A New Perspective in Cognitive Linguistics – Goldberg's Construction Grammar

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Abstract

This paper mainly studies Goldberg's ideas on construction grammar and analyzes how construction grammar can help people learn a language. A construction unites form, meaning and function. Construction grammar proposes a new idea about the nature of language and offers strong explanations for many previously unexplained features of language. It presents a new way of understanding language. Beyond pure theoretical discourse, this paper also explores the practical value of construction-oriented thinking for second-language pedagogy and corpus-driven linguistic research.

Keywords

Construction Grammar; Argument Structure; Language Acquisition.

1. Introduction

Cognitive linguistics has made many contributions to all areas of research on language, and among them, construction grammar has drawn the attention of scholars. Construction Grammar is a cognitive linguistic theory that has developed gradually over the past two decades, and it offers an organized, usage-based explanation for the nature of language. In the 1990s, it was a grammatical theory that critically examined the main ideas of transformational-generative grammar at that time and put forward an alternative. Transformational-generative grammar believes that language is an abstract, autonomous system of symbols that is not dependent on the body or the brain, and it is possible to formalize the finite syntactic structure of this system using mathematics [1]. Construction grammar, on the other hand, is based on general cognitive abilities and takes meaning as its foundation; therefore, it has developed a different theoretical path in cognitive linguistics. Therefore, this paper will present the theoretical basis of construction grammar in response to the problems of transformational-generative grammar and offer a new direction for cognitive linguistic research. Therefore, in light of the view of critical transformational generative grammar, this paper studies the specific theories of construction grammar and puts forward a new research direction for the field of cognitive linguistics.

1.1. The Developmental Context of Construction Grammar

Construction Grammar has changed in the past thirty years. The previous direction in terms of theory is the result of systematic criticism of the explanatory deficiencies in traditional formal grammar: Although the classical grammatical rules are good at describing conventional syntactic structures, they cannot explain atypical constructions that have achieved a high degree of conventionalisation, are non-compositional and possess semantic holism. In the traditional rule-based framework, idiomatic expressions are generally treated as special cases because their whole meaning cannot be derived from the individual words. To fill this gap in the theory, linguists first studied particular linguistic features, such as idioms, and then gradually developed the theory of Construction Grammar.

To date, Construction Grammar has developed the following five well-known theoretical schools. First, Construction Grammar proposed by Kay and Fillmore took idioms as the starting point for research and believed that idioms are independent constructions with all the syntactic, semantic and pragmatic features. Early studies have found that many irregular linguistic patterns cannot be explained by general changes in syntax. Second, Langacker's Cognitive Grammar considers grammar to be a storehouse of linguistic units composed of constructions, and constructions are form-meaning correspondences. Langacker's Cognitive Grammar was the first cognitive basis for the subsequent studies of constructions. Third, Lakoff and Goldberg have developed a variation of Construction Grammar and propose that canonical sentence patterns are independent form-meaning combinations. Thus, the scope of constructional research has been expanded from fixed idioms to canonical sentence patterns. Fourth, Crof's Radical Construction Grammar believes that constructions are the basic units of syntactic representation, and grammatical categories are emergent features resulting from constructions. Fifth, Bergen and Chang present Embodied Construction Grammar (ECG). The construction includes all levels of morphology, phrases and sentences, is based on embodied cognition, and its mental representation and online processing are rooted in mental simulation of universal image schemas [2]. Therefore, this part shows that people's bodies and minds are closely connected.

Among the main theoretical systems of research on construction grammar, Adele E. Goldberg's Model has had the most prolonged and extensive influence on the field. Goldberg's system is concerned about argument-structure patterns and their relationship to sentence-level semantic construction; this is not the case in the other schools. In recent years, Goldberg has been promoting the integration of research on construction grammar and large language models [3], and she has advanced a usage-based constructionist approach to open new avenues for applying Construction Grammar in computational linguistics.

2. Specific Theories of Construction Grammar

2.1. Definition of Construction Grammar

The 1990s brought the publication of Adele E. Goldberg's seminal monograph Constructions: A Construction Grammar Approach to Argument Structure, a foundational milestone that consolidated Construction Grammar as a cohesive theoretical enterprise.

Built upon Fillmore's Frame Semantics and the usage-oriented commitments of cognitive linguistics, Goldberg's account argues that Transformational-Generative Grammar privileges rule-derivable "core" linguistic phenomena while systematically marginalising semi-regular and idiosyncratic patterns.[4] These patterns prove pervasive in natural language use and display inherent systematicity, resisting easy dismissal as mere epiphenomenal noise. Against this theoretical backdrop, Goldberg put forward her canonical definition of a construction: "Any linguistic form for which certain aspects of its form and function cannot be strictly predicted from its constituent elements or from any known structure may be termed a construction".[5] This formulation decisively broadens the scope of the construct, moving beyond frozen idiomatic strings to embrace the full range of conventionalised form-meaning pairings—including argument-structure patterns, morphological schemas and syntactic frames. It frames constructionhood itself as a scalar, gradient phenomenon rooted in token frequency, cognitive entrenchment and social conventionalisation. In 1995, Goldberg articulated Construction Grammar's core tenet: a construction C counts as autonomous if and only if it realises a form-meaning pairing (Fi, Si), and certain formal or semantic traits resist full deduction from its components or other pre-established constructions. This delimitation treats any such non-compositional linguistic expression as a construction. Constructions are thus integrated form-

meaning unities, the foundational units of linguistic organisation, ranging across morphemes, words, phrases and full clauses.

2.2. Goldberg's Core Claim — Argument-Structure Constructions

Argument-structure constructions are the theoretical basis for Goldberg's Construction Grammar and represent one of the most significant contributions to syntactic theory. They have shown that constructions have their own sense, organise lexical senses systematically, and impose grammatically salient constraints on argument realization. Before the spread of this framework, most of the formal linguists did not require semantic interpretation to consider all parts of a sentence, and they thought that sentence frames were semantically void and served only to allow for verbal modifications. According to the theory of argument-structure construction, each argument-structure construction has its own semantics and is not merely the sum of the semantics of its constituent parts. Goldberg believes that, rather than rejecting the formal-linguistic proposition that verbs determine the general form and meaning of sentences, argument-structure constructions are the basic way to express syntax. Within cognitive-linguistic frameworks, constructions are basic grammatical units, namely symbolic units with independent semantics, and ordinary sentence patterns also belong to constructions. Goldberg classifies major English sentence patterns into different types of argument-structure constructions, including transitive, ditransitive, resultative and caused-motion constructions.

A typical illustrative example is: He sneezed the napkin off the table. The verb sneeze is originally intransitive and bears no inherent semantics of causing an object to move. The causative reading in this sentence derives entirely from the caused-motion construction. This example fully demonstrates that constructions themselves are meaningful. The complete semantic interpretation of a sentence results from the integration between constructional semantics and verbal semantics. Interpreting sentential semantics demands the integration of argument-structure analysis and the main verb, as the two work in tandem to build the intended semantic representation. The cooperation among constructions and lexical items has become the subject of many follow-up empirical studies in cognitive linguistics. In 2006, Goldberg improved the theoretical system of Construction Grammar by strengthening the foundations of embodied cognition and usage-based theory. Localisation of language in the broader system of human concepts, semantic systems and cognitive processing mechanisms: She proposed that linguistic knowledge is mentally encoded as constructions, which emerge from the generalisation and schematic organisation of embodied experience through repeated interaction and cognitive operations [6]. This update strengthens the empirical foundation and usage-based coherence of the framework's experiential foundation.

3. Characteristics of Construction Grammar

Construction Grammar has a set of consistent theoretical characteristics and can explain many kinds of language phenomena well. All of the above indicate that there is a general methodological split between constructional explanations and formal grammatical systems that are built on the idea of independent syntactic modules. Construction is taken as the basic unit of language, and thus syntax, vocabulary and semantics are not considered separate components. In light of the above, form and meaning are inherently linked in all constructions; many idiomatic and semi-productive patterns that are difficult to explain via generative syntax can be explained simply. In addition, it is pointed out that linguistic knowledge is mainly acquired through specific instances of use in actual language, and thus grammar is closely linked to real-world application.

3.1. Holism

The traditional grammatical framework believes that language is a set of functionally separate subsystems, and each has its own function and structure, such as syntax, semantics and pragmatics. A partition therefore often needs to be made of all linguistic phenomena for analysis. Goldberg's Construction Grammar is another system of interpretation for all linguistic structures that holds that form and meaning in constructions are indivisible and work together. Constructions adhere to the Gestalt principle; that is, the total meaning exceeds the sum of the meanings of its parts, and it forms an entire cognitive system. Construction is an integrated unit of form, meaning and function, so it is stored in people's cognitive system as a whole form-meaning unit. In the study of distinctive Chinese constructions, the holistic attribute of constructions is especially evident in special patterns; that is to say, the overall semantics cannot be obtained by decomposing and analysing the constituent elements. Holism suggests that to understand a particular linguistic pattern fully, one must consider all the associated features of words and sentences.

3.2. Generalization-based Creativity

Chomsky's account of linguistic creativity excludes semantic factors and cognitive capacities from the scope of syntactic research and attributes linguistic creativity to the generation and governance of innate syntactic rules. Under this nativist view, language novelty is produced by abstract internal rules, with little reference to real-world language use. Construction Grammar, however, maintains that linguistic creativity originates from language users' cognitive generalization rather than innate rules. Linguistic creativity is embedded within the tripartite framework of "reality-cognition-language". It refers to abstract generalizations made by language users based on actual usage events and complies with fundamental human logic for construing the world as well as the "what-you-see-is-what-you-get" cognitive principle. In recent years, this construction-grammar view on linguistic creativity has been sufficiently verified in research on internet-born slang. The generative mechanisms of various emerging constructions reflect the synergistic effects of constructional coercion and analogical extension. Such explanations offer reasonable accounts for continuously-appearing new linguistic patterns in modern social media contexts.

3.3. Inheritance

Based on the main ideas of cognitive linguistics, Construction Grammar is a system network with hierarchical inheritance relationships for constructions. Constructions are not standalone objects but are interrelated and have some formal-semantic similarities. Goldberg believes that in the normal inheritance model of Construction Grammar, semantic and formal features of superordinate constructions can be inherited by subordinate constructions if and only if there is no information conflict [6]. This inheritance mechanism can offer a reasonable explanation for the latent links among seemingly unrelated constructions and form an organised network of linguistic knowledge.

The three features of Construction Grammar are in opposition to the deductive reasoning and modular system that Transformational-Generative Grammar assumes. They also support the main cognitive-linguistic hypothesis of one-to-one form-meaning mapping and have increased the theoretical significance and research methods of Construction Grammar in contemporary linguistic studies.

4. The Impact of Construction Grammar on Language Acquisition

Although Construction Grammar has still been studied to some extent, it is worth noting for research on language acquisition. Construction Grammar is one that deals with form-meaning correspondences and has solved problems related to language use and teaching. Many of the

previous teaching models separate grammatical forms from semantic interpretations and are thus easy for students to learn mechanically. It is often used in the study of idioms and research on children's language learning. It helps learners grasp constructions as a whole and does not learn to build sentences by linking individual words and grammar rules. This way can also offer some new teaching ideas for context-based grammar.

4.1. Idioms: A Breakthrough Point for Construction Grammar

The first few studies of English grammar have focused on basic linguistic features and supported rule-based teaching, overlooking many other types of language phenomena, such as idioms and expressions. Idioms are generally taught as independent, fixed phrases in foreign-language classes in practice. Therefore, it is difficult for learners to understand the basic structure and acquisition path of idioms. As a type of fixed construction, the meaning of an idiom cannot be obtained by combining the meanings of its constituent words; however, construction grammar provides a new way to study idioms.

Construction Grammar is analytic and has both top-down and bottom-up processing. In idiom instruction, learners are led to understand both the general meaning of the idiom and the contribution of the literal meanings of its constituent words, thereby achieving an integrated comprehension of form and meaning. To help learners understand how to learn in idiomatic language, this attitude can be employed. Therefore, idiom teaching is no longer about memorising them mechanically but rather grasping the general structure of idioms.

4.2. Construction Grammar and Its Implications for Children's Language Acquisition

According to the framework of Construction Grammar, this is consistent with the actual development path of children's language acquisition.

The framework thinks that the acquisition of grammatical structures is mainly the result of imitation and memory, not rule-based derivation. Young children have not mastered abstract syntactic rules and begin by using concrete, frequent sentences to form their own. The constructional path put forward by Construction Grammar is more in line with the development trajectory of children's cognition and thus more empirically supported for child learners. At the foundation of a child's language learning is the formation of formal-semantic relations for linguistic expressions; gradually, learners acquire and generalise constructions, much as they would learn to remember words, and develop an organised system of constructions by moving away from early irregular constructions.

The pattern of children's language acquisition is that it starts with easy and concrete expressions and gradually progresses to difficult and abstract ones; therefore, in teaching grammar, one should begin with simple, typical constructions and, based on the foundation of fully understood input, gradually add more complex and abstract expressions through generalization and extension to build a systematic and effective system of grammar instruction. This idea is also of use for teaching second languages to teenagers and adults in schools.

5. Conclusion

Construction Grammar takes some special linguistic phenomena, such as idioms, as its starting point for research, challenges the modular and universalist ideas of Transformational-Generative Grammar, and has played an important role in the development of Cognitive Linguistics. With the progress of Construction Grammar, the scope of explanation and application for grammatical theory has been expanded, and new research directions have also been provided for Cognitive Linguistics; thus, this has become an important development in linguistic theory. In recent years, research in Construction Grammar has been moving towards integrating theoretical and empirical approaches with cross-linguistic and interdisciplinary

methods, and good explanatory results have been achieved in new areas of research such as large language models and multimodal constructions. Construction Grammar is an extensive area of linguistic research and should continue to be studied and explored. Targeted work should be done to strengthen the empirical basis and expand the range of explanation for cross-linguistic validation, diachronic development and applied extension. In the future, more attention will be paid to the quantitative evidence in corpora and continuously verify and correct the relevant construction-related hypotheses.

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