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## Significance and evaluation of applying the cartwright model into English translation

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### ABSTRACT

English translation is not only the formal transformation between English and other languages. To be more specific, the translation is the active thinking activity of translator. The translation process actually is the process of brain processing written message and the translator can only do translation well by having a full understanding of the original text. Due to the differences of structure and mode of thinking between English and other languages, comprehending deviation for original text will inevitably exist in the process of translation, at least the understanding of original text will not so accurate. As the situation of "either this or that is ok" is not allowed in the process of translation, the situation of "both this and that are ok" appears more frequently. In this case, the thinking way of Cartwright model is adopted to stimulate the brain to encode the language information. The essence is that the translator's understanding of the original logic and the expression directly determine the logic accuracy of whole translation and are the key of Cartwright model. According to scientific studies, the brain has two kinds of mode of thinking, namely accurate thinking and intuitive thinking. Among them, the intuitive thinking is the "this and that" understanding of things or concepts. The thinking mode of Cartwright model directly determines the Cartwright model of language card, because language is the expression results of certain way of thinking. Therefore, this research mainly based on the Cartwright model, the behavior of scientific English translation can be analyzed by taking advantage of the characteristics of the thinking mode of brain Cartwright model and integrating with the Cartwright model characteristics of language expression.

### KEYWORDS

Application of cartwright model; Significance of English translation; Evaluation of translating meaning; Importance theory.



## INTRODUCTION

Teaching refers to that teachers guide the learners to engage in various learning activities. Scientific English is used to express concept and idea of human science. It is a kind of language having the characteristics of widening lexical meaning and sentence pattern, complex relation between parts of the sentence, accurate and economical wording, rigorous grammatical structure and literally expressing opinions<sup>[1]</sup>. In addition, scientific English closely combines English with professional knowledge, using professional language to illustrate objective things and facts. The description of scientific English should be objective, true, clear, and concise, which determines the style of scientific English: accurate wording, formal style of writing, objective and logical statement, professional term. Therefore, the translation of scientific English should be as accurate as possible at the very start. But, it must be noted that fuzziness, as a characteristic, objectively exists in the translation of scientific English. While, the study believes that the Cartwright model, as an important model in communication, has important reference significance for the translation teaching of business English<sup>[2]</sup>.

## INTRODUCTION OF CARTWRIGHT MODEL

The first step of Cartwright model is to fundamentally analyze and interpret such problems. Teaching evaluation appears along with teaching, and is based on teaching goal. Teaching evaluation is to judge the value of teaching and learning. During the judgment, scientific and feasible methods are adopted with the aim of promoting the development of students. The teaching evaluations in different areas and different periods have different development and development process<sup>[3]</sup>. Among them, the teaching evaluation in China has experienced long development process. In China, the earliest works discussing education and teaching is *Xue Ji* which not only is the earliest in China but also is the earliest in the world. It records the specific assessment system of the Western Zhou Dynasty. The assessment system contains clear educational examination and evaluation system, which reflects the earliest teaching evaluation thought. By the Han dynasty, the main method of selecting officials at that time was recommendatory system. That kind of system establishes the recommending system which is the foundation of the later imperial examination system. However, the recommendatory system has clear examination subjects and methods, thus it was hard to implement at the end of the Eastern Han Dynasty. At that time, there was confused fighting between the warlords, and the sons of big families took over the Imperial College, thus the recommendatory system could not realize the real goal of recommending the worthy. Then, the nine-grade system, as another form of recommendatory came on the scene and played an important role in ancient China as one of the three main officer-selecting systems in ancient Chinese dynasties. While, as the successor of the nine-grade system, the imperial examination system of Sui and Tang dynasty opens a new stage of official selection which lasts for one thousand years. It is the longest system in Chinese history. This kind of system selects folk talents through examination, thus breaking hereditary system and broadening the selecting range. As it provides opportunities for the people at lower class to change their fate, it improves the enthusiasm of people in study, thus making the teachers teach happily and making students learn happily. At the same time, the society at that time also was glad to accept the talents cultivated under the system.

## APPLICATION OF CARTWRIGHT MODEL

Firstly, the next step in Cartwright model is to "control" the evaluation dimensions. Referring to the interaction analysis model of Henri, review the existing index evaluation at home and abroad and combine with the practical situation of online learning of college English and the characteristics of autonomous learning of college English. The evaluation of classroom effect is usually operated from three aspects including improvement of teaching effect, construction of market competitiveness and establishment of teaching brand. Seen from the above investigation, it can be concluded that the factors affecting the evaluation of classroom teaching mainly are the following several aspect<sup>[5]</sup>:

Firstly, the modern colleges mainly pay attention to the combination of the strength and scientific research ability of teachers. The teachers are not required to graduate from a normal college, thus they may have not accepted comprehensive and systematical classroom teaching and training. Although they also prepare lessons in teaching, provide systematical knowledge in teaching, and carry out teaching monitoring through homework and field practice after class, all of these should be explored and summarized by the teacher. Besides, they can not be completed in a short as they require a lot of experience and practice, which will directly affect the teaching effect. Secondly, the evaluation of classroom teaching should not only depend on the result of examination, but depend on comprehensively evaluation of a variety of factors including experts, colleagues and students. However, the colleagues and experts only evaluate based on fragment of teaching process, which has a lot of uncertainty and is easily to cause partial evaluation of classroom teaching. Moreover, due to the particularity, English teaching in colleges has different difficulty compared with other professional courses and the difficulty can directly affect the classroom effect. Besides, some factors also need to be considered in teaching evaluation, such as how many courses should the teachers take and the number of students the teachers should give lesson (TABLE 1). Therefore, in the part of student evaluation, the teaching evaluation obtained through arithmetic mean may also affect the evaluation results<sup>[6]</sup>.

**TABLE 1 : Evaluation index system of English network learning**

primary indicator U1	secondary indicator U11	evaluative feature
learning attitude	1. Complete learning task according to the course study plan arranged by teachers	browse webpage, courseware learning, finish homework
	2. Actively participate in the network teaching activities organized by teachers	raise questions, give opinions, watch video, listen to radio, answer questions, have test
	3. be willing to communicate with other learning partners	raise questions, answer questions, Synchronous and asynchronous communication, send mail BBS, post message in BBS
	4. complete some challenging tasks	the projects and works put forward, comment of teachers and students, provide resources
	5. Self-management and self-learning under network teaching mode	learning notes, learning plan, utilization of software, learning mark and annotation, collection and arrangement of network, reservation and arrangement of information resources, learning reflection and summary
	6. condition of independently completing learning notes and lesson record	electronic note, lesson record
	7. actively take part in necessary face to face teaching	Time and frequency of taking part in face to face teaching
	8. Timely and carefully submit course homework	Grade, comment of teachers and students
cooperation	9. No cheat and copy in homework, test and examination	answer questions, frequency of raising questions, browse question bank
	1. frequently raise questions to teachers in answering questions	Frequency of answering questions and publishing articles
	2. Frequently express course related advise and comment in discussion area	publish articles, BBS, comment in BBS
	3. Be able to find important topics from the opinion of others, and extract useful information to form personal opinion	make statement in chat room mail, communicate through E-mail
	4. Frequently communicate with teachers or students on problems in learning	times of giving advises
	5. frequently give constructive advises on the teaching of teachers	time of answering questions, frequency of answering questions
	6. timely answer the questions of teachers	frequency of taking part in discussion, propose solution
	7. actively cooperate with other learning partners to complete task	

As can be seen from the above experiment, process evaluation has irreplaceable advantage in English courses<sup>[7]</sup>. First of all, compare the evaluation results of two classes, and it can be seen that the English course adding process evaluation pays more attention to the overall progress of students, which makes the theoretical structure of process evaluation more complete compared with that of summative evaluation. The standard of this kind of evaluation method measuring the students is not simple and rigid, but comprehensively evaluates through the academic performance of students at different stages and different learning parts. This evaluation method can better promote the diverse development of students and improve their learning initiative and enthusiasm, thus its evaluation result is more convincing.

$$B^{(1)} = \begin{bmatrix} 1 & 2 & \frac{1}{3} & \frac{1}{7} \\ \frac{1}{2} & 1 & \frac{1}{5} & \frac{1}{8} \\ 3 & 5 & 1 & \frac{1}{5} \\ 7 & 8 & 5 & 1 \end{bmatrix} \tag{1}$$

Secondly, the process evaluation is not one-time evaluation at end of the semester, but integrates into the process of daily teaching and learning, therefore it can timely reflect the problems and shortages existing in daily teaching, provide convenience for teachers to timely adjust teaching methods, so as to correct the problems students meet in the learning process, and eventually achieve the purpose of better accomplishing the teaching goal. Moreover, the process evaluation also includes the self-evaluation of students. The traditional summative evaluation only reflects the students' learning effect from one aspect, while the process evaluation can enable the students to obtain the evaluation of their own learning from themselves, classmates and teachers, so as to provide convenience for the students and teachers to have a comprehensive understanding of learning situation from various aspects and angles. Therefore, the implementation of process evaluation makes the evaluation results of classroom teaching more convincing. Finally, process evaluation always penetrates into the teaching as an effective combination of teaching and evaluation. The evaluation process also is the process of continuously improving the problems existing in teaching. It is a method not only providing convenience for teacher to improve teaching, but also a method making students promote their learning.

Therefore, the control of the evaluation strength of process evaluation becomes an important problem in implementing this evaluation method. In process evaluation, the how to reflect the fairness and impartiality of this kind of evaluation becomes a notable problem. Besides, there is one problem. Although the process evaluation is carried out in Class One, each student has different learning method, different understanding level of English progress and different learning progress, which results in the controversy over the fairness of process evaluation. As just one class in English teaching can reflect the contradiction, if this evaluation method is promoted to more students, then with the increasing number of students participating in the evaluation, whether it is feasible to make all students accept process evaluation is still questionable. The grading is as shown in TABLE 2.

TABLE 2 : Five-point evaluation grade

range of absolute scores	correspond comment	grade label	variable
$90 \leq x < 100$	excellent performance	excellent	L1
$80 \leq x < 90$	good performance	good	L2
$70 \leq x < 80$	general performance	normal	L3
$60 \leq x < 70$	more efforts	pass	L4
$x < 60$	poor performance	fail	L5

THE CARTWRIGHT MODEL IN ENGLISH TRANSLATION

The next step of Cartwright model is "control". Take the learning parameters of ninety students taking part in teaching reform experiment of college English network learning as sample points so as to test the accuracy and robustness of the model. Although process evaluation has its irreplaceable advantages, these advantages in actual operation should not be exaggerated. The process evaluation should not be considered as universal, because it can not solve all problems appearing in the teaching process. In actual teaching process, the teachers should accept both the advantages and shortcomings of process evaluation, rationally treat this kind of evaluation method, besides they also should play the role of subjective initiative in the teaching process to control the strength of process evaluation, so as to maximize the advantage of this kind of evaluation in teaching, minimize the limitations, and eventually make the most of evaluation process.

Secondly, as is mentioned above, the students are different from each other. Some students may have rapid improvement of learning ability and learning level in the process of process evaluation, but some students may not have obvious improvement. These obvious differences reflected in learning effect are normal. Therefore, in the face of this situation, the teachers should not consider it as teaching problem. They can set different learning methods according to different students, enhance the students' learning confidence on the basis of continuous improvement, help students to set clear objectives, so as to eventually achieve the teaching goal. The accuracy-error rate curve is shown in Figure 1. The accuracy rate reaches to 90%.

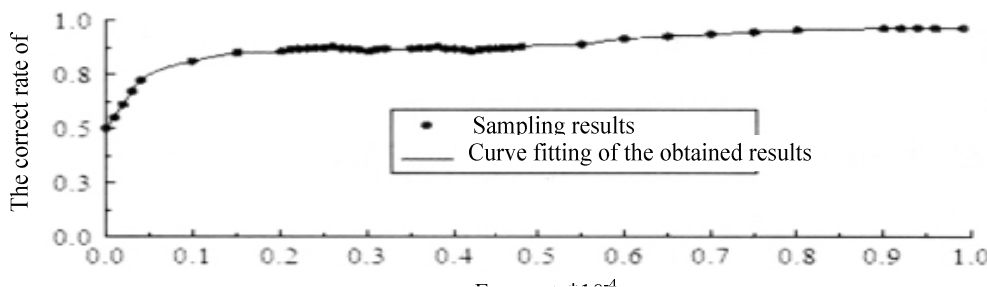
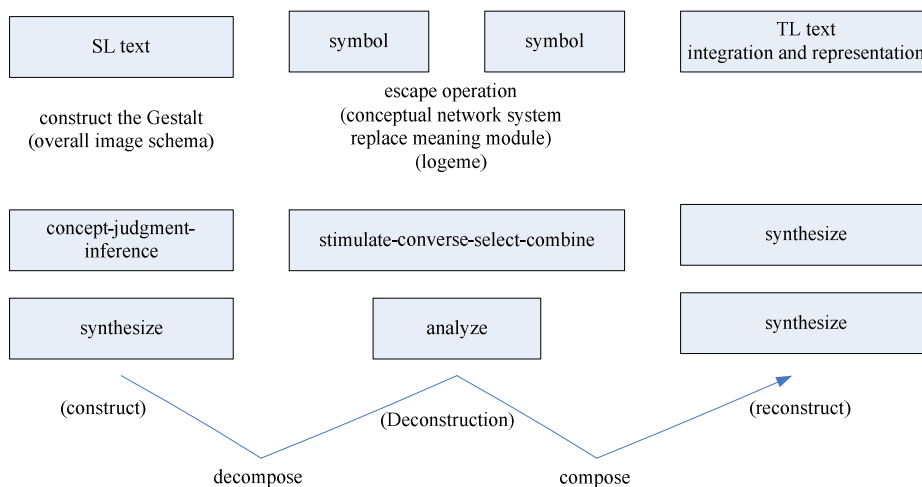


Figure 1 : Accuracy-error rate curve of evaluation of English network learning

Figure 1 shows that the model has good practicability and guiding role. The structure of the evaluation index system of network learning of college English is reasonable. The evaluation result obtained from the evaluation system is more scientific and reasonable, and can comprehensively reflect the learning status of student.

In the long-term teaching evaluation work, the widely used evaluation method is the traditional summative assessment, but this kind of evaluation method has its shortcomings and insufficiency. This evaluation method mainly focuses on results instead of showing the problems and shortcomings appearing in teaching process, and fully reflecting the teaching situation of teachers and progress of students in learning. While the evaluation process is a kind of evaluation method always penetrating into teaching. It evaluates teaching from multi-angles, multi-levels and from different stages, therefore it can timely reflect the problems and shortcomings existing in the teaching, so as to provide convenience for the teacher to timely improve teaching method and the problems appearing in teaching. Besides, it can objectively show the teacher's teaching effect and student's learning effect. In terms of the enhancement of comprehensive quality, the evaluation effect of this model has better. It is expected to be used to solve the difficulties of network automatic learning evaluation of domestic college English.

In the sentence, “an orbiting solar power plant” has an attributive clause “that would collect...or focused collectors” with a relatively far distance. Besides the attributive clause also contains other three attributive clauses “that would boil... would generate electricity”. These four attributive clauses are all introduced by “that”, appearing continuously and step by step. Despite the complex sentence structure, the relationship in the sentence is clear and logical. Although, the translation appears to be redundant and sloppy and go against conciseness, the appropriate words addition of the translation is very accurate. Besides, the translation scientifically uses terminology to accurately and formally conclude and express the work pattern of solar power plants in the universe. All of these form the decomposition and synthetic process of synthesizing, analyzing and synthesizing the understanding of the original text and the expression of translation text. The following is a comprehensive thinking model (Figure 2) built according to Liu Miqing’s externalization schema of translation thinking :



**Figure 2 : Mode pattern of synectic thinking**

Generally, fuzzy language is regarded as the patent of literary works, and it can not exist in the scientific and technological article which are know for accuracy. In fact, fuzziness is one of the main properties of natural language. While using the language to communicate, both the accuracy of language and the fuzziness of language are necessary. Sometimes, the fuzzy language can meet the needs of communication, even for the scientific and technological language which strives for accuracy and precision. Sometimes the appropriately application of some vague discourses can make the scientific and technological language more comprehensive and more accurate. The scientific English has this typical and common characteristics.

Take the following sentence as an example: this person is called the programmer. His job is to determine what information is men and what operations the computer must perform in order to solve a problem. The adverbial at the end of the sentence “in order to solve a problem” may either modify “determine”, or modify “what operations the computer must perform”. That is an ambiguity and the fuzzy phenomena of language, which can lead to the emergence of fuzzy semantics. Frequent use of fuzzy language makes up for the “powerlessness” of accurate language in the process of expressing scientific English. The application of fuzzy language sometimes may even make the slightly rigid scientific and technological language which is full of accurate language more accurate, more flexible and more vivid, so as to reflect the flexibility, initiative and creativity of translator while ensuring the "faithfulness, expressiveness and elegance" of translation. For example, some hedges without fixed quantity, delimitation and definiteness make use of scope, degree, scalability of number to make the expression of some words having unidentified accuracy get closer to actual situation, thus avoiding to become too subjective and self-confident; or some speakers, due to the purpose of inquiry or on the basis of personal inference, intend to use some fuzzy language to leave some leeway, thus avoiding imposing their opinions upon others ; or, the scientific articles often has

“omnipotent words” which have strong ideographic function, such as "do", "get", "make". These words has broad semantic field and general meaning with great dependence on context and strong collocation ability, thus they can be used in a variety of occasions.

### CONCLUSION

The study is mainly based on the Cartwright model, take advantage of the characteristics of the thinking mode of brain Cartwright model, integrate with the Cartwright model features of language expression to study the behavior of translating scientific English. The translation process actually is the process of brain processing written message and the translator can only do translation well by having a full understanding of the original text. Due to the differences of structure and mode of thinking between English and other languages, comprehending deviation for original text will inevitably exist in the process of translation, at least the understanding of original text will not so accurate. As the situation of “either this or that” is not allowed in the process of translation, the situation of “this and that” appears more frequently. In this case, the thinking way of Cartwright model is adopted to stimulate the brain to encode the language information. The essence is that the translator’s understanding of the original logic and the expression directly determine the logic accuracy of whole translation and are the key of Cartwright model. According to scientific studies, the brain has two kinds of mode of thinking.

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