

Modeling the Relationship between the Integration Mechanism of Translator's Subjectivity Concept and Translation

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Abstract: This paper studies the problems of poor efficiency and insufficient analysis precision of the relationship model between subjectivity and translation. Integrating the concept of translator's subjectivity with feature extraction method to obtain the characteristic factors of translator's subjectivity; Similarly, the cognitive factors of the characteristics of the translated works are collected to obtain the characteristic information of the translated works. The neural network principle is used to integrate the characteristic factors of the two, and the translator's subjectivity concept integration mechanism and translation characteristic association rules are optimized. An analysis model is established according to the association rules, and the characteristic factor relationship analysis process is optimized, so as to analyze the correlation degree of the two more accurately. It effectively meets the requirement of modeling the relationship between the integration mechanism of translator's subjectivity concept and translation. Finally, the experiment proves that the model has better operation efficiency and higher analysis precision than the traditional model.

Keywords: Translator's subject; Conceptual integration; Translation; Association analysis

1. Introduction

The traditional translator's subjectivity integration translation relevance mechanism usually uses meta-cognitive principle to apply network information technology, and studies the relationship between the translator's subjectivity concept integration mechanism and translation according to the translator's own foreign language level and understanding ability. Therefore, the analysis of the relationship between the translator's subjectivity concept integration mechanism and translation is relatively one-sided, only the translation quality, emotional expression and other aspects need to be analyzed. Therefore, the analysis of the relationship between the two is relatively inaccurate and the analysis of the relationship is relatively one-sided[1]. With the development of the network, the research on the translation content of the network information platform and the remote information platform, and the relationship modeling based on the translation content and the subject's personality characteristics, can more accurately study and analyze the relationship between the two. This method can effectively make up for the one-sidedness and other problems of the traditional method. However, due to the imperfect development of the network, this method has some problems such as complicated operation in the actual operation process and is difficult to apply and master[2]. With the popularization of electronic information technology, relevant experts and scholars have further studied the above-

mentioned problems, combined with web network technology to perfect the relationship model. the complex problems of the traditional method are solved by setting the client / server terminal structure in the model. this method can more accurately and directly analyze and study the translator's subject and translation relationship, and solve the complex problems of modeling through point-to-point mode. however, in the actual operation process, this method still has some problems such as low stability and slightly insufficient accuracy[3]. In order to better solve the above problems, the SOCKET method is combined to ensure the consistency of the client and the server. The biggest advantage of the point-to-point structure is that the client's information request can be directly received by the server to model the relationship between the translator's subjectivity concept integration mechanism and translation, so as to better accurately study and analyze the relationship between the two.

2. Modeling the Relationship between the Integration Mechanism of Translator's Subjectivity Concept and Translation

2.1. Conceptual integration of translator's subjectivity

In view of the shortcomings of the traditional methods, this paper analyzes and calculates the conceptual factors of the translator's subjectivity characteristics, and analyzes the feature concept acquisition module of the transla-

tor's subjectivity, in order to collect and analyze the translator's subjectivity characteristics[4]. In the analysis process, in addition to fully understanding the translator's foreign language level, mother tongue level, literary preference, translation time, translation content and many other information, through systematic integration and feature collection of information, further analysis and research are carried out on the translation relationship of the integration mechanism according to the actual situation, and the translator's writing habits, word usage habits, sentence arrangement habits, good writing skills and other habits are analyzed, so as to accurately understand the main feature concepts of the translator's subjectivity, and to integrate its conceptual features[5].

In the process of translation, due to the influence of cross-cultural literature, environment and other factors, in the process of optimizing and constructing the information, it is necessary to carry out qualitative and quantitative processing on the subject concept in order to better transform the object information and to collect the essen-

tial feature information combining the characteristics of the translator and the translated object[6]. In the process of translation, the artistry and literariness of literary works should be taken as the main body, the principle of translation subjectivity should be followed, the unique artistic personality consciousness characteristics of different translators should be combined, and the core content and characteristics of foreign language translation should be extracted and integrated. In the process of translation, the translator should adhere to the aesthetic requirements of the translation subject of the original works and the aesthetic characteristics of the local culture in the creation. In the process of translation, the translator should refer to and compare various materials and information, and define and summarize the consistency of the overall translation content [7]. Due to the need to enumerate and collect the narrow and broad features of the translation subject in the translation process, the main information can be seen in Table 1.

Table 1. Narrow and Broad Features of Translator's Translation Subject

Narrow feature		Generalized characteristic	
Translation	Language symbol conversion for text	Service Provider (Translator / Translation Agency)	According to different translated texts, different translation strategies are adopted.
Subject	Cross - language Communication and Cross - cultural Information Dissemination	Translators / Translator Groups	Individual translator
object	Providing Language Symbol Conversion Service for Cross - language Communication	The original author, translator and target audience	Non - individual Translator
Text meaning	Constructing Society through Cross - cultural Information Dissemination	Translation policy formulation and implementation, translators, translation service providers, translation disseminators ...	After the translation, evaluate whether the form of expression in the translation is clear or not
Cultural information	Independent subject	Members of Translation Organizations	When translating, predict the acceptability of the translation to the readers.
Customers / users	Non - independent individual subject	Translation enterprises, organizations, associations and departments	After the translation, check whether your translation text has reached the original author's intention.
Society	Social and institutional subjects	Region, stratum, nationality, country	Check whether the translation strategy used is effective, and adjust the strategy used if problems are found.

Judging the translator's cultural consciousness according to the broad and narrow features, maintaining the translator's approval of the mainstream cultural value orientation of the original works, and preserving and conveying the cultural ideology and aesthetic view features in the translation process[8]. In the process of collecting and evaluating the translator's subjectivity index, due to the large fluctuation of the translator's subjectivity, it is necessary to estimate the difference of the subjectivity data in order to eliminate the difference of the integration characteristic data of the subjectivity concept and ensure that the data result after the elimination of the guarantee characteristic is always within the range of [0,0.5]. Therefore, fluctuation data of subject concept characteristics need to

be divided into positive correlation index and negative correlation index, and subject characteristics are standardized by combining dispersion standardization method. The algorithm steps are as follows:

$$Z_{ij} = \frac{A_{ij} - B_{\min}}{B_{\max} - B_{\min}} \tag{1}$$

In the formula, Zij is the standard processing result, Aij subject conceptual index statistical evaluation value, Bmax and Bmin are the maximum and minimum values of subject conceptual index, i is the number of samples selected by the translator, and j is the standard parameter for selecting index[9]. If the mean value of the translator's subjectivity concept is the same, weight assignment

can be performed on the characteristics of the subjectivity concept, with the assignment parameter being n and the mean value of the translator's subjectivity characteristic variable being Pn. after standardization of the index parameters, the average value of the index can be effectively calculated. the specific algorithm is as follows.

$$a_n = \frac{1}{n} \sum_{i=1}^{j-1} z_{ij} \sqrt{(p_n - A_{ij})(B_{\max} - B_{\min})} \quad (2)$$

Combining with the above algorithm, the value of positive variable $H_{(s)}$ of the subject concept is calculated as follows:

$$H_{(s)} = \Delta a_n^2 (A_{ij} + B_{\max})^2 + (A_{ij} + B_{\min}) P_n \quad (3)$$

The optimization variables of the main features are calculated by the previous algorithm, and the algorithm is as follows:

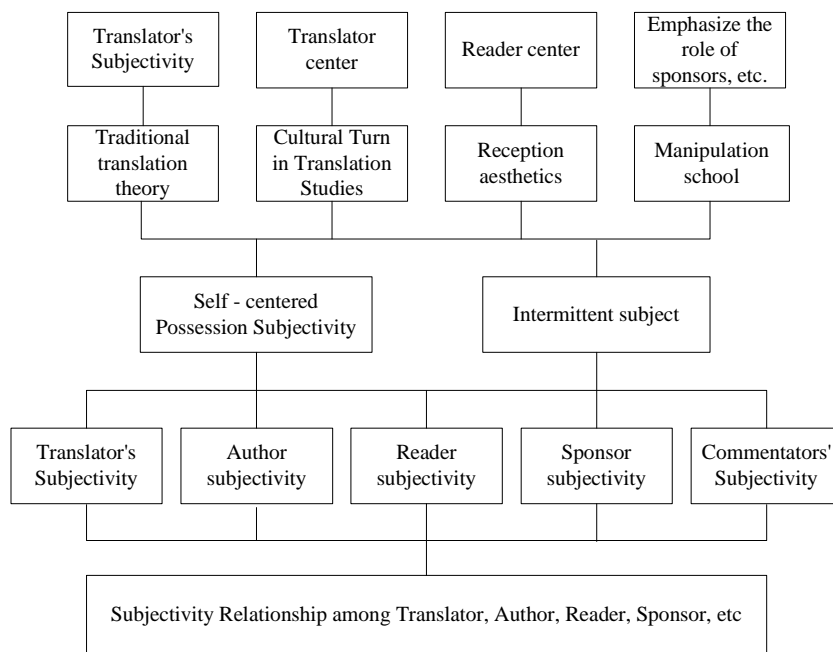


Figure 1. Translator's subjectivity feature collection structure

Through the integration of the translator's subjective concept structure, the characteristics of the translator's subjective concept are collected and extracted, and the subjective concept is integrated according to its characteristics, and the subjective influence of the translator on the work is analyzed and understood, so as to better grasp the relationship between the translator's subjectivity and the translation of the work. The specific relational structure analysis model can be seen later[10].

2.2. Collection of cognitive factors of translation features

In the process of analyzing the relationship between the translator's subjective mechanism and translation, in or-

$$f(x) = \Delta H_{(s)} a_n^{(p_n+1)} (z_{ij})^{n-1} \quad (4)$$

In the process of translation, the translator subconsciously chooses the direction of content, words and sentences according to his own actual situation and social situation. This is also a response to the concept of subjectivity. In the process of translation, the translator needs to actively select and understand the work, and through aesthetic and literary treatment of the translation, it can attract more readers and promote cultural exchange and integration. In the process of translation, facing two different cultures, it is necessary to ensure that the translator always maintains a neutral attitude and gives full play to his subjective concept and initiative. The main structure of the concept of translator's subjectivity is as follows.

der to ensure the accuracy of the research, ADDIE's method is used to design the cognitive module of the features of the translated works. Because in the process of recognizing the features and connotations of the translated works, the translator has to preliminarily determine the translation criteria according to the local culture and social environment of the original text. In order to better determine the translation criteria, the features of the translated works are extracted and collected, the translation emphases and local cultural knowledge are analyzed, and beautified and presented. The structural processing steps of the cognitive module of the features of the translated works in the relational model are shown in the following figure.

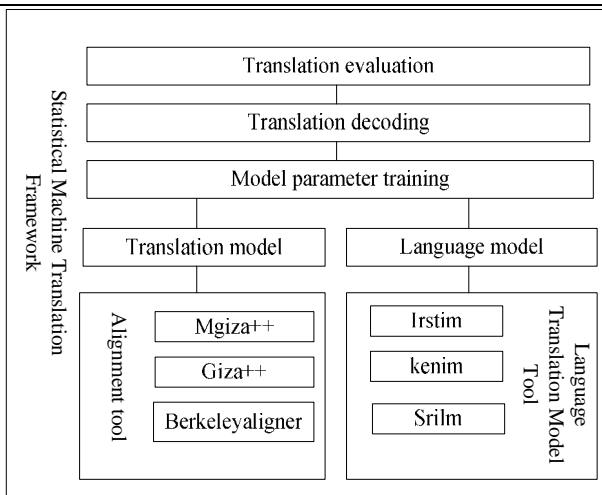


Figure 2. Cognitive principle of translation features

The SOCKET platform is combined to select the cognitive content of translation features. In the process of designing the cognitive module, client / server point-to-point extraction needs to be added to the module, and communication port software is used to quickly complete the feedback of translation features and improve the collection efficiency of translation features. In order to ensure the accuracy of feature recognition of translated works, based on the principle of computer network, a set of cross-cultural foreign language translation factors is designed, and the translation feature indicators can be recorded as follows: $A = \{A_1, A_2, A_3, A_4, \dots, A_n\}$, Where n is the number of translation indicators, and the translation content evaluation set is set to: $B = \{B_1, B_2, B_3, B_4, \dots, B_m\}$, m is the translation level. From this, we can get the fuzzy mapping of the translator's translation of single-factor feature evaluation, which is recorded as:

$$A \rightarrow f(x), A_i \rightarrow f(A_i) = \{A_{i1}, A_{i2}, A_{i3}, A_{i4}, \dots, A_{im}\} \in F(B) \quad (5)$$

Combining the above steps, the fuzzy relation of fuzzy mapping is derived:

$$R_f \in f(x) \rightarrow R_f(A_m, B_n) = f(B_m)(A_n) = r_{ij} \quad (6)$$

Represent the relation matrix of R_f :

$$R = \begin{bmatrix} r_{11}, r_{12}, r_{13}, \dots, r_{1m} \\ r_{21}, r_{22}, r_{23}, \dots, r_{2m} \\ \dots \\ r_{n1}, r_{n2}, r_{n3}, \dots, r_{nm} \end{bmatrix} \quad (7)$$

If V is the cognitive feature of translation and U is the conceptual feature of theme, it is further deduced according to the above algorithm:

$$R_f = 2v - 1 + u_1r_1 + u_2r_2 + u_3r_3 + u_4r_4 + \dots + u_{n-1}r_{n-1} + u_nr_n \quad (8)$$

By analogy, the comprehensive evaluation of multi-level translation indicators needs to ensure the translator's ability to analyze and feedback the translation characteristic factors in the process of foreign language translation, so as to ensure the accurate analysis of the relationship between the translator's subjective concept characteristics and translation characteristic characteristics, thus effectively coordinating the efficiency of the two. In the process of analyzing and researching the relationship between subject and translation, the translation content can be edited with SQL language to improve the efficiency of translation and translator's features and avoid the problems of slow upload or even failure of translation feature data commonly found in the relationship analysis model. Therefore, in the modeling process, the translation data features can be transferred in combination with the TYG data principle to accurately analyze the translator's translation feature instructions and optimize the translation instructions so as to ensure the accuracy of translation feature analysis. The specific structure of the cognitive module of translation features is shown in the Figure 3 below.

By designing and improving the structure of the cognitive module of translation features, the collection and analysis of translation features can be effectively improved. By optimizing the two modules, the concept of translator's subjective features and the extraction of translation features can be integrated.

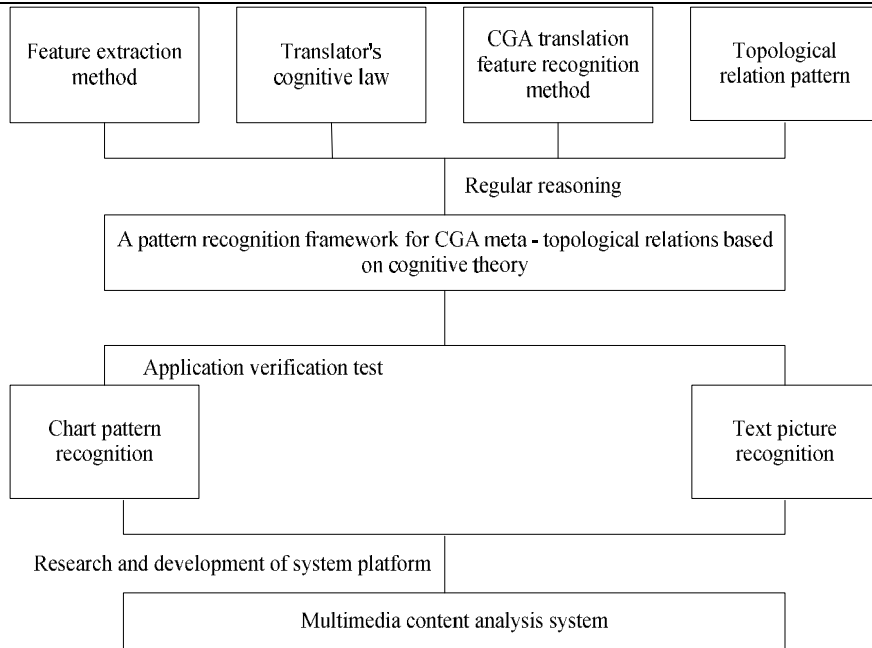


Figure 3. Structure of cognitive module of translation features

2.3. Completion of relationship model construction

Based on the integration of the concept of translator's subjectivity and the integration of conceptual features, this paper analyzes the relationship between the translator's subjectivity mechanism and translation. In the process of analyzing the integration mechanism and translation relationship of the translator's subjectivity mechanism, it is necessary to consider the consistency in the process of cross-regional cultural transformation, the consistency of the translator's subjectivity and translation content and other relevant feedback data. If the data ratio between the two is the same, then the correlation between the two is relatively high. The integration mechanism of translator's subjective concept and translation relevance model are constructed. The relationship between the two features is analyzed by combining SQL editing methods. During the modeling process, the model must ensure the accuracy of feature extraction and invocation of the translator's body and translation information. For example, for the known sentence F to be translated, the best translation is E after machine translation by modern network technology, and the best translation feature extraction algorithm can be obtained by formula calculation.

$$\bar{e} = \arg \max \{ \Pr(e|f) \} \tag{9}$$

If e and t are the integrated data and source language target sentences in subject translation respectively, I is the acquisition feature parameter and Pr(e | f) is the correlation between translator's subjectivity and transla-

tion, then the correlation feature algorithm for the two is shown in the following formula:

$$\begin{aligned} \Pr(e|f) &\approx P_{I_1, I_2, I_3, \dots, I_m}(e) P_{I_1, I_2, I_3, \dots, I_m}(t) \\ &= \exp[\sum_{n=1}^m I_n h_n(e', t')] \end{aligned} \tag{10}$$

The correlation BLEU(L) between the two is further studied in combination with the above algorithm. If the source target language feature in the translation process is G, its corresponding weight value is C. After normalizing the feature weight value, the integration mechanism of translator's subjectivity concept can be better compared with the translation feature. After counting and matching the M phrases appearing continuously in the translator's translation, the correlation length penalty factor is set in the model to avoid the interference of correlation analysis. The specific calculation process of BLEU(L) is as follows:

$$BLEU(L) = BP * \exp(\sum_{n=1}^m c_n \log g) \tag{11}$$

If BP is the correlation length penalty factor, it can be calculated by the formula:

$$BP = \begin{cases} 1^c, & c \geq r \\ e^{(1-c/AB)}, & c < r \end{cases} \tag{12}$$

Combined with the above algorithm, the hierarchical rules of association information and association information are processed. The main steps of the relationship model are as follows:

There is a non-terminal relationship between the two, and there is no terminator in the analysis process, which is shown as follows: $X @ < \text{announce}: X >$

By comparing the relationship categories of the two, the relative consistency of the models is distinguished according to the relationship analysis rules, and the relationship analysis structure contains two non-intermediate symbols. The performance is as follows: $X :< X_1 \rightarrow X_2, X_1 \text{ that } X_2 >$

In the process of comparing the relationship between the two, if X has subscript, it indicates that there is a corresponding relationship between the two, and the two have

the same replacement non - terminator in the process of relationship analysis. For example, its rules are as follows: $X' :< X_1 \rightarrow X_2, \text{ announce that } X_2 >$

In the process of analyzing the relationship between the two levels, it is also necessary to optimize the relationship analysis rules. The method is as follows: $X \rightarrow S :< S_1, X_1, S_2, X_2 >$

The correlation parameters X and S in the above steps are deduced, and the relationship is expressed by correlation symbol. The correlation symbol analysis rules of the two are:

Table 2. Integration mechanism of translator's subjectivity concept and translation relevance analysis rules

Weight	Step
R1	$S \rightarrow < S, X_1, X_2, S >$
R2	$S \rightarrow < S, X_1, X_1 >$
R3	$X \rightarrow < X, X_1, X_2 >$
R4	$X \rightarrow < X, X_1, X_2 >$
R5	$S, X \rightarrow < S, X_1, S, X_2 >$
R6	$X, S \rightarrow < X_1, S, X_2, S >$

Through the analysis of the integration mechanism of the translator's subjectivity concept and the translation association analysis rules, combined with the feature mining algorithm, the translator's subjectivity features and the distribution of translation features are collected and integrated, so as to accurately and effectively analyze the

relationship according to the features. As the research on the relationship between the two in the traditional model shows that the steps of the traditional relationship model are complex and the operation efficiency is poor, the steps of relationship analysis are optimized based on the traditional model, as shown in the following figure.

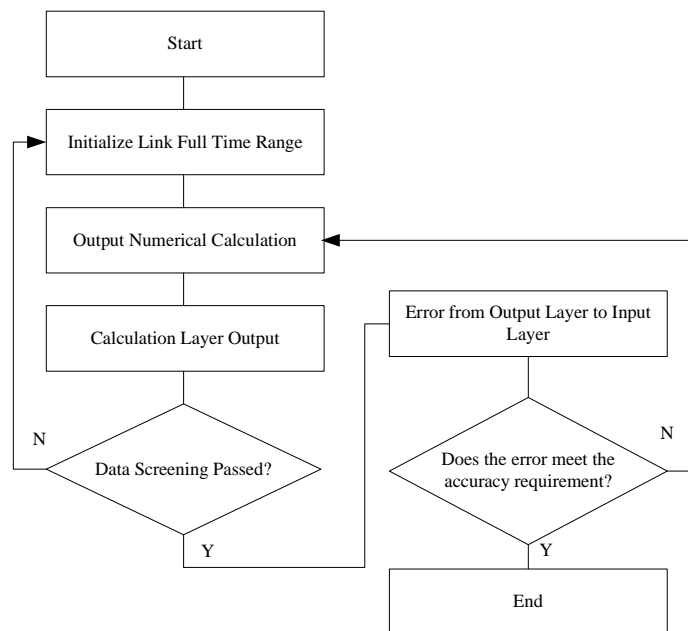


Figure 4. Collection and analysis flow of characteristic relation

Through the above steps, the integration mechanism of the translator's subjectivity concept and the design of the translation relation model can be effectively completed, and the model analysis steps are optimized, so as to improve the accuracy and practicability of the relation model.

3. Simulation Experiment

In order to verify the actual effect of the relationship model between the translator's subjectivity concept integration mechanism and translation, a comparative test experiment is conducted in the same environment and time range as the traditional model. The characteristic data of the relationship between the two are randomly detected and corrected, the detection and correction

structures are recorded, the tightness of the relationship between the two is tested by combining SNF detection method, and the relationship between the two is accurately measured by FPS index detection method. In the process of carrying out the correlation degree evaluation test, the use parameters need to be set, the correlation relationship characteristic analysis path needs to be compressed, The correlation data value is $A_j(T) \leq 2.5U$, and the feature data extraction and call performance is $528.5 \times 104 \text{GB/min}$. According to the needs of the experiment, the basic parameters of the experimental environment are set, and the specific data are shown in the following table.

Table 3. Test data setting

Degree of correlation	Types / Species of Uploaded Translation	Subjective features / %
A	3	0.1
B	4	0.2
C	5	0.3
D	6	0.4
E	7	0.5
F	8	0.6

A comparative experiment is conducted under the above experimental parameters and the experimental results are recorded. During the experiment, the correlation coefficient is an important reference basis for verifying the validity of the model. Therefore, the management coefficient of the two is verified during the experiment. The

integration mechanism of translator's subjectivity concept and the translation relation model proposed in this paper are set as Group A, and the traditional model is recorded as Group B. Observe the test results of the two groups of experiments. The specific experimental results are shown in the following figure:

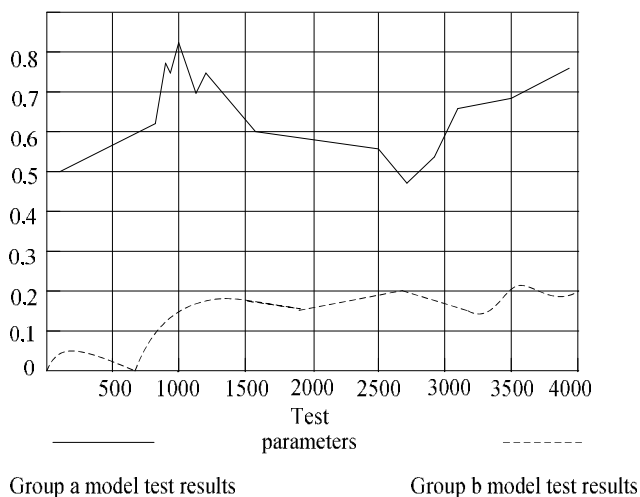


Figure 5. Management model comparison test results

Through the above test results, it is not difficult to find that the actual correlation degree of group A test results is relatively higher than that of group B model. This proves that compared with the traditional model, the translator subject concept integration mechanism de-

signed in this paper and the translation correlation model can be analyzed and studied interchangeably, and the actual application effect is much higher than that of the traditional model, which fully meets the design requirements.

4. Concluding Remarks

In order to better innovate and study the integration mechanism of the translator's subjective concept and the translation relationship model, the relationship model is innovated and studied in combination with neural network algorithm. The characteristics of the translator's subjective concept and the translation objectives are analyzed in distribution. Through collecting, analyzing and integrating the information characteristics of the two, the relationship between the two is analyzed efficiently and accurately according to the integration processing results. Finally, the experiment proves that the method is true and effective and fully meets the research requirements.

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