Built-in Argument Positions in Bulgarian and Polish

Abstract

The issue of built-in argument positions is not particularly popular in contemporary Slavic studies. However, some developments have occurred since the introduction of predicate–argument logic in semantic–syntactic studies. This paper focuses not only on theoretical developments but also on conclusions arising from the study of two Slavic languages: Bulgarian (an analytic language) and Polish (a synthetic language). Until now, the issue of incorporating an argument position in the form of a predicative expression has been viewed as a lexical issue. However, both lexical and morphological means can be used to express a type of proposition. The peculiarities of the distinction between word and sentence are also discussed.

Keywords: Bulgarian language; Polish language; contrastive studies; linguistics; semantics; semantic interlanguage; predicate–argument structure; built-in argument; theoretical contrastive studies

1 Introduction

Predicate–argument based linguistic studies are relatively well-established in Poland (cf. Banasiak, 2018, 2020; Bogusławski, 1974; Grochowski et al., 1984; Karolak, 2002a, 2002b; Kiklewicz et al., 2019; Korytkowa, 1992; Mazurkiewicz-Sulkowska, 2008; Mokrzycka, 2008; Przepiórkowski, 2017; Zatorska, 2013). The theory itself has a wide range of linguistic and non-linguistic applications, including such seemingly non-linguistic issues as the analysis of navigation in bees and other animals (Gallistel, 2011). The lack of observable expressions representing these predicate–argument structures does not make them less propositional (predicate–argument) in nature.

Most linguistic works apply predicate–argument theory to verb semantics and syntax. Sometimes, however, other types of expressions are also included (e.g., conjunctions and prepositions) (cf. Topolinjska, 2001). Predicate–argument structure is viewed as a semantic phenomenon expressed mainly by means of syntax, with the predicate usually being the semantic equivalent of a verb and the argument(s) usually denoted by a (nominal) argument phrase. Due to lexicalization processes, however, the propositional component of the sentence cannot always be split into separate, discrete syntactic units. Such is the case when argument positions become incorporated in the structure of various types of predicative expressions. These relatively rare cases can be considered as proof of the isomorphism of the syntactic and word building linguistic levels (a postulate introduced in Maldżieva, 2009). In this paper, the second of these two levels will be viewed sensu largo and multi-word units of language will be included.

The linguistic data is limited to single- and multi-word predicative units that incorporate an argument in either their formal and semantic structure or their semantic structure only. The study of built-in argument positions has been limited until present to verbs and analytical verbo-nominal constructions, although the process itself has a wider distribution.
2 Methods

This paper is based on (but not limited to) the following methodological background:

– predicate–argument logic
– theoretical contrastive studies (pl. *teoretyczne badania konfrontatywne*),
– semantic grammar (pl. *gramatyka o podstawach semantycznych*).

2.1 Predicate–Argument Logic

Propositional logic can be generalized into predicate (first order) logic. Predicates are functions taking two values (truth or falsity) at a given time (and space). Two argument predicates are relations. Predicates in which the truth value of the whole sentence is determined by the truth values of the variables are called extensional. Predicates in which the truth value of their propositional argument is absent open an intensional position. These terms were first introduced to Polish linguistics by K. Polański, who used them in a narrow sense due to formal constraints (Polański introduced transformative–generative grammar to Polish linguistics) (Polański, 1967, 1999). In this paper, the terms will be used in the semantic sense without any formal criteria in order to denote respectively:

– positions which have a truth value that influences the truth value of the sentence as a whole
– positions without a truth value (no influence over the value of the sentence as a whole)

Intensional:

1. Казах му, че съм дошла да се извиня.
2. Казах му, че съм дошла да се извиня, но въобще дошла съм да се скарам с него.
3. Пowiedziałam mu, że przyszłam przeprosić.
4. Пowiedziałam mu, że przyszłam przeprosić, ale w istocie przyszłam się z nim pokłócić.

Extensional:

5. Дошла съм, защото имам причина и не е от добро.
6. *Дошла съм, защото имам причина и не е от добро, но не съм дошла.*
7. *Дошла съм, защото имам причина и не е от добро, но нямам причин.*
8. *Дошла съм, защото имам причина и не е от добро, но е от добро.*
9. *Przyszłam, bo mam przyczynę i nie z dobroci.
10. *Przyszłam, bo mam przyczynę i nie z dobroci, ale nie przyszłam.*
11. *Przyszłam, bo mam przyczynę i nie z dobroci, ale nie mam przyczynu.*
12. *Przyszłam, bo mam przyczynę i nie z dobroci, ale z dobroci.*

Unfortunately, the terms intensional and extensional tend to be viewed in a very simplified way, as though intensional positions were all positions opened by verbs, and extensional those opened by conjunctions and/or prepositions. This is not the case, as the verb *знать* clearly opens an extensional position:

13. *Знаю, что си дошъл.*
14. *Знаю, что си дошъл, но не си дошъл.*
15. *Wiem, że przyszłeś.*
16. *Wiem, że przyszłeś, ale nie przyszedłeś.*

1 Examples 1–20 have been constructed and their correctness has been verified by native speakers. However, they are used only to illustrate the theory.
Similarly, axiological predicates may open an extensional position:

(17) Добре, че си тука.
(18) *Добре, че си тука, но не си тука.
(19) Dobrze, że tu jesteś.
(20) *Dobrze, że tu jesteś, ale cię tu nie ma.

However, it is important to remember that the factivity of a propositional argument is expressed only when the verb that implicates it expresses the current view of the speaker.

The adoption of predicate–argument logic in linguistics is a serious advancement on the subject–predicate distinction introduced by Aristotle. Viewing notions as kinds of functions of one or many variables allows for a more accurate description of natural language (cf. Ewald, 2019).

2.2 Semantic Grammar

Semantic grammar is the study of grammar based on meaning. S. Karolak and K. Bogacki call such investigations “grammar with semantic foundations” (pl. gramatyka o podstawach semantycznych). They too follow the postulate that “grammar conveys meaning”. The authors make the following claims:

– linguistic forms are usually representations of notional reality (denotative symbols)
– the relations between the formal (material?) and notional levels are complex, as some symbols do not have meaning as their inherent part. These are called expressive symbols, as they reflect the meanings of other expressions
– the article is a reflexive symbol
– denotative symbols denote notions which can be simple or complex depending on their analytical explication
– some semantic elements can be incorporated into the form and/or meaning of a given expression (Bogacki & Karolak, 1992).

2.3 Theoretical Contrastive Studies

Theoretical contrastive studies can be viewed as an extension of the semantic grammar model in which a semantic interlanguage is introduced as a means of contrastive analysis (a semantic tertium comparationis (D. Roszko & Roszko, 2011). This approach was used extensively during the creation of the multivolume Bulgarian–Polish contrastive grammar (Koseska-Toszewa, 2010). Not all valuable contrastive studies follow this model, however (cf. Sosnowski & Satola-Staśkowiak, 2019).

R. Roszko has further perfected this model by adding an explicit description of the notions constituting the semantic interlanguage (cf. Koseska-Toszewa et al., 2007; R. Roszko, 2004).

Theoretical contrastive studies are contrastive studies which follow the semantic principle (using the semantic level as the “entry point” for linguistic investigations) and use the so-called semantic interlanguage. The semantic interlanguage was introduced in order to cope with the main drawback of traditional contrastive studies, i.e., the difference between source language and target language. The traditional view remains valid in translation studies but was deemed to be problematic in linguistics, since the source language is projected onto the target language and may lead to subjective interpretations of the latter (Koseska-Toszewa et al., 2009). The semantic interlanguage is a tool used for the linguistic comparison of any number of languages and consists of semantic units of varying orders, including lexicalized notions and grammaticalized meanings. The semantic interlanguage is based on the semantics of the compared natural languages and could therefore be described as a natural semantic interlanguage, in contrast to the natural semantic metalanguage developed by A. Wierzbicka and C. Goddard (Goddard, 2008; Wierzbicka, 2015).
The difference between the two is functional, as the roles of these two (para)natural languages differ. The natural semantic metalanguage was developed as a means of studying the so-called “language of thought” and is comprised of a relatively closed set of primes and semantic molecules. It is used to explicate the core meanings inherent to natural human languages and its main function is therefore metalinguistic. The semantic interlanguage does not comprise of a predefined (outside the scope of a given, finished study) set of notions. The interlanguage evolves parallel to the study it is used for. New notions and categories can be added based on their tendency towards lexicalization and/or grammaticalization. The semantic interlanguage is a language of the same order as the compared natural languages (it is therefore not a metalanguage). The units comprising the semantic interlanguage (including the set of semantic rules governing the combinatorics of senses) can of course be described (and analysed) using a metalanguage. The main role of the interlanguage is to be used as a **tertium comparationis** in theoretical contrastive studies. It is used to ensure a non-biased approach to the semantics of the compared languages and its main merit lies in it being devoid of formal limitations which result in lexical and grammatical asymmetry. Some languages may express semantically equivalent meanings grammatically and/or lexically using analytical and/or synthetical expressions. Issues concerning homonymy tend to differentiate languages as they are idiomatic in nature. Polysemy is usually systemic and persistent across languages.

### 3 Results

The study was undertaken using both new linguistic data and analysing data provided by other studies as background. Most of the examples were excerpted from internet sources, while other examples were constructed and verified by native speakers. This was necessary as the paper considers many combinations of variables and single sources of data, including corpora (more on the used corpus and corpora in contrastive studies see Duszkin et al., 2021; Koseska, 2014).

Propositional structures are key components of sentences and clauses, but it is equally important to understand that they are the core of different types of descriptions. In my view, theories of description that do not study predicate–argument structures are problematic in this respect. S. Karolak created his theory of determination in accordance with the predicate–argument nature of descriptions. The difference between propositional functions (in which all argument positions remain empty) and propositions (in which all or some positions are filled) is the starting point of his model (Karolak, 2001, pp. 315–335).

#### 3.1 Non-Propositional Positions

Non-propositional variables can be filled with different types of non-clausal arguments, including those denoting material objects. They are opposed to propositional arguments which are compatible only with intensional and extensional positions. To some extent, object-valued arguments can be viewed as having an existential presupposition.

Built-in argument positions have mainly been studied with respect to verbs (Bojar & Korytkowska, 1993). However, it is important to view them in a wider perspective and to account for nominal expressions (including those created as the result of nominalization processes). The presence of built-in arguments remains visible in the semantic and/or formal structure of nominalized propositional arguments.

#### 3.2 Many-Time Propositions

Most predicates denote situations in which a given argument (person or object) can take part more than once. The propositions they constitute are therefore not unique by virtue of their immanent value. The value of the incorporated argument positions may vary depending on the value of the
predicate itself and other argument positions. Some classes of arguments tend to be built-in more often than others. The names of psychoactive substances are often present in the root of such predicative expressions (e.g., pl. *kokaina* → *kokainizować się*; bg. *кокаин* → *кокаинирам се*):

(21) pl  *Kto piwkuje na stenatariuszu?*
(22) bg  *Руси се алкохолизира.*

### 3.3 Built-in Arguments with Varying Values

A built-in argument can be unique in the case of the uniqueness of another discrete position:

(23) pl  *Mój pies polizał mnie w rękę.*
(24) bg  *Кучето облиза кървавото ѝ лице.*

This value is subject to change in the case of the generality of the given argument:

(25) pl  *Psy często liżą ludzi.*
(26) bg  *Кучетата често лижат хората.*

The generality stems from the habituality of the verb. Similarly, the value of the built-in argument may be existential:

(27) pl  *Jakiś pies mnie polizał.*
(28) bg  *Спомням си как едно куче ми лижеше лицето.*

The unique value of the built-in argument in 23. and 24. is a result of the fact that every dog has only one tongue. A case could also be made for the uniqueness of complete sets such as in Bulgarian:

(29) bg  *Той пълноизправяше в радост.*

In cases when only part of the given set is involved in the verbalized situation, the value of the built-in argument is insufficient for uniqueness:

(30) pl  *Kopnąłem go w głowę.*
(31) bg  *Ритнах го в главата.*

If the built-in argument is to be unique, an external formalization with additional restrictions is required:

(32) pl  *Kopnąłem go lewą nogą w głowę.*
(33) bg  *Тя се задава и силно ритна с левия крак.*

### 3.4 Built-in Arguments with Stable Values

Karolak acknowledges the existence of a small group of predicates in which an argument position is never filled. He exemplifies this class with the verb pl. *szukać* and paraphrases its meaning as: “x is doing something to find out where y is”. The locative y position (the second argument position of the proposition) has to be indefinite (Karolak, 2002b, p. 101):

(34) pl  *Szukam mojego brata.*
(35) bg  *Ами търся братовчедката ми, защото я няма, а дойдоха да вземат децата.*

It is worth noting that despite the obligatory indefinite locative position, the nominal exponent of such propositions can coincide with the definite article in Bulgarian expressing both uniqueness and generality:
(36) bg Претърсването винаги се извършва в място или стая, които са в законно (титулно) притежание на определено физическо, юридическо лице или държавен орган.

(37) bg Властиите в Индия преустановиха търсенето на загиналия в Северен Сентинел американец.

The value of the built-in argument can also be definite as in bg. гугълват, гугълва; pl. gugłać, wyguglać, googlować:

(38) pl Poza tym żyjemy w czasach, w których coraz częściej mówi się „wyguglaj to sobie”.

(39) bg Гугълни си го, ако не ти е познато, виж съставките и ако е същото, което си пиеш по принцип и те е ок.

In the above examples, the Google search engine (with a proper name as the root) is the built-in argument. They both convey the meaning of searching for information on something with the use of the said search engine. The location of the “missing” information is sub-specific, as the search engine can search the Internet only.

3.5 One-Time Propositions

One-time propositions are especially relevant for the study of definiteness/indefiniteness according to S. Karolak. The author defines them as events in which a given person or object can take part only once (Karolak, 2002a, p. 193). If their argument(s) is definite, so is the value of the proposition as a whole. The definite meaning of the proposition is reflected by the article in the case of nominalization in Bulgarian:

(40) bg Вицепрезидент Линдън Б. Джонсън автоматично стана президент след смъртта на Кенеди.

(41) pl Po śmiertci Kennedy’ego pracownicy Białego Domu i członkowie najbliższej rodziny chcieli przewieźć trumnę do Waszyngtonu.

S. Karolak claims that one-time propositions are part of the class of propositional one-place names and more complex many-place names (which denote unambiguous types of relations and can be derived from them):

(42) pl Zabójstwo Kennedy’ego było zaskoczeniem.

(43) bg Съществуват множество теории за убийството на Кенеди, които противоречат на възприетите официални заключения.

Even concrete names can inherit the meaning of uniqueness if the proper implications are met:

(44) pl zabójca Kennedy’ego
(45) bg убиец на Кенеди
(46) bg *некакъв убиец на Кенеди
(47) pl *jakis zabójca Kennedy’ego

Examples 46 and 47 are acceptable only if they are marked as expressive and have a predicative reading of the description.

3.6 Zero-Place Names Expressing One-Time Propositions

There is a small group of notions not lexicalized in discrete verbs that can be expressed with abstract zero-place nouns. They can be viewed as the result of an explication process in which the propositional argument is expressed by a nominal exponent (cf. Zatorska, 2015) with an additional step, namely the incorporation of the built-in argument:
Antropogeneza jest procesem, który doprowadził do zakazu bliskich relacji i przemiany do egzogamii — nawigacji relacji małżeńskich z członkami innych społeczności.

Już Arystoteles twierdził, że żywe organizmy mogą powstawać z materii nieożywionej [1] (teoria samorództwa — abiogeneza).

Biogeneza jest całokształtem procesów ewolucyjnych, które doprowadziły do powstania życia na Ziemi.

3.7 Extensional Positions

In extensional positions, propositional arguments can sometimes become incorporated in the structure of the predicative expression. Interestingly, the process can occur in non-verbal and non-nominal predicative expressions if they are considered strictly from a synchronic point of view. The extent to which given types of positions can be built-in is sometimes semantically motivated. For instance, the resultative position in causal sentences (with prepositions) is required to be represented externally because it is the sole bearer of temporal and modal actualization. The causative position can be incorporated in Bulgarian:

Po причината никога няма да ги видим.

Dziękuje na Jordan Believ od #Fermata nawr̃y 11 godiny i po powodu toj sędzeli emocjonalen post.

Sometimes such constructions are ambiguous and can be interpreted differently:

Po słuchal Borysow komentira oto, če bi tevalo hór, koto sa sklicili zastupavke sti Gospodarska odgovornost na cena, koto je s 30% po-niska od koliko pri bǎlgarske državestva, da sa znazi, če nezno ne tekača sigurno.

Nevertheless, the fact that the article can express a whole proposition remains an interesting finding and deserves more recognition. It is contrary to the view expressed by Lambrecht, who claimed that “(...) This does not entail that the definite article expresses a proposition or should be viewed as a kind of sentence” (Lambrecht, 1994, p. 53). Similar constructions with pronouns can be observed in both languages. The position taken by the pronoun is opened by the nominal part in multi-word prepositions (for more on Polish prepositional constructions cf. Jabłońska, 2019).

Również z tego powodu zgłaszany system jest materialnie selektywny.

Po tοzi повод гръцките власти демонстрираха готовност при необходимост да объявят и изпълнят и други мерки.
Another kind of argument incorporation is present in causatives in which the resultative position is built into the verb or noun (in analytical constructions). This class is very productive in both languages and some types of arguments are especially interesting in that they are productive across languages (cf. Zatorska, 2013):

(59) pl Więc, jeśli ktoś w grudniu nie pobielił, to obyło się prawdopodobnie bez szkody dla drzewek.

(60) bg Първите снегове побелиха гребена на планината.

Another type of extensional position that can be built-in is the temporal proposition. In Polish there is a small group of adverbs derived from pronouns:

(61) pl Niedługo potem wyjechał do Minhou, żeby przygotować się do pierwszych po wojnie wszechstylowych mistrzostw Japonii w karate.

(62) pl Przedtem zabił w Łęgowie.

In Bulgarian a case could be made for следобед:

(63) Следобед ще видим и облаци, но валежи не се очакват.

4 Summary

Argument explication processes are of interest to linguists and require further study. Works rooted in language data especially can still provide relevant new insights into the study of semantics and syntax. Articles can express propositions in the same sense as pronouns can. Argument positions can be built-in the structure of various predicative expressions (including verbs, adverbs, and prepositions). Built-in arguments can be expressed by various morphemic means, including the use of articles in Bulgarian. The definiteness of built-in arguments may vary or be set (in the case of proper names), and sometimes their value can be reconstructed only in context (for more on anaphora cf. Kaczmarek & Marcińczuk, 2017). S. Karolak’s theory of determination and the current author’s earlier work require a minor update due to the existence of zero-place names expressing one-time propositions (Banasiak, 2010; Karolak, 2002a). Some zero-place names are semantically equivalent to propositions. The two obligatory senses in such cases are expressed by a single linguistic unit. Lambrecht’s claim about the definite article not expressing a proposition (even as opposed to a presupposition) seems problematic in the light of the data from Bulgarian (Lambrecht, 1994). The Bulgarian definite article can in fact be viewed (in some instances) as a type of clause, as it is sometimes used to expresses a whole proposition in an argument position. The article in these rare cases both asserts and expresses the dependent (argument) proposition.

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