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Model of Comparative Analysis of the Structure and Semantics of Causal Constructions in Multi-Structural Languages

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Abstract: *This article explores the application of constructive grammar, a linguistic approach that integrates cognitive, syntactic, and semantic frameworks to analyse causative constructions in English and Russian languages. Constructive grammar interprets not only the form and content of linguistic components but also the structure itself, which influences and imposes constraints on these components. The study considers the methodological evolution from traditional syntactic theories to cognitive models, particularly the influence of Ch. Fillmore's work. By focusing on causative constructions, specifically analytical causatives like "The police made him confess," the research draws upon the theories of V.P. Nedyalkov, G.G. Silnitsky, and A.A. Kholodovich, among others, to provide a comparative analysis of causative structures in different languages. Cognitive and generative grammar perspectives, including R. King's spatial metaphor and L. Talmy's force dynamics, are integrated to establish a comprehensive framework for understanding the universal and language-specific properties of causative expressions. The findings highlight the importance of the cognitive interpretation of syntactic structures, the role of energy transfer between agents and patients, and the diverse semantic types of causative situations. The study concludes by suggesting future research directions in the syntactic classification and formal expression of causative components.*

Keywords: *Causative Construction, Linking Verb, Comparative Approach, Constructive.*

Introduction

In modern linguistics, researchers are increasingly interested in studying the problems of constructive grammar. Constructive grammar is characterized as grammar that, when interpreting the form and content of expressions and phrases, takes into account not only the form and content of their components, but also the meaning of the structures themselves, which impose certain restrictions on their components. Constructive grammar differs from component syntactic theories in that the symbolic connection between form and traditional meaning is internal in the first case and external in the second (Comrie, 1976), (Croft, 2001). Constructive grammar, which arose from the concepts of Ch. Fillmore and other linguists, presents itself today as the cognitive grammar of constructions (Goldberg, 1995), (Goldberg, 2006).

The starting point of such research is the syntactic construction, which is considered not only as a form of organization of lexical units for conveying a certain grammatical meaning, but also as a system component endowed with an independent meaning. The integration of methodological approaches to constructive grammar, cognitive linguistics, and the comparative method and the application of these approaches to the study of a number of issues of semantic syntax is relevant. The relevance of the research is also related to the need to further systematize the accumulated knowledge in this field and the insufficient level of study of the specifics of the linguistic implementation of constructions with causative verbs in different structured languages. One of the objects of study of constructive grammar is the causative constructions of the analytical type, for example: The police made him confess to the crime, which are considered in this article. Its purpose is to justify and describe the model of comparative analysis of the structure and semantics of causative constructions in English and Russian languages.

Methodology

The methodology of this study involves a comprehensive comparative analysis of the structure and semantics of causative constructions in English and Russian languages. The approach integrates theories and frameworks from constructive grammar, cognitive linguistics, and comparative methods. These methodologies are selected due to their relevance in understanding the nature of syntactic and semantic relationships in causative constructions across different languages (Martínez-Falcó, 2024). The methodology consists of several key stages and analytical tools:

1. **Literature Review and Theoretical Framework Development**
   The initial stage involved a detailed review of the literature related to causative constructions and constructive grammar. Foundational works by linguists such as Ch. Fillmore, V.P. Nedyalkov, and G.G. Silnitsky, among others, were examined to establish a theoretical and terminological foundation for the study. The frameworks considered include theories of causatives, cognitive models, and diatheses and prepositions as proposed by linguists like A.A. Kholodovich. This stage provided a terminological and theoretical apparatus essential for the study.
2. **Data Collection and Language Material Analysis**
   To conduct a comparative analysis, data was collected from both English and Russian languages, focusing on the causative constructions of the analytical type. English causative constructions were collected from contemporary and classical texts, such as Jack London's "The Call of the Wild." Similarly, equivalent Russian causative constructions were identified from literary works like M. Kotsyubinsky's "Fata Morgana." This allowed for an examination of causative structures in different language contexts and across various genres.
3. **Application of Cognitive Grammar Models**
   In analysing the data, the study applied models from cognitive grammar, specifically J. Lakoff's theory of cognitive models. This theory was used to explore how syntactic structures serve as a means of representing knowledge in language. The conceptual content of the causative constructions was analysed using cognitive models, which

provided a foundation for developing interpretive methods relevant to syntactic structures. The analysis also considered the spatial metaphor approach as suggested by scholars like R. King, providing a cognitive-spatial interpretation of categories such as agency and causality.

4. **Comparative Analysis Using V.P. Nedyalkov's Model**
   V.P. Nedyalkov's model of causative construction was used as the primary methodological basis for analysing causative structures. The model allowed for the systematic comparison of the syntactic and semantic features of causative constructions in English and Russian. The analysis focused on the syntactic realization of causative constructions in English (e.g., the infinitive compound Complex Object) and its correlation with equivalent structures in Russian.
5. **Semantic and Syntactic Classification**
   The causative constructions were classified based on their semantic types. In English, the study identified 12 semantic types, while in Russian, there were 10 types, reflecting the analytical nature of English in expressing a broader range of causative meanings. The interpretive formulas (IF) method was used to describe the semantic roles of causative components systematically, including agents (Ag), addressees (Adr), objects (O), actions (V), and conditions (Cond).
6. **Force Dynamics Theory Application**
   To further understand the causative constructions, the study employed L. Talmy's theory of force dynamics. This theory conceptualizes causative situations as interactions between forces (agonist and antagonist) and was used to explain causative models in both English and Russian. The analysis determined how different types of causative events (e.g., initial point causation, instrumental causation) are represented across the two languages.
7. **Cross-Linguistic Analysis and Syntactic Correlation**
   The final stage involved a comparative analysis of the syntactic structures between the two languages. The research examined how differences in language structures influence the verbalization of causative events. The goal was to determine the universality and variability in representing causative situations and how English and Russian codify causal information differently. The analysis also aimed to establish correlations between the semantic acts and syntactic roles in causative constructions.

By integrating these methodological approaches, the study aimed to systematically analyse and compare causative constructions in English and Russian (Das, 2024). This multi-dimensional approach allowed for the identification of patterns, correlations, and language-specific features that provide insight into how different linguistic and cultural communities encode causative meaning. The methodology, therefore, not only supports a comparative linguistic analysis but also offers a cognitive and conceptual understanding of causative constructions in different languages (Westergaard, 2024).

Result and Discussion

Different approaches to the study of causatives. Within the framework of the theory of causative, developed by V.P. Nedyalkov and G.G. Silnitsky, and within the framework of the theory of diatheses and prepositions by A.A. Kholodovich (Nedyalkov et al, 1969) the following types of causative are distinguished: lexical (presupposes the presence of the opposition of non-causative / causative, expressed by the opposition of different root morphemes, for example: die - kill), morphological (presupposes the formation of causative verbs from non-causative mor In this study, the analytical causative is considered. The analysis of the literature on the research problem shows that the methodological basis and terminological apparatus (Kholodovich, 1969) for studying the category of causativity on the material of different languages have been developed.

Causative constructions are studied within the framework of different paradigms and approaches. For example, M. Lemmens describes causative constructions in the English language, integrating the achievements of cognitive grammar, systemic functional grammar and relational grammar (Lemmens, 1998). The cognitive interpretation of such categories as agency, instrumentality, causality in terms of spatial relations (in terms of spatial relations) is also maintained by R. King (King, 1990). R. King formulates the following semantic criterion of causativity: if the proposition expressed in the sentence entails the proposition that the object expressed by the direct complement of the transitive verb is subject to a change of state, then such a construction is considered causative. He believes that the interpretation of causative constructions in terms of spatial metaphor has advantages over traditional approaches, since it creates a general basis for explaining what was previously considered incompatible (King, 1990), p. 974]. In cognitive-spatial terms, the agent is considered as a point source of energy within the extended space of the event. The action of the agent is the production of energy. If the structure includes a patient, then the energy is transferred from the agent to the patient. To transfer energy, a mediator is needed, and this function is performed by an agent-controlled instrument: the instrument receives energy from the agent and transmits it to the patient. Therefore, the tool is semantically "close" to the event compared to the agent, as the tool interacts both with the agent and the patient.

The patient absorbs the energy generated by the agent and transmitted by the instrument. From the point of view of the cognitive approach, the change in the patient's condition can be considered as a "movement" from the location of one state to the location of another state. A change of state is a space of events that contains both the initial and final location of the patient's state. If a change in state is caused by another event (or action), then the only way of transitioning from the initial state-position si to the final state-position s2 is through the space of the action event e. In topology terms, it can be said that the event space e2 is disconnected (Henle, 1979). Two subsets are separated by the el event space, and the only path connecting s1 and s2 must pass through (cross) the el event space (King, 1990).

The study of syntactic structures as a way of representing knowledge by means of language is the construction of the conceptual space of the syntax by modeling the knowledge structures that fill it and categorizing the linguistic means that represent it (Davydova, 2013, p. 534]. To study the conceptual content of syntactic structures, J. Lakoff's theory of cognitive models is used, which serves as the basis for developing methods of

cognitive modeling in relation to the main syntactic structures. According to J. Lakoff, "in striving to understand the world," a person uses "cognitive models." This occurs "in theoretical understanding" of phenomena and events of real life, "in the creation of scientific theories" (Lakoff, 2004). Models are used to study linguistic phenomena that are not accessible to simple observation, such as syntactic relations. The essence of this process is based on the principles of conceptual analysis, taking into account the ontological factor and the pragmatic characteristics imposed on the conceptual structure.

The semantics and syntax of causative constructions are also considered in works on generative grammar. A. Kymen's review of the main points of view is noteworthy (Kimenyi, 1980). The analysis carried out within the framework of generative semantics shows that any type of causative construction is implicitly identical, for example, lexical and analytical causatives can express the same meaning (cf. The fact that some lexical causatives can be translated into other languages by means of an analytical or morphological causative also testifies to the analysis carried out within the framework of generative grammar. Analyzing the material of a number of languages, in particular, Japanese (Shibatani, 1976). Bantu (Givon, 1976), Turkish (Zimmer, 1976) and Lahu (Matisoff, 1976), a number of linguists reject the possibility of describing causative constructions in terms of generative semantics as irrelevant.

The model of comparative description of the semantics and structure of causative constructions. V.P.Nedyalkov's model of causative construction was used as a methodological basis in the study of constructions with causative verbs. It seems necessary to make some clarifications. According to analytical causative researchers in the English language, analytical causative constructions are syntactically realized in the infinitive compound Complex Object. As B. Comrie notes, the syntactic structure of the causative constructions in this case has the following form: a matrix, the composition of which includes a nominative group (causer), + an inserted sentence consisting of a subject-nominal group (a person who actually performs an action), + a certain number of object-nominal groups, depending on the valence of the verb. Schematically, the order of these elements is illustrated as follows: Subject - direct object - indirect object - other oblique constituent 'Subject - direct object - indirect object - another indirect element' [4]. The conjunctive causative verb is the main component of the causative construction. Causative verbs (hereinafter - CV) are characterized by a wide semantics. The largest volume of meanings is recorded in causative verbs such as let, make, get, have, делать, give, allow, primush-vati. The CV data in the work are considered binding, i.e. they do not express a specific action.
For the convenience of describing the semantic features of causative constructions with linking verbs (hereinafter - CV), interpretive formulas (hereinafter - IF) are used, which allow to interpret the semantic roles of the components of the studied constructions, in particular, Ag denotes the semantic subject of causative constructions, Adr - addressee, O - object, V - action, Cond - state, Sit - situation. For example, the meaning of Causative Constructions in English examples... and they let him go his way unmolested" [London, The Call of the Wild, p. 23] and ukr. If you would be such a joke, like Marco, you wouldn't let him sell his dime to the panes on a cookie... [Kotsyubinsky, Fata morgana, p. 54] can be explained by the IF "Subject S allows object O to perform action V."

The semantic classification of CSS in English consists of 12 types, and in Ukrainian - 10 types. The large number of semantic types in the English language is explained by the analytical nature of this language, which allows us to use KGS to express a wider range of meanings (see for more details [1]). The identified semantic types illustrate a wide range of specific types of causation, detailing its main types - factuality, permissiveness, and assistance.

The modern view of the CK presupposes its consideration from the standpoint of the theory of force dynamics (Talmy, 1987). Its essence can be explained as follows: causative and other situations of the force-dynamics category are conceptualized as basic dynamic situations in which one force (antagonist) is connected by a certain relation to another force (agonist). Both of these forces have their own tendency to rest or to move. Depending on whether the antagonist and the agonist are opposed and, accordingly, their forces, the situation-result can be either a rest or a movement.

Causative constructions with linking verbs represent a classical type of causative model (Talmy, 1987) : one force (agonistic), striving for peace, is opposed to another force (antagonist), which continues to resist and makes the agonistic move, for example: The brisk wind made yellow leavesfly away.

L. Talmy distinguishes a number of types of causative situations, among which: initial point causation, successive causation, autonomous events, point/continuous or continuous causation, instrumental causation, event causation, goal causation, action causation, causation facilitation, agent causation, author causation, experimenter causation, agent action causation, chain of action causation (Talmy, 1987). L. Talmy distinguishes between the concepts of agent (agent - A), author (author - Ai), experimenter (rndergoer - U), for example: 1 (A) hid tu pen somewhere in the kitchen; I (Au) hid my pen somewhere in the kitchen; I (U) hid my pen somewhere in the kitchen.

Conclusion

The consideration of KGS from the point of view of the theory of force dynamics allows us to draw a conclusion about the universal nature of the representations of causality in the picture of the world of different linguistic and cultural communities, about the prevailing similarity in the coding of information of a causal nature. The possible differences are related to the peculiarities of the verbalization of the components of the causative construction by means of different structured languages. Since the Causative Constructions with verb conjunctions did not always have a correlation of semantic acts and syntactic roles, the task of the next stage of the analysis is to characterize the causative constructions by syntactic types. The description of the means of formal expression of the components of causative constructions is also one of the promising tasks of the research.

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