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The Effectiveness of ChatGPT in Translating Chunky Construction Texts in Chinese Political Discourse



Abstract: - From the theoretical perspective of Chinese-English temporal-spatial cognitive differences, this study employs a self-constructed bilingual parallel corpus of political discourse totaling one million words. It extracts chunky construction texts with latent agents in the source language (Chinese) and corresponding texts of target language translations (English) for a comparative experiment between ChatGPT translations and those of human translators. Driven by the “Human-AI Interaction Model”, three different prompts were set up to conduct three rounds of translation testing with ChatGPT. The study discovers: 1) ChatGPT has limitations in actively understanding the implicit elements of the source Chinese texts that are driven by a strong spatial preference, which are also reflected in the target language English translations; 2) The “Human-AI Interaction Model” can guide and train ChatGPT effectively through continuous optimization of prompts, enhancing AI abilities in understanding the source language and achieving effective target language translation; 3) Currently, ChatGPT cannot replace human translators in translating chunky discourses of Chinese, but the collaborative interaction between human translators and AI is highly effective. By optimizing the design of prompt instructions, this research offers cognitive reference and operational paradigms to improve ChatGPT’s recognition and cognitive reconstruction capabilities of Chinese-English temporal-spatial differences, providing insights for future research, translation practice, and teaching in related areas.

Keywords: ChatGPT translation; Prompt; Chunky construction; latent agents; Temporal-Spatial Differences; Human-AI Interaction Model.

I. INTRODUCTION

In recent years, as China’s comprehensive national power continues to grow and international exchanges become more frequent, the need of “translating world” has begun to shift towards “translating China” (Huang Youyi, 2021). From the strategic height of a nation’s cultural soft power, the translation of external publicity documents or materials has become a key link in cultural exchange and knowledge dissemination (Hu Kaibao, 2023). As humanity enters the digital age, translation is no longer merely about converting one language into another. On March 15, 2023, OpenAI officially launched ChatGPT-4.0, marking the latest milestone in the development of artificial intelligence deep learning. The rise of artificial intelligence and the ChatGPT language model has brought about a profound transformation in language culture and translation studies and is profoundly shaping the new look of translation. In recent years, the application of ChatGPT in the translation of Chinese political discourse is still in the initial stage, and the study of its effectiveness has become a hot topic in the academic community.

II. LITERATURE REVIEW

The advent of ChatGPT has sparked interest among scholars at home and abroad regarding the opportunities and challenges it brings to language teaching and academic writing. They believe that ChatGPT can assist authors in organizing materials, generating drafts, and proofreading, but it may also carry risks of plagiarism and inaccuracy (Salvagno & Taccone, 2023; Thorp, 2023). Scholars have also gradually begun to pay attention to the interaction between ChatGPT and translation, discussing the developmental potential and limitations of ChatGPT in the field of natural language processing, including translation (Yuan Yulin, 2023); analyzing the performance of ChatGPT’s machine translation services in terms of translation quality, proofreading ability, and sentence optimization (Geng Fang & Hu Jian, 2023; Jiao et al., 2023; Yang Fengchang, 2023; Wang Ziyun & Mao Cui, 2023; Wang Hesi & Ma Kexin, 2023; Wang Lifei & Li Zhao, 2023; Zhu Guanghui & Wang Xiwen, 2023); pondering effective criteria for evaluating the quality of ChatGPT and other machine translation outputs (Wang Jinquan & Niu Yongyi, 2023; Zhu Guanghui & Wang Xiwen, 2023; Wang Jinquan & Wen Qiufang, 2010).

With regard to ChatGPT’s application in the translation of political literature, some scholars have explored the effectiveness and limitations of ChatGPT in the application of political literature translation from the perspectives of translation processing, post-editing, and dialogue functions (Li Changshuan, 2023). There are

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also scholars who have compared the translations of ChatGPT with those of three machine translation tools (Google Translate, Youdao Translate, and DeepL Translate) to assess the effectiveness of ChatGPT in the translation of political literature (Wen Xu & Tian Yaling, 2024).

Regarding the research on political discourse, scholars from home and abroad have discussed the relevance of political discourse to ideology and cultural dissemination from a macro perspective, involving the dissemination of political discourse to foreign countries, national status and discourse power, ideological and cultural representation constraints (Coelho-Lima, Varela & Bendassolli, 2021; Lukacs, 1982, 2013; Fairclough, 2003; Sun Xiangfei, 2021; Zhang Jianmin, 2021; Guo Ke, et al., 2021; Guo Ke & Wang Ning, 2019); the association between political discourse and ideological dissemination and language and its expression of meaning (Fairclough, 2013; VanDijk, 2006; Vygotsky, 1987; VanDijk, 2006; Liu Yang, 2019; Xu Minghua, 2012; Yun Guoqiang, 2021); as well as the factors to consider and the bottlenecks to break through in the dissemination of political discourse and its translations (Zhou Li, 2015; Hu Kaibao & Chen Chaojing, 2018; Wang Xiaoli & Hu Kaibao, 2021; Dou Weilin, 2016).

“Political Discourse Study” series of discussions have also become a highlight in the academic community (Hu Kaibao, 2019), providing important principles and translation strategies for the effective dissemination of China’s characteristic discourse (Wang Kefei, 2010; Huang Youyi, 2015: 5-7; Lin Rong & Lin Dajin, 2016; Yang Wangping, 2018; Hu Kaibao & Li Chan, 2018: 5-12, 129). However, these studies did not systematically investigate political discourse. Driven by this, some scholars have pointed out that the “chunky construction” is a linguistic feature of Chinese political discourse and have explored its structural representation and related translation issues (Cao Huan et al., 2023; Cao Huan & Liu Shaolong, 2021; Liu Shaolong et al., 2021; Liu Shaolong & Wang Liuqi, 2021).

It is apparent that previous research on political literature often used linguistic and cultural differences as the explanatory framework, focusing on isolated characteristic words or “key terms” and their translation strategies. There has been a lack of systematic exploration of the translation of characteristic chunky discourses based on the root cause of national language thinking and cognitive differences, and few attempts and studies to focus on the effectiveness of such discourse translation under the purview of machine translation or ChatGPT. Therefore, this paper aims to focus on Chinese-English cognitive differences, investigate the representational construction and cognitive operational process of Chinese political characteristic chunky discourses and their English translation transformation, and how to improve ChatGPT’s ability to recognize and cognitively reconstruct the temporal-spatial differences between Chinese and English by continuously optimizing the design of prompt instructions. This provides theoretical support and practical strategies for future Chinese-English comparative studies and translation practice.

III. DEFINITION OF RESEARCH SUBJECT

The research subject involved in this study includes the expressions of characteristic chunky construction in political discourse texts. The phrase/syntactic chunky linguistic representations defined and explored in this paper cover the characteristics of idiomatic, non-idiomatic, and colloquial constructions. They encompass structures of different degrees of complexity, schematicity, fixity, and regulation.

The identified chunky constructions follow the traditional standard of language chunks, word chunks, or formulaic language (multi-word unit) (Wray 2000), such as idioms, non-idiomatic colloquial phrases, or group-language units (Nattinger & Decarrico 1992). Furthermore, it innovatively applies chunky constructions according to Construction Grammar (Goldberg 2013) and the encoding characteristics of political discourse in Chinese, extending the application of chunky constructions to clause-level or even sentence-level, making the chunky constructions discussed in this paper distinctive from non-entity sentence builders as defined by Nattinger (Nattinger & Decarrico 1992).

From the perspective of this study, the representation of chunky constructions is divided into phrase-bounded and clause-bounded types; in addition to the structural predisposition and integral accessibility characteristic of language chunks, they also possess qualities such as idiomaticity, chunkiness, and variability. Idiomaticity refers to their structure and meaning being fixed or continuous as well as semi-fixed or discontinuous.

Chunkiness refers to the “spreading, juxtaposition, and chunky stitching” of morphemes, which when utilized are “individually chunky, relatively juxtaposed, and flexibly free” (Wang Wenbin & Gao Jing, 2019:6). Furthermore, phrase/clause-bounded chunky constructions have internal morphemes and parallel sub-chunks that can be adjusted, changed, added, or deleted to generate variant constructions (Shen Jiaxuan, 2019), demonstrating uniform structural integrity and adjustability. Based on the cognitive limits of human working

memory and the preference for processing units of information, these chunky constructions (Table 1) have “around four or ±4” and “more than four or ≥4” chunks (Cao Huan et al., 2023), of which this paper will focus on constructions of “around four or ±4” chunky constructions.

Table 1. Examples of Chunky Constructions

	Category	Chunky Constructions
“±4” chunky constructions	Three-character chunks	和时兴、战时衰 (3+3)
	Four-character chunks	孝悌忠信、礼义廉耻 (4+4)
	Five-character chunks	不驰于空想、不鹜于虚声 (5+5)
“≥4” chunky constructions	Chunks of six characters or more	对话不对抗、结伴不结盟 (5+5)
		想群众之所想，急群众之所急 (6+6) ; 一方有难八方支援 (8) ;绿水青山就是金山银山 (10)

IV. THEORETICAL FRAMEWORK: CHINESE-ENGLISH TEMPORAL-SPATIAL DIFFERENCES THEORY

The most important difference between English and Chinese is often the distinction between form-based and meaning-based preferences (Nida, 1982). Relevant research at home and abroad has generally focused on the preference for meaning-based expression in ancient and modern Chinese texts and form-based expression in Western languages (Ni Baoyuan, 1987; Fang Mengzhi, 1997; Wang Wenbin, 2013). In this context, studies often focus on literary texts, concentrating on the intrinsic structural differences of language, while rarely explaining the cognitive differences causing these disparities. In 2019, the theory of Chinese-English temporal-spatial cognitive differences was proposed (Wang Wenbin, 2019), and researchers began to make specific observations and descriptions of the temporal characteristics of English and the spatial traits of Chinese, exploring the cognitive processing paradigms of Chinese and English languages (Wang Wenbin, 2013:163-173; Zhao Yizhe & Wang Wenbin, 2020; Liu Shaolong et al., 2021; Wang & Liu, 2021; Cao Huan et al., 2021; Liu Shaolong & Wang Liuqi, 2021; Cao Huan et al., 2023).

The “spatiality” of Chinese refers to the spatial thinking preference of Chinese native speakers, while the “temporality” of English refers to the temporal thinking preference of the English native speakers, revealing the root causes of the external expression differences between Chinese and English languages (Wang Wenbin, 2013). The characteristic chunky discourses in Chinese political literature and their high-level English translations not only reflect the traditional preferences for meaning and form but also their innovative “form-meaning pre-arrangement” and generative advantages, making the exploration of these special discourses’ spatiality and meaning-based preferences and their translation particularly necessary. Hence, the theory of Chinese-English temporal-spatial differences serves as the theoretical framework for this study.

A. English’s Temporality Preference

American scholar Kaplan (1996), in his article “*Cultural Thought Patterns in Intercultural Education*,” conducted a systematic analysis of the writing styles of international students from different linguistic backgrounds, finding that different national thinking patterns have a profound influence on written language modes. The thought pattern behind the English language is a linear thought pattern that favors getting straight to the point and consistency. Examples (1) and (2) both come from speeches by American political figures, which are used here for illustration.

(1) As I’ve said from the beginning, ours was not a campaign **but** rather an incredible **and** great movement made up of millions of hard-working men and women **who** love their country **and** want a better, bright future for themselves **and** for their family. (Donald John Trump’s Victory Speech, 2016)

(2) **But** what remains true is **that** your graduation marks **your** passage into adulthood-the time **when** you begin to take charge of **your** own life. It’s **when** you get to decide what’s important to you: the kind of career **you** want to pursue, who **you** want to build a family with, the value **you** want to live by. **And** given the current state of the world, **that** may be kind of scary. ... Right now, **when** people are scared, it’s easy to be cynical **and** say let me just look out for myself, **or** my family, **or** people **who** look **or** think **or** pray like me. **But if** we’re going to get through these difficult times, **if** we’re going to create a world **where** everybody has the opportunity to find a job **and** afford college, **if** we’re going to save the environment **and** defeat future pandemics, **then** we’re going to have to do it together. **So** be alive to one another’s struggles. (President Obama’s Graduation Message to the Class of 2020, 2020)

The “strong temporality” of English is specifically manifested in English’s connective and continuous constructions, where continuity is conditioned on connectivity. The construction of linear order is achieved through grammatical devices and lexical devices. In Example (1), former US President Trump uses conjunctions such as, but, and, who, etc., to establish connections; the use of as, and, but etc. highlights semantic relationships between English sentences. In Example (2), Obama’s speech uses several grammatical conjunctions (such as but, that, when, and) and content words (such as your, your, you, you, that), which organically connect elements within and between sentences. In addition, for explicit construction of discourse and semantic logic, his consecutive use of three “if..., then...” block structures overtly express conditional logic and the “So...” initiating a causal logic sentence.

B. Chinese’s Spatiality Preference

Conversely, the thought pattern behind the Chinese language is a circular thought pattern (Kaplan, 1966), where in writing, one might put aside the subject matter to discuss other content, then return to the previous topic; or one might not always directly connect content to the theme but use an approach that is simultaneously detached and connected. Examples (3) and (4), both in the source text (ST) and target text (TT), come from a corpus. The “strong spatiality” of Chinese is specifically manifested in the chunky, discrete, and reversible constructions of Chinese. Discreteness is conditioned on chunkiness, and discreteness leads to reversibility; their non-linear or chunky sequence is achieved through semantic processing or non-grammatical/lexical means.

(3) ST: **坚持说实话、谋实事、出实招、求实效**.....以钉钉子精神做实做细做好各项工作。

TT: *We should be open and frank, take effective measures to address real issues, and seek good outcomes....We should have the perseverance to hammer away until a task is done, and make concrete, meticulous, and effective efforts in all our work.*

Table 2. Example (3) Chinese chunky constructions and their English Translation

ST (3CC)	说实话 ①	谋实事 ②	出实招 ③	求实效 ④
TT	be open and frank①	take effective measures③	address real issues②	seek good outcomes④

In Example (3), the source text’s sequence is composed of four “three-character chunks” (3+3+3+3, 4x3) “说实话/谋实事/出实招/求实效” where each “three-character chunk” uses a verb-object structure with uniform form. In the translation of example (3), four corresponding target language chunks are used, namely: be open and frank (说实话), take effective measures (出实招), address real issues (谋实事), seek good outcomes (求实效). (See Table 2)

Cognitive grammar and construction grammar both emphasize the importance of semantic and pragmatic factors (Langacker, 2004; Fillmore et al, 1988) and the need to pay attention to the subtle aspects of events and states of affairs (Goldberg, 1995&2003). A closer look reveals that the semantic logic relationships between chunks are hidden in the source language: “说实话①” and “出实招③” are means while “谋实事②” and “求实效④” are objectives, i.e., ①means + ②objective + ③means + ④objective.

The entire sequence is discretely symmetrical and progresses chunk by chunk, reflecting the source language’s “spatiality preference.” The target language, English, possesses a “temporality preference,” employing lexical-grammatical forms and means such as “we,” “to,” and “and” to achieve connections and continuations. “We” underscores what is latent in the source language’s subject or agent, “to” reveals the teleological logic hidden within the sequence of source language chunks, and “and” exposes the progressive logic hidden in the source language. (See Table 2)

ST: **以史为鉴、开创未来，埋头苦干、勇毅前行**，为实现第二个百年奋斗目标而不懈奋斗。

TT: *We will learn from history, work hard, forge ahead for a better future, and make tireless efforts to realize the Second Centenary Goal.*

Table 3. Example (3) Chinese chunky constructions and their English Translation

ST (4CC)	以史为鉴 ①	开创未来 ②	埋头苦干 ③	勇毅前行 ④
TT	learn from history①	work hard③	forge ahead ④	a better future②

constructions (Cao Huan et al., 2023; Liu Shaolong et al., 2021), the 10 sample sentences extracted contain four sentences with four-character chunks and three sentences each with three-character and five-character chunks.

Table 5. Source Language Test Text

Sentence No.	Type	Source Text	Structure
(5/3)	3 chunk construction	坚持 说实话、谋实事、出实招、求实效以钉钉子精神做实做细做好各项工作。	3+3+3+3
(6)		坚持房子是用来住的，不是用来炒的定位， 稳地价、稳房价、稳预期 。	3+3+3
(7)		注重 解民忧、纾民困 ，及时回应群众关切，持续改善人民生活	3+3+3
(8)	4 chunk construction	世界潮流，浩浩荡荡，顺之则昌，逆之则亡 。	4+4+4+4
(9)		改革 全面发力、多点突破、纵深推进 ，重要领域和关键环节改革取得突破性进	4+4+4
(10)		要 志存高远，增长知识，锤炼意志 ，让青春在时代进步中焕发出绚丽的光彩。	4+4+4
(11)		明确提出“六保”任务，特别是保就业保民生保市场主体， 以保促稳、稳中求进 。	4+4
(12)	5&6 chunk construction	得众则得国，失众则失国 。	5+5
(13)		心中装着百姓，手中握有真理，脚踏人间正道 。	6+6+6
(14)		学习需要沉下心来， 贵在持之以恒，重在学懂弄通 。	6+6

Table 6. Target Language Translation Control Text (Expert Translation)

No.	Expert Translation (Translation Control Text)
1	(5/3) We should be open and frank, take effective measures, to address real issues, and seek good outcomes....We should have the perseverance to hammer away until a task is done, and make concrete, meticulous, and effective efforts in all our work.
2	(6) Upholding the principle that housing is for living in, not for speculation, we will keep the prices of land and housing as well as market expectations stable.
3	(7) We will, with a focus on resolving the difficulties of our people, respond promptly to public concerns and continue working to improve people’s lives.
4	(8) The tide of history is mighty. Those who follow it will prosper, while those who resist it will perish.
5	(9) In reform, we have made strong moves across the board, secured major advances in many areas, and driven deeper in pursuing progress, making breakthroughs in reforms in important fields and key links.
6	(10) Young people should aim high , acquire more knowledge, temper their will, and make their formative years richly rewarding ones in an era of progress.
7	(11) We carried out the task of maintaining security in six key areas—particularly job security, basic living needs, and the operations of market entities. By maintaining security, we were able to deliver stability while also pursuing progress.
8	(12) Win popular support, and you win the country; lose it, and you will lose the country.
9	(13) We have the people in our heart and the truth on our side, and we are marching on the right track - this is what makes us strong and confident.
10	(14) When engaged in study we should be focused and avoid distractions. Our approach should be persistent, and we must gain a true grasp of what we are studying.

The use of ChatGPT is closely related to “prompts,” and different “prompts” will produce different results. Therefore, to avoid different translation outcomes during testing, each test used a consistent prompt to ensure the validity and reliability of the results. In addition, to explore ChatGPT’s computational abilities and observe its process in understanding of source language chunky constructions, this study designed a “Human-AI Interaction Translation Model” (Figure 1) through human-AI dialogues. By comparing the translations with the control text, the limitations of ChatGPT translations will be identified, then prompts will be continuously verified to train AI to enhance its computational capabilities and promote positive interactions and results.

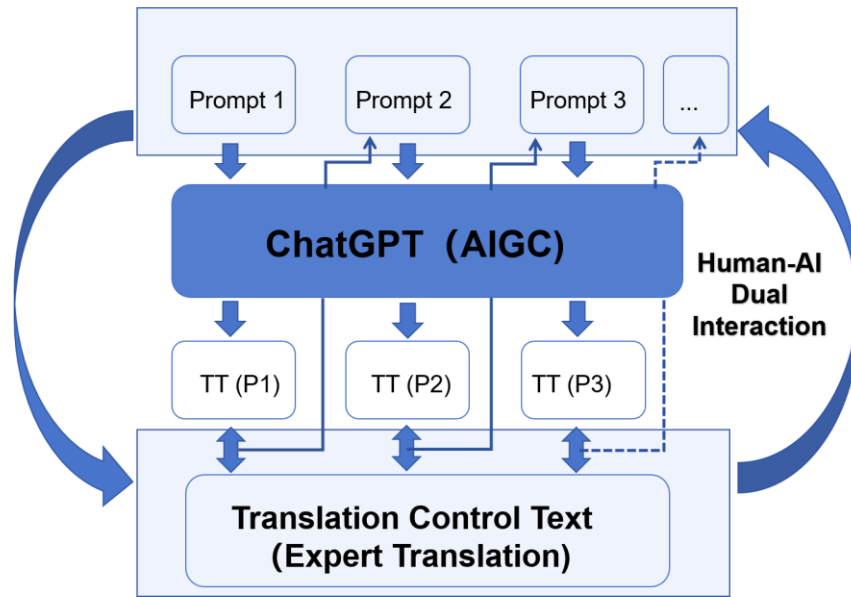


Figure 1. Human-AI Interaction Translation Model

For this study, based on the model, the first test used the setting of Prompt 1 (Table 7) for all tested source sentences given to ChatGPT 4.0 (referred to as ChatGPT) for translation, yielding the ChatGPT translation with Prompt 1, shortened as TT (P1). Considering the randomness of translation generation and to stimulate ChatGPT to think, Prompt 2 (Table 5.3) was used to request new, improved translations different from TT (P1), yielding another ChatGPT translation, that is TT (P2). Then, compared to the control texts, ChatGPT’s translations were categorized and analyzed for how they reshaped latent agents. A new Prompt 3 (Table 7) was set to have ChatGPT translate again, procuring a third version of the translation, that is TT (P3), which was then compared to the control texts and both TT (P1) and TT (P2). The differences between ChatGPT’s machine translations and human translations were discussed in terms of the effectiveness and limitations of using ChatGPT for the translation of chunky constructions in Chinese political discourse, pondering the interactive relationship between AI and humans in the translation process.

Table 7. Prompts

Prompt 1	Translate the Chinese sentence into English. [Sentence].....
Prompt 2	Re-translate the Chinese sentence into English and make the new translation different from and better than the former translation. [Sentence].....
Prompt 3	There is a loss of agent in the original Chinese sentence. Try to analyze what action(s) is(are) performed and figure out who(what) perform the action. Then translate it into English and make the agent explicit in your translation. There is no need to point out the agent(s) separately. Just send me back with the English translation of the sentence. [Sentence].....

VI. RESULTS AND ANALYSIS

In this study, three tests were conducted, each providing ChatGPT with different prompts for a human-AI dialogue. The first used Prompt 1 to dialogue with ChatGPT, extracting 10 translations of TT (P1); the second used Prompt 2, extracting 10 translations of TT (P2); the third used Prompt 3, extracting 10 translations of TT (P3). After testing, a total of 30 translations were generated. Then, ChatGPT’s translations were compared to the expert translations (i.e. control texts), analyzing ChatGPT’s comprehension of the latent agents in the source language chunky discourses and observing whether it could reshape and present the latent agents in the target language translations.

According to the data analysis, the presentation of agents in the target language translations has been categorized into four types: 1) zero explicitation (ZE), 2) partial explicitation (PE), 3) complete explicitation (CE), and 4) exceptional explicitation (EE). Zero explicitation refers to situations where the agent has not been identified and presented in the target language translation. Partial explicitation indicates that, compared to the control text, ChatGPT’s translation partially presents the latent agents from the source language. If the

presentation of the agent in ChatGPT’s target language translation aligns with the expert translation, it’s termed complete explicitation. Finally, if ChatGPT presents an agent in the target translation distinct from the control text’s agent, it falls under the category of exceptional explicitation.

A. Overall Results

Based on these four categories, the performance of the translations generated from the three dialogues with different prompts is summarized below (see Table 8). In the table, the number 1 signifies translations generated under the direction of Prompt 1, that is TT (P1). The number 2 signifies target translation texts generated with Prompt 2, that is TT (P2). And the number 3 signifies target translation texts generated with Prompt 3, that is TT (P3).

Table 8. Results of TT (P1), TT (P2) and TT (P3)

Category	Sentence No.									
	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
ZE	1/2	1/2	1/2	1	1/2	1/2	1/2	1/2	1/2	1/2
PE		3					3			
CE	3		3	2/3	3					
EE						3		3	3	3

Notes: 1: TT (P1) 2: TT (P2) 3: TT (P3)

From data analysis, it’s found that when dialoguing with ChatGPT using Prompt 1, the translations did not reflect any of the latent agents from the source language, recorded as 0%. In dialogues with Prompt 2, only the translation for example sentence (8) achieved complete explicitation of the agent, represented by 10%. Using Prompt 3, translations for example sentences (6) and (11) identified the latent agent in the source language but diverged from the reference control text. The control text had two agents while ChatGPT’s translation only had one, or the position of the agent differed, which qualifies as partial explicitation, accounting for 20%. Translations for example sentences (5), (7), (8), and (9) in ChatGPT’s text fully presented the latent agent from the source language. Thus, complete explicitation reaches 40%. Translations for example sentences (10), (12), (13), and (14) fell under the exceptional explicitation category, presenting the latent agent from the source language using different strategies in the translations, accounting for 40%.

B. Partial Explicitation of the Agent

This section focuses on the phenomenon of partial explicitation of latent agents in ChatGPT’s translations (see Tables 9 and 10). The source Chinese example sentence (6) featured a “three-character chunk construction,” reflecting the spatial preference in Chinese expression. Example sentence (6) “稳地价①、稳房价②、稳预期③” displayed a “3+3+3” chunk construction sequence. The source Chinese example sentence (11) featured a “four-character chunk construction,” reflecting the spatial preference in Chinese expression. Example (11) “以保促稳①、稳中求进②” presented a “4+4” chunk construction sequence.

During the three interactive dialogues with AI, ChatGPT accurately translated the semantics of the chunks into the target language. For example, in translation (11), the “4+4” chunk sequence was translated to “use guarantees to promote stability① and seek progress amidst stability②,” “using guarantees to foster stability① and to advance amidst stability②,” and “foster stability① and progress within a stable environment②.”

Table 9. Results of Sentence (6)

(6) ST	(Zero agent) 坚持房子是用来住的，不是用来炒的定位，稳地价①、稳房价②、稳预期③。
TT/ET	Upholding the principle that housing is for living in, not for speculation, we will keep the prices of land and housing①② as well as market expectations stable③.
	Agent
TT (P1)	(Zero explicitation) Maintain the policy that housing is for living, not for speculation, and stabilize land prices①, house prices②, and market expectations③.
TT (P2)	(Zero explicitation) Uphold the principle that homes are meant for living, not for speculative trading, and ensure the stability of land prices①, property prices②, and market expectations③.
TT (P3)	(Partial explicitation) We should hold firm to the principle that houses are for living in, not for speculation, and seek to stabilize land prices①, housing prices②, and market expectations③.

Table 12. Results of Sentence (7)

(7) ST	(Zero agent) 注重解民忧①、纾民困②，及时回应群众关切，持续改善人民生活。
TT/ET	We will, with a focus on resolving the difficulties of our people①②, respond promptly to public concerns and continue working to improve people's lives.
Agent	
TT (P1)	(Zero explicitation) Focus on resolving the worries and easing the difficulties of the people①②, ...
TT (P2)	(Zero explicitation) Give priority to alleviating people's worries and hardships①②, ...
TT (P3)	(Complete explicitation) We must emphasize alleviating the people's worries and difficulties①②, ...

In a more comprehensive and deeper understanding of the source chunky discourse, ChatGPT in dialogues under Prompt 1 and Prompt 2 translated examples (5) and (7) as simple imperatives, replicating the source structure. Each sentence begins with a verb phrase, translated as “Commit to...,” “Firmly adhere to...,” “Focus on...,” and “Give priority to...,” without highlighting the doer of the actions. However, under the directive of Prompt 3, ChatGPT was asked to first consider the latent agent in the source Chinese before translating. With the dialogue under Prompt 3, ChatGPT translated example (5) as “We should persist in speaking...” and example (7) as “We must emphasize alleviating...”; agents were fully expressed, reflecting the lexico-grammatical connectivity of English’s temporality preference.

The source Chinese example sentences (8) and (9) each had “four-character chunk construction,” confirming the spatial preference in Chinese writing. Example (8) “世界潮流①，浩浩荡荡②，顺之则昌③，逆之则亡④” exhibited a “4+4+4+4” chunk construction sequence structure. Example (9) “全面发力①、多点突破②、纵深推进③” exhibited a “4+4+4” chunk construction sequence structure. In the three dialogue interactions with AI, ChatGPT accurately translated the semantics of each “four-character chunk construction,” merely employing different strategies in vocabulary and expression.

Table 13. Results of Sentence (8)

(8) ST	(Zero agent) 世界潮流①，浩浩荡荡②，顺之则昌③，逆之则亡④。
TT/ET	The tide of history is mighty①②. Those who follow it will prosper③, while those who resist it will perish④.
Agent	
TT (P1)	(Zero explicitation) The world's trends are vast and mighty①②. Following them leads to prosperity③, going against them leads to ruin④.
TT (P2)	(Complete explicitation) The world's currents are vast and relentless①②; those who go with the flow will prosper③, and those who go against it will fail④.
TT (P3)	(Complete explicitation) The grand currents of the world are mighty and sweeping①②; those who align with them will thrive③, and those who resist will perish④.

Table 14. Results of Sentence (9)

(9) ST	(Zero agent) 改革全面发力①、多点突破②、纵深推进③，重要领域和关键环节改革取得突破性进展。
TT/ET	In reform, we have made strong moves across the board①, secured major advances in many areas②, and driven deeper in pursuing progress③, ...
Agent	
TT (P1)	(Zero explicitation) Reform with comprehensive efforts①, achieve breakthroughs at various points②, and push forward in depth③, ...
TT (P2)	(Zero explicitation) Push forward with comprehensive reforms①, make multiple breakthroughs②, and progress to new depths③, ...
TT (P3)	(Complete explicitation) We must undertake comprehensive reforms with vigor①, achieve breakthroughs in multiple areas②, and push forward deeply③, ...

With a thorough understanding of the source chunky constructions, ChatGPT in dialogues under Prompt 1 and Prompt 2 translated the source as imperatives, with variations like “Reform with...” and “Push forward with...” without highlighting the doer of the actions. However, under the directive of Prompt 3, ChatGPT translated the agent “we” in example (8). By using the structure “those who..., those who...” in translations under Prompt 2 and Prompt 3, ChatGPT completely reshaped the two agents, reflecting the lexical-grammatical connectivity of English’s temporality preference.

D. Exceptional Explicitation

This part addresses the exception explicitational phenomenon observed in ChatGPT’s translations. In the translation process of the source Chinese example sentences (6), (10), (12), (13), and (14), via the dialogue under

TT (P3) **(Exceptional explicitation)** To learn, *one* must calm the mind, the key is to be persistent①, and the essence lies in deep understanding and mastery. ②

3) ChatGPT TT vs. Expert TT: Personal Pronoun vs. Nominal

The source Chinese example sentence (10) “志存高远①，增长知识②，锤炼意志③” featured a “4+4+4” chunk construction sequence structure. In the three dialogues with AI, ChatGPT accurately translated the semantics of each “four-character chunk construction,” with varying expressions and vocabularies. (see Table 18)

In a more comprehensive understanding of the source chunky discourse, the human-generated control text expressed the agent in example (10) as a nominal “young people,” because the second half of the sentence mentions making one’s youth shine. ChatGPT in dialogues under Prompt 1 and Prompt 2 did not highlight the doers of the action in example (10). Yet, under the directive of Prompt 3, after considering the latent agent in the source Chinese, ChatGPT translated it as the first-person pronoun “we.”

Table 18. Results of Sentence (10)

(10) ST	(Zero agent) 要志存高远①，增长知识②，锤炼意志③，让青春在时代进步中焕发出绚丽的光彩。
TT/ET	<i>Young people</i> should aim high①, acquire more knowledge②, temper their will③, and make their formative years richly rewarding ones in an era of progress.
Agent	
TT (P1)	(Zero explicitation) Hold lofty aspirations①, enhance knowledge②, steel the will③, ...
TT (P2)	(Zero explicitation) Maintain high aspirations①, cultivate knowledge②, strengthen determination③, ...
TT (P3)	(Exceptional explicitation) We ought to hold high ambitions①, expand our knowledge②, forge our will③, ...

VII. DISCUSSION AND CONCLUSION

A. *The Limitations of ChatGPT in Chinese-English Translation*

The chunky constructions in Chinese political literature selected for the study exemplify the spatial preference of Chinese thought driving language. The reference translations selected for the study are the outcomes of a high-level translation team with Chinese as their native language, further revised by native English-speaking language experts. The control texts represent translations that are the result of deep consideration and careful revision by human translators who are well-versed in the differences between Chinese and English and cultural thinking. The translations reflect the temporality preference of English thought.

The directive of Prompt 1 simply asked ChatGPT to translate the provided Chinese text into English. The results show that ChatGPT was unable to effectively comprehend the latent agency driven by spatial thinking behind the language form in the source language, nor was the agent reflected in the translations, which were simply word-for-word translations that did not fully highlight the necessary lexico-grammatical connectivity mechanisms that characterize English temporal thinking preference. The directive of Prompt 2 asked ChatGPT to provide a different and better translation than that under Prompt 1. Prompt 2 intended to prompt ChatGPT to reflect on the first version of the translation and to think critically to provide an optimized translation. Under this directive, only one out of the 10 test phrases identified the latent agent in the source language and reflected it in the translation. The other new translations differed from the first version but only varied in terms of vocabulary and expression, such as changing “enhance knowledge” to “cultivate knowledge.”

Comparing the translations generated by ChatGPT under the directives of Prompt 1 and Prompt 2 with the control texts produced by human translation, it was found that ChatGPT could not actively engage in deep thinking when faced with Chinese chunky construction sequences. It failed to comprehend the characteristic of relying on semantics rather than lexical form to connect elements in the source language driven by spatial thinking preference, and thus could not find the latent syntactic elements (agents). It also failed to autonomously adjust when converting into English translations, which should actively refer to the characteristics of English, which values lexical and grammatical tools in text formation. Evidently, as a machine translation tool at the level of artificial intelligence, ChatGPT cannot actively comprehend the latent agents (agent) in the source chunky discourses and conduct good reshaping of the target language English translations.

B. *The Effectiveness of ChatGPT in Chinese-English Translation*

Given ChatGPT’s limitations in comprehending the source language and reshaping the target language as demonstrated under Prompt 1 and Prompt 2, the prompt was revised to explicitly inform the AI of the challenges in comprehending the source text and explicitly ask it to identify and highlight the latent agent in the translation. Under the directive of Prompt 3, it can be seen that ChatGPT was better able to complete the translation task

under new instructions. Using the Prompt 3 directive, it achieved partial explicitation with a 20% ratio; complete explicitation accounted for 40%, and the remaining 40% fell under the category of exception explicitation. It is evident that through continuous optimization of interactions between humans and AI and consistent training of the AI, ChatGPT's computational power and learning ability can be harnessed to a certain extent.

Of course, in the detailed discussions and analyses of each category, ChatGPT's performance also showed a variety of different translations, distinct from the human-generated control texts. Undoubtedly, AI can be a powerful assistant for human translation. The different translation samples presented by ChatGPT, on the one hand, can offer a broader range of choices and ideas for human post-editors in the interactive translation process between humans and AI. As they say, there are as many translations as there are translators, and while there may not be a "best" translation, there can always be a "better" one. On the other hand, the differences exhibited by ChatGPT in the process of comprehending the source language and translating it, when compared to the control text, also highlight that in addition to the language itself, other factors such as textual context, situational context, discourse, audience, etc., need to be considered in the translation process. All these provide meaningful data and reference for subsequent AI-based translation training.

Based on this study, while ChatGPT cannot yet fully replace human translators in translating chunky discourse from political documents, it can assist human translators in improving through continuous optimization of the human-AI interaction process.

C. Prospects in Future Use of ChatGPT

Regarding the chunky construction texts in Chinese political discourse, the effectiveness of manual translation practice is still being explored and researched, and many issues remain unresolved. Therefore, machine translation practice for such discourses is also imperative and necessary. Overall, when dealing with chunky discourse texts in political documents, ChatGPT has not yet fundamentally transformed the traditional human translation process, and the role of human translation remains critical. With the continuous improvement of the ChatGPT model, it will have broad application potential in the field of machine translation. However, in many specialized and crucial translation tasks, the combination of human translators and machine translation remains the best choice.

In the age of artificial intelligence, especially when faced with natural language processing technologies like ChatGPT, translation should strengthen the following areas of construction and development. First, it's time to enhance language contrastive studies and cross-cultural research, delve deep into cultural differences and linguistic diversity to better address translation needs in multilingual and multicultural environments. Second, it is a must to integrate modern technologies and research how to achieve collaborative work between machines and humans to improve translation efficiency, accuracy, and quality. Third, it becomes urgent to innovate translation education and update training so that students and professional translators can master modern translation technologies. Fourth, it is demanding to cultivate translators' keen awareness of issues and their ability to design and optimize prompts within the context of collaborative work between machines and humans. Fifth, it should be stressed to enhance exploration in linguistic research and translation studies theory and practice, revealing the cognitive processes of human language generation and translation, thereby feeding back and guiding machines in language thinking and translation.

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