

On the Textual Cognitive Function of Lexical Cohesion and its Implication to College English Reading Instruction

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Abstract

This article explores the textual cognitive function of lexical cohesion from the perspective of cognitive text linguistics. In terms of context construction, lexical cohesion helps to form a united context of the discourse, to stimulate the readers' cognitive prototype; in aspect of text creator and recipient, lexical cohesion may effectively narrow the gap between the intention of the writer and the understanding of reader, realizing the continuity of the whole text; from the perspective of interactive cognitive process, it helps the readers adjust their understanding, so as to focus on the theme of the text quickly.

Keywords

Cognitive text linguistics; Lexical cohesion; Textual cognitive function; College English reading instruction.

1. Introduction

In the field of discourse analysis, lexical cohesion refers to the semantic connection or repetition of some words in a discourse. According to Halliday and Hassan's Division [1], English lexical cohesion is mainly divided into two categories: reiteration and collocation. Reiteration is the phenomenon that the same or similar word items appear repeatedly in the same text. It is mainly manifested in four forms: the repetition of same words, synonyms and hyponyms. Collocation is also a kind of semantic combination, which means that in a discourse of a certain topic, the words related to the topic may cooccur, matching each other semantically, and jointly reflecting the theme of the discourse. Lexical cohesion plays an important role in improving the theme of the text and realizing successful communication.

This study explores the textual cognitive function of lexical cohesion from the perspective of cognitive text linguistics. Cognitive text linguistics is a branch of Cognitive Linguistics, which takes text as its research object and aims to accommodate text production and understanding into the general cognitive models of human beings via cognitively-oriented interpretation of text structure. [2] This study probes into the function of lexical cohesion from the perspective of "contextual functions", "text creator and recipient" and "interactive cognitive process".

At present, college English reading instruction focuses on the fine training of the language points, while ignoring the interpretation of the overall information of the text. Learners ignore the internal or external connections within sentences, paragraphs the whole text, so it is difficult to analyze the organization of the article and understand the author's intention and thoughts. Paying attention to the discourse cognitive function of lexical cohesion can further help readers read from the whole perspective, help teachers update discourse teaching methods and realize effective reading.

2. Study Material

The text under study is selected from a review article in the newspaper of Washington Observer with the title “How Low Can Harvard Go”? This text was also selected as the reading material in China’s College English Test -Band 6 in the year 2014 [3]. In the article, the author expresses a disapproval opinion of Harvard University’s awarding of an honorary doctoral degree to the famous host Oprah Winfrey, with the reason that Oprah supports pseudoscience, which is inconsistent with Harvard's motto. The author then points out that in today's society, most American schools are keen to maintain brand image and follow the example of profit-making institutions, but forget their original purpose of “pursuing and maintaining truth”.

The article is compact and has many new words. The content is different from college students' cognition of "Harvard University" and "Oprah", so it is not easy to understand accurately. However, the theme of the whole text is very clear, and a large number of co-occurrent and repetitive words are used to show the author's critical attitude from all angles. The analysis of lexical cohesion can help readers grasp the author's intention and have a deeper understanding of the structure of the text.

3. Text Cognitive Function of Lexical Cohesion

3.1. Contextual Function: Building Discourse Context

Context consists of the background and language of a text. The understanding of the background of a text involves cognitive and psychological processes, which is more complex, while the language of a text is much easier to understand. Zhang Delu believes that “the meaning realized by some contextual factors has certain marks in language form”, that is, context construction can be realized through the selection of words [4]. The reiteration and collocation of words in a text constitute a hidden vocabulary chain. Many vocabulary chains help to build a unified text context and promote text coherence. They can also activate the reader's reserved vocabulary pool and the reader's cognitive prototype, so that the reader can find the theme of the article faster.

Table 1. Key words and lexical chains

Theme	Key words	Lexical chains	Attitude
The Mission of American Universities	The pursuit of truth	veritas, means truth; to advance the cause of reason; the rule of reason; convey its respect for science; public affirmation of evidence-based inquiry; protect the pursuit of knowledge; to produce and spread knowledge; rational discourse; vigorous defense of the scientific method. (lexical reiteration)	
	Pseudoscience	fake science; notoriously; claim; contribute to harm; the foolish avoidance of ...; a few failings; the irrational; nonsense; jeopardize. (lexical reiteration and collocation)	Negative words showing criticism: troubling, shocking, unfortunately, notoriously, awfully (lexical reiteration_
	The pursuit of brand awareness	protecting their brand name; the growth of public relations arm; a focus on risk management; avoiding controversy; resemble profit centers; entertainment complexes; lose sight of their primary mission. (lexical reiteration and collocation)	

Through the analysis of the text, three hidden lexical chains can be found (Table 1). These lexical chains are related to the practice of American universities, corresponding to three key words, namely "the pursuit of truth" (purpose of American universities in the author's view); "pseudoscience" (criticized by the author) and "pursuing brand awareness" (the current practice of American universities). In the whole article, synonyms related to the "pursuit of truth" reappear 9 times, reiteration and collocation of words related to "pseudoscience", the target of the author's criticism, appear 7 times, and there are 7 repetitive and collocated words related to the improper practice of "pursuit of brand name". The network of these words may help create a context that is "What the American Universities should do". When readers keep narrowing the scope of the reserved vocabulary and gradually focus on the vocabulary chain presented by the author, the theme of the text will become clearer and more specific.

3.2. Combining the Perspective of Text Creator and Text Recipient

The study of cognitive discourse emphasizes two perspectives. One is the perspective of the text creator, that is, how the author generates the discourse and achieve the coherence of discourse by means of cohesion devices, information structure and thematic structure. The second is the perspective of the text recipient, that is, how the reader understands the text through the guidance of a series of text information such as thematic structure and establishes the coherence of the text in cognition [5]. The two processes interact with each other, so in order to realize the effective cognition of the text, we need to combine the two perspectives.

From the perspective of lexical cohesion, the author's intention is to use the relevance of cohesive words to establish the integrity and continuity of background, theme and viewpoint, so as to enable readers to better establish the connection of meaning. The reader's interpretation of the text is to gradually understand the author's intention by looking for cohesive words and logical chains. Lexical cohesion can lead readers to continuously narrow the distance between the acceptance direction of the text and the author's intention, so that the two can gradually approach and achieve effective integration [6]. Taking the chosen text as an example, the following part analyzes how the lexical cohesive devices of the text play a role in this aspect.

The full text can be divided into two parts:

The first part (para. 1-4)- idea development: Criticizing Harvard University—the current social situation: Harvard's practice sends a wrong message to the whole society (further criticism with other critic's views)

In the second and fourth paragraphs, the author adopts the method of lexical reiteration to criticize Harvard's practice. In both of these paragraphs, synonyms of words appear under each sub-topic. For example, "truth", "the cause of reason" and "the rule of reason" are used to show the mission of American universities; When describing Oprah as a supporter of pseudoscience, the author uses four words with similar meanings, namely "advocacy", "emotion", "validation" and "popularizer"; To express the essence of pseudoscience, the author uses "nonsense" and "the irrationality"; The harm of pseudoscience is expressed through words "contribute to much harm" and "jeopardize..."; The author's view is that the practice is "not a good fit", which is the same with the views of other critics who believes it is "odd" and therefore "objects" the practice. The repetition of synonyms makes the two paragraphs correlate to each other, constantly deepens the readers' bad impression of "pseudoscience", and enables the readers to clearly feel the strengthening of critical information. Therefore, the text recipients can focus on the textual meaning more accurately and realize effective reading.

Table 2. Lexical reiteration and collocation related to “criticism”

Harvard event (para. 2)	Words in the text	Current situation (para. 4)	Words in the text
The mission of Harvard University	... a university whose motto, Verias, means truth.	The mission of American Universities	American universities need to do more to advance the cause of reason.
Oprah’s advocacy of fake science	...advocacy... unfortunately to a hearty embrace of fake science. Most notoriously, Oprah’s validation of Jenny McCarthy’s claim that ...	Oprah’s advocacy of fake science	...such a high-profile popularizer of the irrational ...
The harm of fake science supported by Oprah	...contribute to much harm through the foolish avoidance of vaccines.	The harm of all fake science	nonsense so jeopardize the rule of reason in this alleged enlightened democracy and around the world.
Comment of the author	not a good fit for the values of a university whose motto...	Comment of other critics	This vote of confidence in Oprah sends a troubling message. As former Dean of Harvard College noted his objections, “it seems very odd for Harvard to ...”

In this part, the author also employs cooccurrence of words to strengthen his logical chain and deepen the readers' understanding of the concept of "pseudoscience". Halliday believes that some words with relevant meanings often appear in the same discourse, that is, "the tendency of occurrence of words". These words belong to the same lexical set and form a lexical chain [1]. The co-occurrence of words is not irregular, but consists of a set of semantically related networks. When readers read one word, they will associate other words in the vocabulary set. For example, when a person read the word "hospital", he/she will think of doctors, patients, operating rooms, drugs, etc. The co-occurrence of these words plays a great role in the cohesion and coherence of the text.

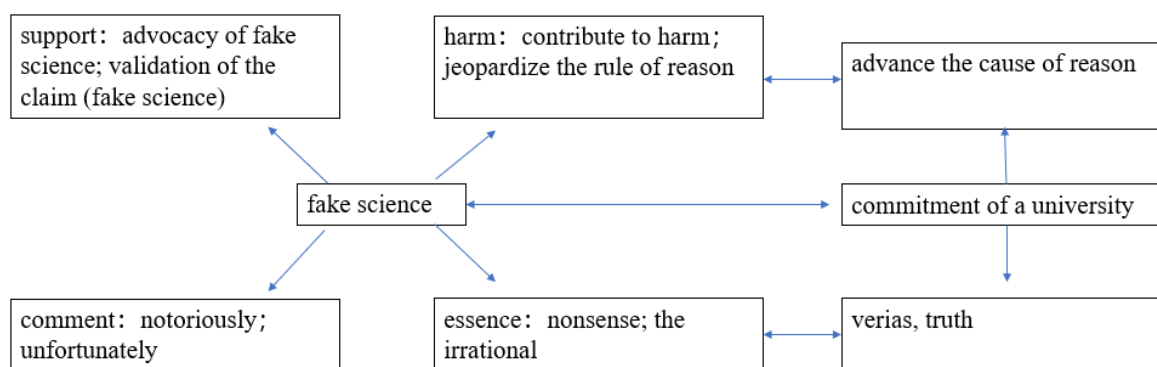


Figure 1. Lexical network related to “pseudoscience”

Throughout the second and fourth paragraphs, the author creates a vocabulary network (Figure 1) to show the collocation and cooccurrence of vocabulary under the topic of "the mission of university" and "pseudoscience", so as to realize the unity of theme and viewpoint. With regard to pseudoscience, the author uses the words indicating its "harm" and "essence", as well as the related words of "advocacy" and "evaluation" of pseudoscience. These words and the words of the "pursuit of truth" are antonyms. For example, "advance the cause of reason" and "jeopardize the rule of reason" express opposite meanings. The co-occurrence of words not

only explains the essence of pseudoscience, but also expresses the author's criticism. In the process of reading, readers are constantly stimulated by these words and can focus on the theme faster.

The second part (para. 5-7) idea development: the reason behind the Harvard event: the improper values of American Universities — the consequences caused by this value

Table 3. Lexical reiteration and collocation related to “practice of universities”

	General situation (para. 6)	Specific example (Harvard University) (para. 6)
Improper value	Unfortunately, many American universities seem awfully busy protecting their brand name and not nearly busy enough protecting the pursuit of knowledge.	A recent article ...noted the shocking growth of Harvard's public relations arm...and it questioned whether a focus on risk management and avoiding controversy was really the best face of this great institution.
Word of comments	unfortunately, awfully	shocking; growth

Table 4. Lexical reiteration and collocation related to “consequence”

Practice based on improper values	...universities begin to resemble profit centers and entertainment complexes. (para. 7)
consequence	Easy to lose sight of their primary mission: to produce and spread knowledge. (para. 7)

In the second part, the author explores the current social situation. It seems that the main task of American universities is not to explore and pursue knowledge, but to build brand awareness. This will inevitably lead them to forget their original intention and make improper decisions.

When describing the practice of American universities, the author uses four co-occurrent lexical phrases of "whole / part" relationship to describe it from general to specific. For example, many American universities are "protecting their brand name", and then the author points out that Harvard is improving "their public relation arm", focusing on "risk management" and "avoiding converse". Among them, "improving the strength of public relations departments, focusing on risk management and avoiding disputes" are the manifestations of "maintaining brand awareness". This method enables readers to have a more comprehensive view of the problem, and at the same time, it corresponds to the Harvard's event mentioned above. Similarly, the author does not forget the use of the repetition of negative evaluation words, such as "unfortunately, awfully, shocking growth" to remind the author of his own critical attitude.

The author's idea is further developed in paragraph 7. "Protecting their brand name" and "developing the public relation arm" are typical practices of some "profit-making institutions" and "entertainment complexes". Therefore, they can be regarded as the collocation of words under the same topic.

The lexical set in paragraph 6 and 7 contrasts with the words mentioned above which describe the "University's pursuit of truth" The author further points out that the consequence is that universities nowadays have forgotten its fundamental task— "They lose sight of their primary mission: to produce and spread knowledge". In this sentence, "produce and spread knowledge" is exactly a repetition of the synonymous phrase " the pursue the cause of reason ". Therefore,

the whole text is integrated under the function of lexical cohesion. The author constantly emphasizes the key contents and views through co-occurrence and repetition of vocabulary, and establishes a logical chain including progressive relationship, contrastive relationship and causality. Therefore, the text integrates the author's intention and the reader's acceptability.

3.3. Facilitating Interactive Cognitive Process

Interactive reading theory holds that the reading process is a dynamic interactive process between readers and texts. The reading process is like a psycholinguistic guessing game. Readers will combine the information of the text with their own background cognition to make inferences. And then they constantly look for evidence from the article in the reading process to verify their expectations. This reading process is a dynamic cognitive process, which is a continuous process of error correction. Reader's cognition of the themes and characters involved in the text is not exactly the same. The co-occurrence of words is an important information from the text, which can help readers further correct the original cognitive model, so that readers can quickly narrow the scope of speculation and focus on the main text information.

In the selected text, when the concepts of "Harvard University" and "Oprah" appear in the reader's mind, it stimulates the readers' original cognitive and vocabulary reserve. Readers would understand this from a variety of angles, but most of them are from positive angles. For example, most readers think that Oprah is a talented and famous host, a single mother, an entertainment idol and so on. However, the readers' adjustment of understanding comes from the cohesive vocabulary in the text. In this part, the author uses many negative words, such as "unfortunately", "fake science", "notionally", "harm" and "foolish", so that the readers can perceive the negative perspective of Oprah in the selected text. Therefore, readers can quickly correct his/her cognitive model and make correct interpretation of the text.

4. Implication to College English Reading Instruction

First of all, lexical cohesion can help students read at the textual level and get rid of the previous reading style of neglecting the underlying connections within the text. Teachers should give full play to students' cognitive subjectivity, guiding the students to summarize the author's ideas and key words, find out the corresponding lexical chain, and analyze the way of discourse development. In most cases, the difficulty for students is that they can't recognize the types and means of lexical cohesion. At this point, teachers should play a supporting role to guide students to find lexical cohesion in the article.

Taking the chosen article as an example, teachers could give students three key words and ask students to sort out the relevant vocabulary chain in the way of map analysis. It is worth noting that lexical reiteration and collocation do not appear in adjacent natural paragraphs or sentences. Sometimes words are located far away from each other. For example, in the second paragraph, "whose motto, Veritas, means truth" indicates the purpose of Harvard, and then in paragraph 4, paragraph 5 and paragraph 7, the concept is paraphrased in different ways, such as "convey its respect for science....in public affirmation of evidence-based inquiry". Through repeated training, students can improve their ability to summarize keywords and the vocabulary chain matched with them.

Second, teachers should instruct students to establish their own vocabulary reserve. For any cognitive category, readers themselves have a specific reserve of vocabulary. During reading, the cognitive vocabulary in the reader's mind will be activated and matched with the related words described by the text creator, so that the readers can interpret the text correctly [6]. In English reading and writing, being able to find and sort out the cohesive words in the article and being familiar with the collocation relationship are very beneficial to improve the readers'

cognitive ability and writing ability. Take Figure 1 as an example, educators should guide students to master the tendency of vocabulary co-occurrence and enhance students' cognitive reserve. In this way, students could become more familiar with the thinking model of native speakers, so as to effectively activate the background knowledge and improve their reading comprehension ability.

5. Conclusion

Through the analysis of the selected discourse, it is found that lexical cohesion can effectively help build up a unified discourse context and promote the integration between the author's intention and the reader's understanding. Applying the textual function of lexical cohesion to English teaching is helpful to cultivate students' discourse comprehension ability and discourse construction ability, and strengthen students' Consciousness of cognitive subjectivity.

References

- [1] Halliday, M. A. K. & R. Hasan. Cohesion in English [M]. London: Longman, 1976.
- [2] Liu Hui, Yang Hong. Effectiveness Research of the College English Teaching Mode of Discourse Construction from the Perspective of Cognitive Text Linguistics [J]. Education Teaching Forum, 2016 (12): 217-218.
- [3] Pan Xiaoyan, Orientation of College English Test Band-6 [M]. Beijing: World Book Incorporation, 2020.
- [4] Zhang Delu, Principles for Discourse Coherence [J]. Journal of PLA University of Foreign Languages, 2001 (06) 26-32.
- [5] Li Shaomin, Zhang Junjie. College English Instruction Based on Cognitive Text Linguistics [J]. Journal of Liaoning University of Technology, 2014 (6), 114-116.
- [6] Gao Na. Contextual Function of Lexical Collocation. [J]. Journal of Xi'an International Studies University, 2019 (12). 26-29.