The Construction of "One Belt One Road" Cognitive Context Based on Corpus

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Abstract: The context of "One Belt One Road" is very rich, including economic and trade cooperation, infrastructure construction, financial investment, cultural exchanges and so on. Based on the News on Web Corpus and employing the theory of modern cognitive science, cognitive linguistics, cognitive pragmatics and cognitive psychology, the essay constructs the cognitive context of the corpus in various forms: the horizontal context (fragmentary sentences context), vertical context (collection context), extended context (paragraph context) and discourse context (text context), thus, reveals the basic characteristics and general rules of the cognitive context based on the corpus. The emphasis is laid to construct the various cognitive discourse contexts in the form of a macrostructure that exists in the discourse.

1. Literature review

"One Belt One Road" is short for "silk road economic belt" and "21st century maritime silk road". “One Belt One Road” aims to borrow the historical symbol of the ancient silk road, hold high the banner of peaceful development, actively develop economic cooperative partnership with countries along the belt and road, and jointly build a community of shared interests, destiny and responsibility featuring political mutual trust, economic integration and cultural inclusiveness. The concept of "building a community of shared future for mankind" and the "One Belt One Road" initiative put forward by China have been incorporated into the UN security council resolutions, becoming the first Chinese concept to be included in the UN security council resolutions.

At present, corpus-based research is in the ascendant. Since its emergence, corpus has developed to the fourth and fifth generation, that is, the super-large scale network corpus. Among them, the NOW corpus (The newspaper on web corpus) is the largest one of its kind in English native language with the latest developed corpus in the world, which can retrieve the very recent events. The word base has a capacity of 3 billion, and the corpus comes from the online newspapers of 20 English-speaking countries or regions, with 4 million new words added every day. The retrieval function is powerful, and the corpus can be retrieved according to the country and date.

Sperber and Wilson are the representatives of the study of cognitive context abroad. They believe that cognitive context is a psychological structure and a series of hypotheses existing in people's brains, which are called cognitive context hypothesis. They defined the cognitive context from two aspects: the greater the cognitive effect, the greater the degree of association. The less processing effort required to achieve cognitive effects. This can be expressed in the formula: Relevance = cognitive (contextual) /effect .

Xiong Xueliang, one of the representatives who studies cognitive context in China, defined the cognitive context as: pragmatic reasoning does not necessarily rely on specific context, because language users have internalized and cognized the relevant specific context through experience or thinking, and the result of which is the cognitive context in the brain. In his opinion, cognitive context involves situational knowledge, linguistic context knowledge and background knowledge. Hu Xia (2002), from the perspective of cognitive pragmatics, summarized the basic features of cognitive context as gestalt, human nature and dynamics. Liu Shuxin (2004) summarized three cognitive context views: relevance context view, standard contextual view and activate the context view.
2. Research hypotheses

Hypothesis one: "One belt and one road" corpus context has three physical forms, namely, key words in context, extended text and text. Each form of cognitive construction takes different degrees of effort. The effect of cognitive context construction is directly in proportional to the number and relevance of context. The more context and the higher the relevance, the better the effect of cognitive context construction and the less effort it takes, and vice versa.

Hypothesis two: There is a macro structure in "One Belt And One Road" discourse context, and the cognitive construction process of discourse context is the process of summarizing this macro structure. The macrostructure is stored in the human brain in the form of psychological structure, which is the result of internalization, empiricism, conceptualization, categorization and grammaticalization.

Hypothesis three: The construction of "One Belt And One Road" cognitive context in corpus is closely related to the cognitive ability of cognitive workers. Cognitive ability includes a person's language ability, encyclopedic knowledge ability and logical reasoning ability.

3. The construction of cognitive context

There are three physical forms in the corpus and they respectively represent fragmentary context/clause context, extended context/paragraph context and complete context/text context. The main content of this research is to construct the cognition of these three forms.

3.1. The cognitive construction of "One Belt One Road" fragmentary sentences

Horizontal context is fragmentary context, which can be larger or smaller than a complete sentence and it belongs to the cognitive construction of the first physical form of corpus.

3.1.1. Horizontal construction

Horizontal construction is the construction of "line" context of corpus. The "lines" in corpus are usually about 20 words long. It can be greater than or less than one sentence. In most cases, less than one sentence is a typical fragmentary context. The fragmentary context is relatively difficult to construct because of its incomplete language structure, small amount of information and low degree of relevance. According to Wilson's formula: relevance = cognitive (context)/ effect. So the smaller the correlation, the greater the processing effort. Therefore, fragmentary context requires more background knowledge and logical reasoning ability of cognitive learners in the process of cognitive construction.

3.1.2. Vertical construction

Vertical context is the context set with search words as the axis of symmetry. Vertical construction is the "vertical" context construction of corpus. The "vertical" context of corpus is a collective context. It is a collection of all contexts around the central word, and it usually reflects the social and public view of a certain issue or event. The construction method is mainly to extract the close collocation words of the set context with the corpus tool software, and analyze its prosody. And then decided whether the social views or attitudes towards an event or an issue are negative, positive or neutral.

3.2. The cognitive construction of context/paragraph context

The extended context construction of corpus is the "paragraph" context construction of corpus. It is a piece of text randomly cut out by corpus centering on search words. It is characterized by truncated fragments of text, which are incomplete. It is 10-13 lines long and 160-180 words long. Compared with fragmentary context, extended context has more information and relevance, but it is still an incomplete text. The cognitive also has some difficulties in context construction, which requires more reliance on the cognitive background knowledge and reasoning ability of external context.

Next, take the extended context titled "China flags off 1st goods train to London" for example.
The train service will improve China-Britain trade ties, while better serving Chinas Belt and Road Initiative. Firstly, the title context is constructed."1st goods train to London" means the first direct freight train from China to London. It means that in the past, goods were transported to London mainly by sea or indirectly by land, but now it is the first direct freight train. "Flags off" is not explained in the dictionary, but everyone has seen freight trains set off: the conductor, waving a signal flag and whistling in his mouth, directs the train slowly away from the station. So, "flags off" in this case means to wave a flag and set off.

Next, expanded context construction. The Chinese Belt and Road Initiative has launched a new Initiative to build a new Belt of China. We may construct the concept of "One Belt One Road" as an infrastructure and trade network connecting Asia with Europe and Africa along the ancient trade routes. It is the multi-billion dollar global connectivity project. By evaluating the changes in foreign trade and economic growth rate, we can construct "One Belt One Road" to stabilize its exports and economy.

3.3. The cognitive construction of discourse context

The textual context construction of corpus is the independent and complete textual context construction of corpus. It refers to the specific environment and relevant background knowledge created by a certain text itself. It is the synthesis of linguistic context, situational context, cultural context and other factors in the context of discourse. Discourse context is a complete context with high relevance. Therefore, it requires less processing effort and has higher cognitive effect to construct cognitive context.

3.3.1. The cognitive construction of context of article title

English news headlines aim at concise and clear in meaning. It can not only concentrate the theme, but also vivid image, so that readers can explore the connotation and comprehend the theme from the short and concise title in browsing. A correct understanding of the linguistic characteristics of English news headlines will help us to understand the true meaning of English news and thus better understand the theme of the full text. The author analyzes the linguistic features of English news headlines and discusses the pragmatic functions of English news headlines. Vocabulary selection. English news headlines are characterized by conciseness and emphasis, so as to save space and highlight the focus of the news as completely as possible. Some functional words such as articles, conjunctions and prepositions, which do not affect the actual content, are often omitted to make key words more prominent. At the same time, it makes the content of the title more compact, enhances the sense of rhythm, and saves the layout as much as possible to give readers the largest amount of information and the strongest stimulation. The infinitive of the verb often takes the place of the predicate verb. News headlines use verbs to express the future, do attribute, play the role of the title nominalization. The adjectives often replace predicate verbs. Adjective phrases are usually omitted to make the title more concise. The present or future tense are often used to emphasize the actuality and regularity of actions, and the future simple tense to emphasize a trend that will occur. Metaphor is used extensively. Abbreviations are used extensively to keep the title simple.

Nominalization of verbs or the use of noun phrases is a prominent feature of headings.

3.3.2. The semantic prosody of news headlines

The concept of semantic prosody refers to the phenomenon that a language form is infected by the stable semantic atmosphere surrounding collocations. Semantic prosody is a kind of semantic atmosphere, which exists stably in some words and can "infect" common collocate words. Semantic prosody is divided into positive, neutral and negative.

The attitude of news headlines is often reflected in some words with strong emotional color. From these viewpoints, the reader can quickly judge whether the semantic rhyme of this article is positive, neutral or negative.
3.3.3. The cognitive construction of textual context

3.3.3.1. “One Belt One Road” knowledge script

Knowledge script: knowledge script is the cognitive structure of basic units of behavior. People can use knowledge script to build their understanding of events that have already happened. In the process of language communication, cognitive context makes people form knowledge draft, mental schema and social psychological representation.

3.3.3.2. Mental schema

Mental schema refers to the existing network of knowledge and experience in the human brain. People are often empiricist, and their past experience will have an impact on the process and result of their future understanding of things. The individual's experience is different, the cognition of the same object will have different results. Modern social psychology uses the concept of schema to explain this phenomenon. In social perception, schema plays a guiding and interpreting role in newly perceived information. If there is no schema in the brain to interpret new information, a new schema needs to be formed.

3.3.3.3. Discourse macrostructure

Macrostructure, also known as superstructure, is a concept opposite to the microstructure of a text. It is a high-level structure of the whole text and corresponds to the theme idea of the text. It can reflect the main ideas and context of the text, determine the overall semantic coherence of the text, and control the relationship between the parts of the text. The macrostructure of discourse is the abstract generalization of discourse and the most important content of discourse.

3.3.3.4. Discourse macrostructure rules

To solve the problem of how to derive macrostructure from microstructure, Van Dijk proposed semantic transformation rules, which are called macrostructure rules. Macro semantic structure is transformed from micro semantic structure through semantic transformation. In this process, macroscopic rules play an important role: the smallest information units are condensed and combined into larger events or state units to form higher semantic units. Van Dijk argues that human language is inherently capable of summarizing meaning into larger units of meaning, and that macroscopic rules are merely hypothetical simulations of this part of language, which are actually means of reducing semantic information. There are three macroscopic rules: omission rule, generalization rule and enrichment rule.

3.4. The model of cognitive text construction of “One Belt One Road”

The model of cognitive text construction of “One Belt One Road” is as following:

discourse→ natural paragraph→ paragraph abridgement →paragraph further abridgement→
paragraph macrostructure→ paragraph macrostructure generalization→ discourse macrostructure.

According to the above model, various types of “One Belt One Road” cognitive context such as economic context, infrastructure context, monetary context and cultural context are finally constructed.

4. Conclusion

Conclusion one: "One Belt One Road" “line” context is fragmentary context with the least context and the least relevance. Therefore, its cognitive context construction is the most difficult and requires the most effort.

Conclusion two: "One Belt One Road" paragraph context is paragraph context, which is not complete, and its relevance is between fragmentary context and discourse context. Therefore, the construction of cognitive context is more difficult and requires more processing efforts.

Conclusion three :"One Belt One Road" text context is a textual context with complete context
and high relevance. Therefore, its cognitive context construction is easier and requires less processing effort.

Conclusion four: There exists a superstructure in "One Belt One Road" discourse context, and the process of cognitive construction of discourse context is to find out this superstructure.

Conclusion five: "One Belt One Road" cognitive context construction is closely related to people's cognitive ability. There are some differences in people's cognitive level. This difference is determined by one's knowledge structure and life experience. For the same thing, due to people's different psychological cognition, so the effect of cognition is different.

Conclusion six: The "One Belt One Road" cognitive context construction model obtained in this project is of great guiding significance to the construction of cognitive context.

Conclusion seven: The above hypotheses have been proved by the practice of "One Belt One Road" cognitive context construction.

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