A Comparison Analysis of Implicit Chinese Cultural Word Definitions in Export-Oriented Chinese Dictionary Apps

Liu Rongyan

Abstract—**Implicit cultural words in Chinese, such as color terms and numerals embedded with distinct cultural connotations, encompass both conceptual and cultural meanings. The acquisition of these Chinese implicit cultural words is vital yet challenging for learners. Presently, export-oriented Chinese dictionary applications serve as indispensable tools for learning Chinese vocabulary, playing a significant role in mastering implicit cultural words. This study conducts a comparative analysis of implicit cultural word definitions in four widely-used export-oriented Chinese dictionary applications (Pleco, LINE Dict, TrainChinese, and Panda), drawing on the cultural definitions found in the Modern Chinese Dictionary (7th Edition) application. The paper also advocates for the incorporation of standardized criteria, comprehensive definition content, and systematic regulations for implicit cultural words in export-oriented Chinese dictionaries.**

Index Terms—**Implicit Chinese cultural words, export-oriented Chinese dictionary app, comparison**

I. INTRODUCTION

Saussure once said, "Language is the 'language of words'" Word determines other language units and is "something central in the institution of language". Vocabulary is an essential element of language and an important carrier of culture. The close relationship between language and culture reflects the lexical level, such as the name of snow by Eskimo people and the name of the horse in ancient Chinese. Culture is embodied in lexical symbols, and the use of cultural words reflects the sharing and inheritance of culture. In the process of TCSL, cultural words are not only the medium for Chinese learners to understand and experience Chinese culture but also a way to broaden their cultural horizons and improve their cross-cultural ability in cultural comparison. With the development of science and technology and the popularity of mobile devices, Chinese dictionary apps have gradually become an essential tool for CSL learners. However, the interpretation of cultural words, especially implicit cultural words, in all kinds of export-oriented dictionary apps is rarely studied, so this paper mainly explores the following two questions: (1) What is the inclusion and interpretation of implicit Chinese cultural words in different apps? (2) What is the interpretation style of the implicit Chinese cultural words in the apps?

II. DEFINITION AND CLASSIFICATION OF CULTURAL WORDS

A. Definition of Cultural Words

Cultural words are also known as culturally limited words,

national custom words, equivalent words (incomplete equivalent words), national words, etc., which reflect the cultural characteristics of a particular culture and contain rich cultural connotations. There are numerous studies on cultural words, and different scholars have different definitions and classifications.

Chang proposed that Chinese cultural words refer to words that contain Chinese social and cultural significance [1]. Chen pointed out that cultural words are words that contain special cultural meanings [2]. Based on further refinement of the definition of previous cultural words, Zhang indicated that "Cultural words are words that are given a particular meaning by the people who use the language." or "words reflect a certain era, a certain thing, a certain event" [3]. Some scholars summarize the connotation of cultural words from the perspective of cultural contrast. For example, Mei thinks that cultural words have unique cultural meanings which cannot be found in other languages [4]. Zhou also inherited this view, believing that cultural words represent "something unique to a nation, which in many languages has no equivalent" [5]. This paper holds that culture has both characteristics and commonness. The definition of Mei and Zhou summarizes one aspect of cultural words: the words that reflect the national culture or regional culture, which can be called "distinct cultural words." In contrast, those words that have become recognized cultural symbols are "common cultural words."

B. Classification of Cultural Words

In addition to different definitions, scholars classify cultural words differently. From the perspective of cultural comparison, some scholars believe that cultural words contain the connotation of "distinctiveness". For example, Wang divided cultural words into words that express Chinese unique material culture, spiritual culture, social and economic system, natural geography, and customs and habits [6]. Xie also pointed out that cultural words are the words that contain the semantic elements of national culture in the meaning position, including non-corresponding words, background words, and words with accompanying cultural meanings [7]. Some scholars have carefully divided the cultural words from the perspective of function. For example, Lian believes that Chinese cultural words contain idioms, proverbs, slang, honorific words, euphemisms, taboo words, communicative words, and many other categories [8]. Some scholars classify cultural words into simple and compound cultural words based on their complexity [9], or according to the depth of their cultural layers, distinguishing between surface cultural words and deep cultural words [10].

By summarizing the previous definitions and classifications of cultural words, we find that the connotations of cultural words are quite rich, with different

people holding different opinions, making it difficult to evaluate their superiority or inferiority. This article, from the perspective of Chinese as a second language acquisition, divides Chinese cultural words into explicit cultural words and implicit cultural words. Explicit cultural words refer to words with explicit cultural connotations, most of which are unique to China. CSL learners can easily identify their significant Chinese cultural characteristics in the learning process, and their cultural connotation is finalized and easy to remember, such as China's unique natural features, historical events, customs, idioms and allusions, and other words. The implicit cultural words refer to the words that CSL learners can only perceive their cultural connotation after having a specific cross-cultural competence and cultural background knowledge. With conceptual meaning as the surface and cultural meaning as the inside, the cultural connotation of these words is derived from the extension and association of superficial conceptual meaning, which is gradually mature in the profound accumulation of Chinese cultures, such as color words, animal words, plant words, number words, and so on. In the process of learning Chinese, the acquisition of the two kinds of cultural words is important. However, because the acquisition of implicit cultural words is more complicated, it needs more processing steps in the construction of the mental lexicon. Hence, we need to pay special attention to the explanation of implicit cultural words in teaching, as well as their definitions in dictionaries and textbooks.

III. CHINESE DICTIONARY APPS AND THE CHOICE OF IMPLICIT CULTURAL WORDS

A. Selection of the Chinese Dictionary App

In recent years, many export-oriented Chinese dictionary apps have sprung up. According to a questionnaire survey conducted by Xiao on overseas students, 83.33% of respondents checked mobile apps when they encountered words they did not know, which dramatically exceeds the proportion of reading textbooks and asking teachers [11]. The export-oriented Chinese dictionary app is popular among students for its convenience. However, at the same time, we need to figure out whether the quality of such apps is guaranteed and whether they can play a promoting role in assisting Chinese learning. Because CSL learners are often excessively "superstitious" in dictionaries [12]. Therefore, this paper takes several export-oriented Chinese dictionary apps with high usage rates as research objects to compare the paraphrasing accuracy of implicit Chinese cultural words.

Yang found out that the Chinese dictionary apps used by the surveyed international students mainly include Pleco, Google Translate, Youdao Dictionary, Hanping, and Yellow Bridge [13]. Bao and Wang found that the dictionary apps often used by the surveyed international students mainly include: Pleco, Hanping Lite, TrainChinese, Youdao Dictionary, LINE Dictionary, Google Translate, etc. [14]. Based on the survey results of the above scholars, this paper finally selects four export-oriented dictionary apps with high downloads: Pleco, LINE Dict, TrainChinese, and Panda. They are compared with the authoritative Modern Chinese Dictionary (Seventh Edition) (hereinafter referred to as Xian

Han) to avoid the subjectivity of cultural interpretation and judgment.

B. Selection of Chinese Implicit Cultural Words

In the selection of implicit cultural words, this paper refers to the cultural words in Chapter 16, "Customs" of Chinese Culture, written by Cheng [15], and the previous research on the cultural connotation of Chinese color words, animal words, plant words, and others [16–18], Finally selected: (1) Color words: 红, 黑, 白, 黄, 绿, 赤. (2) Animal words: 龙, 凤, 麒麟, 虎, 狼, 牛, 狗, 猴, 驴, 豺狼, 鱼, 鹤, 喜鹊, 杜鹃, 鸿鹄. (3) Plant words: 松柏, 牡丹, 梅, 兰, 竹, 菊, 柳, 莲, 豆蔻, 红豆, 桃李. (4) Number words: 二, 三, 四, 六, 八 九, 十. (5) Nature words: 东风, 南山, 西北风, 江山, 青天, 后浪, 满月, 朽木, 粪土, 黄泉. There are a total of 50 implicit cultural words in the five categories. Details are shown in the Table I.

TABLE I: IMPLICIT CULTURAL WORDS

Color words	红, 黑, 白, 黄, 绿, 赤
Animal words	龙, 凤, 麒麟, 虎, 狼, 牛, 狗, 猴, 驴豺, 狼, 鱼, 鹤, 喜鹊, 杜鹃, 鸿鹄
Plant words	松柏, 牡丹, 梅, 兰, 竹, 菊, 柳, 莲, 豆蔻, 红豆, 桃李
Number words	二, 三, 四, 六, 八, 九, 十
Nature words	东风, 南山, 西北风, 江山, 青天, 后浪, 满月, 朽木, 粪土, 黄泉

It should be noted that the Chinese implicit cultural words selected in this paper reflect the characteristics of Chinese culture rather than the worldwide common culture. "Red," as a color, symbolizes happiness and auspiciousness in Chinese culture and has a strong positive emotion. Nevertheless, in some western countries, red symbolizes violence, blood, and negative emotions. In this contrast of cultural differences, the implicit Chinese cultural connotation of the color word "red" is shown. Therefore, some words that reflect the common cultural connotation are not within the scope of this analysis, such as "pig" of stupid, "dove" of peace, and "fox" of cunning. However, although the color word "black" has the meaning of "bad, secret, illegal, black market, black-hearted" in English, it also has the characteristics of Chinese culture and is rarely seen in other cultures, for example, "secretly harm, deceive or attack," so it is also included in the research scope of this paper.

IV. THE INTERPRETATION OF CULTURAL WORDS

This paper searches the 50 implicit cultural words selected in Xian Han, Pleco, LINE Dict, TrainChinese, and Panda, respectively. According to the retrieval content, the definitions of implicit Chinese words are divided into four categories: unlisted, omitted (without cultural interpretation), incomplete and inaccurate. The judgment of whether the cultural interpretation content is accurate or appropriate is mainly based on the interpretation of Xian Han and appropriately combined with using the entry in the BCC corpus. The definitions of each dictionary app are given in the following Table II:

TABLE II: INTERPRETATION OF CULTURAL WORDS

App / category	Unlisted	Omitted	Incomplete	Inaccurate	Total
Xian Han	4	19	4	0	27
Pleco	3	14	5	5	27
LINE Dict	5	28	5	3	41
TrainChinese	7	27	3	4	41
Panda	6	21	6	6	39
Total	25	109	23	18	175

Regarding interpretation regulations, Pleco, LINE Dict, and Panda are the same as Xian Han, using the form of separate interpretation; that is, each meaning is defined separately and marked with a serial number to distinguish. In TrainChinese, the meanings are classified into one, and different meanings are separated by semicolons. Examples follow the meaning in Pleco, that is, there are one or more examples under each meaning, while the other three apps use a collective presentation of examples.

In terms of the cultural meaning presentation of implicit cultural words, the four apps do not strictly distinguish between cultural meaning and literal meaning. Among them, LINE Dict, TrainChinese, and Panda do not make any annotation on cultural meaning, while Pleco marks "HISTORY" and "FIGURATIVE" in front of some cultural meanings, indicating that the meaning is historic or derived from the basic meaning.

V. ANALYSIS OF THE INTERPRETATION OF IMPLICIT CULTURAL WORDS

The statistics of this paper show that the inclusion of implicit cultural words, the content of interpretation, and the regulations of interpretation need to be strengthened.

A. Inclusion of Implicit Cultural Words

By counting the inclusion of implicit cultural words in the export-oriented Chinese dictionary apps, this paper finds that there are omissions in all apps. Most of the apps investigated in this paper pay attention to the collection of idioms, colloquial, and other integral units but do not attach importance to the collection of implicit cultural words in these integral units. For example, TrainChinese only includes words such as "豺狼虎豹" "燕雀安知鸿鹄之志" "桃李满天下" "朽木不可雕也" but does not include the implicit cultural words such as "豺狼" "鸿鹄" "桃李" and "朽木" in Xian Han. A large number of implicit cultural words are gradually contaminating the cultural connotation of the original words and sentences, and some can be used separately, such as "桃李" which refers to students.

B. Interpretation of Implicit Cultural Words

The omission of cultural definitions appeared in all four apps investigated in this paper. There are also many examples of incomplete and inaccurate cultural definitions. Take the mythological animal dragon, which symbolizes auspicious luck in Chinese culture, as an example."龙" in the Xian Han is: "The mythical animal in ancient Chinese legend has a long body, scales, horns, and feet, and can walk, fly, swim and make clouds rain." This brief description tells not only the identity and ability but also the shape of the dragon. However,

in the four dictionaries examined in this paper, the appearance of the dragon is not described, and only the English word "dragon" is used to explain its conceptual meaning. However, Chinese and Western dragons are not only significantly different in appearance but also in cultural connotation. This paper argues that the direct translation of Chinese implicit cultural words in English will interfere with learners' understanding of word meanings.

C. Regulations on Implicit Cultural Words

Regarding the interpretation regulations of implicit cultural words, except for Pleco, the other three apps all adopt the mode of separating interpretation and examples, which makes users unable to easily distinguish the conceptual and cultural meanings of implicit cultural words. Moreover, the apps generally need more support of corresponding examples and need actual usage display when interpreting cultural words. As we know, only by putting the words into the real context in the process of interpretation can the users better perceive and learn their correct usage. As for the presentation of the meaning, TrainChinese gathers all the meanings of the explained word together, making it more difficult for users to separate meanings and understand them.

VI. CONCLUSION

Dictionaries need to incorporate cultural aspects, and the position of Chinese cultural words that concentrate on reflecting the connotations of Chinese culture in dictionaries should not be overlooked. However, currently published dictionaries and dictionary apps for teaching Chinese as a foreign language mostly emphasize the usage of words, with insufficient attention paid to their cultural meanings. This fails to meet the important goal of non-native Chinese learners to understand Chinese culture [19]. By examining the cultural interpretation of Chinese implicit cultural words in the export-oriented Chinese dictionary apps, this paper makes the following suggestions:

1) Strengthen the inclusion of implicit cultural words. Traditional paper dictionaries, due to space limitations, cannot fully incorporate all implicit cultural words. However, dictionary apps break the constraint of space, improving the capacity for word inclusion. They can appropriately relax the standards for including cultural words, and under the guidance of scientific principles, comprehensively include implicit cultural words as much as possible.

2) Improve the integrity of the interpretation content of the implicit cultural words. The definitions of 50 implicit cultural words selected in this paper are not fully interpreted in the export-oriented Chinese dictionary apps, which is not conducive to Chinese learning. The text believes that the export-oriented Chinese dictionary app can speed up the interpretation of content updates and timely supplement the content by combining the typical usage of the implicit cultural words in the introverted dictionary and the corpus.

3) Ensure the accuracy of the interpretation content of implicit cultural words. Accuracy is the soul of the dictionary. The export-oriented Chinese dictionary app should strictly abide by the principle of accuracy, check

the interpretation content repeatedly, and eliminate over-interpretation. When English and Chinese translations do not correspond, consider adopting multi-modal definitions, incorporating images and audio, and flexibly choose explanatory methods to avoid forced textual interpretations.

4) Improve the explanatory rules for implicit cultural words. Implicit cultural words are embedded in people's daily lives, affecting the appropriateness and accuracy of language communication, as well as the understanding of deeper cultural meanings. Precisely because the cultural connotations of implicit cultural words are not easily perceived, dictionary apps should highlight their uniqueness, appropriately distinguishing between cultural and literal meanings, such as marking [C] (representing "Culture") before the cultural meaning. Dictionaries should make itemized definitions, and examples follow meanings. To provide typical and appropriate usage examples for recessive cultural word interpretation, emphasizing practicability.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

REFERENCES

[1] J. Chang, *Chinese Vocabulary and Culture*, Beijing: Peking University Press, 1995.

[2] J. Chen, *The Chinese Language and the Chinese Society*, Guangdong: Guangdong Education Press, 1999.

[3] G. Zhang, *Cultural Linguistic Tutorial*, Beijing: Science and Education Press, 2004.

[4] L. Mei, "A little discussion on Chinese popular words," *Chinese Teaching in the World*, vol. 1, pp. 33–38, 1993.

[5] X. Zhou, "Intercultural communication in teaching Chinese as a foreign language," *Journal of Sun Yat-sen University (Social Science Edition)*, vol. 6, pp. 118–124, 1996.

[6] A. Wang, "On Chinese cultural words and cultural significance," in *Proc. Selection of Papers of the Fifth Academic Seminar of the Chinese Society of Teaching Chinese as a Foreign Language*, Beijing: Beijing Chinese Language and Culture Institute Press, 1996.

[7] H. Xie, "Several questions on the definition of the Chinese culture dictionary," *Lexicographical Studies*, vol. 3, pp. 15–23, 2012.

[8] S. N. Lian, *An English-Chinese Comparative Study*, Beijing: Higher Education Press, 1993.

[9] P. Jin, "Analysis of the wording and interpretation of Chinese learning dictionary cultural words," *Chinese Characters Culture*, vol. 20, pp. 56–59, 2018.

[10] X. Zhu, "Study on Chinese cultural words and their teaching strategies in teaching Chinese as a foreign language," *Journal of Lanzhou Vocational and Technical College*, vol. 1, pp. 79–80, 2021.

[11] X. Xiao, "Application analysis and optimization suggestions for Chinese learning App," M.S. thesis, Central China Normal University, 2018.

[12] X. Liu, "Investigation report on mobile Chinese learning dictionary in Chinese teaching application," *Chinese Culture and Teaching in the World*, pp. 34–42, 2016.

[13] Y. Yang *et al.*, "Survey, Analysis, and Preparation of Chinese Learning Dictionary," Modern Chinese, vol. 2, pp. 79–85, 2019.

[14] J. Bao and D. Wang, "Research on the Application and compilation suggestions of App dictionary for international students in China," *Lexicographical Studies*, vol. 5, pp. 49–59, 2021.

[15] Y. Cheng, *Chinese Culture Should be Omitted*, 4th Ed. Beijing: Foreign Language Teaching and Research Press, 2017.

[16] W. Wersler, "Culture and Chinese language teaching—Teach Vietnamese students to learn Chinese animal idioms," O*verseas Chinese Education*, vol. 2, pp. 98–104, 2018.

[17] W. Wei, "The cultural meaning of color words in teaching Chinese as a foreign language," *Literature Education*, vol. 9, pp. 92–93, 2019.

[18] W. Wang, "On the cultural implication of plant vocabulary and its strategies for teaching Chinese as a foreign language," *Sinogram Culture*, vol. 12, pp. 74–75, 2020.

[19] Y. Liu, "Research the words and definitions in the dictionary of Chinese cultural words—Take the 'Culture and Customs' section of the NTC dictionary of Chinese culture as an example," *Cultural and Educational Materials*, vol. 27, pp. 22–23, 2011.