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Original Paper

A Contrastive Study of English Introductions of Chinese and British Museums in Move Distribution and Readability

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Abstract

Based on a designed move analysis model, we manually annotated 83 English introductions of Chinese museums (EICMs) and 127 English introductions of British museums (EIBMs), and used SPSS to do the significance test on the distribution of moves. The result shows that the moves of Identification, Location, History, Evaluation, Additional Museum Attractions, and Summary in EICMs occur significantly more frequently, while the moves of Highlight, Action Soliciting, and Support occur significantly less frequently. Besides, the study also investigated the readability of the introductions of the two groups of museums. The result shows that EICMs' overall readability is significantly lower, especially in Narrativity, Syntactic Simplicity, and Deep Cohesion.

Those results show that EICMs are more of informational text, while EIBMs are more of promotional text. Choices of narrative person, substance and function words, and use of causal and intentional particles may lead to the difference in readability. Contemporary museums have long since moved on from the stage where objects were left to "speak for themselves". Museum introductions' content selection and language expression should be targeted at their readers. The findings are expected to provide a reference for the writing and translation of museum introductions, and attract more visitors to Chinese museums.

Keywords

museum introduction, museum translation, move distribution, readability

1. Introduction

Complaints about the quality of translated texts in museums such as labels, wall texts, and brochure descriptions have shed light on the need for research on museum text translation (Jiang, 2010). As a vital component of museum text, museum introductions (MIs) are the most rapid, convenient and

comprehensive way for people to know about a museum. They work as bridges that connect tourists and the museums (Kang, 2011). Studies show that voluminous people search the museum websites for their introductions before taking the action to view these venues (Kabassi, 2016; Marty & Paul, 2007). If the museums of a country are deemed as essential windows for visitors to gain the insight about the country, the MIs are particularly significant for visitors to have a brief but thorough grasp of the whole museum.

MIs have the overriding purpose of providing visitors with sufficient basic information and tourism value (Işık, 2023). In this respect, they may provide information about the museum, the exhibitions, and the services, in addition to a wide range of related topics such as the background or the evaluation to the museum. However, it's not MI's only function to inform or educate the general public who might have a limited understanding about the museums or exhibitions. Some welcoming information and action soliciting information can also be seen as clues to prove that MIs work implicitly to attract readers behind the screen to come to the real venue. As both informational and promotional voices are at an interplay in MIs, they differ from the more often than not univocal informational and promotional texts such as teaching materials and invitation letters (Işık, 2023).

The number of museums and their visitors has dramatically increased over the past century (McCarthy, Ondaatje, Brooks, & Szántó, 2005), which has led to a higher demand of MIs translation. MIs in non-English speaking countries are by and large produced both in their national language and in English to address international visitors who do not have the language of the host nation. To this end, the quality of English museum introductions (EMIs) directly affects visitors' first impression of the museums. However, previous studies of museum texts have generally focused on museum commentaries (Liu, 2023), which are typical informational texts. On the other hand, promotional texts are often associated with sale or recruitment advertisement, leaving MIs largely ignored. Among the limited literature on MIs, one trend of studies that can be identified is those focusing on the evaluation of the translation quality. MIs are taken as data and examined how much of the source text is relayed in the target text, or whether the source text is relayed appropriately (Liao & Min-Hsiu, 2018). The content and language of EMIs are still under-researched.

This study investigates the differences between English introductions of Chinese museums (EICMs) and English introductions of British museums (EIBMs) in move distribution and readability. The research questions are stipulated as follows:

1) What are the differences in move distribution between EICMs and EIBMs?

2) What are the differences in their readability and the linguistic characteristics that affect the readability between EICMs and EIBMs?

2. Material and Methods

2.1 The Corpus

The study is based on 83 EICMs and 127 EIBMs, collected from 210 highly reputed museums in China

and Britain, totaling 44,748 word tokens. We collected English introductions from the websites of 210 internationally renowned museums, 83 Chinese museums and 127 British museums. The first corpus of EICMs (EICM) is consisted of 73 English introductions from mainland and 10 English introductions from museums in Hong Kong, Macao, and Taiwan, totaling 45,020 word tokens. The corpus of EIBMs (EIBM) consists of 127 English introductions from the British museums selected in the list of British Museums in Wikipedia.

These museums were selected because they stand for the highest level and attract the most attention from the two countries. EICMs are generally from three sources: museum staff, translation or advertising agency, and scholars, usually university professors. Therefore, despite the writers' or translators' information of EICMs cannot be found in their official websites, EICMs were selected with the assumption that the texts were written by people from the host nation. Similarly, EIBMs were assumed to be written by English native speakers.

2.2 Move Analysis Model

As the key method of genre analysis, move analysis was first defined by Swales (1981) and then developed by Bhatia (1993). It describes the overall organizational pattern of a genre through a series of moves and steps. Swales (1981) first mentioned the move analysis method in his *Aspects of Article Introduction*. He first defined move as "a text segment that consists of a package of various linguistic features such as lexicon, syntax, and illocutionary propositions which are responsible for providing the given segment with a uniform orientation and signals of the discourse content". The core of move analysis is that the structure of the text is composed of moves, each of which is comprised of several steps. Each move is a block of information containing closely related information units, which are combined to form a block with a specific information function (Johnm. Swales, 2001). Step, or "strategy" by Bhatia (1993), belongs to the lower unit of move and is the regrouping of the level of move, that is, the information unit mentioned above. A move constitutes one or more steps, all of which are combined to form a discourse and achieve the overall communicative purpose.

Swales and Bhatia have both developed their own move analysis model. Swales' (2001) famous CARS (Create a Research Space) pattern which was carried out with 48 research article introductions as its data is commonly used in academic papers. As Swales' student, Bhatia extended his research field from academic to business genre (Zhang, 2013). He brought social cognitive factors into his research, and tried to summarize some pragmatic strategies (Bhatia, 1993). In this context, he proposed the "Seven-Move Model". Through the detailed description of each move, the communicative purpose of the analyzed text can be measured and quantified by abstract concepts. The analysis should apply all or part of these seven moves to the analysis process, and it is not always done in the corresponding order.

Inspired by Bhatia's Seven Move Model and 13 tourism structural elements from Zhang (2010), I designed the move analysis model of EMIs after reading all the collected data. It consists of seven moves and fifteen steps. Move 1 is Establishing Territories, which consists of two steps: Step 1 (S1) Headline, and Step 2 (S2) Highlight. S1 works to give readers a brief impression about the main idea of

the introduction, such as “ANNUAL REPORT”. S2 works to attract readers’ attention such as “Step into the past at Beamish, The Living Museum of the North.”. Move 2 is Introducing the Museum, which consists of five steps: Step 3 (S3) Identification, Step 4 (S4) Location, Step 5 (S5) History, Step 6 (S6) Museum Overview, and Step 7 (S7) Museum Detailing. S3 works to inform readers the basic information of the museums, such as “Changzhou Museum is a provincial comprehensive museum with a combination of human history, natural history and art”. S4 works to inform readers where the museum is, such as “Beijing Auto Museum is located in South 4th Ring Road West, Fengtai District and adjacent to the Zhongguancun Fengtai Science Park”. S5 works to inform readers the historical aspects of the museum, such as “During the 1970s and 1980s IWM underwent a period of unprecedented expansion, with the establishment of three new branches”. S6 works to tell readers the general information of the museum, such as “The museum houses a large variety of items including ceramics, jades, embroideries, engravings, sculptures, paintings and calligraphy”. S7 works to describe the museum in details, such as “GMA places most of its emphasis on the collection of Chinese calligraphic works and paintings of all dynasties, especially those in the Lingnan area, and, in the meantime, gives due attention to the artworks of other categories, including Chinese paintings, calligraphy, oil paintings, engravings, water colors, gouaches, powder paintings, cartoons, lacquer paintings, tapestry, stone tabletrubbings, sculptures, Tibetan thangka (picture curtain), copper wares, ceramics, wood works, paper-cuts, stamps, stationeries, foreign relics and manuscripts, etc.”.

Move 3 is Offering Incentives, which consists of one step, Step 8 (S8) Museum Services. S8 works to show the convenience of the museum and to persuade readers to purchase the museum products, such as Nursery Room, ATM, Wi-fi; Café, and Creative Products Shop. Move 4 is Enclosing Documents, which consists of two steps: Step 9 (S9) Evaluation, and Step 10 (S10) Support. S9 works to try to build a positive image in readers’ minds, such as “an AAAAA level scenic spot authorized by National Tourism Administration”. S10 works to give subsidization and organizational information, such as “Thanks to the funding from the government.” Move 5 is Action Soliciting, which consists of one step, Step 11 (S11) Action Soliciting. It works as a kind of incentive with the aim of persuading, such as “Museum Wales belongs to everyone and we can’t tell Wales’s story without you.”.

Move 6 is Using Tactics, which consists of three steps: Step 12 (S12) Name Explanation, Step 13 (S13) Background Story, and Step 14 (S14) Additional Museum Attractions. S12 works to give explanations to the origin of museum names, such as “Former Residence of ChenYun & Qingpu Revolutionary History Museum was renamed as Chen Yun Memorial”. S13 works to make visitors better understand the museum, such as “Chengdu, a renowned cultural city with nearly 5,000 years of culture, has enjoyed and accumulated its unique temperament over its long history.” S14 works to offer information about other museum attractions, such as “As an extension of the exhibition, the chime bell music and dancing performance are particularly favored by visitors”. Move 7 is Summary, which consists of one step, Step 15 (S15) Summary. S15 works to give a conclusion to the introduction, such as “The Palace Museum has seen many developments since its founding in 1925 and looks forward to carrying on the

legacy of the past for future generations".

2.3 Readability and Coh-Metrix

Readability is an indicator to measure the difficulty of a text from the perspective of readers and reflects a text's degree of being easily read and understood. The study to readability dates back to the 1920s. The systematic study to readability first appeared in Thorndikes' *The Teacher's Wordbook* which is a 10000-word teacher-vocabulary book to evaluate the feasibility of textbooks to students (1927). Since then, the mainstream of readability research is the quantitative analysis of the linguistic features of English texts and the development of readability measurement formulas. Some estimate that by the 1980s, over 200 readability formulas had already been developed (Dubay, 2004).

Readability formulas that utilize traditional variables have remained popular over the past two decades. According to Benjamin (2012), all traditional methods for computing readability are similar. They tend to incorporate some combination of easily measured units like sentence length, word length, and word frequency (Dale & Chall, 1948). Passages that contain shorter sentences, shorter words, and more frequent words would be considered more readable or less difficult than passages with longer sentences, longer words, and rare words. The validity of these formulas for various readers is typically established by correlating reading comprehension scores with the formula's predicted readability of the texts. This technique can only result in a rough estimation of difficulty, and its weakness is that the formula might judge even a nonsense passage as quite readable if the text's jumbled words are frequent, short, and organized into brief sentences (Kantor, 1982). During these years' development, controversy regarding the use of traditional readability formulas came to a head, and several researchers began focusing on measures of assessing text difficulty that were related to cognitive science (Kintsch & Van Dijk, 1978), coherence and the relationships between elements in a text rather than simply the sum or averages of individual surface features (Britton & Gülgöz, 1991; Kintsch, 1988; Mcnamara & Kintsch, 1996). Thus, new variables and tools such as the new Dale-Chall readability formula (Chall & Dale, 1995), Coh-Metrix, and Read-X (Miltsakaki & Troutt, 2008) are cognitively inspired and developed.

Coh-Metrix is a computational tool that produces indices of a text's linguistic and discourse representations (Mcnamara et al., 2014). It analyzes linguistic features with 106 indices. There are three different readability formulas in Coh-Metrix: Flesch Reading Ease, Flesch-Kincaid Grade Level and Coh-Metrix L2 Reading Ease. The basic idea of the first two formulas is that the longer the word, the less common it is likely to be, the longer the sentence, the more complex the syntax is likely to be, and the more working memory is required, the higher the reading level of the text is (Jiang, 2016). However, word length and sentence length can only reflect a part of the surface features of the text. These formulas ignore other cognitive aspects such as language representation, structure, strategy use and processing involved in the process of reading comprehension (Mcnamara et al., 2014). Coh-Metrix L2 Readability formula is supposed to reflect cognitive and psycholinguistic processes of reading. It deals with three variables: CELEX Word Frequency (logarithm mean for content words), Sentence Syntax Similarity (sentence to sentence adjacent mean), and Content Word Overlap (proportional adjacent

sentences unweighted) (Crossley, Allen, & Mcnamara, 2011). The operation with such variables significantly differs this formula from traditional readability formulas, which, primarily, take into consideration just formal aspects of a text, like an average length of a word or an average length of a sentence but without any respect to the content of a text. In this sense, Coh-Metrix L2 Readability formula relates more to simple text complexity evaluation tools whose aim is to describe a text in accordance with its syntax, vocabulary, morphology, semantics, etc. (Kiselnikov, Vakhitova, & Kazymova, 2020).

For today's museums and galleries, it is critical that the texts which visitors read are accessible to diverse people, and succeed in fulfilling the educational goals of these institutions. Contemporary museums have long since moved on from the stage where objects were left to "speak for themselves": where they were labeled in only a minimal way, and hence left uninterpreted and uncontextualised. Yet an awareness of the significance of language is, on its own, insufficient. Museums need linguistically-informed tools and guidelines, to assist them in their communication tasks (Ravelli, 1996). Therefore, the Coh-Metrix L2 Reading Ease Formula is used to assess the readability of EICM and EIBM. Another convenience of Coh-Metrix is that it provides the scores of eight text easability components, which are Narrativity, Syntactic Simplicity, Word Concreteness, Referential Cohesion, Deep Cohesion, Verb Cohesion, Connectivity, and Temporality.

Narrative text tells a story, with characters, events, places, and things that are familiar to the reader. Narrative is closely affiliated with everyday, oral conversation. Narrativity is highly affiliated with word familiarity, world knowledge, and oral language. Non-narrative texts on less familiar topics lie at the opposite end of the continuum; Syntactic Simplicity reflects the degree to which the sentences in the text contain fewer words and use simpler, familiar syntactic structures, which are less challenging to process. At the opposite end of the continuum are texts that contain sentences with more words and use complex, unfamiliar syntactic structures; Word Concreteness reflects the degree to which texts contain content words to abstract words. Texts that contain content words that are concrete, meaningful, and evoke mental images are easier to process and understand. Abstract words represent concepts that are difficult to represent visually. Texts that contain more abstract words are more challenging to understand; A text with high Referential Cohesion contains words and ideas that overlap across sentences and the entire text, forming explicit threads that connect the text for the reader. Low Cohesion text is typically more difficult to process because there are fewer connections that tie the ideas together for the reader; Deep Cohesion reflects the degree to which the text contains causal and intentional connectives when there are causal and logical relationships within the text. These connectives help the reader to form a more coherent and deeper understanding of the causal events, processes, and actions in the text. When a text contains many relationships but does not contain those connectives, then the reader must infer the relationships between the ideas in the text. If the text is high in Deep Cohesion, then those relationships and global cohesion are more explicit; Verb Cohesion reflects the degree to which there are overlapping verbs in the text. When there are repeated verbs, the

text likely includes a more coherent event structure that will facilitate and enhance situation model understanding. Deep Cohesion score is likely to be more relevant for texts intended for younger readers and for narrative texts; Connectivity reflects the degree to which the text contains explicit adversative, additive, and comparative connectives to express relations in the text. This component reflects the number of logical relations in the text that are explicitly conveyed. This score is likely to be related to the reader's deeper understanding of the relations in the text; Texts that contain more cues about Temporality and that have more consistent Temporality (i.e., tense, aspect) are easier to process and understand. In addition, temporal cohesion contributes to the reader's situation model level understanding of the events in the text.

According to Graesser (2011), the text easability components provide a more complete picture of text ease and difficulty that emerge from the linguistic characteristics of texts. They go beyond traditional readability measures by providing metrics of text characteristics on multiple levels of language and discourse, and are well-aligned with theories of text and discourse comprehension.

3. Results

3.1 Differences in Move Distribution between EICM and EIBM

Move annotation has been discussed between the research group, and there was little ambiguity about the annotation. All the moves and steps of the 210 texts of the corpus were manually annotated sentence by sentence. Table 1 shows a move distribution sample of EICM. Step percentage of the two corpus is worked out based on the occurrence of each step and the total MIs. Table 2 shows the step percentage of EICM and EIBM.

Table 1. Move Distribution Sample of EICM

Museum	M1		M2					M3	M4		M5	M6			M7
	HL	hl	I	L	H	MO	MD	MS	E	s	AS	AMA	NE	BS	S
Anhui Museum	1	0	0	1	1	1	1	0	1	1	1	1	0	1	1
Macao Museum	0	1	0	1	1	1	1	0	0	0	0	0	0	0	0
Bengbu Museum	0	0	1	1	1	0	1	1	1	0	1	0	0	0	0
Beijing Auto Museum	0	0	1	1	0	1	1	0	0	1	0	0	0	0	1
Beijing Planetarium	1	0	1	0	1	1	1	0	0	0	0	0	0	0	0

Table 2. Step Percentage (%) of EICM and EIBM

Move/Step \ Museum		EICM	EIBM
M1	HL	47	56
	hl	7	28
	I	65	44
	L	51	24
M2	H	64	49
	MO	78	67
	MD	74	74
M3	MS	13	13
M4	E	53	32
	s	18	38
M5	AS	11	33
	AMA	24	12
M6	NE	1	1
	BS	23	21
M7	S	34	13

After summarizing the move distribution in the two corpora, Chi-square test is conducted to test the significance of the distribution of the same step in two corpora. Its result is shown in Table 3.

Table 3. Chi-Square Test Result of the Distribution of Steps in EICM and EIBM

Step	χ^2	P
HL	1.600	0.206
hl	13.204	0.000
I	8.846	0.003
L	15.185	0.000
H	4.581	0.032
MO	3.188	0.074
MD	0.007	0.933
MS	0.019	0.890
E	8.952	0.003
s	9.298	0.002
AS	13.487	0.000
AMA	5.455	0.020

NE	0.091	0.763
BS	0.078	0.780
S	13.540	0.000

Therefore, the differences in steps of Highlight, Identification, Location, History, Evaluation, Support, Action Soliciting, Additional Museum Attractions, and Summary are significant. Among them, six steps occur more in EICM, which are Identification, Location, History, Evaluation, Additional Museum Attractions, and Summary. Three steps occur more in EIBM, which are Highlight, Support, and Action Soliciting. Differences in steps of Headline, Museum Overview, Museum Detailing, Museum Services, Name Explanation, and Background Story are not significant.

It can be seen from the significantly different steps that EICMs are more of informational text since they pay more attention to describe the museum itself. Their foci are more on the detailed information about the museum per se such as museum types, museum location, how the museum was gradually developed, what distinctions the museum has achieved, and what good effects the museum has made to the country or society. While EIBMs are more of promotional text, they are used more as an advertisement to attract potential visitors through museum introductions. They connect visitors and the museum by establishing several short and sweet steps. For example, in the beginning of the introduction, Highlight is used to attract readers' attention, and create a friendly atmosphere, like the Highlight of Beamish Museum (Step into the past at Beamish, The Living Museum of the North), which perfectly connects readers and the museum by offering an imagination of getting into the museum. Besides, Action Soliciting, at the end of the introduction, is a kind of incentive with the aim of persuading, as in Museum Wales (Museum Wales belongs to everyone and we can't tell Wales's story without you), which sets a wonderful example of turning potential visitors into reality in a respectful tone.

In addition, 34% EICMs end with a summary. In contrast, only 13% EIBMs have a summary, which is a classic writing habit of Chinese articles. 38% EIBMs has the step Support, in contrast, only 18% EICMs mention their subsidization and organizational information. It may be because most of the Chinese museums are systematically managed by different administrative departments. Therefore, there's no need to mention. In contrast, in the development of many British museums, personal donation occupies a considerable part of contribution, and many British museums selected are built in the name of individuals.

3.2 Differences in Readability between EICMs and EIBMs

The Coh-Metrix L2 Reading Ease Formula is used to assess the readability of EICM and EIBM. After that, T-test by SPSS is used to prove the significant difference in readability between EICM and EIBM. As is shown in Table 4, the mean readability score of EICM is 27.3, less than that of EIBM.

Table 4. T-Test Result of Readability Scores of EICM and EIBM

Corpus	Mean	Standard Deviation.	Sig.
EICM	27.3	13.5	0.000
EIBM	45.0	11.5	

What leads to the difference? Therefore, the scores of eight text easability components of each text are also worked out in Coh-Metrix. Part of the scores of each component of the two corpora are listed in Table 5.

Table 5. Text Easability Component Scores of EICM and EIBM

Corpus	Text	N	SS	WC	RC	DC	VC	C	T
EICM	1	-1.861	0.004	0.489	0.390	-0.289	-0.832	-3.350	0.229
	2	-1.958	-0.897	0.629	1.023	-0.870	-1.005	-3.303	0.666
	3	-1.896	-2.880	1.517	0.765	1.810	-0.249	-4.371	1.783
	4	-1.720	0.062	0.274	-0.973	-1.749	-0.760	-1.360	-0.213
	5	-1.614	0.324	0.501	-0.493	-1.743	-1.645	-3.661	-0.320
	...								
EIBM	1	0.323	-0.622	0.345	0.631	-1.235	0.086	-2.380	0.843
	2	-1.133	-0.629	1.135	-0.486	0.113	-0.694	-1.761	0.332
	3	-0.676	-0.388	1.170	0.394	1.384	0.355	-0.352	0.278
	4	-0.611	-0.621	1.630	-0.579	-2.577	-0.752	0.151	0.755
	5	-0.763	0.444	0.137	-0.701	0.727	-1.829	-2.388	0.770
	...								

Based on text easability component scores, T-test by SPSS is used to work out the significance of the eight components in the two corpora. Its result is shown in Table 6. It can be seen from the table that Narrativity, Syntactic Simplicity, and Deep Cohesion are significantly different easability components between EICM and EIBM. In contrast, Word Concreteness, Referential Cohesion, Verb Cohesion, Connectivity, and Temporality are not significantly different easability components between EICM and EIBM. The scores of Narrativity, Syntactic Simplicity, and Deep Cohesion in EICM are all lower than that in EIBM.

Table 6. T-Test Result of Text Easability Component Scores of EICM and EIBM

Component	Corpus	AVG.	Standard Deviation.	Sig.
Narrativity	EICM	-1.77	0.33	0.000
	EIBM	-1.04	0.60	

Syntactic Simplicity	EICM	-0.82	0.72	0.001
	EIBM	-0.64	0.76	
Word Concreteness	EICM	1.24	0.62	0.158
	EIBM	1.38	0.89	
Referential Cohesion	EICM	0.22	0.80	0.235
	EIBM	0.04	1.39	
Deep Cohesion	EICM	-0.89	0.82	0.000
	EIBM	-0.30	1.13	
Verb Cohesion	EICM	-0.58	0.82	0.079
	EIBM	-0.33	1.16	
Connectivity	EICM	-2.40	1.10	0.834
	EIBM	-2.43	1.39	
Temporality	EICM	-0.25	0.97	0.558
	EIBM	-0.07	2.62	

Three pairs of examples are given to show the differences of EICM and EIBM in Narrativity, Syntactic Simplicity, and Deep Cohesion.

Example 1

We are PASSIONATE

We are authoritative and driven, displaying this daily with **our** enthusiastic and rigorous approach to work.

We display INTEGRITY

We are knowledgeable about **our** subject and professional in the way in which **we conduct our** business. **We act** responsibly and embrace responsibility. **Our** ethical grounding guides **us** to do the right thing by **our** audiences, **our** supporters, **our** collections and by each other.

We CARE

We work hard because **we believe** in the cause of the organization. **We are** welcoming and friendly to **our** visitors and colleagues. **We are** fair and considerate of each other, showing great respect for **our** collections and for the stories **we tell**.

We are AMBITIOUS

Driven by an aspiration to be the best, **we strive** to be better. **We channel our** creativity and competitiveness to make **us** innovative, forward thinking and flexible to challenges.

—The Tank Museum

Founded in January 2007, **Chongqing Hongyan Alliance Culture Developing Management Center** (**Chongqing Hongyan Revolution History Museum**) ("**Hongyan Alliance**" "**Hongyan Museum**" for short), is a bureau level public institution with full government funding.

It has 42 unmovable cultural relics sites, among which 24 relics sites are open to the public. **It** has 4

state-protected historic sites, a batch of the country's Anti-Japanese War Memorial Sites, and a batch of relic units under the protection of Chongqing government.

Hongyan Alliance (**Hongyan Museum**) won National Top-Class Museum, AAAA National Tourist Attraction, National Top Ten Revolutionary Tourism Scenic Spot, …, and other honors.

—Chongqing Hongyan Revolution History Museum

Narrativity captures the extent to which the text conveys a story, a procedure, or a sequence of episodes of actions and events with animate beings (Arthur C. Graesser & McNamara, 2011). The lower scores of Narrativity in EICM reflect that EIBM use more storytelling, familiar, conversational language (e.g., first-person narration and active verbs) while EICM are more abstract with dense information (passive verbs and abstract pronouns). We can see from the example that when referring to the museum per se, the tank museum uses the first-person pronouns "we", "our", and "us", which creates a friendly and natural atmosphere to the reader. While Chongqing Hongyan Revolution History Museum use the third-person pronoun "it" and its full name and short names to refer to itself in the introduction. The third-person pronoun may give the readers a feel of abstract and distant, and the names are long in words and complex in understanding, both of which may lead to the lower score in Narrativity.

Example 2

OUR VISION

Our vision is a Scotland where *all people* feel empowered through learning and engagement with science to make positive differences in *their* lives, *their* communities and to society as a whole.

OUR MISSION

We want to inspire *everyone* to explore and understand the world around *them* and to discover and enjoy science.

Our key principles are fundamental to how **we** approach **our** work:

Glasgow Science Centre is for all ages, genders, abilities, cultural and social backgrounds.

Our role is not to teach science, rather, to change the way that *people* feel and engage with it in order to build *their* social, cultural and science capital.

We seek to present the scientific process in an accessible manner to help *people* develop *their* own knowledge and understanding.

We present good science and scientific fact without bias or opinion by celebrating the wonders of science and technology.

We want to inspire the next generation of scientists and engineers.

OUR VALUES

Our core values are at the heart of **our** business and underpin all that **we** do. They define who **we** are, how **we** work, what **we** believe in and stand for.

—Glasgow Science Centre

Beijing Auto Museum adheres to such a principle: to be green, high-tech, and humanistic; the purpose: to carry on civilization, inspire innovation and serve for society; the development mission: to direct the

causes of popular science and culture, to enhance *Chinese citizens'* scientific and cultural qualifications, to expand the social impact in *local communities*, and to promote the overall urban competitiveness; the development vision: to promote auto science amp; technology and culture, and to encourage cultural exchanges between **Chinese auto industry** and the *international peers*; the development goal: to set up a modern scientific and technological museum featuring first-class exhibition, first-class services, and first class efficiency, developing **it** into the most vigorous cultural establishment in Beijing; and with the fundamental exhibition means of "approaching the mass, the living and the reality", **Beijing Auto Museum** keeps spreading scientific and humanistic ideas, without the limitation of nation, region or brand.

—Beijing Auto Museum

Syntactic Simplicity measures whether a text contains shorter sentences with simple, familiar syntactic structures (i.e., a high ratio of prepositions, pronouns and other "function" words to "content" words such as nouns, main verbs, adjectives and adverbs) or longer sentences with less familiar syntactic structures (i.e., a high ratio of content to function words) (Chang, Stone, Cooper, Leung, & Martinovbennie, 2019). The lower scores of Syntactic Simplicity in EICM reflect that sentences in EIBMs have fewer words and simpler, more familiar syntactic structures. We can see from the underlined part in the example that, when describing the mission, vision, principle, goal, or purpose of the museum, Glasgow Science Center gives a clear headline to each part, and expresses the content in several short sentences. In contrast, Beijing Auto Museum arranges all the contents in one long complicated sentence, which may lead to reading fatigue. The bold in the example are those referring to the museum itself. Comparing with the content word used in Beijing Auto Museum, the function words "we" and "our" used in Glasgow Science Center are simpler in syntax. The italics in the example are those referring to the visitors or the outside world that may have connections with the museum. Glasgow Science Center uses function words "their", "everyone", "them", and simple content word "people" to refer to the visitors. While the expressions in Beijing Auto Museum are "Chinese citizen", "local communities", and "international peers", which are long and complicated content words. Those may cause the low score in Syntactic Simplicity of EICM.

Example 3

The palaces in Historic Royal Palaces' care are all owned by The Queen, except Hillsborough Castle and Gardens. Historic Royal Palaces is contracted by the Secretary of State **for** Northern Ireland **to** manage Hillsborough Castle.

Her Majesty holds the palaces in Trust **for** the next monarch and by law cannot sell, lease or otherwise dispose of any interest in the palaces.

All of the palaces ceased being used regularly **for royal court purposes** in the 18th century and the government became responsible for their management, an arrangement codified in the Crown Lands Act 1851.

Currently, government responsibility rests with the Secretary of State for Culture, Media & Sport.

—Tower of London

The Shanghai Museum was established in 1952. It was moved into the old Zhonghui Building at No. 16 South Henan Road in October 1959. In early 1990s the Museum was relocated on the People's Square and reopened to the public at the present building on October 12th, 1996. **With focuses on** collecting, researching, displaying and education of pre-modern Chinese arts, the Museum has built up a collection of nearly 1,020,000 items, 140,000 of which are graded national treasures.

—The Shanghai Museum

Deep cohesion assesses whether a text contains versus omits causal (because, enable) and intentional connectives (in order to, consequently, so that) that explicate causal and logic relationships (A. C. Graesser et al., 2011). The lower scores of Deep Cohesion in EICM reflect that EIBM contain more causal and intentional connectives, transitional phrases, adverbs, infinitives, or other signaling devices (these different forms of signalings are referred as particles). These can convey to readers that there is a discontinuity in the sentence. We can see from the example that more prepositions and preposition phrases are used in the introduction of Tower of London to make the casual and intentional relationship clearer, while the logic in the introduction of Shanghai Museum are less clear, which leads to the low score in Deep Cohesion of EICM.

4. Discussion

4.1 Differences in Museum System

There are many possible interpretations about the differences in move distribution and readability between EICMs and EIBMs. The classification of the museum in two countries has a slight difference. British museums are generally divided into four categories: art museum, history museum, science museum and special museum according to the nature and characteristics of museum collections, exhibitions and educational activities (Wang, 2017). While Chinese museums are usually divided into art museum, history museum, science museum and comprehensive museum. It is quite possible for a museum to provide several kinds of exhibitions at one time. For example, Wuxi Museum has three permanent exhibitions: "literature and history exhibition", "painting and calligraphy exhibition" and "history exhibition". It functions as a history museum, an art museum and a science center. Chinese museums' multi-function makes the Identification pivotal in MIs to give visitors a clear concept about the museums' orientation.

The museum management may explain why Evaluation accounts for a larger part in EICMs than in EIBMs. The organizational structure and personnel of Chinese museums and British museums are entirely different. The top management of Chinese museums is usually the curator, whereas the board of directors in English museums. The curators in China are normally appointed by higher leading bodies, who can be well-known scholars or public officials (Hong & Xie, 2012). However, it's worth noting that there is one position in Chinese museums that cannot be ignored, that is, the secretary of the Party Committee, who is mainly responsible for the management of intra-party affairs and guides the

development direction of the museum to a large extent by implementing the instructions, resolutions and decisions of the higher party committee (Du, 2006). The Party's important role in Chinese museums can be reflected in the step of Evaluation, in which many museums mentioned their awarded honors in related with the party such as "party spirit education base with local features".

The differences in economic sources and volunteer system of Chinese and British museums may tell the differences of Support. There are diverse sources of British museum economy, such as the government, social contribution, and self-profit (Wu, 2020). Their funds are supplemented by affiliated shops, catering facilities, venue rental, and even museum lotteries. The fund of Chinese museums is relatively simple: they rely mostly on state appropriation. Chinese museums have also carried out some self-operated activities which can generate some profit, but the results are not satisfactory. The souvenirs in many Chinese museums are roughly made and overpriced considering their quality. The volunteer system in English museums is applied more extensive, universal, and in-depth. The volunteers are more in number, and multiple in identity and work category (Jiang, 2010). We can find school students, retired scholars, and even prisoners work as volunteers in British museums, and people with different backgrounds are involved in different types of work. In addition to daily administrative work, there are opportunities for volunteers to involve in management, and their work is recorded with feedback policies. Chinese volunteers are mainly composed of college students and their main responsibilities are museum consultation and guidance. Their feedback and reward systems are not widely adopted yet. Therefore, the occurrence of Support in EICMs is relatively lower.

The differences in museum education of the two countries may be important factors that lead to the high occurrence of Highlight and Action Soliciting in EIBMs. Museum education in China has not received sufficient attention from museums. For them, collections and researches are often regarded as their first task, and the exhibitions per se can stand for education to visitors. They wait for the visitors to arrive at their doors, the analysis and understanding of the visitors are far from being in place, and the activities are so crude that the visitors may be reluctant to enter the museum again after visiting. Chinese museum education is highly consistent with its exam-oriented education; as a result, passive visiting is the main form of Chinese museum education (Zheng, 2016). British museums advocate and implement the concept of "people-oriented" service concept, and take visitor analysis and investigation as an important work. In Britain, the number of visitors affects the amount of money the government and social organizations can donate to a museum (Zhang, 2003). Therefore, a problem that British museums strive to solve is: how to maintain and continuously improve the number of visitors, and how to make them satisfied with the museum. As a consequence, British museums emphasize the concept of participation and active visiting.

From the perspective of museum education management, it's more common to see cooperation between museums and schools in Britain, and the museum education projects are more diverse in Britain. British museum has been recognized as a significant educational institution, and has always been an indispensable part of primary and secondary school learning (Zhou & Guan, 2013). As one of British

museum administrative departments, the education department is specially established to be responsible for the relationship between museums and the public. It also maintains social resources such as the friends and donors of the museums, and focuses on museums' responsibilities in citizen education and social civilization progress. There have been 29 staffs in the education department of The British Museum in 2000 (Zhang, 2003). Comparing with British museums, Chinese museums pay more attention to the exhibition rather than the education. There is a lack of professionals to design museum educational projects. The publicity and survey of tourists before visiting and the collection of feedback after visiting are not well done. Therefore, it's not hard to understand why welcoming and action soliciting sentences occur more in EIBMs.

4.4 Differences in Thinking and Writing between Easterners and Westerners

EICMs and EIBMs are assumed to be written by the host nation. Differences in thinking and writing between oriental and occidental people may explain some of the differences between EICMs and EIBMs in move distribution and readability. Subjectivity is one of the typical characteristics of Chinese thinking, which may affect Chinese writing (Li & Li, 1996). Subjectivity is often suspicious of readers' judgment. In Chinese writing, the author usually gives a clear summary or conclusion to the article, representing the end of the discourse. In contrast, Western thinking emphasizes "the separation of things and self". Their thinking is objective and impartial, and believes in "let the facts speak for themselves" (Wang & Liu, 2001). In writing, Westerners pursue the maximum objectiveness, and assure readers that the author is not pursuing personal goals. They tend to present plenty of facts and data and give the opportunity to readers to draw their own conclusions. Therefore, their articles tend to end without a summary or conclusion. This may explain why Summary occurs more in EICMs.

By comparison, Chinese thinking belongs to concrete thinking which is a dynamic thinking, while Western thinking belongs to abstract thinking, which is a static thinking (Yuan, 1989). The two different thinking modes may lead to different frequency of content words (nouns, verbs, adjectives, adverbs...) and function words (prepositions, pronouns, conjunctions, articles...) in language. This may explain why the sentences in EIBMs contain fewer words and use simpler, more familiar syntactic structures. According to Fu (Chen, 1983), there is a fundamental difference in the thinking of Easterners and Westerners. Easterners attach more importance to comprehensiveness, induction, and implication; Westerners focus on analysis with subtle twists and turns. Under the guidance of these two thinking modes, more explicit connectives, which can work as a reminder of the complicated relationship in the sentence or discourse, can be found in Western writing. On the contrary, Chinese writing is more parataxis, which may lead to the lower Deep Cohesion of EICMs.

There are many differences in writing between China and the West, no matter in writing purpose, expression habit, or the structure. Behind these differences could be their different writing sources. Western writing was developed from rhetoric, and has inherited many characteristics from rhetoric. For instance, like rhetoric, Western writing study language expression to achieve the purpose of communication; the emphasis of Western writing is laid on readers; Western writing requires clear

explanations, convincing arguments, and moving stories. All of these characteristics may prove that Western writing puts readers first. Chinese writing is reckoned to be developed from many subjects, and is especially connected with the theory of literature and art (Zhu & Li, 2010). The theory of literature and art is a subject that aims to reveal the basic laws of literature and introduce relevant knowledge, and studies the nature and characteristics of literature as well as the laws of its occurrence and development. It belongs to the category of humanities and social sciences. It is not difficult to find that the emphasis of the theory of literature and art does not fall on readers, but on the work itself. The essence is to express writers' feelings, aspirations, and thoughts. Therefore, different origins of Chinese and Western writing may tell why EIBMs has a higher readability than EICMs.

Differences in writing purpose and expression may also explain some of the differences in move distribution and text easability components. We can analyze from the characteristics of rhetoric and the theory of literature and art that the most basic purpose of Chinese writing is to express writers' feelings and thoughts (Zhu & Li, 2010). This may explain why History and Evaluation occur more in EICMs. It's common for Chinese people to express our feelings through reviewing history. Ancient poetry is a representative of traditional Chinese writing. There were many poems which took ancient historical events or ancient figures as the subject matter to express various feelings, such as the sadness of misunderstood geniuses, the sense of flourishing in the past and declining in the present, or the hope towards life. Therefore, History may be used in EICMs to express the difficulty of the past, the treasure to the current achievement, and the confidence in the further development of the museum. In a similar way, Evaluation may be used in EICMs to affirm the achievements of the museum. The purpose of Western writing is to meet communication needs. This may explain why Highlight is used more at the beginning of EIBMs to attract readers' attention and why Action Soliciting is used more at the end of EIBMs to work as an incentive with the aim of persuading readers to set off for a visit. According to scholars, the emphasis of Western expression is to argue about the truth and to give a full explanation to a theory, plan, etc. In contrast, Chinese expression pays more attention to give a detailed description to the scene or feelings (Zhu & Li, 2010). This may explain why Location occurs more in EICMs. Museum location is a detailed information to the museum but it's not a focus in EIBMs.

5. Conclusion

In this paper, a contrastive study of English introductions of Chinese and British museums is conducted. The analysis focuses on move distribution, readability, and the linguistic characteristics that affect the readability between EICMs and EIBMs. Nine significantly different steps are found in the study. Among them, Identification, Location, History, Evaluation, Additional Museum Attractions, and Summary occur more frequently in EICMs than in EIBMs. Highlight, Action Soliciting, and Support occur more frequently in EIBMs than in EICMs. These results can prove that EICMs are more of informational text. In contrast, EIBMs are more of promotional text. The overall readability of EICMs is identified to be lower than that of EIBMs. EICMs are significantly lower than EIBMs in Narrativity,

Syntactic Simplicity, and Deep Cohesion. Those results can prove that choices of narrative person, substance and function words, and use of causal and intentional particles may lead to the difference in readability.

Contemporary museums have long since moved on from the stage where objects were left to "speak for themselves". Museum introductions' content selection and language expression should be target at their readers. By analyzing EMIs as a vital but under-explored museum text, this study may offer some implications for the writing and translation of EICMs. Through this research, both non-native and native translators and writers from the museum, advertising agency, translation agency, or universities can become more acquainted with the content and language features of EMIs. By offering foreign readers more readable EMIs, which are also more in line with their thinking modes, it is possible to convert more online readers into real offline visitors, so as to better lead Chinese museums to go global, and promote Chinese culture and overseas exchanges.

There are some limitations in the study. The size of collected materials is relatively small, and the move annotation is done manually. There is a possibility of error. The designed move analysis model may not perfectly match the material, and only one readability formula and eight text easability components are adopted in this study, there may be other linguistic characteristics that affect readability overlooked. All in all, although the study offers some directions for improvement through the significantly different steps and linguistic characteristics, there are no explicit move structure and actual expressions worked out in this study. Further studies concerning EMIs can be done in a deeper and more specific way.

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