On the Coordinate Expression “A and B” from the Perspective of Cognitive Grammar

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Abstract
The coordinate expression of “A and B” formed by the coordinate conjunction “and” shows a variety of syntactic features and semantic relations. Based on the research of scholars at home and abroad the paper argues that the cognitive grammatical research outweighs other theoretical views on the researches of the internal motivations of complex phenomena. It further points out that A and B are parallel in grammar and semantics, and “A and B” is polysemous.

Keywords: coordinate expression, A and B, cognitive grammar, conceptual basis

1. Introduction
1.1 Introduce the Problem
The coordinate conjunction word “and” has evolved from an early stage as a means of discourse connection to the most widely used parallel conjunction (Quirk, 1985). The main function of coordinate conjunctions is to connect two or more semantically related, grammatically similar, and syntactically functional elements together, to express the semantic connotation with the characteristics of a coordinate structure. The expression “A and B” is composed of two elements of A and B connected by the coordinate conjunction “and”. The semantic connotation between A and B not only expresses the coordinate relationship, but also expresses several principal subordinate relationships, such as to cause and effect, order and condition, and presents specific syntactic features (Quirk, 1985; Wang, 1994; Yang, 2005). Linguistic research should not be limited to a simple description of the grammatical features and semantic connotation of the language phenomenon, but need to be analyzed deeply the intrinsic motivation behind the language phenomenon. Based on the theories of Construction Grammar proposed by Goldberg and other scholars, pragmatics and cognitive linguistics (iconicity, construction grammar), Chinese Scholars such as Xu (2004), Li (2006), Chen (2009), and Wang (2012) analyze the various internal causes behind the word “and” guided parallel structure currently in China. This study, based on the cognitive grammar theory, further analyzes the internal motivation and cognitive operation process of juxtaposition structure, to provide a new perspective for the study of juxtaposition structure.

1.2 Explore Importance of the Problem
Coordinators are indispensable in English sentence construction while they can often be omitted in Chinese, which brings about many problems in English composition. Coordinators are indispensable in English sentence construction while they can often be omitted in Chinese. Therefore, Chinese language learners must get to know the use of coordinating conjunction that often makes them confused. Before they get to know the use of the coordinating conjunction, they must know the linguistic fact of syntactic distribution and semantic relations of the word “and” which is used frequently.

1.3 Describe Relevant Scholarship
According to Goldberg’s definition of construction (1995, 2003), the grammaticalized structure “A and B” is a construction, The form of construction “A and B” and its specific functions form a counterpart; the meaning of construction “A and B” cannot be obtained from its components A and B, not the simple addition of the meanings of A and B; the specific pragmatic functions expressed by construction “A and B” is not possessed by its components A and B. Chinese scholar Xu (2004) pointed out that “and” was first used as a means of discourse connection, gradually evolved into the expression of juxtaposition, and finally moved to the master-slave
relationship, which was the result of grammaticalization. The grammaticalized “A and B” is regarded as a
construction. Xu (2004), Wang (1994), and Yang (2005) in China are the representatives of the descriptive
studies on the syntactic features and semantic functions of “and” as coordinate conjunction. They have made a
detailed analysis and summary of the syntactic features of “and” and the semantic relations of the connective
elements. This section summarizes the above research results as follows from the above literature.

The syntactic features of “and” are summarized here: (1) It can only appear at the beginning of the clause instead
of in the middle of the next clause which causes grammatical errors. (2) It connects two clauses in a fixed order.
The order of the two clauses connected by “and” cannot be exchanged at will. If the order is exchanged, its
logical relationship will be changed or unacceptable. (3) It connects subordinate clauses and more than two
clauses. (4) It connects connective predicate and predictive structure. (5) It connects a single word or phrase,
connecting nouns or noun phrases, adjectives or adjective phrases and adverbs, prepositions, and their
corresponding phrases. From the above syntactic features of coordinate conjunction word “and”, it can be
concluded that “and” has no specific restrictions on the grammatical nature of its connecting elements. Generally,
ethe elements with equal grammatical status can be connected with the coordinate conjunction word “and”; in the
expression, “and” can only appear between A and B; “and” cannot appear in front of other conjunctions. Also,
the semantic relationship between A and B has been studied as the eight following: causality/result, sequence,
contrast, concession, condition, approximate, addition, explanation, and so on.

So far, by analyzing the syntactic features and semantic relations of the coordinate conjunction “and”, we have a
basic understanding of “and” as coordinate conjunction. However, there are still some problems that need to be
further explored: (1) the internal motivation behind the above linguistic phenomena; (2) whether there are other
complex parallel structures guided by “and” and what are their internal motivation. Therefore, this paper first
reviews the current research results puts forward a new understanding from the perspective of cognitive grammar
theory and answers the above two questions.

2. Method

This paper mainly adopted the method of literature analysis and qualitative research. Literature reviews are
indispensable for the paper. The author searches for the relevant materials which are related to the coordinate
conjunction word “and” on the internet first, then download them and analyze them from the perspective of
cognitive grammar.

3. Results

The coordinate conjunction word “and” has evolved from a relatively stable grammatical means as a means of
discourse connection in its early stage to a more widely used grammatical means, thus reflecting the universality
and diversity in syntax and semantics, which is the result of grammaticalization. From the perspective of
grammaticalization theory, it is believed that the grammaticalization of “A and B” is mainly caused by two
factors: syntactic environment and semantic environment. Influenced by the frequency of use, it is a
manifestation of the increasing degree of subjectivization in language use. Pragmatists believe that its function
is not simply to connect A and B but to convey pragmatic meaning, which has a strong pragmatic function. The
use of “and” by the speaker is an ostensive linguistic means for communication, which restricts the ostensive and
implicit aspects of communication and conveys the cognitive effect of the utterance. Cognitive linguistics holds
that the form of language is promoted by cognitive and semantic factors, and any external syntactic form has its
internal cognitive motivation. The formation of semantics is inseparable from human cognitive factors, involving
the human interactive experience of society, which is experiential. The cognitive process of people’s experience
of things is equal to the process of the formation of conceptual structure, which is finally reflected in the form of
language. Therefore, exploring the cognitive process of “A and B” expression is helpful to fully understand the
language phenomenon.

4. Discussion

This section focuses on the research paradigm from the perspective of cognitive grammar. Cognitive grammar
holds that the meaning of language expression is composed of conceptual content and construal (Langacker,
2008). Construal reflects people’s specific cognitive way and process of a certain concept. Therefore, based on
the research paradigm of Langacker (2008, 2017), we can further understand the internal motivation and
cognitive process behind the “A and B” language phenomenon, and enrich our understanding of the language
phenomenon.
4.1 Parallel Structure

4.1.1 Parallelism

Parallelism includes two aspects: one is grammatical parallelism, in which coordinate items A and B participate in the same set of grammatical relations, that is, they are in parallel grammatical forms and have the same lexical categories; the other is semantic parallelism, in which coordinate items a and B are semantically independent of other components (Langacker, 2017). The following examples would illustrate grammatical parallelism.

Example (1) He bought a book and a pen. 
In example (1), “a book” and “a pen” as the object of “bought” in grammatical relations are parallel grammatical relations, “a book” and “a pen” are nominal phrases in lexical categories. Therefore, the example sentence (1) satisfies the parallelism in grammatical relations and lexical categories discussed above and it is a coordinate structure.

Example (2) Her child is old enough and in a kindergarten. 
In example (2), although “old enough” and “in a kindergarten” are grammatically predicative of the verb “is” and meet the requirement of grammatical parallelism, the former “old enough” is an adjective phrase, while the latter “in a kindergarten” is a prepositional phrase. They belong to different lexical categories, so they do not have lexical parallelism. Can we conclude that example (2) is not a parallel structure? How to define the category of words? A clear answer to these questions is essential for understanding the juxtaposition structure. In the example sentence (2), A is an adjective phrase and B is a preposition phrase. Therefore, the sentence cannot be regarded as a coordinate structure. However, this sentence pattern has the appearance of “and” in the form, A and B are both predicates of “is” in the grammatical relationship, and the semantic relationship between A and B belongs to the causal relationship. If we assume that it is a reasonable parallel structure, how can we explain the problem of “different lexical categories” in example (2)?

The classification of parts of speech in cognitive grammar is not based on the traditional objectivism semantic view and grammatical behavior, but on the conceptual semantic profile: nouns develop things, verbs develop process relations, adjectives, adverbs, prepositions are classified into one category, and they develop non-process relationships (Langacker, 2008). Although a and B in example (2) belong to different lexical categories in the traditional sense, according to the division of parts of speech in cognitive grammar, they develop non-processing relationships, which satisfies the condition that the coordinate structure requires the same lexical category. Based on the above theoretical analysis, we conclude that example sentence (2) is a reasonable coordinate structure. Therefore, the study of example sentence (2) brings us some enlightenment: limited by the classification standard of words in traditional grammar, we cannot clearly understand the rationality of the above examples; based on the analysis of cognitive grammar theory, this paper points out the theoretical limitations of traditional grammar, confirms the rationality of the classification of words in cognitive grammar theory, and shows the explanatory power of language phenomenon, to deepen the understanding This paper gives a comprehensive understanding of the phenomenon of juxtaposition structure. Example (3) illustrates semantic parallelism.

Example (3) *She cut the meat with enthusiasm and (with) a sharp knife. 
In example (3), the grammatical parallelism of the parallel items “with enthusiasm” and “(with) a sharp knife” is that they are used as adverbials of “cut the mean” in grammatical relations to modify the action process, and they are both prepositional phrases in lexical categories. Obviously example sentence (3) satisfies the first requirement of parallelism. Can we consider it a grammatical coordinate structure? The answer is no, the sentence is not grammatical. So the satisfaction of the second aspect of parallelism is very important. Is the coordinate item semantically independent of other components “cut the meat”? To clarify this problem, we must first understand what the relationship between components is, that is, the relationship between components of a sentence is not only reflected in the grammatical structure, but also the specific semantics. According to this understanding, we only know the participative relationship in the grammatical form (as adverbial) in the above examples, but not in the semantic sense. Semantically, “with an entry” is related to the mental state of the agent of the action “cut”, while “with a sharp knife” is related to the way of the action “cut”. Therefore, the semantic relationship between the two coordinate items and other components is not parallel, that is, the above examples are not acceptable.

Finally, according to the above analysis, we think that the parallel relationship between coordinate items A and B and other components is not only reflected in the grammatical structure, but also the semantic relationship. Through the analysis under the framework of cognitive grammar theory, we have solved the dilemma of descriptive analysis.
4.1.2 Polysemy

Example (4) John and Mary won a prize.

a. John and Mary each won a prize.
b. The prize was awarded jointly to them both.

The sentence example (4) “John and Mary won a prize” includes two meanings: “A. John and Mary each won a prize.” and “B. the prize was awarded jointly to them both.” This example shows that “and” connects noun phrases with various semantic connotations. However, the internal conceptual structure, cognitive process, and other conceptual meanings of different semantics need to be fully understood.

The above (4a) sentence expresses a default conventional meaning, and its conceptual structure shows two specific independent events: “John won a prize.” and “Mary won a prize”. The sentence (4b) expresses a complex conceptual event, including two aspects of conceptual content: Although both of them have their behaviors of giving and participating in the process of winning the prize, what the sentence shows is that John and Mary won the prize with the joint efforts of their partners. In addition to the above two meanings, there may be a third explanation. For example, in a certain situation, John and Mary compete as a team, but only one player can be sent to participate in the competition and win it. The third kind of meaning is since it is also an event behavior, but it is not participated by two people alone, which is different from the second kind of internal concept. The difference between the above three meanings is due to the development of different concepts. Polysemy is a good way to reveal the motivation behind the language phenomenon. The same parallel structure has different meanings, which originates from different cognitive processes and the conceptual basis behind language phenomenon.

4.2 Complex Parallel Structure

In English, nouns can distinguish the simplicity and complexity of internal relations by their singular and plural forms, while verbs (including adjectives) express complex relations by appearing in specific structural applications.

4.2.1 Complex Parallel Structure

According to the syntactic features discussed above, its connective components include clauses, predicates, predicate structures, etc., but there is no subject-predicate structure such as sentence (5), which is a kind of non-constructive coordination (Langacker, 2012). The differences between them are as follows: in this example sentence, the elements connected by “and” are separated by commas in form, similar to the form of parenthesis, and there is a certain pause in pronunciation. Is (5) a coordinate structure? If so, how should we recognize it? We need to do some analysis to answer these questions.

Example (5) Dad is reading, and Mom is listening, the news.

According to the above discussion based on cognitive grammar theory, the two components connected by “and” are required to be parallel in grammar and semantics. In terms of grammatical parallelism, “Dad is reading” and “Mom is listening” both belong to the same subject-predicate structure in grammatical structure, and are closely related to other components of the sentence “the news” in grammatical parallelism. Therefore, in terms of grammatical parallelism, example sentence (5) meets the requirements. So is semantic parallelism satisfied? According to the view of cognitive grammar, verbs develop procedural relations, while clauses containing verbs are procedural relations after grounding (Langacker, 2008). Because “Dad is reading” and “Mom is listening” both form a complete semantic relationship with “the news” semantically, the foundational procedural relationship between them is in a parallel position, so they meet the semantic parallelism requirements of the coordinate structure. According to the above analysis, we think that example sentence (5) is a coordinate structure. According to the understanding that the external language form is driven by the internal conceptual structure, what is its internal motivation? To answer the above question, we need to review and recognize the relevant cognitive grammar theories in the following sections.

4.2.2 Overall Comparison of Symbolic Structure

Langacker (2008) pointed out that vocabulary and grammar are symbolic, forming a continuum and being in the collection of symbolic structures. The symbolic set has three dimensions: simple and complex, abstract and specific, and conventionality. Among them, the symbolic structure of an expression is usually complex, which is composed of simple symbolic units. Grammar provides a pattern for the formation of the expression. In the relationship of the symbolic set, there is a phenomenon of global comparison between some symbolic structures. The phenomenon of overall contrast means that some symbolic structures are built based on comparison with
other symbolic structures. Generally, the first sentence is the reference point, which is the standard of comparison, and the second sentence is the target of comparison. The difference is focusing, which is usually stressed in pronunciation, as shown in example (6):

Example (6) a. Tom likes apples. He also likes bananas.

b. Tom likes bread with butter. He likes pizza without it.

c. Tom likes bread. Jim prefers cake.

The further difference of the comparison of symbolic structures is that they do not require close combination in semantics or phonology, and there is no need to meet the requirements of the typical constituency, as shown in (6b). Example sentence (6) usually presents two complete independent sentences: “Dad is reading the news.” and “mom is listening to the news”. In the overall comparison, it has the following cognitive semantic operation modes: in the complete independent sentences, the former is regarded as the standard sentence as the reference point, and the latter as the target sentence; as a different symbolic structure, it is selected and syntactically embodied as “and mom is” through the “and” connection “Listening” is semantically arranged as foregrounding, while the same components of the standard sentence and the target sentence as the reference point constitute the background, and finally form a specific complex symbolic structure “Dad is reading, and mom is listening, the news.”. The complex juxtaposition structure embodies a certain internal semantic structure in semantics: at the same time, it shows “Dad is reading” and “mom is listening”, both of which are connected with “the news” semantically and grammatically and have a parallel relationship; the foregrounding of the symbolic structure “mom is” reflects the differences of the symbolic structure. Through the above analysis, we understand the composition of the symbolic composite structure, from simple to complex It reveals the internal semantic structure of language expression, and also explores the main internal conceptual basis and cognitive operation process of complex coordinate structure example sentence (6) under the unique external situation: the symbolic structure “mom is” The foregrounding of “listening” in semantic structure highlights its differences.

5. Conclusion

This paper analyzes the grammatical components, various semantic relations and syntactic features of A and B in the expression “A and B”, and sorts out the specific explanations of the above phenomena by the theories of grammaticalization, pragmatics, iconicity and construction grammar. On this basis, we further analyze the internal motivation, conceptual basis and cognitive process behind the coordinate expression of “A and B” based on cognitive grammar theory, and try to explore the phenomenon of complex parallel structure. The research of this paper has an enlightening effect on the subsequent discussion of the phenomenon of juxtaposition structure.

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