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**COGNITIVE PERSPECTIVE IN CONSTRUCTION GRAMMAR**  
**ANALYSIS OF ENGLISH CONSTRUCTIONS**

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***Abstract***

The article aims to analyze some structures in English judged within the framework of Construction Grammar with a specific emphasis on the notions of conceptualization and categorization. The grammar of a language is understood as cross-mapping of form and meaning, the grammatical constructions are viewed as regular idiomatic pairings of form and meaning that do not appear compositional when interpreted thus understood as evoking specific mental configurations outside domains of lexical and truth semantics. The analysis of constructions can evolve into an insightful instrument of linguistic analysis if the grammatical constructions are explained as the result of the conceptualization of referential scenes that can be further categorized into several frames as knowledge representations. The article concerns grammatical constructions that express a variety of propositional meanings that are created in the cognitive-communicative process of interpretation which embraces at least three types of knowledge produced by the language user's mind: conceptualization of referents, activating language knowledge, processing the textual and contextual semantics. The theoretical provisions and framework of Construction Grammar are instrumental in disclosing the nature of the form-meaning unity of grammatical constructions. The article argues that the constructions under study should be viewed not only as typical structure-building mechanisms. Through cataloging certain types of referent object conceptualization, it is possible to make clear what schemata can be cognized in referent scene concepts. The study aims at working out research procedures to treat grammatical idiomaticity, collocational preferences, certain covert constraints imposed by the notion of a grammatical construction on certain lingual expressions.

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**Keywords:** Construction Grammar, grammatical construction, conceptualization, referent scene, construal.



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## **1. Introduction**

Lingual representation of cognition has been in the focus for quite a while since W. von Humboldt and F. de Saussure and was further emphasized and elaborated by cognitive science and cognitive linguistics in particular embodiments, spatial cognition being the most comprehensive area. Talmy (1983) brought into the issue of language reflection of cognition the dimension of the linguistic typology providing as well a fundamental conceptual framework for such issues as language reflection of topological features of objects, languages preferences in spatial configurations thus encoding same referents differently in terms of conceptualizing and fronting their various features. Generally speaking, the notion of a conceptual configuration of reference objects through the perception of their shape, color, movement/rest, perceived relation to the environment, etc. may be applied to semantic domains of various lingual structures viewed as grammatical constructions.

## **2. Problem Statement**

As grammar of a language is an interface between form and meaning, hard and fast boundaries between lexicon and syntax being blurred, the grammatical constructions as pairings of form and meaning that aren't interpreted compositionally, but idiomatically, should become an insightful instrument of linguistic analysis (Kay & Michaelis, 2019). The problem discussed in the article concerns grammatical constructions that show a range of propositional meanings, such as possessivity, perceived activity, caused resultativity, comparison, etc. The research starting from the stand that the value of language expression is created in its interpretation and not in truth condition semantics, must result in certain cognitive bases for the interpretation of some spatial, existential and experiential properties of objects and phenomena within theoretical provisions and framework of Construction Grammar (CxG).

## **3. Research Questions**

Research questions fall mainly in the area of grammar and semantic correspondences: syntactic structures correspond to semantic structures, but the question whether the construction under study should be viewed as typical structure-building mechanisms in English, and what knowledge about referent scenes is relevant for scene construal needs to be theorized and developed through cataloging certain types of referent object conceptualization using an inventory of schemes contained in referent scene concepts.

## **4. Purpose of the Study**

The purpose of the study is to work out research procedures to treat linguistic expressions that are characterized by grammatical idiomatity, collocational preferences, certain covert constraints imposed by the notion of grammatical construction, as well as to specify a common framework for the analysis of 'syntactic' and 'word-building (derivational)' construction kinds. The material to be discussed includes constructions manifesting propositions of possessivity, perceived activity, caused resultativity, comparison, etc.

The grammar of constructions or Construction Grammar (CxG) is today's generative-cognitive understanding of language mechanics (Boas & Ziem, 2018), which embodies perhaps in the most comprehensive way several fundamental definitions of modern linguistics suggested by Kubryakova (1994): its poly-paradigmatic content, expansion into adjacent fields of knowledge and methodology of other sciences, functionalism, explanatory goals of linguistic research, semantic emphasis of research. As CxG incorporates the principles and notions of traditional and cognitive linguistics, as well as borrowed from philosophy, anthropology, information theory, cognitive linguistics and semiotics (Croft & Sutton, 2016; Kay & Michaelis, 2019; Vieira & Wiedemer, 2019), this composite research area provides a certain estimation of what is the fundamental principle of structure and functioning of language as a sign system of verbal communication. It may consist in recognizing the fact that the composite nominative units of the language or expressions made of such units (whether derivationally, as a word-building construction, or as a syntactically organized composite verbal analytical phrase) (Zeller, 2018) should be valued in two aspects. First, they can be semantically and pragmatically interpreted only when considered communicatively, i.e. as elements constituting utterances (sentences). This standing is based on the notion in cognitive linguistics regarding the role of interpretation and construal of the semantics of lingual expressions: the meaning is not a composition of elements bridged together by a construction. Second (consequentially to the first), the constructions are not built on the principle of syntagmatic connection of units that are members of various lexical and grammatical paradigms, i.e. not by way of syntagmatic sequencing speech chains, but on a different basis.

This different principle is non-trivial connectibility of linguistic signs in a construction building act, each of which has a specific semantic (pragmatic, discourse) function that is not overt as it is not resulting of added up meaningful values of the connected elements. As constructionism recognizes the supremacy of the communicative function in structuring the content of language expressions, CxG must accordingly set the relationship between the communicative implementation of language units and their status in the language as the basis for the explanatory potential of a language structure theory (Boas & Ziem, 2018). Constructional grammar thus presents a semiotic theory of language in which the boundaries of traditionally distinguished subsystems and levels of language are erased: since all language levels (beginning with sound matter comprised by the phonetic and prosodic level, to morpheme, word derivational constructions, utterances, and whole texts) language signs and lingual expressions behave like constructions (Zeller & Jochen, 2018), it is worth considering for explanatory value of language theory, not separate units and their role, position, meaning and functions in the language system, but rather the mechanics of this unit being engaged in construction-building. For Cognitive Construction Grammar it will be insightful to disclose cognitive parameters of interpretation (categorization) of the content turn out to be intrinsic of cognition for the processes of forming and interpreting the constructions.

## 5. Research Methods

To pursue such a goal as conceptual schemes of referent object and scenes a variety of instruments can be applicable, but first of all linguist's intuition and introspection, which have been adopted in Cognitive Linguistics and Construction Grammar probably on a unanimous vote. The conceptual analysis as is well-understood is semantic in its core, so analyzing the lexical and grammatical meaning of construction

elements manifests semantic methods. The collocation of construction components is revealed and judged within the collocational analysis. CxG inherits the still used Generative Grammar techniques of analyzing semantic-syntactic correspondence employing decomposing surface and deep structures as underlying the real utterances (Hanink, 2018; Singh, 2018).

Within the domain of constructional grammar approach to revealing cognition in a language, there are several principles developed to set the definition of a construction: a) the symbolism postulate (as lingual signs constructions have a form-content correlation) (Croft & Sutton, 2016); b) the inclusion postulate (constructions form relationship kinds: 'element – construction' and 'element – element' (Zeller, 2018); c) the semantic idiomaticity postulate (the semantics of a construction is not compositional: a construction meaning is fully motivated by its components) (Fillmore, Kay, & O'Connor, 1988; Kay & Michaelis, 2019); d) categorization postulate (in cognitive view a construction is a construal of the referent scene, as it provides interpretation of reality and builds its categorization) (Rakhilina & Testeleets, 2016).

## 6. Findings

In the analyzed corpus of various English structures quite a number belong to constructions, including, first of all, analytical and semi-analytical structures with verbals (infinitives, gerunds, and participles) denoting perceived or caused activities: “complex object” construction (*We saw him run away; We saw him running; He had his car serviced; He got his wallet stolen at the marketplace*), “complex subject” construction (*He was seen to run away; They were reported to have gone away*), “absolute constructions” with participles and without them for adverbials in the sentences (*There being not enough light in the shed, we couldn't see the box in the corner*), causative ditransitive constructions (*She cried herself to hysterics; Sounds like she danced her own feet off*). These and similar constructions are in all aspects composite poly-propositional structures, but given this property, they can differ significantly in the concepts they construe of the referent scenes underlying them, for example, the construction model HAVE NP PAST PARTICIPLE (“to have smth done”) categorizes situations that are opposite in terms of intentionality: *He had his room redecorated* means ‘He ordered a repair in his room’ (made at the request, design, with a certain goal of the agent who initiated and caused the action of somebody else). By contrast, *He had his leg broken in a car accident* means that the person’s leg got broken in a car accident – as there is no intention, the scene is not categorized as activities caused or initiated by the subject referent but belongs to occurred incidents with an undesired consequence, cf. *He had his wallet stolen at the market place*).

This idea brings in an oppositional technique: constructions can be revealed in oppositions of structurally identical lingual expressions displaying different categorization results, for example, *long-legged* means ‘having long legs’ and construes a case of inalienable (intrinsic) possessivity, vs. *blue-bagged* that means ‘having the blue bag’: it indicates the construal of temporary possession that can be alienated. Similarly, *John's room* (in which the semantic case of noun *room* is ‘a possessor, participant of the relationship of possessivity’) is contrasted conceptually to *John's questions* (in which the semantic case of noun *questions* is ‘objective factitive’: questions appeared as a result of John’s activity of asking smb. smth.). To provide more examples of the same construction pattern and the noun-case technique let us

analyse the following opposition: *John's arrival* (noun semantic case is 'agent': what John did was arrive) vs. *John's arrest* (with noun case being 'patient': John was arrested).

Existential sentence pattern organizes a polynominal opposition of semantic frames – it can produce a scale of construal frames differing in degrees of abstraction: *There were many students at the lecture* (characterization of the lecture by students' attendance, here being present in the lecture hall is a signal of pure existence). The following constructions display degrading of the meaning of existence and the growing degree of abstraction construed as the relevant element of the referent scene: *There were many questions at the lecture* (characterization of the lecture by the activity of the audience who asked questions); *There was a storm out in the sea* (describing natural phenomena happening somewhere in the sea); *There is no denying his victory in the contest* (stating absence of possibility to deny a certain fact).

N-Adj constructions conceptualize different parameters of objects and substances such as quality and quantity: the construction *snow-white linen* conceptualizes quality parameter of bed linen as clean and white, and in the noun phrase *knee-deep stream of water* it is not quality, but the quantity that is conceptualized: the water flow depth. Together with quality and quantity the parameter of comparison with some reference standard is construed. Thus cleanliness and freshness are measured utilizing comparison with snow, and depth of the water stream with the length of the leg from foot to knee, which is relevant when crossing the creek or stream on foot.

Categorization can be formed in a context that adds to interpretation relevant parameters for categorizing referent scenes, e.g. *John's cake* represents knowledge of various scenes: “the cake that John made”, “the cake that John eat”, “the cake that was given to John”, “John's favourite cake”, or even possibly, “the cake that was made for John”.

It should be reiterated after Rakhilina and Testelefs (2016) that constructions as lingual signs possess both formal and meaningful parts, and they both are compositional, but for a construction, it is enough to have one of them – either expression plan or the content plan – to be idiomatic, i.e. not derived from the meaning or form of the components. The syncretism of various meanings expressed in one form is a fairly frequent phenomenon that has long been the subject of linguistic analysis, which provides strong bias for interpreting the entire conceptual structure that is construed as a result of nomination of a certain referent scene – state of affairs, events, movement, etc. requiring extensive knowledge or a developed world view and volumes of language knowledge. One cannot but think about the continuity of thought in theoretical framework in this area of cognitive grammar, because the study of constructions necessarily evokes widely-known lingual phenomena as well as techniques and approaches in treating them, for example, understanding polysemy, ambiguity and uncertainty (vagueness) both at the level of vocabulary and grammatical structures, which after Noam Chomsky, John Lyons and Ronald Langacker have already become hackneyed textbook-familiar examples of how the conditionality of construction meaning is manifested in the fact that interpreting lingual expressions depends on the speaker's knowledge of both described events – referent scenes, and the linguistic means that are available in the language to express them. Let us see some examples. A sentence *Flying planes can be dangerous* as is well-known can be interpreted in two ways: “flying (piloting) a plane is a dangerous activity”, linguistic knowledge of transitive verb constructions (to fly a plane/kite, etc.) is instrumental in building up this interpretation; the other interpretation is “planes that are flying are a danger”. Structural knowledge provides a conceptual

parameter owing to which NP *flying planes* stands in a paradigm of similar lingual signs such as *a dancing couple*, *a smoking chimney*, *breaking news*, etc. composed of a noun and its modifying attribute. Depending on the reference of the phrase, which will be strongly supported by prosodic means, structural ambiguity will increase or be reduced in such sentence as *They can fish*: a) “they are able fishermen, they do fishing” and b) “they produce canned fish”. The prosodic element of construction – namely the logical stress, can serve the division line between the two constructions: *They can FISH* (with the stressed capitalized element) conceptualizes capacities in fishing, and *They CAN FISH* (with both capitalized nouns carrying stress) construes the idea of tinned food production factory.

## 7. Conclusion

The rise of the role of grammatical constructions in explaining the mechanics of such a structurally-based language as English (owing to its typologically prominent highly analytical and isolating features) is probably triggered by the fact that language units at the systemic-paradigmatic level, as noted by Novella Kobrina (1981), are characterized by the incompleteness of their meaning, it is in a certain sense relational (or relative) – both grammatically and lexically. Only due to overwhelming interaction and interpenetration of all parts of the language system in its functioning, can virtually infinite meaning domains be expressed (p.30). As is stated in the research of interpretative function of the language, the role of language units in performing cognitive, communicative, and interpretative functions (Boldyrev, 2019) is associated not with their systemic-paradigmatic status, but rather with their use in the processes of representing knowledge, building communication, in the acts of interpreting the meanings expressed by language means “in solidarity” with each other. We feel obliged to indicate after the research highlighted in this article one more interpretational task that is served by lingual units – they are means of construing categories of referent scenes as being results of cognition about the extra-lingual world. This idea is a true confirmation of F. de Saussure’s theory that the leading role in the language belongs to its structural organization by which he understood the totality of all relations, ties, and connections between the units of the language. This undeniable conception is further elaborated by understanding the mechanics of a language as a certain continuum of language means in their use in which all connections and relations between levels and units are continuously updated thus integrating meanings and functions in lingual units and constructions. The very nature of the language manifests itself as a dynamic, functional system imbued by specific lingual “creativity”, i.e. the ability to adapt old means to new goals (Boldyrev, 2019; Kobrina, 1981).

To conclude, we would like to emphasize that the Construction Grammar (CxG) in cognitive perspective is aimed at identifying the path from the form to its content in the process of interpreting language expressions, the path lies in the field of cognitive semantics, revealing the relevant parameters for conceptualizing and categorizing referent scenes in grammatical constructions, i.e. in the area of identifying knowledge represented in the constructions.

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