

LIU, Haiou, TENG, Luyan & KONG, Lingcui. A Normative Study on English Translation of Metro Public Signs in China under the Cognitive Translatology: A Case Study of Chengdu the Host City for the Universiade. *Quality in Sport*. 2023;11(1):32-52. eISSN 2450-3118. DOI <https://dx.doi.org/10.12775/QS.2023.11.01.003>
<https://apcz.umk.pl/QS/article/view/43292>

The journal has had 20 points in Ministry of Education and Science of Poland parametric evaluation. Annex to the announcement of the Minister of Education and Science of December 21, 2021. No. 32582.

Has a Journal's Unique Identifier: 201398. Scientific disciplines assigned: Economics and finance (Field of social sciences); Management and Quality Sciences (Field of social sciences). Punkty Ministerialne z 2019 - aktualny rok 20 punktów. Załącznik do komunikatu Ministra Edukacji i Nauki z dnia 21 grudnia 2021 r. Lp. 32582. Posiada Unikatowy Identyfikator Czasopisma: 201398.

Przypisane dyscypliny naukowe: Ekonomia i finanse (Dziedzina nauk społecznych); Nauki o zarządzaniu i jakości (Dziedzina nauk społecznych).

© The Authors 2023.

This article is published with open access at Licensee Open Journal Systems of Nicolaus Copernicus University in Torun, Poland

Open Access. This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution, and reproduction in any medium, provided the original author (s) and source are credited. This is an open access article licensed under the terms of the Creative Commons Attribution Non commercial license Share alike. (<http://creativecommons.org/licenses/by-nc-sa/4.0/>) which permits unrestricted, non commercial use, distribution and reproduction in any medium, provided the work is properly cited.

The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 25.03.2023. Revised: 25.03.2023. Accepted: 08.04.2023. Published: 08.04.2023.

A Normative Study on English Translation of Metro Public Signs in China under the Cognitive Translatology: A Case Study of Chengdu the Host City for the Universiade

Haiou Liu¹, Luyan Teng^{2,*}, Lingcui Kong³

¹College of Foreign Languages and Cultures, Chengdu University, Chengdu, China;

ORCID: <https://orcid.org/0000-0003-1314-8824>

liuHaiou@cdu.edu.cn

²College of International Education, Sichuan International Studies University, Chongqing, China;

ORCID: <https://orcid.org/0000-0001-7673-3217>

luyan.teng@outlook.com

³College of Foreign Languages and Cultures, Chengdu University, Chengdu, China

ORCID: <https://orcid.org/0009-0009-0990-1511>

k1114233994@163.com

*Corresponding Author

Abstract: With the acceleration of its internationalization, China is faced with epochal task of optimizing its international-standard linguistic environment, which is especially impending for Chengdu, the host city for the Universiade. The neo-analysis, at first, sorts out and analyzes different versions of official translation norms for toponyms through document research, as well as from the first-hand resources on public signs of rail transit from TFL and MTA, and then, continues the empirical case study under the theoretical guidance of Cognitive Translatology. This paper has proposed several translation principles and a new method - Conceptual Motivation Mapping - for public signs, attempting to explore the way to build up its international discourse system consistent with the status of Chengdu as a global hub.

Keywords: English Translation of Public Signs; Cognitive Translatology; Cognitive Motivation; Chengdu Subway

1. Introduction

As a gateway city in the Belt and Road Initiative and one of the starting cities of China-Europe freight railway, Chengdu has put forward the major development strategy of "Three Cities and Three Capitals", aiming to build the city into a global hub for culture, creative industries, tourism and sports. The 31st FISU Summer World University Games will be held in Chengdu in 2023. Hence, it is imperative for Chengdu to optimize its international-standard linguistic environment.

As a transportation system covering the whole city, Chengdu Metro is committed to "leading urban development with rail transit". It has opened 13 lines, with an average daily passenger flow of 4.93 million and the highest daily passenger flow of more than 6 million¹. The text discourse, advertising signs, pictures and images, with metro station names as the core, constitute the discourse domain of metro space, altogether transmitting information about geographical location, shaping the international image of the city and realizing effective cultural communication. However, the translation of Chengdu metro station names is not all satisfactory at present, and there are improper mistakes and lapses to be improved.

2. Overview of Research on Public Signs of Rail Transit

The English translation of metro station names belongs to the scope of public signs translation. Chinese academic publications on this topic mostly are journal papers, and only a few monographs. There are few relevant Western studies and discussions. Most rail transit public signs in Western developed countries are basically written in native languages or English, and therefore do not involve translation.

Chinese scholars mainly focus on two aspects: reasons for errors in existing translated versions and corresponding countermeasures. Most studies set up new translation norms on the basis of summarizing and analyzing the mistakes in poorly translated versions and their pragmatic errors (specifically manifested as inconsistent translation, violation of translation norms, and neglect of cultural context). Some scholars endeavor to build up translation principles of metro public signs (Wang, 2006; Wang, 2012), translation methods (Chen, 2019), and translation modes (Dai & Lv, 2005). In order to achieve the goal, scholars have applied various theories, including functional translatology (Du & Zheng, 2020; Ni & Wang, 2017), relevance theory (Wang, 2016), Ecological Translation (Li & Qian, 2017), as well as different perspectives such as translation norms (Wang & Zhang, 2016), intertextuality (Wang, 2017), communicative translation (Zheng, 2016), reader acceptance (Sun, 2017), pragmatic equivalence, and cross-cultural communication, etc.

Even though the existent studies have more or less systematically delved into all issues regarding the translation of metro public signs, there are still some problems such as incomplete summary, simple yet not effective application of theoretical framework and other issues. Wang (2016) pointed out that “there are also prominent problems in the study of public signs translation, such as low-level repeated studies. Most studies still focus on the illustrative analysis of translation errors respectively from levels of language, culture and pragmatic communication, lack of unified rationale”. Accordingly, he proposed the future direction for public signs translation, emphasizing that “the next step for researches is to focus on three dimensions, namely policy, theory and applications.”

Researchers usually start with the comparative analysis of the source language and target language, and then carry out deductive reasoning around core issues such as language surface structure, pragmatic analysis and applicable scenes. Most of them will provide translated versions for reference based on the analysis of existing translation errors, but only for a few examples. They fail to summarize a unified translation paradigm, and most of target texts provided are expressions derived only from superficial English grammar, which fall far short of normative expressions of metro public signs in English-speaking countries.

Researchers seldom explore the cognitive mechanism behind the translation of metro public signs. Guan (2019), in her master’s thesis, tried to combine Construal Theory and Metonymy Theory to conduct qualitative analysis on the corpus of general public signs from angles of specificity, prominence, focus and perspective so as to explain the cognitive motivations behind different metonymic mechanisms. Cheng (2008) elaborated the operation mechanism of cognitive schemas in both understanding source language and expressing in target language, and explained in detail the functions of linguistic schema, content schema and formal schema in the translation of public signs. Except from the above-mentioned, there are few research papers and dissertations aiming to study the cognitive mechanism behind the translation of metro public signs. Therefore, this thesis will, at first, adopt cognitive translation theory to analyze typical cases, and then explore the translation paradigm based on conceptual mappings or correspondences of motivation.

3. Classification of metro station names

In most cases, metro stations share names of their corresponding geological places. There is only one exception to the names of all metro stations in Chengdu: [2&4&5] 中医大省医院, translated as Chengdu University of TCM & Sichuan Provincial

People's Hospital, which is named after its geological location near both Chengdu University of Traditional Chinese Medicine and Sichuan Provincial People's Hospital. In this paper, [x] represents the route to which the metro station belongs. In general, metro station names can be classified as follows:

a. Common name

That is, the common station name, including the station name containing the directional terms;

b. Proper name

Names of metro stations named after organizations, transportation hubs, etc.;

c. Names with Chinese cultural connotations

Names of metro stations named after scenic spots and historical sites, containing cultural images or reflecting folklore;

And for the translation of these names shall achieve the following functions:

- (1) Provide systematic and accurate public information services;
- (2) Realize the organic connection between local linguistic environment and global linguistic environment;
- (3) Help the audience appreciate the local culture and promote cross-cultural communication and exchange;

This paper only discusses the translation of metro stations names in the categories of a and b.

4. Translation principle of public signs for metro stations

The basis of both translatability of metro station public signs and functional equivalence lies in the similarity among linguistic structure, conceptual structure and empirical structure. The ancient Greek philosopher Protagoras once concluded: "Man is the measure of all existence. " Kant also made similar statement, "We see things not as they are, but as we are." People place ego at the center of the universe, and then use it as a reference point to form perspectives to determine what should be up and down, front and back, left and right, high and low, near and far, center and edge. In other words, motivation behind names reflects the cognitive order by which human beings recognize themselves and their environment.

Chinese and English usually form consistent or similar language expressions for the same conceptual structure. However, in a few cases, even for the same object, English

and Chinese may adopt totally differentiated names for it, due to different conceptualization methods. German linguistic philosopher Wilhelm von Humboldt (1767-1835) once said: “There resides in every language a characteristic world-view.” From the perspective of readers' acceptance, the primary criteria to measure the success of English translation of metro station names should be semantically interpretable, functionally equivalent and culturally reproductive, that is, the cognitive motivation can be traced and comprehended by readers through looking at translated versions. Based on this, the translation principle of metro station names can be stipulated as such:

4.1 Comply with unified national standard

The English translation of public signs for metro stations shall first comply with the national regulations for English translation. Approved by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China (hereinafter referred as PRC) and the Standardization Administration of PRC, *Guidelines for the Use of English in Public Service Areas -- Part 1: General Rules* was issued on December 31, 2013 and came into force on July 15, 2014. Until 2011, Beijing, Shanghai, Shenzhen, Guangzhou, Chengdu, Qingdao, Jiangsu, Shaanxi, Zhejiang and other places have already officially formulated and issued standards and specifications for the translation of public signs.

4.2 Fix translated versions by unravelling the cognitive motivation

This is the core principle for English translation of public signs for metro stations. Through bibliographic retrieval and field research, the author recovers the naming motivation in source language Chinese, and then deduces its conceptual structure from the superficial linguistic structure according to the principle of linguistic iconicity, and finally searches for target expressions equivalent in meaning and pragmatics. Target expressions formed in this way can enable foreign audiences to obtain accurate semantic information.

4.3 Respect the habits of the audience

The most appropriate translated versions should be determined according to the pragmatic norms and expression habitus of the target language.

4.4 Pursue simplicity and clarity

Simplicity and clarity belong to the inherent requirements of public signs so as to realize the indication function effectively.

4.5 Keeping pace with the times

People's thoughts is always changing, adapting to externalities. Changes in the conceptual structure will, in turn, be represented in the linguistic structure. The regulations on English translation should not be disjointed with the actual language uses, but should keep pace with the times and be fine-tuned in due time.

5. Problems in Current Translation

After sorting out and analyzing the official material *Chengdu Rail Transit Network Map* provided by Chengdu Rail Transit Group as well as conducting field research at all metro stations in the city, it is discovered that most of the translated versions of the public signs for the metro station names conform to the national standards and specification for the translation of toponyms. However, some versions still have problems such as logical errors, pragmatic errors and violations of standards, details of which are listed as follows:

5.1 Inconsistent abbreviations and full names

<p>Full name & abbreviation of common name</p>	<p>“路”——“Road”</p> <p>Translation a1 [5]北站西二路 : 2nd Beizhan Road West</p> <p>Translation a2 [1]人民北路 : Renmin Rd. North</p>
<p>Full Name & Abbreviation of Proper Name</p>	<p>Translation b1: full name, consistent with the official name [6&7]西南交大 : Southwest Jiaotong University</p> <p>译法 b2: abbreviation [4]非遗博览园 Intangible Cultural Heritage Park</p> <p>However, the Official Name is: 国际非物质文化遗产博览园 International Intangible Cultural Heritage Park</p> <p>Same translation see[4]军区总医院</p>

TABLE
1

5.2 Inconsistent specifications for proper names and common names

For the translation of following two metro stations -- [1]升仙湖 Shengxian Lake and [5]怡心湖 Yixin Lake, transliteration has been adopted for proper names while free translation for common names. Like “湖” (lake) · “河” (river) also belongs to the domain of common name. However, the translation of it does not follow the same translation rule, instead, adopt transliteration shown in following examples: [1]四河 Sihe[2]洪河 Honghe[4]西河 Xihe[4]杨柳河 Yangliuhe[4&17]凤溪河 Fengxihe[6]星河 Xinghe.

<p>Translation for common name and proper name</p>	<p>“桥” -- "Bridge"</p> <p>Translation c1-Free translation of common name [3]红星桥 : Hongxing Bridge</p> <p>Translation c2-Transliteration [1]倪家桥 : Nijiaqiao [8]杉板桥 : Shabanqiao</p> <p>(When dealing with polyphonic words such as "杉", original sound “sha” should be kept as part of transliteration instead of being called “Shan”.)</p> <p>“站”--"Station"</p> <p>Translation d1: free translation [1]火车南站 : South Railway Station</p> <p>Same translation mode see: [1]火车北站、[4&9]成都西站</p> <p>Translation d2: transliteration [18]天府新站 : Tianfu Xinzhan</p> <p>Translation d3: combination of transliteration and free translation [3&10]双流西站 : Shuangliu West Station</p> <p>“湖” -- "Lake"</p> <p>Translation e1: common name has been translated twice both in</p>
--	--

	transliteration and free translation [1]麓湖 : Luhu Lake Translation e2: common name has been translated only in free translation [1]兴隆湖 : Xinglong Lake
--	---

TABLE
2

5.3 Confused Translation Logic of Directional Words

In all the translated versions of Chengdu metro station names, the most confusing should belong to the terms containing directional words which are translated and put in the head, middle or end of the terms, as shown in the translation f1, f2 and f3 in Table 3.

Directional word	Translation f1: Directional word being put in the head of the term [18]蜀汉路东 : East Shuhan Road (In reality, the place is the east end of Shuhan Road.) Translation f2: Directional word being put in the middle of the term [6]兴业北街 : Xingye North Street (In reality, the place is the north end of Shuhan Road. It shares same naming motivation with 蜀汉路东, but differs in the translation paradigm.) Translation f3: Directional word being put in the end of the term [18]天府机场北 Tianfu International Airport North (In reality, the place is the north entrance and exit of Tianfu Airport)
------------------	--

TABLE
3

6. Strategies

6.1 Adoption of internationally accepted Abbreviations

The Guidelines for English Translation of Road Names in Shanghai stipulates the abbreviation of road names. For example, the term of Nanjing Road East can be abbreviated as Nanjing Rd. (E). Similarly, most cities in the United States and the United Kingdom have adopted the abbreviation “Rd, St, Av” for “Road, Street,

Avenue”. In 2019, New York Large Print Map adopted the abbreviations such as Rd, St, Av. In addition, Sq for square, Sta for station and Blvd for boulevard, Dr for drive, Pkwy for parkway, Ctr for center and Ln for lane, etc.² A few exceptions do exist, such as in the Britain Large Print Tube Map released by Transport for London in 2020³, no abbreviation for directional words has been adopted.

Therefore, in view of international well-accepted practice as well as the principle of “simplicity and clarity”, terms such as “路/道/大道” in metro public signs can be expressed by abbreviations "Rd, St, Av". For the rest, European and American common practices can be followed.

6.2 Unify the translation paradigm of proper names and common names

Targeting translation of geographical names, the State Council of China stipulated in 1978 that the Chinese Pinyin should be used as a unified standard for the spelling of Roman alphabets in all geographical names of China. In 1979, the Third United Nations Conference on the Standardization of Geographical Names adopted a resolution: Employing Chinese pinyin as the standard at the national and international level for the spelling of Roman alphabetical toponyms in China. Although the state has made such stipulations on “Pinyin marking”, a analysis from the perspective of audience acceptance theory shows that the spelling and pronunciation rules of Chinese pinyin are totally different from those of English, which can be shown in concrete examples [3] 双凤桥-Shuangfengqiao, [18] 天府新站-Tianfu Xinzhan. The mentioned two examples are both composed of a series of Pinyin alphabets that are quite difficult for the English audience to read and spell. According to Lv Hefa's research, these translated versions, except from the phonetic function, almost lose indicative function that the public signs should have, and therefore cannot provide sufficient cognitive information, which in turn prompt the audience to make more cognitive efforts so as to construct meaning.

To address the issue, Lian (2020) proposed the model of “literatranslation for proper name and free translation for common name” in toponym translation. According to this mode, the Chinese pinyin both “hu” and “he” belong to the domain of proper name, which can inform the English audience of the nature of toponyms and

hence facilitate their traveling. They are also common names, indicating geological attributes and topographical characteristics. According to this analysis, “杨柳河” can

be translated into “Yangliu River”. However, some researchers believe that “河” has lost its generic status in the process of language development and should be translated directly into “he” according to its sound instead of “river”.

The function of geographical names determines that they should pursue their uniqueness at the national and global level. This is also the requirement for the use of language norms - a single Romanization system - made by the Second United Nations Conference on the Standardization of Geographical Names. In this sense, “天府新站” should be translated into "Tianfu Railway Station". The transliteration part “Tianfu” is consistent with the Chinese pronunciation and has clear reference. The English audience is clearly informed of the pronunciation of the toponym, so that they can use the transliteration part to ask directions and ascertain the location. The free translation part “Railway Station” clarifies the nature of the place, in order to “solve translation problems caused by the peculiarity of some stations being named after urban infrastructure, public buildings and living environment as well as highlight their functionality” (Wang, 2006: 60-62). If foreigners do not know what they are talking about, they cannot get intended information. Such English public signs then would fail its role in communication. So, is it imperative to add the Chinese modifier “New” in front of “Railway Station”? It is believed that the actual meaning of "New" will gradually change with the elapse of time, so that its presence has no practical effect on the meaning of the whole term. On the contrary, the change of its semantics in the time axis may cause cognitive confusion in the future, so it should be omitted.

The essence of translation is the process of concept integration. The translator combines two input spaces-author space and translator space-and produces the draft translation, and then on that basis, strives to use methods of completion and elaboration to perfect the translation in order to make the cognitive response of the target English audience the same as that of the original Chinese audience⁴. The “dual-space integration” of author space and translator space, which is represented by the translation mode of literal translation for proper name and free translation for common name, not only points out the exact meaning and function of metro station name, but also meets the intrinsic requirements of linguistic consistency.

6.3 Unified Translation Paradigm of Directional Words

In 2007, Foreign Affairs Office of Shenzhen Municipal People’s Government and

Translators Association of Shenzhen have jointly compiled and issued *English Translation of Public Signs in Shenzhen*, which clearly stipulates the translation of directional words and provides examples with explanation: “深南东路--Shennan East Rd; 莲花山西 --Lianhuashan West”. It is particularly pointed out that, “When the locational word itself is solidified as part of the toponym, it can be directly translated into Chinese pinyin without explaining its meaning, such as 东门--Dongmen; 深南大道 --Shennan Boulevard.” In 2015, Shanghai Municipal Administration of Planning and Land Resources formulated and issued the *Guidelines for English Translation of Road Names in Shanghai*, which explicitly stipulates that the English counterpart for Chinese station names composed of “proper name + locational word + general name” should be “locational word + proper name + general name”.

English Translation of Public Signs - Part 1: Road and Scenic Area Signs issued by Chengdu Bureau of Quality and Technical Supervision in 2006 (DB510100/T 009-2006) also adopts transliteration for proper names, but divides directional words into two cases in order to deal with them separately. See diagram 4 for details:

5.1.4 当地名中含有方位词且方位词含有指示方向的意义时:

——含有方位词“东、南、西、北” (EAST, SOUTH, WEST, NORTH) 的译法为: 专名+通名+方位词 (意译)

如:

锦里东路	JINLI ROAD EAST
太升南路	TAISHENG ROAD SOUTH
大石西路	DASHI ROAD WEST
马鞍北路	MA'AN ROAD NORTH

——含有方位词“中、前、后、上、下、内、外” (MID, FRONT, BACK, UPPER, LOWER, INNER, OUTER) 的译法为: 方位词 (意译)+专名+通名。

如:

人民中路	MID RENMIN ROAD
文庙前街	FRONT WENMIAO STREET
文庙后街	BACK WENMIAO STREET

Diagram 4 (Source: *English Translation of Public Signs - Part 1: Road and Scenic Area Signs*)

For the translation of the same kind of directional words, the translation standards respectively formulated by Shanghai and Chengdu administration are poles apart. Take “深南东路” and “太升南路” for example. According to Baidu Map, “深

“南东路” is named after its location to the east of Shennan Avenue, while “太升南路” obtain its name due to the fact it is located to the south of Taisheng Road, contrary to “太升北路”. The directional words in both terms mean “to/in the east/west/south/north of a place/road/street”. So, what is the translation for this kind of directional words?

(1) Translation of directional words indicating “to/in the east/west/south/north of a place/road/street”

Superficially, Translation is a transformation of linguistic forms. However, in fact, it contains bidirectional mapping of cognitive mechanisms. In the cognitive framework of source language users, each station name is a schema, while a type of station name belongs to the same paradigm. Under the ideal circumstances, the translated version should have the function of source name which can trigger the audience's memory set and stimulate associations. Judging from the iconic nature of language, the source language and the target language are quite similar in both discourse expression and deep structure, because “all ethnic groups in the world face the same or similar external world and have the same body structure and organ functions, which determines that our thinking and expression must be ‘alike’ ”(Wang, 2020:37). This is the prerequisite for translation with functional equivalence. In the construction of international linguistic environment, the translation of public signs must be benchmarked with international standard so as to achieve cross-cultural understanding.

See Table 5, Table 6 and Table 7 for the translation of such directional terms in *Britain Large Print Tube Map* issued in 2020.



Diagram 5

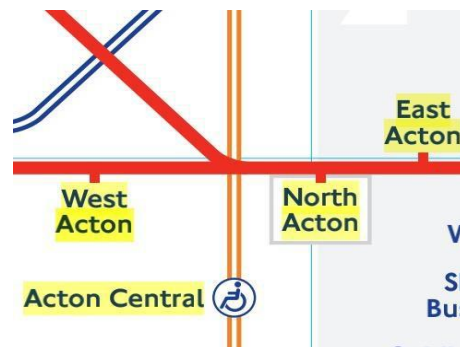


Diagram 6

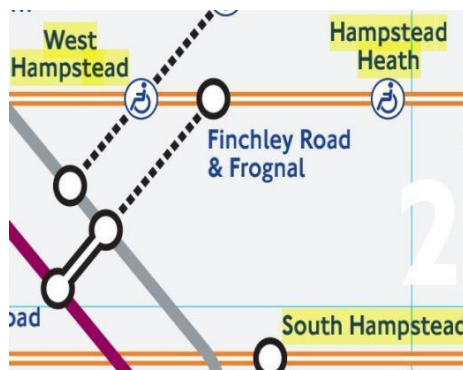


Diagram 7

“East”, “West”, “South” and “North” in the above diagrams take “Harrow-on-the-hill”, “Acton Central” and “Hampstead Heath” as reference points, meaning “to/in the east/west/south/north of a place/road/street”. Take the station Harrow-on-the-hill for example. It belongs to the Metropolitan Line and is named after the Harrow School on the top of the hill. With this station as the central reference point, the subway station closely located to the west of it is named “West Harrow” and the subway station to the south is named “South Harrow”. This naming rationale directly validates the existence of iconicity, i.e., the linguistic structure reflects the conceptual structure of human beings, and the conceptual structure of human beings reflects the realistic structure that people have experienced.

The English-Chinese Dictionary chiefly edited by Lu Gusun, published by Shanghai Translation Publishing House, defined all the words including “east”, “west”, “south” and “north” actually contain the usage of “east/west/south/north of”, meaning “to/in the east/west/south/north of”.

Through field research of first-hand material on urban rail transit public signs in London and New York, it is concluded that the combination of directional words (east/west/south/north) preceding landmarks (toponyms) in English has evolved into a fixed construction, that is, a form-meaning pair, meaning “to/in the east/west/south/north of a place”. The meaning of the construction is abstracted partly from semantic meanings of typical words and high-frequency words that coexist with it. Therefore, according to the semantic connotations and conventional usages, the translation for toponyms containing directional words, which mean “to/in the east/west/south/north of a place/street/avenue”, should be uniformly standardized as “East/West/South/North + Transliteration name +

Road/Street/Avenue”.

As a linguistic gestalt, the construction is, in essence, conventionalized expression of human consciousness upon the recurring empirical scenes. In the early stage of language development, human language could not express inanimate, intangible and abstract things, so it used familiar things to refer to abstract things through projection. Directional words such as east/west/south/north are used to describe orientation information by taking the speaker as the reference point. This is also the fundamental reason why the English translation of publicity signs must conform to the audience's thinking habitus and expression habitus. Only in this way can the audience mobilize syntactic, semantic and pragmatic resources for cognitive reasoning after receiving sufficient and effective information stimuli, seek the maximum correlation in discourse, clarify the concepts, and realize cross-cultural understanding and communication.

(2) Translation for directional words denoting “at the east/west/south/north end of a street/road/block”

Shanghai subway station also adopts translation paradigm f1 and translates “南京西路” into “West Nanjing Road” and “创新中路” into “Middle Chuangxin Road”. In order to judge whether the translated name is faithful or not, it is imperative to consider, at first, the naming motivation of the source name in the source language.

According to the Shanghai Chorography Office, “南京西路” is the west end of a road, the counterpart of which is called “南京东路”. According to Baidu Encyclopedia, “创新中路” is the middle section of the Chuangxin road. From the interpretation of the source name, it can be seen that “West” in the term “南京西路” and “Middle” in “创新中路” are both modifiers indicating direction, which refer to the west section and middle part of the roads respectively. When taking “南京西路” as an example, Wang Shuhuai analyzed the English translation paradigm of metro station names composed of proper name + directional word + common name" in his paper published in 2012. After consulting American experts and searching the British National Corpus, he believed that it would be more appropriate to change the English translation of the metro names in Wuhan subway “珞狮南路” from “Luoshi South Road” to “South Luoshi Road”, for the latter is more in line with English usage habitus (Wang, 2012: 30-33).

So, for the English translation of term with directional words meaning

“east/west/south/north/middle/upper/lower section/end of a road/street”, should language users conform to Wang Shuhuai’s research results and the translation paradigm adopted by Shanghai subway, and place directional words east/west/south/north before the toponym landmark?

After looking up in the iWeb, the Intelligent Web-based Corpus, designed and built up by famous corpus linguist Mark Davies and British National Corpus (BNC for short), as well as consulting 16 native American experts, opposite conclusion has been reached: the construction Transliteration name + Road/Street/Avenue + East/West/South/North refers to east, west, south and north sections or ends of a road, a street or an avenue. By putting directional words East/West/South/North at the end of the construction, the order of the structure conforms to the cognitive order of the language user in reality, and reveals its pragmatic connotation, that is, the segment or end of a road/road/site". There are many examples of its use, such as:

Example 1: (Irving Park Road) West. Turn right on Irving Park Road to York Road South. Turn left on York Road to Green Street (2nd light). (见 iWeb: The 14 Billion Word Web Corpus)

The translation for public signs of rail transit should abide by the following steps: determining the motivation for translation through bibliographic retrieval or field research; finding conceptual structure of equivalence in both Chinese and English; search for suitable target expressions; and then establishing a unified and standardized link between cognitive paradigms of source language and that of target language, and fixing them into well-established linguistic rules. The combination and solidification of lexical schemas “can reflect the understanding of relationships between referents in the speaker’s mind and how the listener recognizes the representation of form and meaning in the construction” (Wen, 2016:735). Therefore, for the translation of public signs, we should first seek the common cognitive schema shared by both Chinese and English and make full advantage of the existing language expressions in the English cognitive context. Otherwise, other appropriate translation strategies can be adopted, including mimicking existing schemas or employing them to create new expressions.

7. Translation Paradigm Integrated of Transliteration and Free Translation

The translation theorist Peter Newmark divides texts into three types: expressive, informative and vocative. Public signs of rail transit belong to informative text. Translation of informative texts should initially satisfy the purpose of functional equivalence and

pragmatic equivalence.

Take the translation of the station name [4] 宽窄巷子 as an example. According to the national regulations of “transliteration by Pinyin markings”, it is officially translated as Kuanzaixiangzi. However, there are some problems with this translated version. Chinese and English vary greatly in pronunciation. Chinese pinyin syllables must have vowels, while English words may have multiple consonants in a row. The translated version of Kuanzaixiangzi, at first, will increase the difficulty of identification and pronunciation for English speakers, and in this sense will increase the cognitive difficulty for foreign audiences. Obviously, this version cannot meet the inherent requirements of “simplicity and clarity” for the translation of public signs. Secondly, the translated name only provides the audience with what it is sounded like, and fails to provide efficient information on geographical attributes and types. In other words, it cannot activate the knowledge representation of alley in the mind of the target English audience, that is, a narrow channel.

Another example needs to be pointed out. The name of Chengdu transportation hub “五块石” is officially translated as “Wukuaishi” in English through transliteration.

However, the schematic information mapped by the specific entity is “a bus station named Wukuaishi” in the source language users. And this message should be clearly communicated in the English counterpart. If it is simply translated as “Wukuaishi”, the important semantic information will be lost. Valuable examples can be taken from the official material *Chengdu Rail Transit Network Map* provided by Chengdu Rail

Transit Group. The official translation for “宽窄巷子” is “Kuanzaixiangzi Alleys”, which not only marks the pronunciation of the name of the place, but also points out geographic attributes of it by the combination of transliteration and free translation. What needs to be pointed out is that “xiangzi” and “alley” are repeatedly translated, for both refer to the same object. So the more appropriate version should be “Kuanzai Alleys”.

Wang Wei (2016) once listed some translated versions with excessive syllables, such as in “滨海国际机场——Binhaiguojijichang”, “周邓纪念馆——Zhoudengjinianguan”, “空港经济区——Konggangjingjiqu” etc.. The author suggests that the expressions with four or more syllables, in which the last syllable representing geographical attributes, should be roughly divided into two sections. Transliteration can be employed to make the sound clear, and free translation for illustrating geographical

attributes.

8. Conclusion

This paper follows the research path: follow the academic guidance of cognitive translatology; dig into the translation motivation and extracts pragmatic experience from the actual language use in the target language field, so as to take construction as the core element to formulate a unified translation paradigm that conforms to the norms and habitus of the target language. In this way, unified translation ideology, standard and paradigm can be set up for of English translation of rail transit public signs, hoping to provide a reference for the translation of rail transit public signs in other cities.

Considering the huge scale of the national rail transit system, its English translation system constitutes an important part of China's foreign discourse system, and is one of the core contents of linguistic landscape construction in various cities. In the process of translation, dissemination and acceptance of rail transit public signs, the cutting-edge theoretical achievements of cognitive translatology can play a vital guidance role. Theories such as embodied cognition, cognitive motivation, construction grammar are highly effective in expanding the breadth and depth of empirical research on public-sign translation, and can be exploited more in better serving the construction of China's foreign discourse system.

Notes

1. The data are all from the official website of Chengdu Rail Transit Group: <https://www.chengdurail.com/index.html>, and the figures are estimated from the real-time data from January to March 2023.
2. The website of MTA (Metropolitan Transit Authority): <https://new.mta.info>
3. The website of TFL (Transport for London): tfl.gov.uk/plan-a-journey
4. Discourse generation and translation are both embodied-cognitive activities. The original text is a work formed by the author integrating what has been seen, heard and reflected upon in life. In the contrary, the translated version is the result of concept integration by the translator on the basis of subdividing and analyzing the original text structure (concept splitting). So the translation process is specifically continuous mapping and integration of concepts. We consider the author of the original text as input space 1, which can be called “author space” and has produced the original work (including cultural schema). The

translator is regarded as input space 2 (including language capability and background knowledge), which can be called "translator space". Under the control of the generic mental space, which maps onto each of the inputs, the two enter the blended space together. It is in this space inputs are "combined, refined and elaborated" so as to construct the "translation space" to produce the translated expressions. See Wang Bin, Concept Integration and Translation [J]. *China Translators Journal*, 2001.

References

Chen, S. (2019). Borrowing, Imitative and Creative Translations: A Practical Approach to Translation of Rail Transit Public Signs: Study on English Translations of Public Signs at Guangzhou Metro by Modeling on Rail Transit Public Signs in Main English-speaking Countries. *Journal of Xichang University (Social Science Edition)*, 31(4): 83-88.

Cheng, S. (2008). The Enlightenment of Cognitive Schemas on the Translation of Public Signs. *Journal of Hohai University (Philosophy and Social Science)*, 10(1): 71-73 .

China State Bureau of Quality and Technical Supervision. (2000). *Guidelines for English translation of National Standards of the People's Republic of China*. Available from General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China Web site: <http://www.aqsiq.gov.cn>.

Du, Z. & Zheng, T. (2020). The Study on the Standardization of English Translation of Metro Station Names in Chinese Cities from the Perspective of Functionalism. *Foreign Language Education*, 5: 201-209.

Dai, Z. & Lv, H. (2019). On C-E Translation of Public Signs. *Chinese Translators Journal*, 26 (6): 38-42.

Fang, M. (2011). *A Dictionary of Translation Studies in China*. Shanghai: Shanghai Foreign Language Education Press.

Ge, X. & Ji, Z. (2006). How to translate Chinese toponyms into English?. *Shanghai*

Journal of Translation, 3: 57-59.

Guan, L. (2019). *Metonymies in Chinese and English Public Signs: A Construal-Based Contrastive Study*. Unpublished master's thesis, Qufu Normal University, Qufu, Shandong, China.

Lian, Z. & Xu, L. (2020). Scientific Standards, English Translations and Significance of Tibetan Lakes. *Chinese Science & Technology Translators Journal*, 2: 18-23.

Liu, H. (2017). Loaded Translation Approach in C-E Translation from the Cognitive Metaphor Perspective. *Journal of Aba Teachers University*, 34 (4): 9.

Li, W. & Qian, J. (2017). Study on C-E Translation of Metro Public Signs from the Perspective of Eco-translatology. *Journal of Yulin University*, 27(5): 103 -107.

Standardization Administration of the People's Republic of China. (2017). *Management Measures for Foreign Language Version of National Standards*. Available from National Radio and Television Administration Web site: http://www.nrta.gov.cn/art/2016/9/1/art_3714_50733.html.

Ni, W. & Wang, R. (2017). Research on the Translation of Nanchang Subway Station Names under the Guidance of Functional Translation Theory——Taking Line 1 as an Example. *Journal of Higher Education*, 1: 257-258.

Sun, T. (2017). *On the English Translation of Public Signs of Dalian Public Transportation System from the Perspective of Target Readers' Acceptability*. Unpublished master's thesis, Dalian University of Technology, Dalian, Liaoning, China.

Wen, X. & Yang, K. (2016). Constructionalization: A New Approach to Research on Diachronic Construction Grammar. *Modern Foreign Languages*, 39 (6):735.

Wang, Y. (2005). Experientiality of Language - from the Perspective of Experiential Philosophy and Cognitive Linguistics. *Foreign Language Teaching and Research*, 37 (1): 38.

Wang, Y. (2020). "Mapping" and "Creative Imitation" in the Perspective of Embodied-Cognitive Translatolog. *Foreign Language in China*, 17 (5): 37.

Wang, Y., & Zhang, R. (2016). From Local Standards to National Standards: A New Milestone in the Study of Public Signs Translation. *Chinese Translators Journal*, 3: 64-70.

Wang, Y. (2017). On the Standardization of Chinese-English Translation of Rail Transit Public Signs from the Perspective of Intertextuality. *Journal of Chongqing Jiaotong University (Social Science Edition)*, 17 (3): 52- 55.

Wang, T. (2016). Research on the Translation of Directional Terms in Public Signs from the Perspective of Relevance Theory. *Journal of Southwest University of Science and Technology (Philosophy and Social Sciences Edition)*, 33 (3): 63-67.

Wang, X. (2006). English Translation of Bus and Subway Station Names in Shanghai and Others. *Shanghai Journal of Translation*, 3: 60-62.

Wang, S. (2012). Metro Sign Translation: Problems and Principles. *Shanghai Journal of Translation*, 3: 30-33.

Zheng, M. (2016). Problems and Principles of Metro Public Sign Translation in China - Taking Hangzhou Metro as an Example. *Journal of Ningbo Institute of Education*, 18(4): 68-72.

General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, Standardization Administration of the People's Republic of China.

(2017). *Guidelines for the Use of English in Public Service Areas - Part 2:*

Transportation(GB/T30240.2-2-17). Available from Web site:

http://www.moe.gov.cn/jyb_sjzl/ziliao/A19/201707/t20170717_309458.html

Funding project

[1] 2018 research project "Overseas Translation and Communication Mode of Contemporary Chinese Network Literature under the Vision of Cross-cultural Communication" (Grant No. WLWX-2018012) funded by Sichuan Network Literature Development Research Center, a key research base for humanities and social sciences in Sichuan Province.

[2] 2022 research project "Translation Optimization and Overseas Communication of Sichuan Cuisine Names from the Perspective of Construction Grammar" (Grant No. CC22W19) funded by Sichuan Cuisine Development Research Center, a key research center for humanities and social sciences in Sichuan Province.