

2014

# BioTechnology

*An Indian Journal*

FULL PAPER

BTAIJ, 10(19), 2014 [11291-11295]

## Comments on the value and significance of applying fuzzy theory to science and technology English translation

Mengqi Han

School of Foreign Studies, North China University of Water Resources and Electric Power, Zhengzhou, 450046, (CHINA)

### ABSTRACT

English translation is not merely the form conversion between English and other languages, but the active thinking of the translator. The process of translation actually is the process of textual information processing by the brain, so only when the translator knows the meaning of the paper needs translating thoroughly, can he translate the paper successfully. There must be understanding bias, at least, inaccuracy during translation given that English is different from the other languages in terms of structure and way of thinking, in this case, fuzzy thinking can be used stimulating the brain to code and process the textual information to avoid inaccurate translation. Actually, the key factors whether the translation version is logic or accurate are the translator's understandings of the original paper and his way of description. According to the scientific research, human brain has two thinking ways, the precise way and the fuzzy way. Fuzzy thinking is "both the one and the other" concept for recognition of substances. Fuzzy thinking ways decide the vagueness of language in that language is the expression of some certain thinking, so this paper studies translation of English for science and technology on the fuzzy theory with the fuzzy thinking ways of the brain and the vagueness of language expression.

### KEYWORDS

Application of fuzzy thinking; Scientific english translation; Accuracy of translation; Vagueness of translation.



### INTRODUCTION

The development of the science and technology gradually given rise to the science and technology style. Science and technology are very important, the problems exist in EST--English for Science and Technology is also very important and cannot be ignored. Procedural evaluation is throughout the process of teaching, so it is very difficult to control the evaluation degree. One purpose of the procedural evaluation is to help the teacher to know what the students had mastered in order to improve teaching ways. It will trouble the teacher if there is too much emphasis on the effect of evaluation during the process of teaching; moreover, the changes made by the students during the learning should be reflected by the evaluation, so too much evaluation will affect the learning objectives. So, how to control the procedural evaluation degree is the key point during the process of evaluation. In addition, how to fairly do the evaluation is another key point, there is a problem in the English teaching, whether the procedural evaluation implemented in a class where the English level of the students and the understandings of the English are far different is fair or not. So the translators must consider the fuzzy during translation despite there are strict limitation on science and technology English translation.

### ACCURACY OF SCIENCE AND TECHNOLOGY ENGLISH TRANSLATION

There are numerous difficulties in science and technology English translation, while the accuracy is also the priority request. Firstly, the results of the evaluation did in the two classes show that the theoretical structure of the procedural evaluation is more comprehensive than that of the final evaluation in that the English class with procedural evaluation pays more attention on students' comprehensive progress. The measuring standards of the procedural evaluation are not simply and rigid because it comprehensively evaluate the students' performance in different studies and on different stages. The procedural evaluation is more convincing and better promotes students' diversified development, initiative and enthusiasm. Furthermore, procedural evaluation is not the final evaluation at the end of a semester but an evaluation throughout the teaching and learning, it can suggest the shortcomings and problems in daily learning and teaching to help the teachers and the students solve the problems and improve practical ways during their teaching and learning to achieve teaching and learning objectives. In addition, the traditional final evaluation reflects students' learning result on one respect, while the procedural evaluation makes the students do self-evaluation on different aspects from themselves, their classmates and their teachers. The procedural evaluation helps the teachers and the students comprehensively learn their performance from different aspects and different angles, so as for teaching evaluation result, it is more convincing. Science and technology English translation should strictly in accordance with the requirements of the indicator system in TABLE 1.

TABLE 1 : Indicator system

Primary Indicator	Secondary Indicator
U <sub>1</sub>	u <sub>11</sub> , u <sub>12</sub> , u <sub>13</sub> , u <sub>14</sub> ,
U <sub>2</sub>	u <sub>21</sub> , u <sub>22</sub> , u <sub>23</sub> , u <sub>24</sub> ,
U <sub>3</sub>	u <sub>31</sub> , u <sub>32</sub> , u <sub>33</sub>
U <sub>4</sub>	u <sub>41</sub> , u <sub>42</sub> , u <sub>43</sub> , u <sub>44</sub> ,

In addition, in the process of evaluation, how to reflect on the establishment of a noteworthy problems of fair and equitable evaluation, in English teaching, we found a problem, although the implementation of the process evaluation in a class, but the difference in English level for each student is too large.

The following is the comprehensive thinking figure structured according to Miqing Liu's outside thinking schema. The Integrated thinking mode is shown as Figure 1.

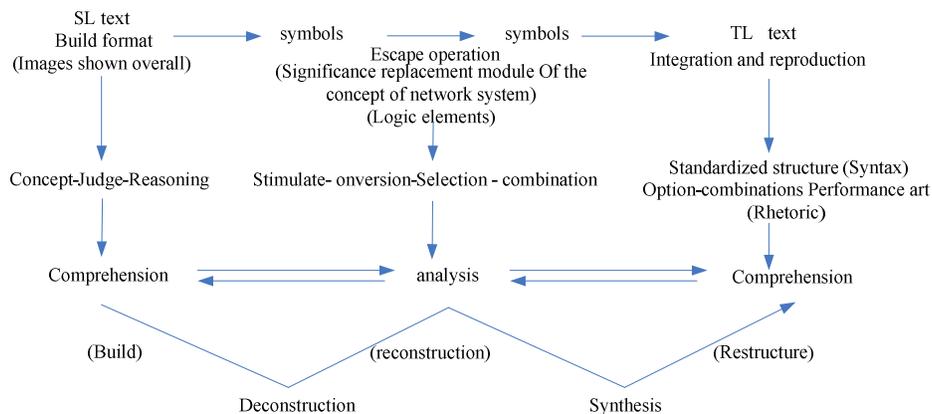


Figure 1 : Integrated thinking mode

VAGUENESS IN SCIENCE AND TECHNOLOGY ENGLISH

Generally, it is believed that vague language is exclusive to literal articles, and vague language can never show up in science and technology articles characterized by precision. Actually, vagueness is a major attribute of natural language. This is only one class in the English teaching embodies such contradiction, if this evaluation method is extended to more individual students to go in, then with the increase of the number of students participating in the evaluation, whether all students can accept the procedural evaluation is debatable. In every step, like what the arrows pointed in Figure 2, there are both analysis and comprehension, actually, these two aspects of thinking are overlapping and crossing together and cannot be separated.

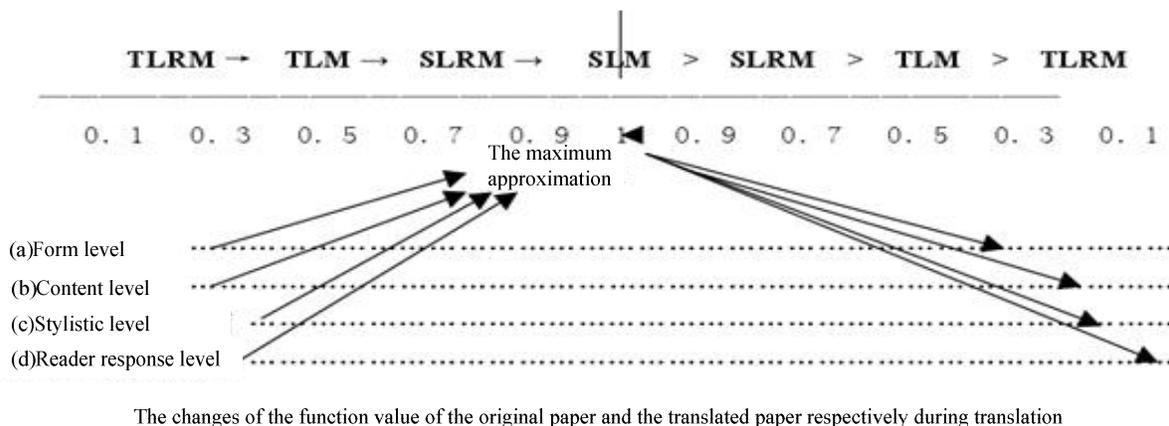


Figure 2 : The changes of the function value of the original paper and the translated paper respectively during translation

This schema decrypts the changes of the function value of the original paper and the translated paper respectively during translation. One purpose of the procedural evaluation is to help the teacher to know what the students had mastered in order to improve teaching ways. It will trouble the teacher if there is too much emphasis on the effect of evaluation during the process of teaching; moreover, the changes made by the students during the learning should be reflected by the evaluation, so too much evaluation will affect the learning objectives. So, how to control the procedural evaluation degree is the key point during the process of evaluation. In addition, how to fairly do the evaluation is another key point, there is a problem in the English teaching, whether the procedural evaluation implemented in a class where the English level of the students and the understandings of the English are far different is fair or not. This is only one class in the English teaching embodies such contradiction, if this evaluation method is extended to more individual students to go in, then with the increase of the number of students participating in the evaluation, whether all students can accept the procedural evaluation is debatable.

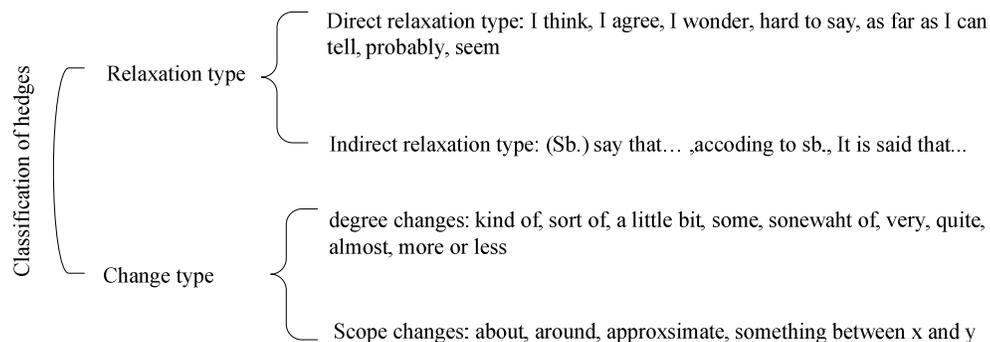
APPLICATION OF VAGUE PRINCIPLES IN SCIENCE AND TECHNOLOGY ENGLISH TRANSLATION

Loyalty and fluency are the basic requirements in translation, the results of the experiment show that procedural evaluation has advantages cannot be replaced in English teaching. Firstly, the results of the evaluation did in the two classes show that the theoretical structure of the procedural evaluation is more comprehensive than that of the final evaluation in that the English class with procedural evaluation pays more attention on students' comprehensive progress. The measuring standards of the procedural evaluation are not simply and rigid because it comprehensively evaluate the students' performance in different studies and on different stages. The procedural evaluation is more convincing and better promotes students' diversified development, initiative and enthusiasm. Furthermore, procedural evaluation is not the final evaluation at the end of a semester but an evaluation throughout the teaching and learning, it can suggest the shortcomings and problems in daily learning and teaching to help the teachers and the students solve the problems and improve practical ways during their teaching and learning to achieve teaching and learning objectives. In addition, the traditional final evaluation reflects students' learning result on one respect, while the procedural evaluation makes the students do self-evaluation on different aspects from themselves, their classmates and their teachers. The procedural evaluation helps the teachers and the students comprehensively learn their performance from different aspects and different angles, so as for teaching evaluation result, it is more convincing. So the understandings of vague language are more important in practical translation.

3	4	5	6	7	8
0.3	0.7	1	1	0.7	0.3

Figure 3 : The percent of numbers that can represent "some"

As show in the figure 3, the numbers 5 and 6 can represent “some” while the percent of the other numbers that can represent “some” is only 0.7 and 0.3. The widely used evaluation way is the traditional final evaluation which focuses on results but cannot show the problems and shortcoming during teaching and cannot suggest the performance of the teachers and the students. Procedural evaluation is not the final evaluation at the end of a semester but an evaluation throughout the teaching and learning, it can suggest the shortcomings and problems in daily learning and teaching to help the teachers and the students solve the problems and improve practical ways during their teaching and learning, it can show the teaching result of the teachers and the learning results of the students Objectively. The Concept and classification of hedges is shown as Figure 4.



**Figure 4 : The concept and classification of hedges**

Compared the results of the evaluation did in the two classes show that the theoretical structure of the procedural evaluation is more comprehensive than that of the final evaluation in that the English class with procedural evaluation pays more attention on students’ comprehensive progress. The measuring standards of the procedural evaluation are not simply and rigid because it comprehensively evaluate the students’ performance in different studies and on different stages. The procedural evaluation is more convincing and better promotes students’ diversified development, initiative and enthusiasm. Furthermore, procedural evaluation is not the final evaluation at the end of a semester but an evaluation throughout the teaching and learning, it can suggest the shortcomings and problems in daily learning and teaching to help the teachers and the students solve the problems and improve practical ways during their teaching and learning to achieve teaching and learning objectives. In addition, the traditional final evaluation reflects students’ learning result on one respect, while the procedural evaluation makes the students do self-evaluation on different aspects from themselves, their classmates and their teachers. The procedural evaluation helps the teachers and the students comprehensively learn their performance from different aspects and different angles, so as for teaching evaluation result, it is more convincing.

## CONCLUSION

This paper analyses and objectively discusses the problems, precision and vagueness in science and technology translation in detail. The process of translation actually is the process of textual information processing by the brain, so only when the translator knows the meaning of the paper needs translating thoroughly, can he translate the paper successfully. There must be understanding bias, at least, inaccuracy during translation given that English is different from the other languages in terms of structure and way of thinking, in this case, fuzzy thinking can be used stimulating the brain to code and process the textual information to avoid inaccurate translation. Actually, the key factors whether the translation version is logic or accurate are the translator’s understandings of the original paper and his way of description.

## REFERENCES

- [1] Linjuan Huang, Qin Liu; On application of functional equivalence theory to science and technology english translation---take the long science and technology translation from English to Chinese as example [J], *Culture (language teaching)*, **25(8)**, 37-41 (2013).
- [2] Xinmiao Duan; On the precision and vagueness of science and technology english translation [J], *Journal of East China Jiaotong University*, **15(10)**, 67-72 (2010).
- [3] Yu yin He; On training of students self-learning through applying unit teaching ways to science and technology english translation [J], *Study of Foreign literature and language*, **30(3)**, 67-74 (2007).
- [4] Haiyong Chen; On application of vague translation in science and technology english translation [J], *Journal of Chifeng College (Chinese language Philosophy and Social Sciences)*, **25(7)**, 140-146 (2009).
- [5] Guofen Wu, Weihua Dai; Science and technology English translation, *Linguistics, Translation, Journal of Shanghai Polytechnic University (Social Science Edition)*, **15(6)**, 32-36 (2013).

- [6] Xiaoxiao Chen, Shili Ge; Construction of parallel corpus of science and technology english translation [J], Journal of Guangdong University of Foreign Studies and Foreign Trade, **30(5)**, 131-136 (**2012**).
- [7] Lijun Li; Aesthetic orientation in science and technology english translation under the translation aesthetics background [J], Young writers, **20(12)**, 131-134 (**2013**).