

Citation: Przepiórkowski, A. (2017). On the argument-adjunct distinction in the Polish *Semantic Syntax* tradition. *Cognitive Studies | Études cognitives*, 2017(17). <https://doi.org/10.11649/cs.1344>

ADAM PRZEPIÓRKOWSKI

Institute of Computer Science, Polish Academy of Sciences, Warsaw, Poland

Institute of Philosophy, University of Warsaw, Warsaw, Poland

adamp@ipipan.waw.pl

ON THE ARGUMENT-ADJUNCT DISTINCTION IN THE POLISH *SEMANTIC SYNTAX* TRADITION¹

Abstract

The aim of this paper is to examine the understanding of the Argument-Adjunct Distinction within the Polish *Semantic Syntax* (SS) tradition, associated with the name of Stanisław Karolak and presented in the nominally syntactic volume of the *Grammar of contemporary Polish* (Pol. *Gramatyka współczesnego języka polskiego*; Topolińska, 1984), especially in Karolak (1984) and Grochowski (1984), as well as in later work. Section 1 reviews the three approaches to determining the number and kind of arguments of a given predicate, as discussed in Karolak (1984), concentrating on the one that is endorsed there. Then, Sections 2–3 show that the key notions used in this approach have not been – and probably cannot be – made operational. Moreover, Section 4 briefly reviews some more recent *Semantic Syntax* work and shows that this lack of operational AAD in Karolak (1984) extends to the SS programme at large. Finally, Section 5 concludes that this deficiency, while common in linguistic theories, is particularly troublesome in the case of SS, which is founded on the notion of *predicate-argument structure*.

Keywords: argument structure; semantic syntax; adjuncts; arguments

1 Three approaches to AAD

Determining a predicate's argument structure is of paramount importance to *Semantic Syntax*. As the only “steadfast procedure for the adequate identification of the number of arguments in a predicate-argument structure”, Karolak (1984, p. 54) mentions the *decomposition of lexical senses*, best known from the work of Anna Wierzbicka, and applied to Polish, for example, in

¹We are grateful to Prof. Aleksander Kiklewicz for making available to us the guidelines to the KBN project 1-H01D-03219 *Składnia porównawcza języków słowiańskich drugiej połowy XX w.* ‘The comparative syntax of Slavonic languages of the 2nd half of the 20th century’, cited here as Karolak 2004 (with the date referring to the final year of the project; the final version of this instruction was probably written in 2002 or 2003). Thanks are also due to the three anonymous reviewers of CSEC.

Grochowski (1980). However, Karolak (1984, p. 55) also rightly – if somewhat euphemistically – notes that this procedure “is often treated as not being entirely free of aspects of subjectivity”.

A more objective method would rely on the notion of *syntactic obligatoriness*, i.e., the mandatory textual co-occurrence of argument expressions, corresponding to semantic arguments, with a textual realisation of a given semantic predicate. But Karolak (1984, pp. 55–56) also notes that while obligatory expressions usually denote arguments, optional expressions are not necessarily adjuncts. This echoes the widespread linguistic intuition, also applicable to English, expressed in the following quotes from syntactic textbooks (Borsley, 1991; Tallerman, 2005), a recent handbook article on arguments and adjuncts (Ackema, 2015), and a recent monograph on argument realisation (Williams, 2015):

- (1) “[C]omplements tend to be obligatory, whereas adjuncts are always optional.” (Borsley, 1991, p. 62)
- (2) “Adjuncts are always optional, whereas complements are frequently obligatory.” (Tallerman, 2005, p. 98)
- (3) “[I]n contrast to arguments, adjuncts are never obligatory.” (Ackema, 2015, p. 264)
- (4) “[I]f removing a dependent results in unacceptability, this is good initial evidence that the omitted dependent is an argument... The converse is not on equal footing, however. If a dependent can acceptably be omitted, it need not be an adjunct...” (Williams, 2015, p. 68)

For this reason, Karolak (1984, p. 56) settles on a third approach to ascertaining a predicate’s argument structure, one that invokes the notion of *semantic obligatoriness*: if removing an expression results in semantic ill-formedness or alters the meaning of the textual realisation of a predicate, then the expression corresponds to the predicate’s argument. Note that this is again, as in the case of syntactic obligatoriness, a unidirectional implication: semantic obligatoriness implies argumenthood, not the other way around. However, in the case of semantically optional expressions, exactly these are adjuncts, which represent a *separate predicate-argument structure*. Hence, this third approach may precisely bifurcate a predicate’s dependents into arguments and adjuncts, but only to the extent that the two crucial notions it relies on, *semantic obligatoriness* and *separate predicate-argument structure*, may be made operational.

2 Semantic obligatoriness

2.1 Karolak (1984)

The following examples are among those adduced in Karolak (1984, pp. 56–57) in the context of AAD:

- (5) Ojciec wybaczył córce *ten postępek*.
father forgave daughter this deed
‘The father forgave his daughter for this deed.’
- (6) Piotr czyta *gazetę*.
Piotr reads newspaper
‘Piotr is reading a/the newspaper.’
- (7) Jan gardzi Piotrem *za jego uległość* *wobec władzy*.
Jan despises Piotr for his submissiveness towards authorities
‘Jan despises Piotr for his submissiveness towards the authorities.’
- (8) Jan jedzie samochodem *do Warszawy*.
Jan goes car to Warsaw
‘Jan is going to Warsaw by car.’

- (9) Matka pierze *bieliznę*.
mother washes underclothes
'The/My mother washes the underwear.'
- (10) Jan cię prosi, *żebyś zapłacił za jego bilet*.
Jan you asks that-you pay for his ticket
'Jan is asking you to pay for his ticket.'

Only some of the italicised expressions are considered to be semantically obligatory, whereas the other are considered to be semantically optional. However, the judgements of native speakers of Polish vary here. (At this point, before reading on, Polish readers may want to form their own opinion on these examples.) According to Karolak, the italicised phrases are semantically optional in (6), (8), and (9), and semantically obligatory in the other three examples. But, to the best of our knowledge, it has never been demonstrated that the notion of *semantic obligatoriness* is intersubjectively stable, i.e., that linguists agree on the status of examples such as (5)–(9) above, with the italicised expressions omitted.

For the purposes of this article, an experiment was performed, in which ten subjects² judged the semantic obligatoriness of the italicised phrases in the above examples. The subjects were asked whether, after removing the phrase in question, the sentence became semantically incomplete. They could assign each sentence to one of the following five categories:

- 1: *the sentence definitely becomes semantically incomplete after removing the phrase,*
- 2: *the sentence becomes semantically rather incomplete after removing the phrase,*
- 3: *difficult to say* (subjects were asked to avoid this option),
- 4: *the sentence rather stays semantically complete after removing the phrase,*
- 5: *the sentence definitely stays semantically complete after removing the phrase.*

The results of the experiment are summarised in the following table:

(11)	EX	K	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	AV	STDEV
	(5)	1	5	5	5	5	2	5	5	5	5	4	4.6	1.0
	(6)	5	5	4	5	5	5	5	5	5	5	5	4.9	0.3
	(7)	1	5	5	5	5	5	5	5	5	5	4	4.9	0.3
	(8)	5	5	5	5	5	5	5	5	5	5	5	5.0	0.0
	(9)	5	5	4	5	5	5	5	4	5	5	5	4.8	0.4
	(10)	1	1	2	4	4	1	5	5	1	2	1	2.6	1.7

The first column, EX, contains references to the examples above, and the second column, K, contains the judgements in Karolak (1984): 1 in the case of semantically obligatory expressions (whose removal results in semantic incompleteness) and 5 in the case of semantically optional expressions (whose removal maintains semantic completeness). The next ten columns contain the judgements of the ten subjects, with the average of these ten judgements in the penultimate column, AV, and the standard deviation in the final column, STDEV. If all ten judgements were the same as that in Karolak (1984), their average should be equal to the number in K, and the standard variation should be 0.0 – this is indeed observed in the case of (8) and, with just a little uncertainty of a couple of subjects, in the cases of (6) and (9). Subjects also largely agreed in the case of (7), but their judgements were the opposite of the view expressed in Karolak (1984) that the justification expression *za jego uległość wobec władzy* ‘for his submissiveness towards the authorities’ is a semantically obligatory argument of *gardzi* ‘despises’. Similarly, in the case of (5), only one subject (somewhat hesitantly) agrees with Karolak (1984).

Most variation in judgements is observed in the case of (10). This may be attributable to the fact that the reduced version, *Jan cię prosi*, represents the complete meaning ‘Jan is inviting you

²Linguists and computational linguists, without much prior exposure to the *Semantic Syntax* approach.

(to enter)’. Hence, the judgements reflect the granularity of word sense distinctions assumed by the subjects (see Kilgarriff, 1997 on this issue): if ‘invite to enter’ is understood as a specialised sense of ‘ask’, then 5 (or 4) should be assigned to (10); if, however, it is understood as a sense distinct from ‘ask’, the assignment of 1 (or 2) is justified.

Another example used in this experiment is (12), from Grochowski (1984, p. 256), where the italicised phrase is considered to express an argument:

- (12) *Maria wróciła *znad morza*.*
 Maria returned from sea
 ‘Maria returned from the seaside.’

The ten judgements are:

(13)	EX	s1	s2	s3	s4	s5	s6	s7	s8	s9	s10	AV	STDEV
	(12)	5	5	5	5	2	5	4	1	2	2	3.6	1.6

While six subjects considered the ablative expression to be semantically optional, four pronounced it semantically obligatory. Such variations in judgements on semantic completeness, and the stark differences between the theory-laden judgements in Karolak (1984) and the pre-theoretical judgements reported here, undermine the operational status of the intuition of *semantic obligatoriness*, as understood in *Semantic Syntax*.

2.2 Panevová (1974)

A different test for semantic obligatoriness is the dialogue test proposed in Panevová (1974), here illustrated with the following examples from Sgall, Hajicova, & Panevová (1986, pp. 130–131) (based on Fillmore, 1977):

- (14) A: John bought a dozen roses.
 B: For how much (did he buy them)?
 A: I don’t know. / He didn’t tell me.
- (15) A: John paid Harry five dollars.
 B: What (did he pay five dollars) for?
 A: #I don’t know. / He didn’t tell me.

Such dialogues are concerned with expressions which are not syntactically obligatory. In the case of (14), the amount that was paid does not have to be expressed on the surface when the verb BUY is used, and the naturalness of the dialogue also shows that it is not semantically obligatory. On the other hand, the unexpressed merchandise in (15) is semantically obligatory to the extent that the reply of A does not sound natural (as indicated by #): how could she have said *John paid Harry five dollars* if she did not know what he paid for? Apparently, such semantically obligatory arguments must be known to the speaker, or perhaps contextually provided, in order to be omissible on the surface.

One of the standard applications of the dialogue test, cited in various works by Jarmila Panevová and her colleagues (also in Panevová, 1974, pp. 16–18, is to investigate the nature of ablative and adlative dependents of various verbs of motion; in the case of verbs such as ARRIVE or RETURN, an ablative expression seems to be semantically optional, and an adlative expression seems to be semantically obligatory. The same contrast is observed in the case of Polish, as dialogue (17) sounds much less natural than (16):

- | | | |
|------|---------------------------|-----------------------------|
| (16) | A: Maria właśnie wróciła! | A: Maria has just returned! |
| | B: Skąd? | B: Where from? |
| | A: Nie mam pojęcia. | A: I have no idea. |

- | | | |
|------|--|--|
| (17) | A: Maria właśnie wróciła!
B: Dokąd?
A: #Nie mam pojęcia. | A: Maria has just returned!
B: Where to?
A: #I have no idea. |
|------|--|--|

Note that this directly contradicts the view that ablative phrases in examples such as (12) above are semantically obligatory.

As discussed at length in Przepiórkowski (2016a), although the dialogue test seems to give a clearer indication of semantic obligatoriness than the intuition about out-of-context examples assumed in the *Semantic Syntax* approach, its operational value is also limited. In particular, in the minimalism vs. contextualism debate (within the philosophy of language), an attempt has been made to apply this test to decide on the status of the syntactically optional locative expression in sentences such as *It is raining (somewhere)*, but the results are rather inconclusive. While Recanati (2007, 2010) constructed elaborate contexts in which the dialogue (18) sounds natural, his opponents, cited in Recanati (2010, pp. 115–117), showed that with sufficiently sophisticated contexts, even direct objects of verbs such as NOTICE and FINISH, generally assumed to be semantically obligatory, may come out as semantically optional, as in (19).³

- | | |
|------|---|
| (18) | A: It is raining!
B: Where?
A: I don't know. |
| (19) | A: John has finished.
B: What?
A: I don't know. |

2.3 Partial conclusion

Given that no intersubjective procedure for determining semantic obligatoriness has been proposed within *Semantic Syntax*, and no such procedure is in sight in other approaches, one must conclude that the first component of the method adopted in SS to distinguish adjuncts from arguments is not operational. This alone justifies the conclusion that there is no operational understanding of the Argument–Adjunct Distinction in *Semantic Syntax*.

3 Separate predicate-argument structure

Let us ignore the result of the previous section and assume that it is possible to distinguish between semantically obligatory and semantically optional expressions. In *Semantic Syntax*, the former correspond to arguments, but in the case of the latter an additional criterion decides whether they correspond to arguments or to adjuncts, namely, the criterion of constituting a *separate predicate-argument structure* (henceforth, SPAS). Karolak (1984, p. 56) does not provide a method of determining whether or not a given expression constitutes a SPAS, referring the reader to Bogusławski (1974) instead.

Unfortunately, very little is said there within the two paragraphs devoted to this matter. Bogusławski (1974, p. 45) juxtaposes two constructions: *pisać czymś* ‘write with something’ and *jechać po coś* ‘go to get something’, as in the following two examples:

- | | |
|------|--|
| (20) | Jan pisze list piórem.
Jan writes letter pen
‘Jan is writing a letter with a pen.’ |
|------|--|

³One such context, attributed to Sam Wheeler III, is this: *Therapists are monitoring a large group of patients suffering from Fred's Syndrome, a pathological tendency to start projects and never complete them. A new drug, Completin, is being tested. Patients are monitored by undergraduate students, who push a button every time a patient finishes a project. ‘Patient #271 has finished,’ says the researcher, looking at the console. ‘John has finished’ can mean ‘John has finished something or other’.*

- (21) Jan jedzie po gazetę.
 Jan goes for newspaper
 ‘Jan is going to get a newspaper.’

The expressions *piórem* ‘with a pen’ in (20) and *po gazetę* ‘to get a newspaper’ in (21) are both semantically optional; the two sentences are semantically complete without them. The purported difference is that the meaning of one of these expressions “does not involve the superordinate scheme” introduced by the main predicate, i.e., it constitutes a SPAS, and the meaning of the other expression does involve the meaning of the main verb, i.e., it does not constitute a SPAS. (Again, the Polish reader is invited to form an opinion at this stage about which expression is supposed to also involve the superordinate meaning, and which does not.)

According to Bogusławski (1974, p. 45), the expression *po gazetę* ‘to get a newspaper’ meets the SPAS condition, as the meaning of *po gazetę*, namely, “X is going to L because X wants a newspaper”, is independent of *Jan jedzie*, which may be translated as ‘Jan is going (by car, by bus, by train, etc.)’ or ‘Jan is driving’ and, according to Bogusławski (1974, p. 45), “does not involve any direction or purpose. . . there is only a temporal-causal relation between the two facts”. On the other hand, *piórem* has the meaning of “X is using a pen”, which – according to Bogusławski – is “hardly a full sentence scheme without some *in writing, for writing, or the like*”.

In the sentence just cited, an implicit reference to semantic obligatoriness seems to be made, which has already been shown in the previous section to be problematic. Regardless of this potential problem, this method clearly refers to the procedure of decomposing lexical senses, which is rightly – even if somewhat hesitantly – rejected by Karolak (1984, p. 55) as subjective. This subjectivity is evident in the explications of the two expressions discussed by Bogusławski (1974, p. 45). Just as *po gazetę* in (21) is explicated as “X is going to L because X wants a newspaper”, with “going” referring here to the same event as the subordinate verb *jedzie* ‘going (by car, etc.)’, also *piórem* in (20) could be explicated as “X is using the pen in order do something”, with “do something” referring to the same event as *pisze list* ‘write a letter’.

Obviously, given the terseness of the presentation of the procedure for recognising a *separate predicate-argument structure* in Bogusławski (1974) (and, hence, also here), it is very well possible that the current attempt to invalidate this procedure misses some important point implicit in that presentation. But given that the *predicate-argument structure* is a fundamental notion of the *Semantic Syntax* approach, and that being able to recognise a SPAS is crucial for the procedure of determining a predicate’s arguments, it is surprising that, within the 200-page presentation of Karolak (1984), only a quick reference to Bogusławski (1974) is made, where only a brief passage (comprising of about half a page) is devoted to this issue.

Perhaps this lack of clear elucidation of the notion of *separate predicate-argument structure* is not an accident, after all, but rather a reflection of a *principled* impossibility to decide whether a given expression constitutes a SPAS. Consider, for example, the simple sentence *John stutters*, and assume the simplistic semantic representation of the verb as $\lambda x.stutter(x)$ (ignoring tense, aspect, a possible event variable, etc.). Now, if *John* is represented as a constant, j , i.e., definitely not as a SPAS, the lambda expression for the verb may be applied to this constant and, after beta-conversion, render the expected representation of this sentence, i.e., $stutter(j)$. However, the representation of *John* may be type-shifted (Partee, 1986) to $\lambda P.P(j)$, i.e., to a predicate-argument structure of sorts. This lambda expression may now be applied to the representation of the verb and, after a couple of beta-conversions, render the same representation of this sentence. So does *John* constitute a SPAS, or not? Well, this depends on the underlying semantic theory. While in this case j is a simpler representation than the unnecessarily type-shifted $\lambda P.P(j)$, and so it might seem that the obvious answer is that it is not a SPAS, the standard representation of more complex nominal phrases – those expressing generalised quantifiers – is more similar to the shifted representation, i.e., they are often treated as functors which take verbal arguments.

In summary, the second component of the method adopted in SS to distinguish adjuncts from arguments, based on the notion of a *separate predicate-argument structure*, is just as non-

operational as the first component, based on the notion of *semantic obligatoriness*, and it is far from clear whether it may be made operational in principle. Hence, at least in the version of *Semantic Syntax* presented in Karolak (1984), the Argument-Adjunct Distinction is (doubly) non-operational. This subjective nature of AAD in *Semantic Syntax* is explicitly admitted in Grochowski (1984).⁴ In the ensuing section we will investigate whether this situation has been rectified after the 1984 edition of the *Grammar of contemporary Polish*.

4 AAD in more recent work

In later work, for example in a 2002 monograph, Karolak maintains the views discussed above, mentioning again (on p. 99) lexical decomposition of senses as the most principled way of determining a predicate's arguments, and noting again that this procedure is generally considered to be subjective. Just as in Karolak (1984), syntactic obligatoriness is also rejected in Karolak (2002), and the procedure relying on the notions of *semantic obligatoriness* and *separate predicate-argument structure* (with a reference to Bogusławski (1974) again) is adopted. As is also clear from the guidelines to the project *Składnia porównawcza języków słowiańskich drugiej połowy XX w.* 'The comparative syntax of Slavonic languages of the 2nd half of the 20th century', Karolak was very well aware of the difficulties related to AAD – he explicitly refers there to the role of the subjective intuition (*intuicja autorska*; Karolak, 2004, p. 3) in the process of decomposing senses.⁵

Apart from the work of Stanisław Karolak, the only other specific discussion of AAD within the *Semantic Syntax* approach that we are aware of is that of Kiklewicz (2007, 2010). Four tests for AAD are considered there: syntactic obligatoriness (considered and rejected in Karolak, 1984, 2002), semantic obligatoriness (as adopted in Karolak, 1984, 2002), the dialogue test discussed in Section 2.2 above, and a *transformation criterion*, according to which adjuncts – but not arguments – of a given predicate may be paraphrased within a subordinate clause. This is illustrated by the following examples, purportedly showing that *córce* 'daughter' in (22) expresses an adjunct:

- (22) Matka zabrania córce chodzić na dyskotekę.
 mother forbids daughter go to disco
 'The mother forbids her daughter to go to a disco.'
- (23) Matka nie pozwala na to, aby córka chodziła na dyskotekę.
 mother not allows for that that daughter go to disco
 'The mother does not agree to her daughter's going to a disco.'

While a 1985 paper by the Belorussian linguist V. V. Martynov is cited in this context, a similar test was actually proposed much earlier by German valency theorists (Steinitz, 1969; Helbig, & Schenkel, 1973) and forcefully rejected by another German valency researcher, Heinz Vater (1978a, pp. 28–29).⁶ To the best of our knowledge, this proposed test has not been resurrected ever since and does not feature in contemporary discussions of AAD, so we will also ignore it here.

As to the other three criteria, it is clear that they are pairwise incompatible. Obviously, the syntactic criterion is at odds with either the semantic completeness approach of Karolak (1984, 2002) or the dialogue test of Panevová (1974) – the latter two were explicitly designed to deal with syntactically optional expressions. Additionally, these two semantically-oriented criteria give different results in some cases, as already shown above. To give a different example, in (7) cited

⁴*Praktyczne rozstrzygnięcia kwestii, czy dane wyrażenie zajmuje, czy nie zajmuje pozycji implikowanej przez predykat... następują często wiele trudności... Trudności takie musi rozwiązywać interpretator tekstu sam w relatywizacji do własnego subkodu językowego* 'In practice, determining whether a given expression occupies a position implied by a predicate or not is often problematic... Researchers analysing texts must individually solve such problems relative to their own linguistic subcode' (Grochowski, 1984, p. 214).

⁵The guidelines also contain more specific recommendations about the treatment of various kinds of expressions as adjuncts (Karakol, 2004, pp. 10–11), with a general recommendation to treat the dubious cases as arguments.

⁶In Polish linguistics, this test is mentioned in Buttler (1976, pp. 20–21), and rejected in Danielewiczowa (2010, p. 14).

that such a single fundamental distinction does not exist in the system of natural languages, must be considered as potentially fatal to the *Semantic Syntax* approach.

References

- Ackema, P. (2015). Arguments and adjuncts. In T. Kiss & A. Alexiadou (Eds.), *Syntax – theory and analysis: International handbook* (Vol. 1, pp. 246–274). Berlin: De Gruyter Mouton. <https://doi.org/10.1515/9783110377408.246>
- Alsina, A. (1996). *The role of argument structure in grammar*. Stanford, CA: CSLI Publications. (CSLI Lecture Notes, 62).
- Babby, L. H. (2009). *The syntax of argument structure*. Cambridge: Cambridge University Press.
- Bogusławski, A. (1974). Preliminaries for semantic-syntactic description of basic predicative expressions with special reference to Polish verbs. In *O predykcji (Materiały konferencji Pracowni Budowy Gramatycznej Współczesnego Języka Polskiego, IBL PAN, Zawoja 14–16 XII 1972)* (pp. 39–57). Wrocław: Ossolineum.
- Borsley, R. D. (1991). *Syntactic theory: A unified approach*. London: Edward Arnold.
- Bresnan, J. (Ed.). (1982). *The mental representation of grammatical relations*. Cambridge, MA: The MIT Press. (MIT Press Series on Cognitive Theory and Mental Representation).
- Bresnan, J., Asudeh, A., Toivonen, I., & Wechsler, S. (2015). *Lexical-functional syntax* (2nd ed.). Chichester: Wiley-Blackwell. (Blackwell Textbooks in Linguistics).
- Buttler, D. (1976). *Innowacje składniowe współczesnej polszczyzny (Walencja wyrazów)*. Warszawa: Wydawnictwo Naukowe PWN.
- Dalrymple, M. (2001). *Lexical Functional Grammar*. San Diego, CA: Academic Press.
- Danielewiczowa, M. (2010). Schematy składniowe – podstawowe kwestie metodologiczne. *Poradnik Językowy*, 2010(3), 5–27.
- Davis, A. R. (2001). *Linking by types in the hierarchical lexicon*. Stanford, CA: CSLI Publications.
- Fillmore, C. J. (1977). The case for case reopened. In P. Cole & J. M. Sadock (Eds.), *Syntax and semantics* (Vol. 8, pp. 59–81). New York: Academic Press.
- Goldberg, A. E. (1995). *Constructions: A construction grammar approach to argument structure*. Chicago, IL: Chicago University Press.
- Grimshaw, J. (1990). *Argument structure*. Cambridge, MA: The MIT Press. (Linguistic Inquiry Monographs).
- Grochowski, M. (1980). *Pojęcie celu*. Wrocław: Ossolineum.
- Grochowski, M. (1984). Składnia wyrażen polipredykatywnych (zarys problematyki). In Z. Topolińska (Ed.), *Gramatyka współczesnego języka polskiego: Składnia* (pp. 213–299). Warszawa: Wydawnictwo Naukowe PWN.
- Helbig, G., & Schenkel, W. (1973). *Wörterbuch zur Valenz und Distribution deutscher Verben* (2nd ed.). Leipzig: VEB Bibliographisches Institut.
- Jackendoff, R. (1990). *Semantic structures*. Cambridge, MA: The MIT Press. (*Current Studies in Linguistics*, 18).
- Karolak, S. (1984). Składnia wyrażen predykatywnych. In Z. Topolińska (Ed.), *Gramatyka współczesnego języka polskiego: Składnia* (pp. 11–211). Warszawa: Wydawnictwo Naukowe PWN.
- Karolak, S. (2002). *Podstawowe struktury składniowe języka polskiego*. Warszawa: Slawistyczny Ośrodek Wydawniczy PAN.
- Karolak, S. (2004). Instrukcja dla zespołów narodowych realizujących projekt „Składnia porównawcza języków słowiańskich II połowy XX wieku” (nowy wariant). Unpublished manuscript.
- Kiklewicz, A. (2007). Tak zwane człony przyłączone a status referencyjny wypowiedzi. *Poradnik Językowy*, 2007(9), 29–45.
- Kiklewicz, A. (2010). Tzw. człony przyłączone a status referencyjny wypowiedzi. In A. Kiklewicz & M. Korytkowska (Eds.), *Podstawowe struktury zdaniowe współczesnych języków słowiańskich: białoruski, bułgarski, polski* (pp. 89–109). Olsztyn: Centrum Badań Europy Wschodniej Uniwersytetu Warmińsko-Mazurskiego w Olsztynie.
- Kilgarriff, A. (1997). I don’t believe in word senses. *Computers and Humanities*, 31 (2), 91–113. <https://doi.org/10.1023/A:1000583911091>
- Levin, B., & Rappaport Hovav, M. (2005). *Argument realization*. Cambridge: Cambridge University Press.

- Panevová, J. (1974). On verbal frames in Functional Generative Description. Part 1. *The Prague Bulletin of Mathematical Linguistics*, 22, 3–40.
- Panevová, J. (2016). In favour of the argument-adjunct distinction (from the perspective of FGD). *The Prague Bulletin of Mathematical Linguistics*, 106(1), 21–30. <https://doi.org/10.1515/pralin-2016-0009>
- Partee, B. H. (1986). Noun phrase interpretation and type-shifting principles. In J. Groenendijk, D. de Jongh, & M. Stokhof (Eds.), *Studies in discourse representation theory and the theory of generalized quantifiers* (pp. 115–143). Dordrecht: Foris.
- Przepiórkowski, A. (2016a). Against the argument-adjunct distinction in Functional Generative Description. *The Prague Bulletin of Mathematical Linguistics*, 106(1), 5–20. <https://doi.org/10.1515/pralin-2016-0008>
- Przepiórkowski, A. (2016b). How *not* to distinguish arguments from adjuncts in LFG. In D. Arnold, M. Butt, B. Crysmann, T. H. King, & S. Müller (Eds.), *Proceedings of the Joint 2016 Conference on Head-driven Phrase Structure Grammar and Lexical Functional Grammar* (pp. 560–580). Stanford, CA: CSLI Publications.
- Recanati, F. (2007). It is raining (somewhere). *Linguistics and Philosophy*, 30(1), 123–146. <https://doi.org/10.1007/s10988-006-9007-1>
- Recanati, F. (2010). *Truth-conditional pragmatics*. Oxford: Clarendon Press.
- Sgall, P., Hajicova, E., & Panevová, J. (1986). *The meaning of the sentence in its semantic and pragmatic aspects*. Dordrecht: Reidel.
- Steinitz, R. (1969). *Adverbial-Syntax*. Berlin: Akademie-Verlag.
- Tallerman, M. (2005). *Understanding syntax* (2nd ed.). London: Hodder Arnold.
- Tesnière, L. (1959). *Elements de syntaxe structurale*. Paris: Klincksieck.
- Tesnière, L. (2015). *Elements of structural syntax*. Amsterdam: John Benjamins.
- Topolińska, Z. (Ed.). (1984). *Gramatyka współczesnego języka polskiego: Składnia*. Warszawa: Wydawnictwo Naukowe PWN.
- Tutunjian, D., & Boland, J. E. (2008). Do we need a distinction between arguments and adjuncts? Evidence from psycholinguistic studies of comprehension. *Language and Linguistics Compass*, 2(4), 631–646. <https://doi.org/10.1111/j.1749-818X.2008.00071.x>
- Vater, H. (1978a). On the possibility of distinguishing between complements and adjuncts. In W. Abraham (Ed.), *Valence, semantic case and grammatical relations* (pp. 21–45). Amsterdam: John Benjamins. (*Studies in Language Companion Series (SLCS)*, 1).
- Vater, H. (1978b). *Probleme der Verbvalenz*. Technical Report KLAGÉ Nr. 1, Universität Köln.
- Wechsler, S. (1995). *The semantic basis of argument structure*. Stanford, CA: CSLI Publications.
- Williams, A. (2015). *Arguments in syntax and semantics*. Cambridge: Cambridge University Press.

Acknowledgment

This work was financed by the Polish Ministry of Science and Higher Education.

The author declares that he has no competing interests.

This is an Open Access article distributed under the terms of the Creative Commons Attribution 3.0 PL License (<http://creativecommons.org/licenses/by/3.0/pl/>), which permits redistribution, commercial and non-commercial, provided that the article is properly cited.