



Positive Discourse Analysis of TED Artificial Intelligence Education Speech Under Attitude System

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Abstract: Taking attitude resources under evaluation theory as the theoretical framework, this paper selected a TED speech titled "How Artificial Intelligence Can Save Education (instead of Destroying It)" as the Corpus for positive discourse analysis, and used the data analysis software UAM Corpus Tool 3.3 to conduct a quantitative analysis of the distribution of evaluation resources for this speech. And through the qualitative analysis of speech discourse to explore the speech delivered by the positive information. The study found that the speech used a wealth of attitude resources, of which emotional resources were the most used, reflecting the speaker's affirmation of artificial intelligence education and positive attitude towards the development of artificial intelligence education.

Keywords: attitude resources; artificial intelligence; discourse discourse; positive discourse analysis

1. Relevant theoretical basis

Evaluation theory focuses on the study of interpersonal function, and positive discourse analysis is a research perspective. Evaluation theory and positive discourse analysis provide new research ideas for speech discourse analysis from different research perspectives, and promote the research and development of speech discourse analysis.

1.1 Attitude system

Evaluation theory was proposed and developed by James Martin in the 1990s. "Evaluation theory is about evaluation, that is, the variety of attitudes negotiated in a discourse, the intensity of the emotions involved, and the variety of ways in which values are indicated and readers are allied." (Martin&Rose, 2003:23). In short, evaluation theory analyzes the attitudes and positions of the discourse or speakers. The evaluation system of evaluation theory includes three major systems: attitude resource, intervention resource and rank difference resource. Attitude resources are the core of evaluation theory, so this paper focuses on the attitude resources in speech, which can be divided into emotion, judgment, and appreciation. Emotional resources express people's emotional meaning, judgment resources evaluate people's quality and behavior from the moral level, and appreciation resources are the evaluation of a certain process.

1.2 Positive discourse analysis

In 1999, J.R.Martin gave a presentation entitled "Positive Discourse Analysis: The paper on Positive Discourse Analysis:solidarity and change, which first proposed the concept of "Positive Discourse Analysis (PDA)", It is advocated that discourse should be analyzed with a positive and friendly attitude, and "peace linguistics" should be established in order to build a "relaxed, conciliatory and co-existing" human society. Positive discourse analysis is proposed by Martin in response to the shortcomings of critical discourse analysis. It complements the shortcomings of critical discourse analysis and is the inheritance and expansion of critical discourse analysis[1]. Martin et al. advocate that discourse analysis should adopt a positive and friendly attitude, and the focus of discourse analysis is to coordinate the relationship between the speaker and the listener, so that the relationship between the two parties can be harmonious and the society can be harmonious and progress. Zhu Yongsheng also proposed that this kind of positive friendship applies not only to himself and his side, but also to his opposite side, whose goal is to work towards the goal of peaceful linguistics, and finally build a relaxed, harmonious and co-existing human society [2]. Compared with critical discourse analysis, this constructive positive discourse analysis is better at discovering positive and inspiring content in society, promoting people's attention to positive discourse, and thus infusing people with confidence to actively participate in social change. This paper interprets the speech on the combination of artificial intelligence and education from the perspective of positive discourse analysis, which is conducive to enhancing people's sense of identity for artificial intelligence education and actively participating in the development of science and technology society.

2. Research design

2.1 Research questions

In this speech, how are the resources of emotion, judgment and appreciation occupied in the attitude resources?

In this speech, how do the emotions, judgments, and appreciation in the attitude resources convey meaning?

2.2 Corpus collection

This study selects a speech on the relationship between artificial intelligence and education from TED's official website, titled "How AI could save (not destroy) education?" 2996 words in total.

From the perspective of positive discourse analysis, this paper studies the attitude resources in the evaluation system of this speech by using the framework of evaluation theory and the methods of quantitative and qualitative analysis. First of all, the evaluation resources in this speech are classified and statistically analyzed by quantitative analysis method to sum up the frequency of evaluation resources, which are reflected in the table. Quantitative analysis can provide specific data and make the article more rigorous and scientific. Then, qualitative analysis method and evaluation theory framework are used to analyze the corpus, and examples are given to illustrate how attitude resources are distributed and how to convey meaning in speech. Qualitative analysis helps the audience understand the positive meaning conveyed by the speech.

3. Results and discussion

Through corpus labeling and data statistics, this paper finds that the speech uses a wealth of attitude resources. As shown in Table 1, among the three subsystems of attitude resources, emotional resources are used the most, accounting for 43%. The use of resources is second, accounting for 31%. The use of appreciation resources is relatively small, accounting for 26%. In addition, the use of positive attitude resources is greater than that of negative attitude resources, which is more conducive to exploring the positive meaning conveyed by the speech discourse.

Table 1. Distribution of attitude resources in this speech

Attitude system	Quantity/frequency	Percentage /%
Emotion	37	43%
Judgment	27	31%
Appreciation	22	26%
Total	86	100%

3.1 Emotional resource analysis

As an interpretive resource, affective system is often used to explain the emotional responses of language users to behaviors, texts/processes and phenomena, based on the characterization of the emotions of reference objects [5].

Example 1. Just to put that in plain language, that could take your average student and turn them into an exceptional person student. It can take your below-average student and turn them into an above-average student.

In this example, "average", "exceptional", "below-average" and "above-average" are all emotional resources, which are used to show that the combination of artificial intelligence and education can greatly improve students' performance, and students with average level can become high-level students. Students with below average scores can become above average students. The speaker used colloquial language to make the audience understand that artificial intelligence does promote education rather than destroy it.

Example 2. I gaze at it longingly as it represents my yearning for the past and my hope to reunite with Daisy, the love of my life.

"longingly" and "yearning" in this example are emotional resources, which explain why Gatsby stared at the green light, because the green light symbolized his dreams and aspirations, he gazed at it longingly, it represented his yearning for the past, and it represented his hope of reuniting with Daisy. These two words well expressed Gatsby's emotions.

3.2 Judgment resource analysis

Judgements evaluate participants' behavior according to ethical and social norms [6].

Example 3. Now the reason why he framed it as a problem, was he said, well, this is all good, but how do you actually scale group instruction this way?

"good" in this case is the judgment resource, and the speaker conveys that the way AI and education are combined is very good, but it also reflects his concern, how does everyone have access to this guidance?

Example 4. And let's say the student says, "I want to be a professional athlete." And it says, "Well, learning about the size of cells, which is what this video is, that could be really useful for understanding nutrition and how your body works, etc."

In this example, "professional" and "useful" are judgment resources. The speaker uses these two words to convey that artificial intelligence answers questions and tests students in Socratic style, which shows the speaker's praise for artificial intelligence education and thinks that artificial intelligence education is very useful.

3.3 Appreciation resource analysis

Appreciation refers to the identification of texts or processes and phenomena according to aesthetic categories [7].

Example 5. And so, "Ah, splendid choice, old sport. I am now Jay Gatsby, the enigmatic millionaire from F. Scott Fitzgerald's classic."

In this example, "splendid" is the use of appreciation resources. Students do not understand why Gatsby keeps staring at the green light and uses Khanmigo to communicate with Gatsby. However, the real situation brought by artificial intelligence to students is very special and can enable students to increase their knowledge.

Example 6. And we think this is going to dramatically accelerate writing, not hurt it.

In this case, the use of "dramatically" appreciated resources was used, as the speaker conveyed to the audience that the AI education has dramatically improved their students' writing, that the AI is not only giving feedback -- it's highlighting parts of the essay — that it's engaging the students, making them dramatically better writers, giving them far more feedback than ever before, This shows that the speaker wants the audience to support the development and progress of artificial intelligence education, and shows expectations for the development prospect of artificial intelligence education.

4. Summary

Starting from the attitude resources of evaluation theory, this paper explores the positive effect of artificial intelligence on education in discourse, and analyzes the positive meaning conveyed by the speech discourse from three aspects. The research finds that emotional resources are used most, followed by judgment resources, and appreciation resources are relatively few, which reflects the speaker's positive attitude in supporting the combination of artificial intelligence and education. And a positive outlook for the future of AI education.

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