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ON THE "SUBJECT" OF POLISH CONSTRUCTIONS WITH "ADVERBIAL PARTICIPLES"

1 Introduction

The aim of this paper[1] is to discuss the problem of the "subject" of Polish constructions with verb forms called "adverbial participles" (literal translation of the Polish term "imiesłowy przysłówkowe")[2] , used as subordinates to another verb form – "main verb".

There are two types of adverbial participles in Polish: (a) contemporary or present ("współczesny"), ending with *-ąc* (e.g. *pisząc*, approx. 'writing', *siedząc* 'sitting') for imperfective verbs and (b) previous or past ("uprzedni"), ending with *-szy* (e.g. *napisawszy* 'having written', *usiadłszy* 'having sat') for perfective verbs. They always express the relative tense with respect to the main verb, cf. Wróbel (1975). We will call them in this paper "AdvPart".

The AdvPart forms are neutralized as regards person, number and gender, therefore cannot combine directly with the nominative subject[3] , cf.

(1) **Jan śpiąc.* 'John sleeping.'

They belong to non-finite verb forms, cannot constitute a complete sentence, and are always dependent on other verb forms (henceforth: MV), as a rule —

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[2] Similar verb forms exist in other Slavonic languages, e.g. in Russian (деепричастие) and in Czech (*přechodník*). Such verb forms exist also in Germanic languages, e.g. English participles are used in compound forms of the verb either adjectivally or adverbially, cf. Mel'čuk, Pertsov (1987, p. 109).

[3] The basis of the description of surface-syntax of Polish is for us Saloni, Świdziński (2001). According to this description we regard as the subject the part of a sentence represented by the noun phrase in the nominative, governing person, gender, and number values of the finite verb form.

finite ones (cf. Wiśniewski (1992, 1993), GWJP (1998, p. 202), Saloni, Świdziński (2001, p. 254)), e.g.:

(2) *Jan odpoczywa, śpiąc.* 'John is resting, sleeping.'

We shall not discuss here the complicated problems of temporal and semantic relations between two actions (like those in Russian analyzed by Boguslavskij (1977)). We shall limit ourselves to consideration of the relation between actants of the AdvPart and the MV in the terms of Meaning-Text Theory (MTT, Mel'čuk (1974, 1988)).

Indeed, AdvPart forms belong to the verbal lexemes, having specific syntactic requirements. The AdvPart form *śpiąc* ('sleeping') in (2) belongs to the lexeme SPAĆ ('sleep') which has the following government pattern (henceforth: GP):

SPAĆ
X
NP$_{nom}$

The verb SPAĆ has one deep-syntactic actant slot[4]. In a typical situation (when the verb under consideration is used in the finite form), this actant corresponds to a nominative subject in a surface-syntactic structure (= SSyntS). We will call it the 1st actant (even if it is the only actant of a given verb). For the AdvPart the 1st actant slot in SSyntS is systematically blocked. Thus, in order to interpret the construction it is necessary to analyze deeper levels of representation. We propose to take into account the deep-syntactic structure (= DSyntS).

A rule of the interpolation of the 1st actant, missing in the AdvPartP (adverbial participle phrase), is traditionally formulated in Polish grammar: the underlying "subject" of AdvPartP should be coreferential with the nominative subject of the main clause, cf.: "the blocked slot of the nominative subject in the participle form is filled in a default way: it is understood as referentially identical (referring to the same object) with the nominative subject in the higher-level structure" (Saloni 2000, p. 13). However, the said rule, as we will show below, leads to considerable oversimplification.

Nevertheless, it explains basic facts: the structure of a typical sentence with AdvPartP, and also of somewhat more sophisticated ones: the impossibility of

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[4] The distinction between actants and actant slots was proposed by Mel'čuk (2004), who explored the problem of three types of actants – semantic, deep-syntactic, surface-syntactic and the correspondences between them.

formation of AdvPart from so-called impersonal verbs, i.e. verbs which do not have the nominative actant slot in their surface structure at all (cf. Saloni 2001). Moreover, it is possible to explain by means of this rule the impossibility of introducing AdvPartP into a sentence in which such a verb (e.g. ŚWITAĆ 'dawn', GRZMIEĆ 'thunder', KŁUĆ 'stab', MDLIĆ 'nauseate') is used as a predicate (MV) and does not introduce any other verbal form.

2 Standard constructions — correspondence of the 1st actants

Let us begin the analysis with most standard constructions, e.g. (2), in which SSyntS appears as follows:
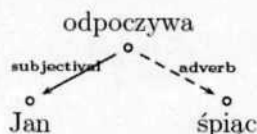
Traditional grammar calls this situation the "identity of subjects". Of course, this is a broad and vague use of the term "subject". In the MTT framework the interpretation is very simple. Let us have a look at the GPs of both verbs:

ODPOCZYWAĆ
X
NP_{nom}

SPAĆ
X
NP_{nom}
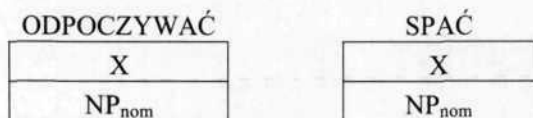
There is only one possibility of interpretation of the 1st actant of *śpiąc* in the DSyntS[5] :

The situation is somewhat more complicated if the MV has more valency slots, e.g.:

(3) *Śpiąc, odwiedziła go matka.* 'Sleeping, the mother visited him.'

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[5] We have adopted the basic notational distinction between the SSyntS and DSyntS (and we write the names of lexemes in DSynt trees in capitals).

The GPs of the verb ODWIEDZIĆ ('visit') and SPAĆ ('sleep') are the following:

ODWIEDZIĆ	
X	Y
NP_{nom}	NP_{acc}

SPAĆ
X
NP_{nom}

The SSyntS expressed by the dependency tree is unambiguous:

odwiedziła

subjectival   1st compl   adverb

matka   go   śpiąc
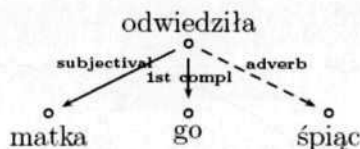
However, the interpretation of the 1st actant of AdvPart is still open. The deep-syntactic interpretation, referring to structural factors (identification of 1st actants)[6] is the following:

$ODWIEDZIĆ_{past}$

I   II   attr

$MATKA_{sg}$ ON_{sg} SPAĆ

I

MATKA
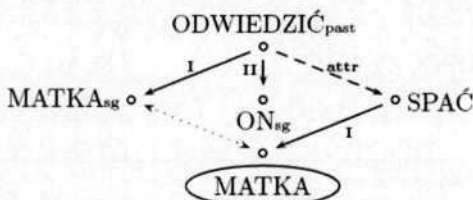
This interpretation seems to be absurd: it is not possible to sleep and to visit somebody simultaneously (although we cannot exclude the possibility of constructing a situational model that makes it reasonable).

From the viewpoint of the presumed communication purpose and the probable semantic interpretation (taking knowledge of extra-linguistic reality into consideration) the DSyntS of the sentence (3) would be the following:

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6   We call "identification of actants" the procedure analogous to unification of variables in logical formulae and programs.
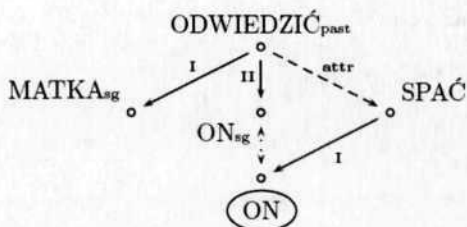
In this tree the rule of identification of the 1st actant of the AdvPart with the 1st actant of the MV has been broken. As a result of the discrepancy between the structural rule of actants' identification and the natural semantic interpretation this sentence is evidently incorrect. It is treated this way both by native speakers and grammar handbooks.

3 Absolute ("unrelated") constructions

Sentences with absolute use of AdvPartP (of some groups of verbs for which such constructions are frequent), when the 1st actant refers to a generalized agent ('anyone'), are considered to be correct (by native speakers as well as linguists), e.g.:

(4) *Leczenie kosztowało ją tysiąc złotych, odliczywszy rehabilitację.*
'The treatment cost her a thousand zlotys, having deducted rehabilitation.'

Its SSyntS and the GPs of both verbs are as follows:
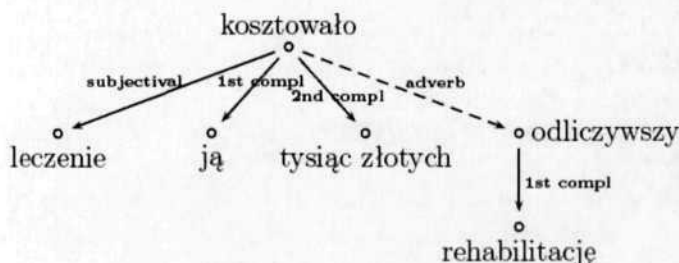
KOSZTOWAĆ		
X	Y	Z
NP$_{nom}$	NP$_{acc}$	NP$_{acc}$

ODLICZYĆ	
X	Y
NP$_{nom}$	NP$_{acc}$

The identification of the 1st actants in the DSyntS gives absurd results: "treatment" can "cost", but it cannot "deduct" anything. Thus, it is necessary to accept the following interpretation:

KOSZTOWAĆ$_{past}$

I — II — III — attr — ODLICZYĆ

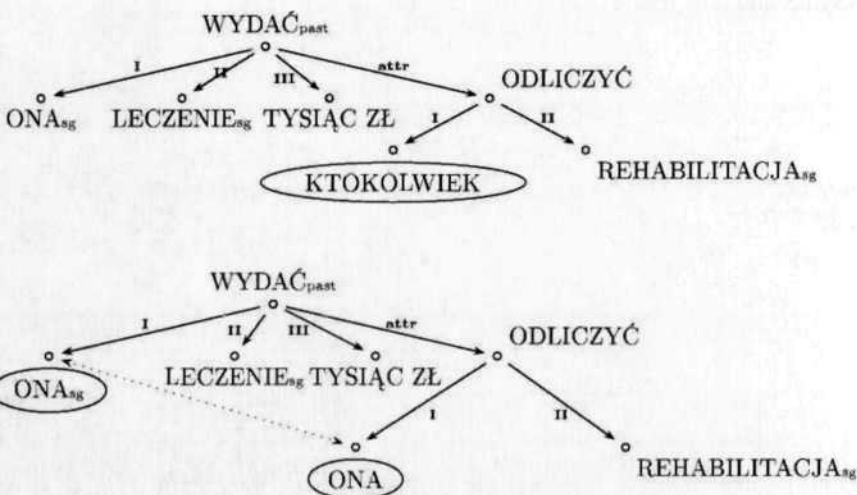LECZENIE$_{sg}$ ONA$_{sg}$ TYSIĄC ZŁ I — II

KTOKOLWIEK

REHABILITACJA$_{sg}$

In the DSynt tree the AdvPartP is treated as "absolute", it is interpreted from the outside, irrespective of the higher-level structure (*ktokolwiek* 'anybody').

The absolute constructions are very easy to distinguish from typical use of AdvPartP (with coreference of 1st actants) for native speakers of Polish. Nevertheless, non-standard and intermediate situations are possible, e.g.:

(4') *Na leczenie wydała tysiąc złotych, odliczywszy rehabilitację.*
'She spent a thousand zlotys for the treatment, having deducted rehabilitation.'

Both absolute and standard interpretations are possible:

WYDAĆ$_{past}$

I — II — III — attr — ODLICZYĆ

ONA$_{sg}$ LECZENIE$_{sg}$ TYSIĄC ZŁ I — II

KTOKOLWIEK

REHABILITACJA$_{sg}$

WYDAĆ$_{past}$

I — II — III — attr — ODLICZYĆ

ONA$_{sg}$ LECZENIE$_{sg}$ TYSIĄC ZŁ I — II

ONA

REHABILITACJA$_{sg}$

It is worth noting that the absence of a word form in the position of the 1st actant of MV does not mean that it is not expressed. The finite verb form is its sufficient exponent — the sentence is translated into English with the subject *she*, and in Polish it admits interpolation of any nominal phrase in the feminine. Standard imperative sentences are interpreted in a similar way:

(5) *Odpoczywaj, śpiąc!* 'Rest, sleeping! '
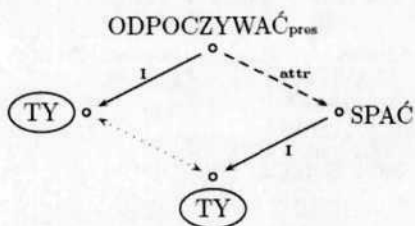
The SSyntS and the DSyntS of (5) are similar to those of (2). The only difference is the ellipsis of TY (the 2nd person pronoun).

4 Constructions with impersonal finite verb forms

Furthermore, AdvPartPs can occur also as subordinates of impersonal finite verbal forms which exclude the interpolation of the nominative subject (or the vocative). Polish sentences including such forms were interpreted (according to Mel'čuk's proposal) as containing a syntactic zero expressing the meaning *ktoś* 'somebody' (Saloni, 1976), e.g.:

(6) *Odpoczywano, śpiąc.* '[They were] resting, sleeping.'
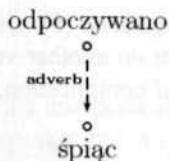
Mel'čuk (2004, pp. 53-54) argued that in such forms of verbs there is no 1st deep-syntactic actant slot because "there is no SSynt-subject — even no dummy zero subject, since the verb shows no agreement, and no expression of agent is

possible". In our opinion the situation when the 1st semantic actant slot of a lexical unit cannot be expressed on the surface should not imply the total blocking of the 1st deep-syntactic actant slot. It can be filled by the zero subject, expressing special meaning 'somebody' (no animal, no thing). It is possible to find a deep agent in such sentences.

It is possible to use AdvPartP also in sentences whose nominative-subject position is filled by the special element *się*, blocking use of any other subject in the SSyntS, e.g.:

(7) *Odpoczywa się, śpiąc.* '[They are] resting, sleeping.'
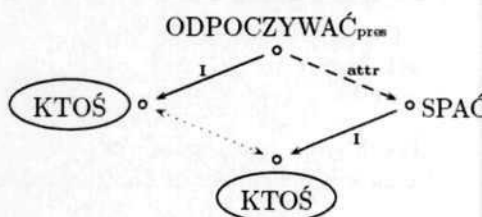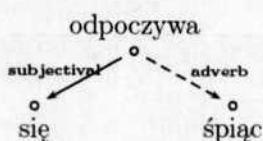
As we see, the DSyntS of (7) is the same as that of (6).

5 Constructions with the infinitive

There is no problem with interpretation of the constructions with the infinitive form used absolutely, in its marginal function — imperative, e.g.:

(8) *Odpoczywać, śpiąc.* 'To rest, sleeping.'

This sentence is interpreted exactly like the imperative sentence (5). On the other hand, if an infinitive is used typically — as dependent on another verbal form — we have more deep predicates and a higher level of complication, e.g. (9):

(9) *Lekarz kazał mi odpoczywać, śpiąc.* 'The doctor ordered me to rest, sleeping.'

Each of the three verbs has its own GP:

KAZAĆ		
X	Y	Z
NP_{nom}	NP_{dat}	NP_{inf}

ODPOCZYWAĆ
X
NP_{nom}

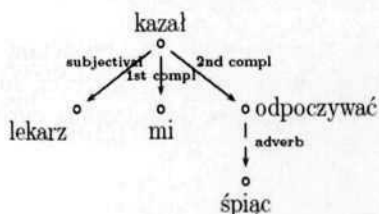| SPAĆ |
|---|
| X |
| NP_{nom} |

Even interpretation of the SSyntS causes some difficulties: we can consider AdvPartP as subordinated to the infinitive form *odpoczywać* ('rest'), as well as to the finite form *kazał* ('ordered'), constituting a sentence[7] :

kazał — subjectival / 1st compl / 2nd compl → lekarz, mi, odpoczywać — adverb → śpiąc

kazał — subjectival / 1st compl / 2nd compl / adverb → lekarz, mi, odpoczywać, śpiąc

Corresponding to two SSynt interpretations we can construct two DSynt interpretations. The first SSynt interpretation corresponds to the following DSyntS, in which the 1st actant of AdvPart is identified with the 1st actant of the infinitive:

$KAZAĆ_{past}$ — I / II / III → $LEKARZ_{sg}$, JA, ODPOCZYWAĆ — attr → SPAĆ — I → JA
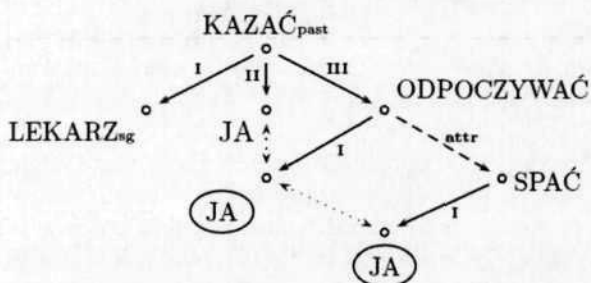
This interpretation agrees with the most probable communicative purpose of the speaker but is inconsistent with the natural understanding of a sentence by the hearer, who interprets it spontaneously in the way illustrated by this DSyntS:

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[7] Various possibilities for the surface-syntactic interpretation of the AdvPartP's governor were discussed by Bojałkowska (2006).

This DSynt tree corresponds to the second SSynt tree — the 1st actant of AdvPart is identified with the 1st actant of its governor, the MV. However, such interpretation is unlikely, because it suggests that the doctor was sleeping during consultation.

6 Constructions with impersonal verbs

We stated at the beginning that according to the general rule "identity of subjects" AdvPartP cannot occur in sentences whose heads are impersonal finite forms, which have no 1st actant slot in their structure at all. This is true for some verbs called by Mel'čuk (2004, pp. 285-286) meteorological, e.g. ŚWITAĆ ('dawn'), GRZMIEĆ ('thunder'), and some verbs of sensation and feeling, e.g. KŁUĆ ('stab' [as of pain]), MDLIĆ ('nauseate').

Nevertheless, there are in Polish some impersonal verbs that constitute sentences with AdvPartP which are accepted by native speakers of Polish, and also by grammar handbooks, e.g.:

(10) *Trzeba odpoczywać, śpiąc.* 'It is necessary to rest, sleeping.'

Two verb forms occur in the main clause in this sentence – the MV *trzeba* and the infinitive *odpoczywać*. As in (9), we can consider AdvPartP as subordinate to the MV or to the infinitive. The first interpretation is the following:
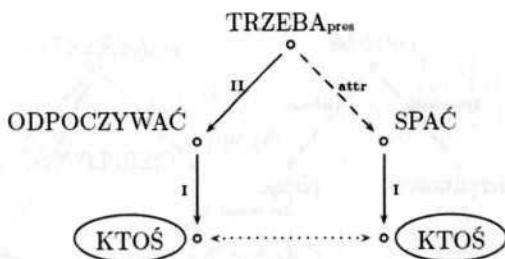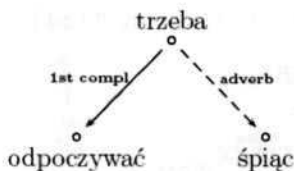
In this case the interpolation of the 1st actant of AdvPart in DSyntS is problematic. At first glance, the only possibility is to identify it with the 1st actant of the infinitive, although it is not its governor in such an interpretation. The second interpretation is still simpler:
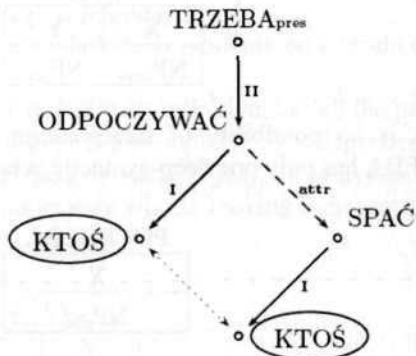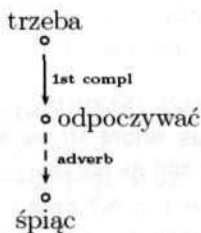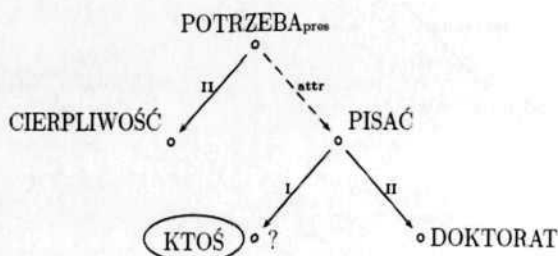

Such an interpretation of the 1st deep-syntactic actant of AdvPart is more natural than the former. On the other hand, both interpretations of sentence (10) shown above do not differ in meaning. As it has been shown, the interpretation of the 1st actant of AdvPart in sentences constituted by impersonal verbs with a dependent infinitive can be similar to those constituted by personal verb, cf. (2). The occurrence of subordinate infinitive involves introduction of actants on lower levels of the tree.

The interpolation of the 1st actant is not so clear in sentences without an infinitive form, e.g.:

(11) *Potrzeba cierpliwości, pisząc doktorat.*
'It is necessary [to have] patience, writing a doctoral dissertation.'

Analogously to (10) we obtain the trees:

There is no actant in the DSyntS which can be identified with the first actant of PISAĆ whose GP is the following:

PISAĆ

X	Y
NP_{nom}	NP_{acc}

There is no possibility of interpretation of this actant if we accept that POTRZEBA has only one deep-syntactic actant slot and its GP is:

POTRZEBA

X
NP_{gen}

However, such an assumption has been made on the basis that the deep structure of a sentence containing a form of verbal lexeme POTRZEBA corresponds to its surface structure and there is one-to-one correspondence of actants there.

Although we do not try to design the semantic representation of both sentences, we should notice that the necessary condition of being necessary for some action (expressed by the verb POTRZEBA) is the existence of an entity which/who is obliged to provide this action. It is evident that this entity must be introduced to the semantic structure. However, it seems to be useful to take it into account also on the deep-syntactic level. Let us try to introduce this entity to the GP of POTRZEBA:

POTRZEBA

X	Y
Ø	NP_{gen}

The DSynt of (11) will be:
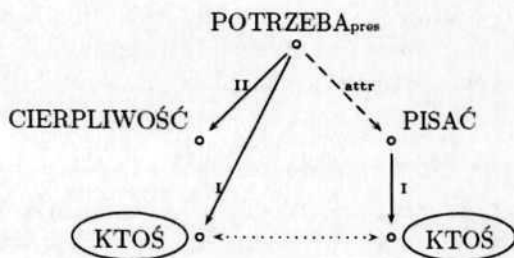
It is now possible to interpret the 1st actant of the AdvPart by identifying it with some actant of the MV.

We see a similar problem in this sentence:

(12) *Stąd widać całe miasto, patrząc w pogodny dzień.*
'From here it is [possible] to see the whole town, looking on a bright day.'

The lexeme WIDAĆ, although historically an infinitive, has all the properties of an impersonal verb. It does not accept the nominative as a dependent and is inflected analytically (e.g. its past form is *widać było*). It is evident that if something is seen the existence of somebody who is looking is necessary. Thus we can propose the following GP:

WIDAĆ	
X	Y
Ø	NP_{acc}

The SSyntS and DSyntS (or their parts essential for our consideration) would be respectively:
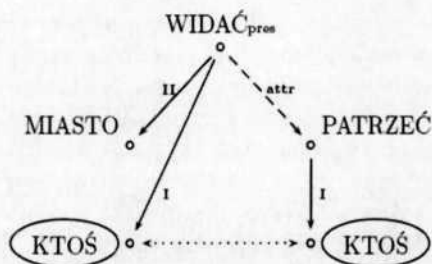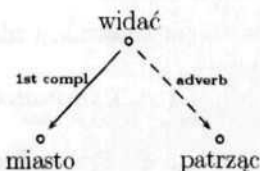
We can interpret the sentences with an infinitive (like 10) in the same way as sentences (11)-(12), because the verbs like TRZEBA ('it is needed'), NALEŻY ('it is necessary') also express the meaning giving the information about an entity which/who is obliged to provide the action, cf. Wróbel (1975, p. 35).

7 Conclusion

Constructions with AdvPartP are usually easy to analyze on the surface-syntactic level, but the transition into the deep-syntactic level enriches the interpretation significantly, because on this level the 1st actant of AdvPart appears, which is omitted in SSyntS. The key moment is identifying it with some actant of the other verb that is a component of the sentence structure. This identification is easy within the MTT framework, which introduces actants on the deep-syntactic level: the 1st actant of AdvPart is identified with a structurally close actant of the governor of AdvPart (which does not have to be the nominative subject in the SSyntS).

S. Kahane (2003) at his paper on the first MTT conference argued: "The deep-syntactic structure is a fundamental representation of a sentence, but it should not be considered as an intermediate structure in the meaning-text correspondence (...) The correspondence from the semantic level to the surface-syntactic level must be direct and the deep-syntactic structure is the witness of this correspondence (i.e. the derivation structure in more technical terms)".

Our analysis showed that – at least in this type of construction – the deep-syntactic structure is very useful as an intermediate level between the semantic and surface-syntactic representations.

References

Boguslavskij, I. 1977. "О семантическом описании русских деепричастий: неопределенность или многозначность", *Известия АН СССР. Серия литературы и языка*, XXXVI, 3, 270-282.

Bojałkowska, K. 2006. "Imiesłów przysłówkowy jako składnik konstrukcji zdaniowej", to appear in *Acta Universitatis Nicolai Copernici*.

GWJP 1998. Grzegorczykowa, R., Laskowski, R., Wróbel, H. (eds.), *Gramatyka współczesnego języka polskiego*, 2nd ed., Warszawa: PWN.

Kahane, S. 2003. "On the status of the deep-syntactic structure", *Proceedings from MTT 2003. First International Conference on Meaning-Text Theory*, Paris, 229-238.

Mel'čuk, I. 1974. *Опыт теории лингвистических моделей "Смысл <=> Текст". Семантика, Синтаксис*, Moskva: Nauka.

Mel'čuk, I. 1988. *Dependency Syntax: Theory and Practice*, Albany: State Univ. of New York Press.

Mel'čuk, I. 2004. "Actants in Semantics and Syntax", *Linguistics* 42, 1, 1-66 and 42, 2, 247-291.

Mel'čuk, I., Pertsov, N. 1987. *Surface Syntax of English. A Formal Model within the Meaning-Text Framework*, Amsterdam – Philadelphia: Benjamins.

Saloni, Z. 1976. *Cechy składniowe polskiego czasownika*, Warszawa: "Ossolineum".

Saloni, Z. 2000. *Wstęp do koniugacji polskiej*, Olsztyn: Wydawnictwo UWM.

Saloni, Z. 2001. *Czasownik polski*, Warszawa: "Wiedza Powszechna".

Saloni, Z., Świdziński, M. 2001. *Składnia współczesnego języka polskiego*, 5th ed., Warszawa: PWN.

Wiśniewski, M. 1992. "Równoważnikowe człony syntaktyczne we współczesnej polszczyźnie pisanej", *Studia gramatyczne X*, Kraków, 71-89.

Wiśniewski, M. 1993. "Składniowa charakterystyka tzw. imiesłowów we współczesnej polszczyźnie", *Acta Universitas Nicolai Copernici 268. Filologia polska XLII*, 64-73.

Wróbel, H. 1975. *Składnia imiesłowów czynnych we współczesnej polszczyźnie*, Katowice: Wydawnictwa UŚ.