unspecified proximate* (*prep + loc : prep + instr : prep + gen; z + /Ø + gen : z + prep + gen : prep + gen*). The adlative system reveals a contrast resulting in two classes *specified : unspecified* (*prep + acc : prep + gen*). In the context of the three classes discussed above the perlative system seems to hold the position of the so-called exception to the rule. Perhaps to produce a coherent system of dimensional categories within it different criteria should be established.

English utilizes two kinds of morphemes, simple and compound prepositions, to express spatio-relative relations. In the case of compound prepositions one of the components is confined to expressing the relative motion category. Both components may function on their own outside the combination. In Polish, although there seems to exist a bilateral disjunction of functions played by individual subcomponents of morphemes expressing spatial relations, it does not hold true that prepositional submorphemes express dimensional categories, while inflexional endings are the carriers of direction, as one might suspect. In fact, case submorphemes play a double function: 1) They may be considered the indicators of the relative motion category (e.g. *prep + instr : prep + acc = locative : adlative*); 2) They also seem to be the indicators of the structural depth of meaning, e.g., a genitive submorpheme in locative, adlative and perlative constructions indicate the least degree of dimensional structurality. (In the case of the ablative class the genitive submorpheme has only the first function).

In light of the present comparison of spatio-relative systems a greater adequacy in expressing the relative motion category is an undeniable property

of Polish. On the other hand, the English system possesses richer resources for expressing the dimensionality category, but this has not been illustrated in the present paper because of the very limited number of propositional morphemes included in the analysis; such an exposition remains the topic for a separate paper.

REFERENCES

- Anderson, J. M. 1971. *The grammar of case, towards a localistic theory*. Cambridge: Cambridge University Press.
- Close, R. A. 1967. *Preposition*. London: Longman.
- Esquisses linguistiques*. 1960. Wrocław: Zakład Narodowy im. Ossolińskich, PAN.
- Hill, L. A. 1968. *Prepositions and adverbial particles*. London: Oxford University Press.
- Karolak, S. 1966. *Zagadnienia rekcji przyimkowej czasownika w języku rosyjskim*. Wrocław: Zakład Narodowy im. Ossolińskich.
- Klebanowska, B. 1971. *Znaczenia lokatywne polskich przyimków właściwych*. Wrocław: Zakład Narodowy im. Ossolińskich.
- Kuryłowicz, J. 1960. „Le problème du classement des cas”. *Esquisses linguistiques* 1960. 131 - 151.
- Leech, G. M. 1970. *Towards the semantic description of English*. Bloomington: Indiana University Press.
- Sprawozdania z prac naukowych*. 1968. 11. Warszawa: PAN.
- Sprawozdania z prac naukowych*. 1969. 22. Warszawa: PAN.
- The Oxford English dictionary*. 1961. Oxford: Oxford University Press.
- Weinsberg, A. 1968. „Kategoria kierunku -- próba typologii (na materiale polskorumuńskim)”. *Sprawozdania z prac naukowych* 11. 38 - 43.
- 1969. „Z morfosemantyki okoliczników miejsca”. *Sprawozdania z prac naukowych* 22. 29 - 36.