Verb Valency Patterns in Academic Register: Syntactic Approach  
Jolita Horbačauskienė, Saulė Petronienė

Abstract. The article analyses the main characteristics of verb valency patterns and behaviour of verbs in syntactic structures in clauses or sentences. Herbst claims that valency, as well as collocations, can be considered as an area for errors for foreign language learners as they involve idiosyncratic knowledge that has to be learned (2010, p. 225). That is why the studies of the verb valency patterns from the syntactic point of view have an obvious applicability in foreign language studies as it allows an observation of the most common patterns of syntactic verb relations. The paper focuses on verb valency patterns in syntactic structures and aims to analyse these patterns in the academic register. Five types of verb valency patterns (monotransitive, copular, intransitive, complex transitive and ditransitive) employed in the research have been identified according to the number of complements that a predicated verb can take as well as to the type of the complements. The paper emphasises the awareness of possible types of verb complementation which is significant and useful in the studies of languages since it enables a learner to produce a well articulated speech with grammatical clauses fully conveying the intended meaning.

Key words: verb valency patterns, academic register, syntactic approach, passive voice.

Introduction

The concept of verb valency corresponds to the characteristics and behaviour of verbs in syntactic structures. More precisely, it is related with the ability of a verb to form syntactic relations within a sentence. However, numerous studies on verb valency have revealed that a set of grammatical rules coming from the formal structure of a language is insufficient to explain certain patterns of verb dependent syntactic structures of a language (Faulhaber, 2011). Tesnier emphasizes the correspondence between semantic agents and syntactic elements, and thus, sustains a semantic-based approach to account for the ways in which verbs form word relations (in Götz-Votteler, 2007, p. 37). Moreover, Herbst highlights the role of idiomatic and idiosyncratic aspects of a language by interdisciplinary comparison, with different branches of linguistic research such as corpus linguistics, valency theory, foreign language learning and teaching. He also claims that valency description involves various levels of abstraction, whereas generalisations can be made to a certain extent; however, the idiosyncratic nature of valency should not be underestimated (Herbst, 2009). Noel states that valency patterns are a part of grammar but to the extent that

“they assist in organizing the building blocks of a language into meaningful strings, but it does not follow that the content they might convey is of a grammatical nature” (2007, p. 75).

Moreover, Sližienė (1989) notes that the verb-dependent complements are only observed in produced sentences; such approach is used in this research where verb valency patterns are distinguished by analysing produced sentences; however, semantic implications of verbs in general are not considered. Thus, the focus of this analysis is on verbs and their ability to relate to other words in syntactic structures.

As Jackson and Zé Amvela (2007) note, words are not normally used in isolation, they are combined with other words to form larger units with various relationships. Moreover, verbs are crucial in forming clauses and sentences constituting predicates which in turn, are “the semantic and structural centre of the clause” (Valeika and Butkiené, 2006, p. 126). Verbs dictate the basic patterns of a simple sentence or a clause.

Although the roots of valency concept are noticed in Tesnier’s works, it is remarkable that the development of the concept is strongly linked to descriptive linguistics in a foreign language concept. Thus, Herbst perceives valency as an error-prone area for foreign language learners as it involves idiosyncratic knowledge that has to be learned (2010, p. 225). The research on verb valency patterns from a syntactic point of view is of significant importance in learning English as a foreign language. Moreover, the study on verbs’ complements joined in clauses is beneficial in learning to form phrases and sentences in a fluent manner. Therefore, the research has an obvious applicability in foreign language-oriented language studies as it allows the observation of the most common patterns of syntactic verb relations and employment of these patterns in written or spoken language.

The object of the paper is verb valency patterns in syntactic structures. The aim of the paper is to analyse verb valency patterns in the academic register. The objectives of the paper are:

- to provide a relevant theoretical overview on verb valency patterns with the focus on the syntactic approach;
- to perform the content analysis of scientific texts by determining the frequency and occurrence of verbs in clauses and classifying the verbs according to their valency patterns;
- to determine the types of syntactic elements that constitute verb-dependent complements in syntactic structures;
• to perform a descriptive analysis of the use of verb valency in researched material and determine the most distinguished features of the use of verb valency patterns in academic texts.

Methodology

The method of content analysis is carried out by collecting all the verbs that constitute predicates in clauses in the analysed texts from the journals corresponding to the ISI mark of certification that ensures the reliability of a valid academic language. 35 randomly selected articles have been analysed from the journals in scientific data bases: multiword verbs and verbs consisting of more than one lexeme are regarded as single predicative units; the number of verbs is then compared to the number of lexemes in the analysed texts in order to evaluate the density as well as relation forming the abilities of a verb. Moreover, verb valency patterns are analysed in each clause by determining the number of verb complements (subject, direct/indirect objects, etc.). According to the type and the number of components, five different valency patterns are identified based on the classification of Biber et al. (2006), Carter and McCarthy (2007).

Furthermore, the quantitative method focuses on how many particular items or characteristics are in the analysed material. The advantage of the method as noted by Rasinger (2010, p. 52) is that it enables researchers to compare a relatively large number of structures, patterns, etc. by using a comparatively easy index.

The descriptive analysis provides an overview of the generated data. Different valency patterns are analysed individually; the comparison is drawn between the variations in valency patterns of the same verb. Suggestions on the use of syntactic structures as verb complements are made according to the findings of the content analysis. In total, randomly selected analysed texts contain 19677 words, out of which 1452 (7.5 %) are predicative verbs.

The Origin of Valency

It is claimed that the term valency is introduced by Tesniere who developed the theory of dependency grammar. The theory of the grammar is grounded on dependency-based word relations when a certain element of a syntactic structure requires other additional elements in order to fully represent the meaning. Teich argues that in English most models of syntax make use of a notion of dependency (1999, p. 182). Valency is characteristic of all the major word classes and of certain types of functional words (in particular adpositions and auxiliary verbs). However, as Haspelmath and Muller (2004, p. 1130) note it is verbs that demonstrate the most interesting and diverse valency patterns as well as the most interesting valency-changing operations.

The theory on verb valency is characteristic of its concern with verbs as lexical elements of primary importance in determining the number of dependent elements of a syntactic structure; thus, enabling semantic completion of a sentence. Consequently, verb valency can be defined both as a semantic property of a verb to attract certain elements and as the number of grammatical elements that a verb attracts in a clause or a sentence. The grammatical approach and the analysis of linguistic properties of verb valency is two directional: verb valency is either characterised according to the ability of verbs to connect other elements (verb transitivity) or by the number of the dependents that a verb takes in a sentence. Compared to a strictly grammatical approach of the concept of verb valency, semantics-based views on verb valency emphasise the problematic issues if verb valency should be analysed as a semantic or syntactic concept. As Haspelmath and Muller (2004, p. 1131) argue, verb valency patterns are not completely predictable on the bases of the semantic roles they fulfill; thus, it is quite common to consider valency as a syntactic notion and to characterise the verbal arguments by the grammatical relations they possess.

Types of Verb Valency

Grammatically verb transitivity refers to verb complementation by noun phrases, adjectives, prepositional phrases or clauses that function as objects or complements (Carter and McCarthy, 2007). The transitivity based approach to verb valency suggests that it is possible for a verb to have flexible valency by having different ways of realisation in a sentence or a clause. A verb can have an intransitive valency pattern in a syntactic structure as in she cried, he left; a transitive valency pattern as in I bought a dress, they exchanged ideas; or ditransitive as in she sent them a present, he gave all that info to the police. However, this classification is rather flexible as, in some cases, verbs can exchange their transitivity by dropping or adding an object and changing from intransitive to transitive or vice versa. Biber et al. (2006), Carter and McCarthy (2007) distinguish two more types of verb valency: complex transitive and copular transitivity patterns as they introduce more verb dependent elements into a syntactic structure. Complex transitivity is characterised as a valency pattern where a verb requires a subject, a direct object and an obligatory adverbial or object predicative as in The officials considered them a serious threat to country’s peacemaking troops, where the verb considered is followed by a direct object (them) and an object predicative (a serious threat to country’s peacemaking troops). However, verbs can change their syntactic environment while retaining the same semantic meaning, e.g. I will keep in touch with you, we will keep in touch. The flexibility of verb valency patterns indicates the difficulty to define the linguistic nature and characteristics of verb valency as well as a problematic approach to the means of distinguishing among verb valency patterns and the strength of a degree by which a certain number of verb dependent lexemes are required by a certain verb. Consequently, there is a lack of a generally unified linguistic approach to the theory and the research methods of verb valency as pointed by Masuko (2003, p. 261). The classification of verb valency patterns defined by Biber et al. (2006) and Carter and McCarthy (2007) is employed in this research since it explains grammatical verb valency patterns in clauses and sentences.

Peculiarities of the Academic Register

In general terms, a register is a variety associated with a particular situation of use (including particular communicative purposes). The linguistic analysis of a
register is based on register features: words or grammatical characteristics that are (1) pervasive – distributed throughout a text from the register, and (2) frequent – occurring more commonly in the target register than in most comparison registers. It is important to note that these linguistic features are not restricted to the target register. For example, passive voice verbs (e.g. was based on) are register features of academic writing: they are found to some extent in every register, but they are much more common in academic writing than in most other registers (Biber and Conrad, 2009).

The language employed in scientific communication serves to contribute new knowledge to the field and convince other experts that this knowledge has scientific merit. In order for the information to be correctly/or properly received among the users of scientific discourse, fields of science have their own distinctive terminology, methods of research and general nomenclature. Language of science, in its turn, has its own number of grammatical and lexical features that are essential to basic scientific English. Effective communication should be ensured among the participants of scientific activities. One of the means to establish a common ground for such communication is the use of a distinctive functional style and vocabulary in academic texts. Rabinowitz and Vogel (2009, pp. 8–12) distinguish such characteristics of the academic register as narrowly construed style and language, plain and straightforward formulations, correctness of language and overall conciseness. They emphasise the importance of an accurate and reasonable verb placement in academic writing by suggesting that verbs should be placed as close to subjects as possible since anything of length that separates a subject and a verb is regarded as an interruption and leaves the reader with a sense of unfulfilled expectations. Moreover, Jackson and Zé Amvela (2007) argue that academic writing is better understood when the action of a clause or a sentence is clearly articulated in a verb which must apply clearly to the subject and not to any other element in a clause or a sentence. Such notion of a verb as independent element which has clearly expressed relations is useful in analysing verb valency patterns in the academic register as it helps to identify the elements of a sentence to which a verb is related.

Results
The majority of the analysed sentences contain more than one clause, which means that more than one verb is identified in the sentences and more than one valency pattern (of either an identical or a different type) is observed. In some cases sentences consist of more than one clause with the same verbs displaying identical verb valency patterns.

Chart 1 provides the findings of the research, i.e. the distribution of the types of verb valency patterns in the analysed texts: 151 verbs (10.3 %) are used intransitively, 778 (53.6 %) verbs are used monotransitively, 43 verbs (3 %) are used ditransitively, 51 verbs (3.5 %) show a complex transitive verb valency pattern and 429 verbs (29.6 %) exhibit a copular valency pattern.

Thus, the most prevailing valency patterns in the analysed texts are monotransitive and copular since they dominate across the whole analysed material as well as in scientific texts separately. A monotransitive valency pattern is the most common across the analysed texts; moreover, it is important to note that a subject and a direct object as corresponding complements are obligatory as without them the clause or sentence is grammatically incorrect. The forms of syntactic structures constituting subjects and direct objects in monotransitive valency patterns are noun phrases, pronouns and nouns, and subordinate clauses as well as infinitives. Consider the examples below:

It foists territorial boundaries.
Such a restricted view does belie wider sociolinguistic issues of discourse
Waters argued that native-speakerism critique suffers from serious ... flaws.

It is observed that most commonly an independent clause is joined as a direct object by such verbs as to argue, to suggest, to conclude, which are referred as communicative verbs by Biber et al. (2006). The use of independent clauses as direct objects is one of the means to form grammatically cohesive sentences by including information on the agents and processes involved in the events that a speaker wishes to communicate. Therefore, conveying a message when using communicative verbs can be successfully implemented by the use of independent clauses in academic texts. Dependent clauses are also common in usage as direct objects; such cases are illustrated by the examples below:
The frequency of its ACI use had started to drop in the 18th century.

Applied linguistics has attempted to problematize the ideological underpinning of language practices.

These examples indicate that verbs join dependent clauses as obligatory direct objects where a subordinate clause is embedded in the predicate of another (main) clause. Semantically, the use of two verbs could be explained by the fact that verbs in both the main and dependent clauses denote the same semantic argument. In addition, such co-occurrence of verbs has an auxiliary, meaning-defining function. Such predicative verbs aid in giving the characteristics to the verb that forms a direct object. As Biber et al. (2006) point out, verbs of aspect give characteristics of a process or an event, whereas, the use of the infinitive as a direct object for the verbs of aspect can denote the same semantic argument. In addition, such co-

The function of a copular verb is to link the subject with a subject complement or an adverbial. In the case of copular verb valency, an adverbial helps to constitute a predicative part of the clause. Therefore, it cannot be omitted. The deductive method of identifying a verb valency pattern can be employed: if an adverbial or a subject complement render grammatical incorrectness when removed from a clause containing a copular verb, such verb valency pattern is identified as copular. According to the results of the analysis, copular verbs mainly consist of various forms of the verb to be. Moreover, together with lexical verbs they are quite frequent in complex sentences. In such case both lexical and copular verbs form their own clauses and have dependent subjects and objects (in the case of lexical verbs) or subject complements and adverbials (in the case of copular verbs). Consider the examples below:

The author argues that critical applied linguistics is unhelpful and remains marginal to the concerns of the discipline.

It is my argument that Alan Waters and the entirety of his narrative are an exemplification of traditional applied linguistics.

It is general knowledge to say that categorization is essential for the cognitive survival of the species.

The results of the analysis demonstrate that the copular verb become is especially common in the academic register and is used to describe the process involved in changing from one state to another as seen in the examples:

The process of reading a science book is a challenge. Terrestrial isopods have become new test organisms. The social character of production has become apparent.

All the analyzed academic texts include a comparatively dense repetition of the result copular verb to become (23 times); yet, none of other result copular verbs have been found in the analyzed texts.

The results of the performed analysis of the academic register texts demonstrate that copular verbs are frequent in complex sentences, next to verbs of different valency types; copular verbs are easy to recognize with the help of the deductive method of verb complement reduction; moreover, copular verbs are extremely useful in conveying different descriptive information about the same object/subject.

Furthermore, the use of the intransitive verb valency pattern is very rare (10.3 %) in the analyzed texts. Besides, these are mainly the forms of the verb to remain when it is used as a lexical and not as a copular verb; sometimes clauses exhibiting this pattern include optional modifiers (adverbs, adjectives). Consider the examples below:

Many questions remain.

Several structural changes remain.

There are several examples of an intransitive use of idioms in the analyzed texts as in Once stereotypes fall into place, they become ... . The idiom to fall into place is used intransitively in an independent clause. However, as idioms have their own meanings different from the meanings of their separate constituents, they are analyzed as single lexical units and their intransitivity is explained by the fact that they denote a certain type of action undergone by the subject of the syntactic structure. Semantically, intransitive idioms like intransitive lexical verbs do not involve semantic agents other than a subject. In the analyzed academic texts, intransitive valency patterns occur mostly when verbs of occurrence or idioms are used since verbs of occurrence or idioms are used since verbs of occurrence do not have a semantic argument other than the subject itself, and idioms have a fixed, subject related meaning that is similar to that of the intransitive lexical verbs.

Complex transitive verb valency patterns constitute only 3.5 % of all predicates; moreover, verbs displaying this type of valency pattern join a subject and a direct object as well as either an object predicative or an obligatory adverbial as shown in the examples:

There has been a shift to a phenomenon they call aversive racism. Scientific discourse marks such judgements with a neutral tone. Programs might be expected to require students to take more general courses.
A ditransitive verb valency pattern is very rare in the analyzed material (3 %). This valency pattern requires a verb to join a subject and a direct and indirect object phrases. Consider:

*We must reject a theoretical approach which does not give adequate scope to agency.*

*They bring very important contribution to this debate.*

The use of typically ditransitive verbs are often found in passive voice structures where a semantic agent is either unexpressed or expressed in a way that does not form a ditransitive verb valency pattern structure; thus, syntactically not qualifying for the ditransitive valency pattern. It should be noted that one of the reasons for a rare occurrence of this valency pattern is the tradition to use the passive voice in the academic register.

The density of passive verbs in the academic register is interesting because it has been quite a controversial issue, with some claiming that

“it is used merely to sound objective and to distance the practice of science from human agents” (Biber and Conrad, 2009, p. 122).

Yet, the academic register is characteristic for its use of passive voice structures which has an impact on verb valency patterns. The use of the passive voice in the academic register makes the elimination of certain semantic agents in clauses, and thus, it decreases the number of obligatory complements required by verbs (it is possible not to express subjects in short passive structures; thus, bring the attention to the object), which, when needed, permits a fluent change between transitive verb valency patterns and the use of the passive voice.

The passive voice expression is more economical and equally informative; however, no significant differences have been found in the research with the relation to syntactic patterns and the passive voice.

However, it is important to remark that it is the passive voice which allows concepts and objects (rather than people) to be the grammatical subject of the sentence, quite often making the discourse topic more comprehensible. Biber et al. (2006) suggest that the omission of the agent could be explained by the fact that the importance of an agent is reduced in passive voice structures which has an impact on verb valency patterns, which is determined by the different meaning of a particular verb itself.

- The most common types of syntactic realisation of verb-dependent complements are nouns and noun phrases, prepositional nouns, infinitives, dependent and independent clauses. The awareness of possible types of verb complementation is significant and useful in the studies of languages as it enables a learner to produce a well articulated speech with grammatical clauses fully conveying the intended meaning.

- The use of the passive voice in the academic register renders the elimination of certain semantic agents in clauses; thus, the number of obligatory complements required by verbs is decreased (subjects can be unexpressed in short passive structures and the attention is brought upon the object). As a result, a fluent switch between transitive verb valency patterns and the use of the passive voice is observed.

References

Veiksmažodžių valentingumo rūšys akademiniio stiliaus tekstuose: sintaksinis tyrimas

Santrauka


About the authors

Jolita Horbačauskienė, dr., associate professor, Kaunas University of Technology, Lithuania.
Academic interests: translation studies, linguistics.
Address: Centre of Foreign Languages, Faculty of Humanities, Kaunas University of Technology, Gedimino Str. 43, LT-44240 Kaunas, Lithuania.
E-mail: jolita.horbacauskiene@ktu.lt

Saulė Petronienė, dr., associate professor, Kaunas University of Technology, Lithuania.
Academic interests: translation studies, linguistics.
Address: Centre of Foreign Languages, Faculty of Humanities, Kaunas University of Technology, Gedimino Str. 43, LT-44240 Kaunas, Lithuania.
E-mail: saule.petroniene@ktu.lt