

Leveraging Serial Verb Constructions for Sequential Processing in English – Chinese Sight Interpreting

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ABSTRACT

Sight interpreting (SI) from English to Chinese faces significant cognitive load due to syntactic discrepancies. Traditional reordering strategies increase processing lag and cognitive burden. This paper proposes a sequential processing strategy that leverages inherent features of Chinese syntax—serial verb constructions (连动结构)—to convert English hypotactic structures into linear, paratactic Chinese expressions. Case analysis demonstrates this method reduces cognitive load, improves real-time fluency, and ensures pragmatic appropriateness, offering a cognitively efficient alternative to conventional reordering.

KEYWORDS

Sight interpreting; Cognitive load; Sequential processing; Working memory; Serial verb construction

1 Introduction

Sight interpreting (SI), often viewed as a hybrid skill bridging translation and simultaneous interpreting, places immense cognitive pressure on the interpreter (Pöchhacker, 2016). Unlike written translation, SI requires the delivery of the target text (TT) to begin almost immediately after the ST becomes available, forcing the interpreter to maintain high sequential processing fidelity while simultaneously managing decoding, transfer, and reformulation efforts.

The core challenge lies in the structural discrepancy between English and Chinese. English is predominantly a Subject-Verb-Object (SVO) language relying heavily on hypotaxis (subordination), explicit subjects, and post-nominal modification (e.g., relative clauses). Chinese, conversely, is a topic-prominent language characterized by parataxis, flexible verbal chains, and a tolerance for implicit subjects (Li & Thompson, 1981). In the real-time constraints of SI, the traditional approach of extensive syntactic reordering (necessary for achieving formal equivalence in written translation) significantly increases cognitive load, leading to lag, omission, or processing breakdown (Lambert, 1989).

This paper proposes and analyzes a pedagogical strategy for English-to-Chinese SI that leverages an intrinsic characteristic of the Chinese language—serial verb constructions—to maintain a closer linear alignment with the source text (ST) while ensuring the TT's naturalness and adherence to Chinese expression habits. Through detailed qualitative analysis of case studies and a quantitative comparison of output length, this paper demonstrates how this strategy effectively mitigates cognitive burden and improves synchronization.

2 Theoretical framework

2.1 The constraint of sequential processing and cognitive load

Gile's Effort Model defines interpreting as the sum of efforts exerted in listening, memory, production, and coordination (Gile, 1995). In SI, the listening effort is replaced by the reading effort, but the coordination effort remains critical. To minimize the delay between reading and speaking (*décalage*), the interpreter must prioritize sequential processing, meaning the target language output should follow the linear progression of the source language input as closely as possible. The dilemma is clear: maintain synchronization and sacrifice naturalness or achieve naturalness and increase cognitive load via reordering.

2.2 A multi-faceted theoretical lens: from cognitive processing to pragmatic adaptation

While Gile's model provides a foundational macro-perspective, a deeper understanding of the proposed strategy's effectiveness can be achieved by integrating more recent theoretical advancements to explain precisely how serial verb constructions (SVCs) counteract the cognitive challenges outlined above.

The primary advantage of the SVC strategy lies in its profound impact on Working Memory management. As established, traditional reordering of English hypotaxis forces the interpreter to "cache" large, incomplete syntactic chunks, heavily taxing cognitive resources. The serial verb construction, by its very nature, transforms this process. It allows the interpreter to segment the incoming source text into smaller, action-centered "micro-chunks." Each verb in the chain represents a complete, self-contained proposition that can be processed and output immediately. This converts a resource-intensive "batch processing" task into a far more manageable "stream processing" one. The interpreter is no longer required to hold complex subordinate clauses in memory; instead, they simply append new actions to the existing

chain, drastically minimizing the load on working memory and reducing the risk of information loss (Miyake & Friedman, 2012).

Furthermore, this strategy directly optimizes the use of Executive Function, particularly Inhibitory Control. The English SVO and post-nominal modification patterns create a powerful processing “inertia” that the interpreter must actively fight when reordering. The serial verb construction provides a natural “path of least resistance.” Instead of expending significant mental effort to inhibit the linear flow of the source text, the interpreter cleverly “channels” it into a grammatically acceptable and natural-sounding Chinese paratactic structure. The core principle of an SVC—a single subject performing a sequence of actions—provides a ready-made template to map English clauses onto. It is a strategy of “guiding” and “repurposing” the syntactic inertia rather than “blocking” it, thereby conserving precious cognitive resources for higher-level semantic and pragmatic processing (Bialystok et al., 2012).

Finally, from the perspective of Relevance Theory, the use of SVCs is not merely a syntactic convenience but a powerful tool for enhancing pragmatic communication. Relevance Theory posits that communication aims to achieve the greatest cognitive effect with the least processing effort. The linear, chronological, and cause-and-effect nature of a typical SVC perfectly aligns with this principle. It presents information in a way that is inherently logical and easy for the human brain to follow. By converting complex, nested English hypotaxis into a straightforward Chinese action chain, the strategy produces an output that is more aligned with the inferential communication patterns of the target audience. This facilitates their comprehension, achieves pragmatic equivalence more efficiently (Gutt, 2000), and demonstrates how a seemingly simple syntactic choice can have profound effects on cognitive efficiency for both interpreters and listeners.

3 The proposed strategy and case analysis

The proposed synchronization strategy involves actively looking for opportunities to deploy Chinese serial verb constructions when processing long English sentences. The following comparative analysis will use six distinct cases to demonstrate the strategy’s effectiveness. Each analysis will first dissect the cognitive challenges posed by a Formal Equivalence-Driven Rendition (TT-R). This baseline represents an approach common among novice interpreters influenced by written translation paradigms, who prioritize syntactic fidelity over processing fluency. The analysis will then elaborate on the cognitive efficiencies achieved by the Strategic Sight Interpreting (TT-S), consistently linking the practical application back to the integrated theoretical framework of working memory, inhibitory control, and relevance theory.

3.1 Deconstructing complex clauses and modifiers

Case study 1

Source Text (ST): *And I would like to echo your comments about how great it is to see so many people here, both of the business delegation that I have brought over with me, but also friends here in China, who are doing so much to help to build this golden era of UK-China relations.*

TT-R: 我也想呼应您的观点,看到今天有这么多人到场真是太好了——不仅有我随行带来的商务代表团成员,还有许多在中国的朋友,他们为推动英中关系的“黄金时代”、加强两国之间的联系作出了重要贡献,并将这种合作不断深化、延续到未来。

TT-S: 我很同意您的观点,很高兴看到这么多人出席,既有随我一同出访的商务代表,也有诸多在华友人,各位付出了诸多努力,合力打造了中英关系的黄金时代,并见证了两国关系不断发展、加强。

The TT-R’s “pre-nominal modifier” method, a direct import from written translation, creates a significant cognitive bottleneck. It forces the interpreter to store the entire lengthy relative clause in their working memory while waiting for the head noun to be placed at the end. This “wait-store-reorder-output” process severely tests the capacity and processing speed of an interpreter’s cognitive resources.

The TT-S, however, completely bypasses this bottleneck by employing a serial verb construction, yielding a cascade of cognitive benefits.

From a Working Memory perspective, it transforms a single, high-load processing task into a linear stream of smaller, low-load chunks. Instead of holding a large, incomplete syntactic unit, the interpreter processes and discharges each action in the chain (付出了, 合力打造了, 见证了) sequentially. This “chunk-and-release” mechanism keeps the cognitive load low and stable, preventing memory overload and potential information loss.

This linear approach also optimizes Inhibitory Control. Producing the TT-R requires the interpreter to exert significant mental energy to suppress the natural left-to-right processing impulse dictated by the source text. The TT-S, by contrast, aligns with this impulse. It channels the information into a natural Chinese paratactic structure, a path of least cognitive resistance, thereby conserving precious executive function resources.

Finally, according to Relevance Theory, the direct, action-oriented chain of the TT-S is pragmatically more effective. It presents the information to the audience in a dynamic, event-focused manner that is chronologically intuitive and easier to process than a static, syntactically complex noun phrase. This maximizes the cognitive effect of the utterance by

minimizing the listener's processing burden.

Case study 2

ST: *In my presentation today, I would like to give a geo-economic perspective of a global initiative that is closely associated with the infrastructure business community, and which could possibly help transform the landscape for world's trade and global economy.*

TT-R: 在我今天的演讲中,我想从地缘经济的角度介绍一个与基础设施商业社区密切相关的全球倡议,这一倡议有可能帮助改变世界贸易和全球经济的格局。

TT-S: 今天的演讲,我想从地缘经济出发,探讨一项全球倡议,该倡议事关基础设施业界,并有可能重塑全球经贸格局。

The TT-R's pre-nominal modifier for the stacked relative clauses is cognitively expensive, requiring the interpreter to buffer and manage two parallel information streams in working memory simultaneously before they can be synthesized into a single, complex modifier. This significantly increases the risk of cognitive overload.

The TT-S, after outputting the core topic “一项全球倡议” (a global initiative), uses verb-led phrases that function as a serial verb construction linked to the topic.

This has a profound benefit for Working Memory. By outputting the core topic first, the interpreter immediately frees up cognitive resources. The subsequent details are then added incrementally, as a sequence of states (事关, 有可能重塑), which avoids the memory strain of pre-emptive synthesis required by the TT-R.

This strategy also demonstrates efficient Inhibitory Control. Rather than fighting the English post-nominal structure, the interpreter fluently redirects its informational content into a high-frequency Chinese Topic-Comment pattern. This act of channeling, rather than suppressing, is a far less demanding executive function.

From a Relevance Theory standpoint, this “main-point-first, details-later” approach is a highly effective communication strategy. It provides the listener with a clear anchor for comprehension (“a global initiative”), making the subsequent information optimally relevant and far easier to integrate into their developing mental model of the discourse.

3.2 Converting nominal structures to verbal expressions

Case study 3

ST: *I think what I have found here in China is a real enthusiasm for the links between the United Kingdom and China, a real enthusiasm for building on those links for the future, for recognizing the opportunities that we share, for recognizing the complementary skills that we have in so many areas and how those can be developed to the advantage of people in the UK and people here in China.*

TT-R: 我在中国感受到的,是人们对英中关系的真挚热情——热情地致力于在现有联系的基础上继续深化,热情地认识到我们共同拥有的机遇,认识到我们在众多领域的互补优势,以及如何将这些优势发展为造福英国人民和中国人民的成果。

TT-S: 此次来华我发现,人们热切渴盼两国关系还能进一步深化加强,认识到我们共享机遇,承认互补优势存在于众多领域,并知道如何开发这些优势以造福英中两国人民。

The TT-R's noun-for-noun translation of “enthusiasm” to “热情” is static and leads to a verbose and structurally complex explanation, burdening the interpreter's cognitive planning and production capacity.

The TT-S's “Verbalization” strategy transforms the static noun into the dynamic verb “渴盼” (to eagerly look forward to), which then unlocks a powerful, long serial verb construction.

This greatly benefits Working Memory, as a linear chain of concrete actions (渴盼, 认识到, 承认, 知道) is cognitively easier to process, retain, and produce than a single abstract noun followed by a series of lengthy, subordinate explanatory phrases.

This approach bypasses the need for strong Inhibitory Control that would be required to maintain a noun-centric structure. Instead of being constrained by the source text's part of speech, the interpreter leans into the typological strengths of Chinese as a verb-centric language.

In terms of Relevance Theory, the dynamic verb “渴盼” conveys the speaker's intent with much greater impact and immediacy than the static noun “热情.” It delivers a stronger communicative effect with less processing effort from the audience, as the dynamic action is more vivid and requires less inferential work to understand its implications.

Case study 4

ST: *I noted the supportive and encouraging mood but there was still a palpable reservation over whether China would lead and deliver this global economic initiative fairly and with transparency.*

TT-R: 我注意到整体气氛是支持和鼓舞的,但人们仍然明显存在一种顾虑——中国能否以公正、透明的方式主导并落实这一全球经济倡议。

TT-S: 我注意到,大家普遍支持愿意鼓励,但仍明显有所保留。他们不确定中国领导并落实该倡议时,能以公开透明的方式进行。

The TT-R translates the abstract noun phrase “a palpable reservation” literally, forcing a “two-step” cognitive process

where the audience must hold the abstract concept in memory while waiting for an explanation, increasing the chance of processing errors.

The TT-S breaks the concept down into a serial verb construction describing behavior.

It demonstrates flexible Inhibitory Control, as the interpreter is not bound to a one-to-one, part-of-speech mapping of the source noun phrase. They inhibit the literal noun translation in favor of a more dynamic structural equivalent that feels more natural and is easier to produce in Chinese.

From a Relevance Theory perspective, the TT-S is more explicit and transparent. By clearly stating the behavior (“有所保留”) and the underlying reason (“不确定”), it reduces the inferential load on the listener, making the communication more efficient and less ambiguous.

3.3 Maintaining logical flow and information sequence

Case study 5

ST: *The TPP is now as good as dead after the Trump administration pulled the plug on it, although there have been recent attempts to revive it.*

TT-R: 虽然最近有人试图让《跨太平洋伙伴关系协定》重启,但自特朗普政府叫停该协定以来,它实际上已名存实亡。

TT-S: 《跨太平洋伙伴关系协定》已经名存实亡,因为特朗普政府叫停,即便最近有人试图重启也于事无补。

This is a textbook case of optimizing Inhibitory Control. Instead of expending immense energy to suppress the ST's “Main Idea First” flow, the interpreter embraces the linear order, conserving precious cognitive resources that can be reallocated to monitoring output accuracy and style.

Consequently, this dramatically reduces the burden on Working Memory, as there is no need to hold the main clause in a buffer while waiting for the final concessive clause.

This approach is also superior from a Relevance Theory standpoint, as presenting the most critical information first (“名存实亡”) ensures the audience immediately grasps the main point.

Case study 6

ST: *According to the ADB, Asia alone will need up to US\$1.7 trillion in infrastructure investment annually in the next over the next ten years if the region is to maintain growth momentum.*

TT-R: 据亚洲开发银行预测,如果亚洲地区要保持增长势头,未来十年每年仅基础设施投资就可能需要高达1.7万亿美元。

TT-S: 据亚洲开发银行预测,光亚洲就需要1.7万亿美元,每年投资到基础设施连续十年,才能保持亚洲增长势头。

The TT-R again performs syntactic reordering by moving the conditional clause to the front, a cognitively costly maneuver when managing complex data, as it increases the risk of dropping or misremembering figures during the reordering process.

The TT-S transforms the conditional and temporal elements into a serial verb construction that expresses purpose and means.

This has a dual cognitive benefit. First, it prioritizes the output of critical data, a sound risk-mitigation strategy for managing Working Memory.

Second, it is another clear example of conserving Inhibitory Control, as the interpreter refuses to engage in the demanding task of reordering.

In terms of Relevance Theory, for data-intensive statements, the core data itself is often the most relevant piece of information. The TT-S strategy of presenting this data upfront is therefore a pragmatically effective choice.

3.4 Linguistic economy

In addition to the qualitative analysis of cognitive processes, the advantage of the synchronization strategy in terms of cognitive efficiency can also be quantitatively substantiated through the linguistic economy of the output. In a highly time-compressed activity like interpreting, the conciseness of the output text is directly related to whether the interpreter has more time to listen, comprehend, and plan for the next piece of information.

To provide a more precise measure, the following table compares the Chinese character counts of the TT-R and TT-S for the first six cases, excluding all punctuation. This method focuses solely on the density of semantic content.

Table 1

Case No.	TT-R (Characters)	TT-S (Characters)	Reduction	Percentage
1	102	77	25	24.5%
2	67	49	18	26.9%
3	121	74	47	38.8%
4	58	53	5	8.6%
5	49	41	8	16.3%
6	38	36	2	5.3%
Average	72.5	55.0	17.5	24.1%

The data reveals a clear and consistent trend. In all six representative cases, the TT-S version is more concise than the TT-R version, with an average character reduction of 24.1%. This significant linguistic economy is not accidental; it is a direct external manifestation of improved cognitive efficiency. A more concise output saves articulation time, effectively shortening the processing lag (*décalage*) and gaining valuable cognitive buffer space to handle the next information unit. Therefore, linguistic economy serves as powerful and uniform data-driven support for the cognitive rationality of the proposed strategy.

4 Conclusion and future research

This paper has argued that leveraging the inherent grammatical flexibility of Chinese—serial verb constructions—is a powerful and theoretically grounded strategy for mitigating the cognitive load in English-to-Chinese Sight interpreting. By transforming complex English hypotaxis into linear Chinese parataxis, the interpreter can successfully manage the critical demand for sequential processing without sacrificing the target text's natural flow.

As established in the enhanced theoretical framework, this strategy operates on multiple cognitive and pragmatic levels. It optimizes information processing by reducing the burden on working memory, enhances bilingual language control by minimizing the need for syntactic inhibition, and achieves greater pragmatic relevance by aligning the output with the target audience's inferential communication habits. This study's primary contribution, therefore, lies in its detailed cognitive analysis of a specific syntactic tool, demonstrating how leveraging the inherent paratactic nature of Chinese can serve as a direct and effective countermeasure to the cognitive demands imposed by English hypotaxis.

This approach should be integrated into advanced SI pedagogy. Future research could move in several empirical directions: for instance, utilizing eye-tracking technology to measure the fixation duration and saccade patterns of interpreters using this strategy versus traditional methods, or employing electroencephalography (EEG) to monitor cognitive load more directly. Furthermore, investigating the strategy's applicability and potential adaptations across different discourse types, such as legal depositions versus political speeches, would be a valuable extension of this research.

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