

Directionality in Chinese–English Interpreting: A Critical Review of Research Methods and Empirical Findings

Sun Xiaoyu

School of Interpreting and Translation Studies, Guangdong University of Foreign Studies, China

Abstract: *This study focuses on directionality in interpreting, systematically reviewing the research methods and findings in this field. Through multi-channel retrieval across CNKI, John Benjamins, and the Web of Science full-text journal databases, a substantial body of Chinese and English literature was obtained. The review reveals that empirical research methods currently dominate this field, with studies conducted at multiple levels including lexicon, syntax, and cognition, shedding light on the effects of directionality on language processing, strategy use, and cognitive load. However, existing studies exhibit certain shortcomings, including ambiguous definitions of research subjects, insufficient control of textual variables, and low ecological validity in experimental designs. Future research should adopt more ecologically valid methods while clarifying research subjects and optimizing experimental designs.*

Keywords: *interpreting directionality; research methods; empirical research; cognitive load*

I. Introduction

Directionality in interpreting refers to the direction of translation. Directionality exerts a profound influence on interpreters' cognitive processing and interpreting quality. Different interpreting directions present interpreters with distinct challenges in information processing, strategy use, and other aspects. An in-depth investigation of interpreting directionality can help reveal the mechanisms of language switching and the cognitive patterns underlying the interpreting process. The research methods employed in the study of interpreting directionality are diverse, with empirical methods representing the mainstream trend. Numerous scholars have explored the impact of directionality on interpreters' performance, cognitive processes, and related dimensions. This paper aims to provide a systematic review and critical analysis of existing research methods.

II. Literature Search Design

2.1 Chinese-Language Literature Search and Acquisition

A search was conducted in CNKI using the subject terms "口译" (interpreting) and "方向性" (directionality), limited to academic journals, yielding 16 articles. After screening for relevance to the study of translation directionality in interpreting, 8 articles were retained. A keyword search for "口译" and "方向性" (restricted to academic journals) returned 0 results.

Given that the term "directionality" can be translated into Chinese as "方向性," "方向," or "翻译方向," an additional keyword search was performed in CNKI using "口译" and "方向," which produced 2 journal articles.

A keyword search in CNKI for "口译" and "翻译方向" (limited to academic journals) yielded 0 relevant articles. A subject search using "口译" and "翻译方向" returned 41 articles, the majority of which concerned interpreting as a program orientation in university foreign language departments. After excluding these and other irrelevant articles, 2 articles remained, one of which had already been retrieved in the earlier subject search for "口译" and "方向性."

In total, 11 Chinese-language articles on interpreting directionality were obtained through CNKI.

2.2 English-Language Literature Search and Acquisition

The John Benjamins electronic journal database was searched for English-language literature. Given that this review focuses specifically on directionality in Chinese–English bilingual interpreting, relevant articles were expected to include the terms "interpreting," "directionality," "Chinese," and "English" in their abstracts. Accordingly, the search criteria were set to "Abstract contains 'directionality' 'interpreting' 'Chinese' 'English'" with "content types" limited to "article," yielding 10 English-language articles. After screening for relevance to the study of interpreting directionality, 6 articles were retained.

A Web of Science search using the terms "interpreting," "directionality," "Chinese," and "English" (filter: topic) returned 19 relevant English-language articles. After screening for relevance and excluding 4 articles already identified through John Benjamins, a total of 24 English-language articles on interpreting directionality were obtained from John Benjamins and Web of Science combined.

III. Current State of Methodological Approaches and Research Findings in Interpreting Directionality

3.1 Lexical-Level Studies

In the field of interpreting directionality, some scholars have investigated lexical-level phenomena. Wang and Mei (2017) conducted experiments on metaphor-word effects and online interpreting processing, finding that the English-to-Chinese direction was more prone to parallel lexical processing than the Chinese-to-English direction. Chang and Schallert (2007) conducted a detailed investigation of the impact of directionality on Chinese–English simultaneous interpreting, revealing significant differences in lexical and syntactic strategies employed by interpreters across different directions.

3.2 Note-Taking and Directionality

Gao (2019) conducted an experiment involving a comparative analysis of interpreters' notes in English–Chinese consecutive interpreting, concluding that the source language — rather than the target language — dominated the notes. As learners' interpreting competence improved, the proportion of target language in notes increased.

3.3 Assessment and Evaluation Studies

Shang and Li (2022) conducted an experiment to assess students' interpreting output quality, noting that information completeness carried the greatest weight in bidirectional interpreting assessment, followed by delivery. The language dimension showed some weight in Chinese-to-English interpreting but was unmeasurable in English-to-Chinese interpreting. Han and Zhao (2021) found that peer raters assessing bidirectional English–Chinese consecutive interpreting demonstrated greater accuracy when rating the English-to-Chinese direction, and experienced raters produced more accurate ratings overall.

Han (2018a) employed latent trait modeling to investigate rater accuracy in formative peer assessment of English–Chinese consecutive interpreting. In a longitudinal quantitative study examining the concurrent validity of self-assessment (SA) and peer assessment (PA) in bidirectional English–Chinese consecutive interpreting — using teacher assessment (TA) as the criterion — the researcher examined student performance across three dimensions: information completeness, delivery fluency, and target language quality. Results showed that the correlations between SA and TA, as well as between PA and TA, were significantly stronger in the English-to-Chinese direction than in the Chinese-to-English direction. This suggests that students' ratings aligned more closely with teacher ratings when assessing Chinese target-language output, whereas alignment was lower when assessing English output. In the English-to-Chinese direction, the correlation strength for SA/TA and PA/TA followed the pattern of information completeness (InfoCom) > delivery fluency (FluDel) > target language quality (TLQual); however, this pattern was not observed in the Chinese-to-English direction. Over time, SA/TA correlations improved more notably in the Chinese-to-English direction, whereas PA/TA correlations in the English-to-Chinese direction reached relatively high levels (near the ceiling) earlier, leaving limited room for improvement. The author attributed these directional differences primarily to students' familiarity with the target language. As native Chinese speakers, students demonstrated greater competence in assessing Chinese target-language output; English, as a second language, posed greater difficulty, resulting in lower alignment with teacher ratings.

In a separate study, Han (2019) employed Generalizability Theory to investigate the optimal measurement design for summative assessment of English–Chinese consecutive interpreting. Results showed that rater variability was greater when assessing interpreting in the Chinese-to-English direction than in the English-to-Chinese direction, indicating greater divergence in evaluations of Chinese-to-English interpreting. For information completeness ratings in the English-to-Chinese direction, increasing the number of tasks was more effective than increasing the number of raters in enhancing reliability. For other assessment dimensions (e.g., delivery fluency, target language quality) and the Chinese-to-English direction, increasing the number of raters was more effective than increasing the number of tasks. Different translation directions corresponded to distinct optimal measurement designs: two potential optimal designs were identified for the English-to-Chinese direction, and one for the Chinese-to-English direction.

Han et al. (2023) focused on the effects of bilingual raters' language backgrounds and translation directionality on the assessment of bidirectional English–Chinese consecutive interpreting. Through empirical investigation, the study examined how these two factors influence the rating process and outcomes. The authors found that when raters assessed interpreting into their native language, they demonstrated higher internal consistency and self-reported confidence. Raters were also more stringent when assessing into their native language. For instance, the CN-A group assigned significantly lower overall scores for the English-to-Chinese direction compared to the EN-A group, while the EN-A group assigned significantly lower scores for the Chinese-to-English direction. At the dimensional level, the CN-A group was more stringent on target language quality, while the EN-A group was more stringent on information completeness; stringency regarding fluency was less affected by directionality for both groups. Although the two rater groups' rankings of interpreting performance were highly correlated, significant differences emerged in pass/fail cutoffs, with approximately 22%–25% of examinees receiving different pass/fail outcomes depending on the rater group. Raters reported greater subjective confidence when assessing into their native language, perceiving native-language assessment as easier, while confidence was lower for target language quality assessment in the non-native direction, primarily constrained by second language proficiency.

3.4 Questionnaire and Interview-Based Studies

Xu (2021) employed questionnaire and interview methods to analyze collected data and interpreters' feedback, concluding that in Chinese–English simultaneous interpreting, different directions present distinct challenges: listening comprehension is more demanding in English-to-Chinese interpreting, while expression poses greater difficulty in Chinese-to-English. Information processing characteristics and primary difficulties differed across directions, as did the allocation of attentional resources. Most professional interpreters showed no directional

preference, while some graduate students tended to favor the Chinese-to-English direction; the higher the foreign language proficiency, the smaller the impact of translation direction on performance. The influence of directionality on interpreting quality depended on the language pair and the interpreter's foreign language proficiency. Wen (2015) focused on directionality in Chinese–English combined interpreting pedagogy, employing questionnaires and interviews to analyze data, concluding that students' understanding and mastery of English were critical for both directions of interpreting. The primary source of difficulty in bidirectional Chinese–English interpreting was students' English proficiency level.

3.5 Audio Recording Analysis Studies

Fu (2012) conducted an experiment analyzing students' interpreting audio recordings, concluding that language structure differences and directionality influenced pause characteristics in interpreting, though the hypothesis that interpreting into one's native language is inherently more fluent was not supported. Fu (2013) further analyzed waveform files derived from students' interpreting recordings, finding that changes in interpreting direction significantly influenced target-language fluency, though the relationship was specific rather than uniform; interpreting into the native language was not necessarily more fluent than interpreting into a foreign language.

Chou et al. (2021), through experimental and recording analysis, found that directionality significantly affected interpreting performance: the English-to-Chinese direction yielded superior performance in speech rate, delivery fluency, and output quality, while no significant difference between directions was observed for information completeness.

Lu et al. (2023a) adopted a non-experimental quantitative research approach, employing verbatim transcription to convert students' interpreting audio into text, and assessed student interpreter performance using an analytical rating scale combined with propositional analysis. Results indicated that students performed better when interpreting into English (the into-B direction).

These scholars (Lu et al., 2023b) also conducted a systematic literature review of the relationship between directionality and performance in consecutive interpreting (CI). Following PRISMA guidelines, the review searched Scopus, Web of Science, and relevant journals, ultimately including 26 studies. The review concluded that the effect of directionality on interpreter performance depends on whether the interpreter's A and B language proficiency is balanced. For balanced bilinguals (especially professional interpreters), directionality had no impact on consecutive interpreting performance, with comparable performance across both directions. For unbalanced bilinguals with imbalanced language proficiency, directionality significantly affected performance. Specifically, unbalanced bilinguals (particularly student interpreters) showed differential performance across directions: overall, they performed better in terms of information completeness and accuracy in the into-B direction (from native to second language), whereas they performed better in delivery fluency in the into-A direction (from second language to native language). Directionality also interacted with interpreter status (professional vs. student). For example, in the into-B direction, the fluency gap between professionals and students was more pronounced, while in the into-A direction, accuracy differences were larger. Additionally, the effects of directionality in consecutive interpreting were moderated by multiple factors — including second language proficiency, working memory, self-efficacy, note-taking strategies, language pair differences, and text complexity — which interacted with directionality to collectively shape interpreter performance. The authors proposed that the impact of directionality on CI performance is contingent upon language proficiency: balanced bilinguals are unaffected, while unbalanced bilinguals require targeted training. Future research should address: directionality effects in non-English language pairs, complementary qualitative studies, interactions among factors (e.g., the relationship between preference and performance), and interdisciplinary approaches (e.g., neuroscientific techniques to explore cognitive mechanisms).

3.6 Corpus-Based Studies

Deng (2016) adopted a combined qualitative and quantitative approach to conduct case analysis of interpreting corpora, finding that native Chinese speakers exhibited more pronounced written-language drift in Chinese-to-English consecutive interpreting, and more pronounced spoken-language drift in English-to-Chinese interpreting. These findings were interpreted through the lens of Gile's Effort Models, Verschueren's Theory of Adaptation, and Wang Li's hypotaxis–parataxis theory.

Huang et al. (2023), drawing on corpus data from United Nations Security Council meetings, found that task complexity and interpreting directionality interacted to affect cognitive load, which in turn influenced the use of formulaic sequences. The Chinese-to-English direction, associated with higher cognitive load, prompted interpreters to employ more formulaic sequences.

Xu and Liu (2024), through analysis of bidirectional parallel corpora from United Nations Security Council meetings, found that professional interpreters tended to adopt simpler syntactic structures when interpreting from English to Chinese, and adjusted word order in both directions to conform to target-language conventions.

Liu and Dou (2023), analyzing UN Security Council speech corpora, demonstrated that interpreting directionality influenced cognitive load, leading to lexical differences: interpreted texts in the English-to-Chinese direction exhibited lexical simplification.

Shen (2025), drawing on English–Chinese consecutive interpreting corpora, found that interpreting performance was correlated with the rate of manner information transmission, with manner verbs showing higher transmission rates in the Chinese-to-English direction. Interpreting direction influenced the resistance of manner information processing to cognitive load.

3.7 Empirical Studies Employing Cognitive and Neuroscientific Methods

The majority of research in interpreting directionality has employed empirical methods, predominantly those involving cognitive load, cognitive processing, and Gile's (2009) Effort Models. A substantial number of studies have utilized eye-tracking, electroencephalography (EEG), and other experimental techniques.

Zhang (2009) measured participants' working memory capacity and conducted subsequent experiments, finding that working memory pressure was greater in English-to-Chinese simultaneous interpreting than in Chinese-to-English, and that working memory had a stronger impact on English-to-Chinese performance. The greater the pressure, the more pronounced the performance gap between the two directions. The more extensive the simultaneous interpreting experience, the smaller the differential impact of working memory on different interpreting directions, and the smaller the performance gap.

Chou et al. (2021) found that in English–Chinese consecutive interpreting, trainees produced faster speech rates in the English-to-Chinese direction, but showed poorer delivery fluency and output quality in the Chinese-to-English direction.

Lin et al. (2018) found that in simultaneous interpreting, the non-native-to-native direction yielded greater fluency, with working memory and directionality significantly influencing fluency.

Su et al. (2024), through eye-tracking experiments, found that in simultaneous interpreting with slides, processing asymmetric structures was more challenging in the English-to-Chinese direction, and the spillover effects of such structures on subsequent segment processing were greater in this direction.

Chen (2008) investigated the impact of directionality on Chinese–English simultaneous interpreting, finding that interpreters performed relatively better in the Chinese-to-English direction, which was closely related to interpreters' familiarity with different language directions and their strategy use.

Chen (2022), by comparing empirical data from professional interpreters and students, found that in terms of time lag, both professionals and students exhibited shorter lag in the L2-to-L1 direction than in the L1-to-L2 direction.

In target-language production, in the Chinese-to-English direction, professionals produced shorter target-language duration, fewer pauses, and shorter total pause time, whereas in the English-to-Chinese direction, differences were smaller, with only average pause length being slightly shorter. In terms of target-language output quality, differences in information accuracy were larger in the English-to-Chinese direction, while fluency differences were larger in the Chinese-to-English direction. Target language quality showed significant differences in the Chinese-to-English direction, with smaller differences in the English-to-Chinese direction.

Chang and Chen (2023), based on an eye-tracking study, explored the relationship between translation directionality and the Inhibitory Control Model (ICM). Using non-parametric related-samples Wilcoxon signed-rank tests to analyze pupillometric data, the study confirmed the directionality effects proposed by the ICM — namely, the phenomenon of "translation asymmetry" at the textual level, with L2 translation (from native to second language) being more cognitively demanding than L1 translation (from second language to native language). The study further found that an XGBoost machine learning model, trained on pupillometric data and classification information, could reliably and effectively predict translation direction, providing additional evidence for the effect of translation direction on cognitive load. Machine learning analysis identified initial pupil size, final pupil size, pupil standard deviation, mean pupil size, immersion experience duration, age of onset of English learning, and practice duration as important predictors of translation direction, all linked to cognitive load differences across translation directions.

Han et al. (2020) conducted an experiment to investigate the relationship between utterance fluency measures and raters' perceived fluency in consecutive interpreting, examining whether this relationship remained consistent across translation directions and rater types. Results showed that correlations among utterance fluency measures were consistent across both directions: speed fluency measures exhibited strong positive intercorrelations, as did repair fluency measures, while breakdown fluency was significantly negatively correlated with speed fluency. The indicators strongly correlated with perceived fluency were identical across both directions: mean length of unfilled pauses (negative), phonation time ratio (positive), mean length of run (positive), and speech rate (positive), with similar correlation magnitudes. A parsimonious regression model using mean length of unfilled pauses and mean length of run as predictors effectively explained 59%–64% of the variance in perceived fluency ratings across both directions, and the model's predictive power was unaffected by translation direction. These results indicate that perceived fluency in consecutive interpreting is primarily determined by mean length of unfilled pauses and mean length of run, a pattern unaffected by translation direction or rater experience.

3.8 Innovative Approaches to Interpreting Directionality

Wang (2024) examined translation directionality from a cognitive neuroscience perspective, addressing three dimensions: neural pathways, brain activation patterns, and cognitive load and effort. The study hypothesized that the two languages in the brain may function independently, and that translating into the native language (L1 translation) and translating into the foreign language (L2 translation) may involve relatively independent neural pathways. Translation direction was found to influence brain activation patterns: L1 translation emphasized comprehension, while L2 translation emphasized output and control, with differences observed in hemispheric connectivity and conceptual processing.

Li and Shi (2012), through a comprehensive review of the simultaneous interpreting literature, concluded that professional interpreters adopt different strategies in different directions of simultaneous interpreting to meet varying demands. Performance differences stem not only from disparities in bilingual language proficiency but also from factors such as interpreters' awareness of their own linguistic capabilities, available strategies, audience expectations, and the phonological structure of the working languages.

Cheung (2015) found that audiences may attribute their own comprehension difficulties to the interpreter, and that interpreting direction may influence audience perceptions of interpreter performance.

Yan (2019), employing functional near-infrared spectroscopy (fNIRS), investigated directionality effects in Chinese–English sight translation from a neurocognitive perspective, examining their relationship with

interpreting experience and text complexity. Results showed that forward sight translation (L2 to L1) was cognitively more demanding than reverse sight translation (L1 to L2), as evidenced by more pronounced brain activity in the left frontopolar region (BA 10), left middle temporal gyrus (BA 21), Broca's area (BA 44/45), and right auditory association cortex (BA 42). These activations were associated with the effort required for multitasking coordination, lexical and lexico-syntactic information retrieval, semantic information integration, and task monitoring. The brain activation patterns induced by translation direction varied as a function of interpreting experience. In forward sight translation, the group with interpreting experience activated the right-hemisphere homologue of Broca's area, whereas the group without interpreting experience activated the right-hemisphere auditory association cortex, dorsolateral prefrontal cortex, and visual area V3. This suggests that experienced bilinguals required more executive functions related to cognitive inhibition during forward sight translation, while inexperienced bilinguals expended greater cognitive effort on executive functions such as multitasking coordination, language switching, attentional resource allocation, and monitoring. The effect of translation direction was also dependent on text complexity: high-complexity texts exacerbated the cognitive load of forward sight translation, with more pronounced activation in relevant brain regions.

Moratto and Yang (2023), in a corpus-based study of cognitive load in consecutive interpreting, found that interpreting direction significantly affected cognitive load. Different directions of interpreting tasks imposed different demands on interpreters, resulting in varying degrees of cognitive load during information processing.

IV. Methodological Issues and Future Trends in Interpreting Directionality Research

4.1 Subject Selection and Definition

Existing studies exhibit shortcomings in the selection and definition of research subjects. Some studies fail to clearly articulate the criteria for subject classification. For instance, the selection of interpreters often lacks detailed specification of factors such as interpreting experience, language proficiency, and professional background, compromising the representativeness of research findings. Even when studies address language proficiency, rigorous screening and stratification are frequently absent, thereby confounding the accuracy of results. In investigations of the impact of directionality on cognitive load, for example, heterogeneity in participants' language abilities may obscure or confound the true relationship between directionality and cognitive load.

4.2 Text Selection

Text selection constitutes a critical component of interpreting research, yet many studies are deficient in this regard. Control over variables such as register, text type, and difficulty level is often insufficient. The texts employed in studies may span different registers (e.g., formal vs. informal, specialized vs. everyday), text types (e.g., speeches, dialogues, news), and varying levels of difficulty, without rigorous scientific assessment or control. Such methodological inconsistencies introduce confounding factors that impede accurate identification of the effects of interpreting directionality.

4.3 Ecological Validity

He et al. (2017) noted that empirical findings in interpreting directionality research are diverse and have not yet coalesced into definitive conclusions. In terms of simultaneous interpreting quality, different studies have arrived at divergent conclusions regarding the effect of direction on quality, influenced by variables such as source text difficulty, speech rate, and contextual familiarity. Some empirical studies have experimental designs that oversimplify the interpreting process, deviating substantially from real-world interpreting scenarios, resulting in low ecological validity. Laboratory environments may fail to fully replicate the pressure, time constraints, audience feedback, and other factors inherent in authentic interpreting contexts.

4.4 Multimodal Research Methods

With ongoing technological advancements, multimodal research methods are poised to play an increasingly prominent role in interpreting research. Technologies such as eye-tracking, EEG, and functional near-infrared spectroscopy (fNIRS) enable real-time monitoring of interpreters' physiological and psychological responses during the interpreting process, providing more 直观 (intuitive) and precise data for the study of interpreting directionality.

4.5 The Need for Longitudinal Research

Current research is predominantly cross-sectional, lacking investigation into the dynamic changes in the impact of interpreting directionality over the course of interpreters' long-term learning and practice. Future research should adopt longitudinal approaches to track changes in the effects of directionality on interpreter performance among the same cohort of interpreters at different stages of learning and varying levels of experience.

V. Conclusion

This study has systematically reviewed the methodological approaches employed in the field of interpreting directionality research. The review finds that empirical research methods dominate this field, with scholars investigating the effects of directionality on interpreter performance and cognitive processes at multiple levels — including lexicon, syntax, and cognition — through diverse research instruments such as experiments, corpus analysis, and questionnaires, yielding substantial achievements. However, significant methodological challenges remain, including ambiguities in subject definition, insufficient control of textual variables, and low ecological validity. Future research should address these issues by refining subject criteria, optimizing experimental designs, and adopting more ecologically valid approaches.

References

- [1] Wang, Y. J. (2024). Translation directionality from a cognitive neuroscience perspective. *Overseas English*, (15), 1–6.
- [2] Shang, X. Q., & Li, D. C. (2022). Data-driven research on the weighting of analytic rating criteria for interpreting: From the perspective of Chinese-speaking raters. *Journal of Foreign Languages*, 45(3), 82–92.
- [3] Xu, H. (2021). The impact of directionality on information processing quality in English–Chinese simultaneous interpreting: An empirical study based on interpreter surveys. *Shanghai Journal of Translators*, (2), 82–87.
- [4] Gao, B. (2019). Developmental patterns of language choice in English–Chinese consecutive interpreting notes: A cross-sectional study of interpreting learners. *Chinese Translators Journal*, 40(1), 83–90.
- [5] He, Y., Li, D. F., & Li, L. Q. (2017). Research design and methods in the study of directionality in simultaneous interpreting. *Foreign Language Research*, (5), 92–96.
- [6] Wang, F., & Mei, D. M. (2017). The relationship between information processing and working memory in interpreting across directions: Revisiting the "Asymmetric Limited Parallel Model." *Chinese Translators Journal*, 38(4), 38–44.
- [7] Deng, S. H. (2016). Orality/literacy drift in Chinese–English and English–Chinese consecutive interpreting: A case study of the press conference of the Second Guangdong Economic Development International Advisory Council. *Foreign Language Studies*, 2(4), 71–79.
- [8] Wen, Y. (2015). On directionality in Chinese–English combined interpreting pedagogy: Focusing on student interpreters' feedback. *Contemporary Continuing Education*, 33(1), 90–95.

- [9] Fu, R. B. (2013). The impact of interpreting directionality on disfluency in target language production. *Modern Foreign Languages*, 36(2), 198–205, 220.
- [10] Fu, R. B. (2012). A comparative study of pauses in English–Chinese bidirectional consecutive interpreting. *Foreign Language Teaching and Research*, 44(3), 437–447, 481.
- [11] Zhang, W. (2009). The role of working memory in simultaneous interpreting across directions. *Foreign Language Teaching and Research*, 41(5), 371–378, 401.
- [12] Chou, I., Liu, K., & Zhao, N. (2021). Effects of directionality on interpreting performance: Evidence from interpreting between Chinese and English by trainee interpreters. *Frontiers in Psychology*, 12, Article 648645.
- [13] Li, J. P., & Shi, X. M. (2012). On the language direction in Chinese/English simultaneous interpreting. *Education for Chinese After-School*, (18), 22–24, 30.
- [14] Lu, R., Abdullah, M. A. R., & Ang, L. H. (2023a). Impact of directionality on student interpreters' performance in consecutive interpreting. *Theory and Practice in Language Studies*, 13(2), 508–515.
- [15] Lu, R., Abdullah, M. A. R., & Ang, L. H. (2023b). Into-A or into-B, that is a question: A systematic literature review of directionality and performance in consecutive interpreting. *SAGE Open*, 12(4), 1–16.
- [16] Han, C., & Zhao, X. (2021). Accuracy of peer ratings on the quality of spoken-language interpreting. *Assessment & Evaluation in Higher Education*, 46(8), 1299–1313.
- [17] Han, C. (2018a). A longitudinal quantitative investigation into the concurrent validity of self and peer assessment applied to English–Chinese bi-directional interpretation in an undergraduate interpreting course. *Studies in Educational Evaluation*, 58, 187–196.
- [18] Han, C., Hu, J., & Deng, Y. (2023). Effects of language background and directionality on raters' assessments of spoken-language interpreting. *Revista Española de Lingüística Aplicada*, 36(2), 556–584.
- [19] Han, C. (2019). A generalizability theory study of optimal measurement design for a summative assessment of English/Chinese consecutive interpreting. *Language Testing*, 36(3), 419–438.
- [20] Lin, Y., Lv, Q., & Liang, J. (2018). Predicting fluency with language proficiency, working memory, and directionality in simultaneous interpreting. *Frontiers in Psychology*, 9, Article 1543.
- [21] Huang, D. F., Li, F., & Guo, H. (2023). Chunking in simultaneous interpreting: The impact of task complexity and translation directionality on lexical bundles. *Frontiers in Psychology*, 14, Article 1128222.
- [22] Xu, H., & Liu, K. (2024). The impact of directionality on interpreters' syntactic processing: Insights from syntactic dependency relation measures. *Lingua*, 297, Article 103637.
- [23] Liu, Z., & Dou, J. (2023). Lexical density, lexical diversity, and lexical sophistication in simultaneously interpreted texts: A cognitive perspective. *Frontiers in Psychology*, 14, Article 1176627.
- [24] Shen, L. (2025). Typological differences and cognitive load in manner processing: A corpus-based study of Chinese–English and English–Chinese consecutive interpreting. *Language and Cognition*, 17, 17–22.
- [25] Su, W., Li, D., & Ning, J. (2024). Syntactic asymmetry and spillover effects in simultaneous interpreting with slides: An eye-tracking study on beginner interpreters. *Perspectives*, 32(3), 517–536.
- [26] Chen, Q. R. (2008). *Directionality and its impact on Chinese/English simultaneous interpreting* [Master's thesis, Shanghai International Studies University]. China National Knowledge Infrastructure.
- [27] Chang, V. C. Y., & Chen, I. F. (2023). Translation directionality and the Inhibitory Control Model: A machine learning approach to an eye-tracking study. *Frontiers in Psychology*, 14, Article 1257810.

- [28] Moratto, R., & Yang, Z. (2023). Probing the cognitive load of consecutive interpreters: A corpus-based study. *Translation and Interpreting Studies*, 19(2), 234–256.
- [29] Han, C. (2018b). Latent trait modelling of rater accuracy in formative peer assessment of English–Chinese consecutive interpreting. *Assessment & Evaluation in Higher Education*, 43(6), 979–994.
- [30] Cheung, A. K. F. (2015). Scapegoating the interpreter for listeners' dissatisfaction with their level of understanding: An experimental study. *Interpreting*, 17(1), 46–63.
- [31] Chang, C., & Schallert, D. L. (2007). The impact of directionality on Chinese/English simultaneous interpreting. *Interpreting*, 9(2), 137–176.
- [32] Chen, S. J. (2022). The process and product of note-taking and consecutive interpreting: Empirical data from professionals and students. *Perspectives*, 30(2), 258–274.
- [33] Han, C., Chen, S. J., Fu, R. B., & Fan, Q. (2020). Modeling the relationship between utterance fluency and raters' perceived fluency of consecutive interpreting. *Interpreting*, 22(2), 211–237.
- [34] Yan, H. (2019). *The neurocognitive exploration of directionality in Chinese/English sight translation: An fNIRS study* [Doctoral dissertation, University of Macau].