Metadiscourse under linguistic constraint

Variation across interpreted, L2, and L1 English

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This study investigates whether distinct linguistic strategies arise from cognitive and linguistic constraints by comparing interpreted English produced by second-language (L2) professional interpreters, L2 spontaneous speech, and first-language (L1) English speech as a reference. Framed within constrained language theory, the analysis centers on metadiscourse features, which have received limited attention in interpreting research despite their relevance in discourse analysis. Findings show that, compared to L1 speakers, L2 interpreters use significantly fewer stance markers, including boosters, attitude markers, and self-mentions, while employing directives significantly more frequently. In contrast, L2 spontaneous speakers produce significantly more hedges and boosters but use significantly fewer attitude markers and self-references than L1 speakers. These results suggest systematic differences in metadiscourse features shaped by processing pressure and communicative function. Through a metadiscourse lens, this study offers insights into the linguistic choices made by L2 interpreters and L2 speakers in spontaneous contexts characterized by cognitive and linguistic constraints.

Keywords: metadiscourse, constrained languages, metacognition, interpreted language, second language

1. Introduction

Scholarly investigations have increasingly positioned second-language acquisition (SLA) and translation studies (TS) as interconnected fields, with systematic comparative analyses revealing fundamental connections between these two domains (Chen et al., 2024; Ivaska et al., 2022; Kotze, 2022; Kruger & Van Rooy, 2016a, 2016b; Lanstyák & Heltai, 2012). These connections may be attributed to similar constraints arising from the cognitive and social environments in which texts are

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produced (Kruger & Van Rooy, 2016a), where multiple linguistic systems come into contact (Ivaska & Bernardini, 2020). Building on these insights, translators are regarded as a specific subgroup of bilinguals whose linguistic output (i.e. translated language) operates at the extreme end of the bilingual activation mode (Kruger & Van Rooy, 2016a; Lanstyák & Heltai, 2012). Translated texts, by their very nature, tend to exhibit certain linguistic characteristics that differ from those found in original texts, phenomena often discussed under the label of (so-called) translation universals (TUs).[1] As defined by Baker (1993: 243), TUs are "features which typically occur in translated texts rather than original utterances and which are not the result of interference from specific linguistic systems". A parallel has been observed in research on SLA, where features such as hyperclarity (Williams, 1987) in L2 production have been noted to bear similarities to TUs such as explicitation. Similar patterns have also been noted for reduction-related phenomena, described in translation studies as underrepresentation of unique items (Tirkkonen-Condit, 2004) and in SLA research as underproduction, avoidance, or simplification (Ellis, 2008; Jarvis & Pavlenko, 2008). These unique features, or recurrent tendencies, distinguish translated and L2 varieties from other forms of language use (Kruger & Van Rooy, 2016a). This observation lends weight to the argument that certain constraining factors, be they cognitive, linguistic, or situational, exert a greater-than-average effect on these varieties than on others, thereby supporting the broader theoretical framework of constrained communication.

Constrained communication, as defined by Lanstyák and Heltai (2012: 100), refers to language produced under conditions in which one or more constraints exert a strong influence on communication. Language contact represents one such context, imposing particular constraints on language production (Kruger & Van Rooy, 2016a). In response to these demands, bilingual speakers continuously regulate their attention by selectively focusing on one language while inhibiting the activation of the other (Treffers-Daller & Sakel, 2012: 3), a process that is especially pronounced among L2 speakers. This ongoing cognitive management not only shapes bilingual language behavior but also leaves identifiable traces in their linguistic output. Within language contact situations, the distinctive features observed in constrained languages, specifically translated language and bilingual communication as examined in this study, may be conceptualized as language contact recurrent patterns. These features likely represent a specific subset within the broader category of patterns associated with constrained communication (Lanstyák & Heltai, 2012; Kruger & Van Rooy, 2016a).

1. Here "translation universals" is used as a working label for recurrent patterns in corpus-based translation research, treated as empirically testable tendencies that may vary across datasets and communicative conditions (Jia et al., 2022).

Translational and bilingual communication, influenced by shared communicative constraints, are hypothesized to exhibit linguistic features that differ from those found in unconstrained language use. This hypothesis has garnered substantial empirical support. However, while distinctive linguistic patterns have been extensively examined in written translation and L2 production, another highly constrained communicative setting, namely interpreting, has received less scholarly attention. Interpreted language, as a unique form of translation (Pöchhacker, 2004), constitutes a spoken variety subject to heightened constraints compared to its written counterpart, particularly with respect to cognitive load (Liu et al., 2023). Among interpreting forms, simultaneous interpreting (SI) is widely regarded as the most cognitively demanding, as it requires real-time comprehension and production of speech with minimal delay (Gerver, 1976; Seeber, 2011). This intense processing often results in observable linguistic inaccuracies, even among seasoned professionals (Gile, 1997). Directionality, which refers to whether the interpreter is working into their first language (L1 or A language) or second language (L2 or B language), is an important factor in the analysis of interpreted speech (Liu et al., 2023). Interpreting into the L2 presents additional challenges, as the inherent cognitive demands of interlingual mediation are further intensified by the effort involved in non-native language production (Kajzer-Wietrzny & Grabowski, 2021). These challenges make L2 interpreting a valuable context for examining whether constrained language production in this setting exhibits convergence with or divergence from the features found in spontaneous L2 speech. Building on this perspective, the present study investigates the use of metadiscourse features in the speech of professional L2 interpreters and spontaneous L2 speakers in order to identify points of convergence and divergence shaped by differing communicative constraints.

2. Metadiscourse and constrained languages

This section provides an overview of metadiscourse. It first introduces the concept and its major categories and then discusses its use in constrained language contexts.

2.1 Metadiscourse

Metadiscourse, as defined by Hyland (2005a:37), refers to "self-reflective expressions used to negotiate interactional meanings in a text, which helps the writer (or speaker) to express a viewpoint and engage with readers as members of a particular community". Scholars have argued that metadiscourse plays a "much

more important role" in spoken language than in written language, given the heightened demands of managing interaction in real time (Mauranen, 2010: 37). In spoken contexts, speakers draw on their understanding of past, ongoing, and anticipated communicative events to guide the flow of interaction (Martínez Guillem, 2009: 742). Through this process, metadiscourse functions not only as a tool for structuring information but also as a means of mediating both cognitive agency, through epistemic positioning, and social agency, through interpersonal alignment in stance negotiation (Lee, 2015).

According to Hyland (2005a: 49), metadiscourse comprises two key aspects: interactive and interactional. The former pertains to speakers' strategic accommodation of their audience's anticipated knowledge base, cognitive processing capabilities, and discourse expectations, while the latter focuses on the speaker's efforts to manage the level of personal involvement in a text, establishing a suitable relationship with their data, arguments, and audience (Hyland, 2005a, 2010). Of the two, interactional metadiscourse (IM) more directly reveals speaker's ability to construct meaningful interpersonal relationships, thereby providing clearer evidence of audience awareness (Hyland, 2005a: 44; Qiu et al., 2024).

IM is realized through a set of linguistic resources that convey stance, evaluation, and engagement. It typically includes five key categories: hedges, boosters, attitude markers, self-mention, and directives (Hyland, 2005a). Hedges such as *might* and *likely* serve to moderate propositional certainty and acknowledge alternative viewpoints. As Hyland (2005a: 52) explains, hedges enable speakers to express subjectivity and frame claims as opinion rather than fact, inviting negotiation and softening authorial assertiveness. In contrast, boosters such as *clearly* and *obviously* underscore conviction and minimize potential alternatives. These items allow speakers to assert claims more forcefully and foster alignment with the audience by expressing a shared understanding (Hyland, 1999; Hyland, 2005a). Attitude markers express the speaker's affective stance toward the propositional content rather than its epistemic status. Adverbs and evaluative expressions such as *fortunately* or *surprisingly* highlight personal engagement and signal approval, urgency, or emphasis (Hyland, 2005a). Self-mention, which involves the explicit use of first-person pronouns (e.g. *I, my*), indicates authorial presence in the text and serves as a powerful means of positioning the speaker within the argument (Hyland, 2005a; Ivanič, 1998). Additionally, directives serve to influence audiences' cognitive or interpretive actions in accordance with the speaker's rhetorical aims. These are typically signaled by imperative forms, modals of obligation, and predicative constructions expressing necessity (Hyland, 2002a). By guiding audiences through the discourse, directives shape interpretation and emphasize points the speaker deems salient (Hyland, 2005a). Collectively, these interactional fea-

tures enable speakers to manage their stance, express alignment or distance, and actively engage their audience in real-time communication (Hyland & Tse, 2004).

2.2 Metadiscourse in constrained languages

With its capacity to reveal how speakers construct stance and manage interpersonal meaning, interactional metadiscourse has been widely adopted as an analytical tool to explore the linguistic strategies in diverse discourse contexts, including second language communication (e.g. Molino, 2018; Weisi & Zandi, 2024; Zahro et al., 2021) as well as in interpreting contexts (e.g. Fu, 2017; Lee, 2015; Ren & Wang, 2023). For instance, in non-L1 English settings, Weisi and Zandi (2024) investigated the use of metadiscourse markers (MDMs) among L2 English speakers in the IELTS speaking test across different proficiency levels, and found that as proficiency increased, L2 English speakers used MDMs more frequently and with greater diversity, with advanced learners demonstrating a broader repertoire than lower-level speakers. Zahro et al. (2021) examined the metadiscourse markers used by Indonesian EFL students and found that in spoken language, students tended to prioritize coherence through the frequent use of interactive markers, particularly transitions, whereas interactional elements reflecting stance were relatively underused. Molino (2018) explored metadiscourse use among Italian university lecturers in English-Medium Instruction settings and argued that its deployment was shaped by genre, disciplinary norms, and the communicative functions of English as an academic lingua franca. In the domain of interpreting, Fu (2017) studied the role of metadiscourse in establishing coherence and indicated that effective interpretation entails the use of metadiscoursal devices to maintain intertextual and intratextual coherence. Lee (2015) investigated interpreter-mediated courtroom examinations in South Korea and found a predominant use of hedging over boosters, alongside frequent use of attitude and engagement markers to evaluate interpretive accuracy; both interpreters and other participants demonstrated evaluative, affective, and epistemic stances within the interdisciplinary communication of legal proceedings. Additionally, Ren and Wang (2023) conducted a comparative analysis of metadiscourse markers across Chinese source texts, their English interpretations, and original English speeches in simultaneous interpreting. Their findings showed that professional interpreters displayed a high level of metadiscursive awareness, employing strategies such as explicitation and simplification, emphasis and mitigation, as well as manipulation of interpreter visibility to enhance language organization. While these studies have provided valuable insights into the use of metadiscourse in non-L1 English contexts and professional interpreting respectively, research that

brings together L1-L2 interpreted speech and spontaneous L2 production under a unified framework of constrained communication remains limited.

Among the few studies that have examined the two speech types from a constrained communication perspective, scholarly attention has primarily focused on comparing their syntactic structures with baseline L1 English speech (Liu et al., 2023; Xu & Liu, 2023), with limited emphasis on their metadiscourse features. Liu et al. (2023) tested the simplification hypothesis using syntactic complexity indices and found that both interpreted and L2 speech showed significantly reduced complexity across multiple measures relative to L1 speech, with no systematic differences between the two constrained types. Xu and Liu (2023) employed dependency distance analysis to investigate differences in syntactic complexity, manifestations of cognitive load, and word-order typology. Their findings revealed a clear hierarchy: interpreted speech exhibited the shortest mean dependency distance, followed by L2 speech and then L1 speech. While these syntactic studies have enhanced our understanding of structural patterns in constrained spoken varieties, the metadiscursive dimensions of such language remain largely unexplored. To address this gap, the present analysis adopts Hyland's (2005a) metadiscourse framework.

From a constrained language perspective, this study examines the use of interactional metadiscourse in L1-L2 interpreted speech and spontaneous L2 production, using L1 English speech as a reference comparison corpus. By analyzing the ways in which L2 speakers navigate interpersonal meaning under different cognitive and social constraints, the study seeks to shed light on how varying constraints shape the interpersonal dimensions of L2 speech.

3. Methods

This section sets out the research aims and the comparative corpus-based design of the study. Interactional metadiscourse is examined across the three corpora, with features identified using the Authorial Voice Analyzer and compared quantitatively.

3.1 Research aims

In light of the preceding review, and considering the real-time processing demands placed on both interpreters and L2 speakers, effective linguistic management is essential for successful communication. As a means of organizing content, expressing stance, and facilitating listener comprehension, metadiscursive elements offer an insightful window into how speakers handle communica-

tive constraints. This study examines these features across three spoken varieties: interpreted L2 English, spontaneous L2 English, and L1 English. The aim is to assess whether distinct language strategies emerge under varying cognitive and linguistic conditions. The analysis is guided by the following research questions:

RQ1: How do metadiscourse features differ across interpreted English, spontaneous L2 English, and L1 English speech?

RQ2: Do interpreted and spontaneous L2 varieties, both shaped by communicative constraints, exhibit common metadiscourse patterns that distinguish them from unconstrained L1 English speech?

3.2 Corpora

This study utilizes the Political Debate English Comparable Corpus (PDECC; Liu et al., 2023; Xu & Liu, 2023), a corpus of political spoken language comprising three distinct subcorpora: L1 original English (L1O), L2 original English (L2O), and L2 interpreted English (L2I). The two constrained varieties, L2O and L2I, were produced by Cantonese-speaking L2 English users, providing a controlled basis for cross-varietal comparison. The L2I subcorpus contains simultaneous Cantonese-English interpretations of political debates from the Legislative Council of Hong Kong (HK LegCo). In contrast, the L2O subcorpus includes original English utterances by L2 speakers participating in televised interviews[2] on comparable political and social topics in the Hong Kong context. Both L2 groups share the same L1 background (Cantonese), operate in institutional settings, and produce discourse that draws on similar topical domains (e.g. public-affairs themes). In both cases, speakers are required to communicate political content fluently and appropriately in English under similar institutional demands. Given this, the two L2 subcorpora can be treated as instances of advanced L2 English use in public or institutional communication (Liu et al., 2023).

The L1O subcorpus, which serves as the non-constrained baseline, consists of parliamentary debates from the House of Commons in the United Kingdom. British parliamentary debates were selected because they provide a well-documented L1 baseline for an institutional setting closely comparable to HK LegCo debate. Both are formal institutional occasions that often involve a degree of planned speech. The two settings are comparable in their formal public character, policy-oriented agenda, and recurrent question-and-answer and adversarial patterns, making the British corpus a useful reference point. The L1O and L2I

2. The television programs are *Talk the Walk* and *All about Money*, provided by the HK International Business Channel.

subcorpora cover a broad range of political, social, and economic issues of public interest, including budget control or investment, social welfare, human rights, the economy, public or government policy, housing policy, education, and international relations. The L2O subcorpus was compiled from televised public affairs interviews on overlapping themes, and its structured question-and-answer format provides a functional point of comparison with question-and-answer oriented parliamentary interaction in L1O and the source debates underlying L2I. All three subcorpora were compiled within the same time frame (2016 to 2020), with each containing approximately 100,000 words. This ensures comparability in terms of topic, communicative context, corpus size, and temporal coverage (Liu et al., 2023). Each subcorpus comprises 50 individual text files, with further corpus details presented in Table 1.

Table 1. Descriptive statistics of the Political Debate English Comparable Corpus

Sub-corpora	Text count	Overall size	Mean size	Producer
L2I	50	102,130	2,082	L2 speakers
L2O	50	101,901	2,104	L2 speakers
L1O	50	101,913	2,062	L1 speakers

3.3 Instruments

The Authorial Voice Analyzer (AVA), a rule-based automated processing tool developed by Yoon (2017), was employed to extract frequency scores for candidate lexico-grammatical forms of interactional metadiscourse across the L2I, L2O, and L1O subcorpora. AVA generates normalized frequency values (i.e. occurrences per 1,000 words) for lexico-grammatical features aligned with Hyland's (2005a) interactional metadiscourse categories, as outlined in Table 2. AVA operationalizes Hyland's taxonomy by implementing each category as a set of regular-expression encoded lexico-grammatical forms for corpus-based retrieval and quantification. As an operational tool, it specifies fine-grained candidate lexico-grammatical realizations for each category, resulting in more extensive inventories than a category-level description. In addition to individual category counts, the tool calculates composite scores reflecting overall stance and engagement.

It is worth noting that metadiscourse is conceptualized primarily as a functional category rather than a purely lexical one (Hyland & Tse, 2004). This means that whether a given item is functioning as metadiscourse depends on its contextual use. On this basis, AVA is used here not on the assumption that every retrieved form is metadiscoursal in each individual instance, but as a transparent and replicable corpus-analytic procedure to identify and quantify candidate inter-

actional markers across the three subcorpora. This form-based operationalization helps address a practical issue in larger datasets, where fully manual functional annotation of every candidate item would be difficult to carry out consistently. AVA has been adopted in recent corpus-based studies for this purpose (e.g. Appel & McKay, 2025; Chou et al., 2023; Liu et al., 2025), where form-based retrieval is used to compile and quantify candidate interactional markers. In the present study, this automatic extraction procedure was supplemented with a manual validation step to assess the contextual validity of AVA-extracted items and to evaluate the extent to which AVA's automated retrieval corresponded to human judgment at the corpus level. A random sample of 20% of texts was selected, and all AVA-extracted instances of the target interactional categories in those texts were examined in sentential context. Two independent coders annotated each instance as metadiscoursal or propositional using a coding guide based on Hyland's framework. Inter-rater agreement was 0.955 (Cohen's κ). Comparison between the human coding and AVA's category assignments yielded an absolute-agreement intraclass correlation of 0.901 (95% CI [0.864, 0.930]), which suggests a strong correspondence between the two at the corpus level.

To account for contextual variation in spoken data, a methodological adjustment was made regarding AVA's classification of reader pronouns. While Hyland (2005a) includes inclusive 'we' under reader pronouns as a marker of scholarly solidarity in written academic texts, this categorization presents interpretive challenges in spoken languages, which may vary substantially in degree of planning, institutional setting, and communicative purpose. In spoken interaction, such pronouns may function as discourse management tools or indicators of speaker alignment, and their audience-directed interpretation is not always straightforward. To maintain analytical accuracy and avoid conflating modality-specific functions, this study excludes reader pronouns (second-person pronouns and inclusive first-person plural forms) from the computation of interactional metadiscourse, reducing the risk of misapplying written language conventions to spoken language data.

Yoon (2017) reports that the AVA is capable of detecting a substantial range of candidate interactional metadiscourse markers. Its lexicon is extensive, comprising 164 hedges, 174 boosters, and 640 attitude markers (for a detailed account of these lexical items, see Yoon, 2017). To capture linguistic variation and accommodate morphosyntactic diversity, AVA operationalizes these categories through explicit lexical inventories and regular-expression patterns that are designed to identify multiple forms and realizations of a given marker. Self-mention is defined through first-person singular pronouns i.e. *I, my, me*, and *mine* (Yoon, 2017). Directives comprise necessity modals (e.g. *should, ought*, and *have to*), together with predicative necessity-related adjectives that license a to-clause complement

(e.g. *it is essential to*), following Hyland (2002b). With respect to hedges, boosters, and attitude markers, the full feature inventories are distributed as default lexicon files within the AVA software package and can be accessed after downloading and extracting AVA. The reliability of the tool has been established through correlation analyses comparing AVA outputs with manually annotated data. Results indicate strong agreement, with correlation coefficients of 0.921 for hedges and 0.892 for boosters (Yoon, 2021), demonstrating a high degree of accuracy. These findings support the validity and robustness of AVA as a computational tool for the analysis of interactional metadiscourse.

Table 2. Interactional metadiscourse features from AVA (Hyland, 2005b; Yoon, 2021)

Interactional metadiscourse (IM)		**Token**	**Type**	**Normalized frequency**
Stance	Hedge	√	√	
	Booster	√	√	
	Attitude marker	√	√	Occurrences per 1000 words
	Self-mention	√		
Engagement	Reader pronoun	√		
	Directive	√		

3.4 Statistical analysis

Before conducting the group comparisons, the assumption of normality was assessed for each variable using the Shapiro-Wilk test. Results indicated that all variables, except hedges, deviated significantly from a normal distribution. Accordingly, a one-way Analysis of Variance (ANOVA) was conducted for the normally distributed hedging metrics, while the non-parametric Kruskal-Wallis H test was applied to variables that violated the normality assumption. To further identify specific group differences while controlling Type I error (false positives) under multiple comparisons, post hoc comparisons were performed using Bonferroni correction following ANOVA, and Dunn-Bonferroni adjustment for the Kruskal-Wallis analyses.

4. Results

The results of the quantitative analysis, summarized in Table 4, compare three speech types: L2 interpreted speech, L2 original speech, and L1 speech. Overall, in contrast to unconstrained L1 speech, L2 original speech demonstrates a statistically significant increase in the use of interactional metadiscourse (standardized test statistic = 4.623, $p < .05$), as illustrated in Figure 1. In comparison, L2 interpreted speech exhibits a statistically significant reduction in the overall use of interactional metadiscourse (standardized test statistic = −2.400, $p < .05$). Furthermore, when the two constrained corpora are compared directly, interactional metadiscourse occurs significantly less frequently in L2 interpreted speech than in L2 original speech (standardized test statistic = −7.023, $p < .05$; see Table 3).

Table 3. Descriptive statistics of interactional metadiscourse (IM) across the three corpora. Percentage (%) indicates the proportion of each IM category relative to the total number of IM tokens in each corpus. Mean (SD) represents the average frequency per 1,000 words, with values in parentheses denoting standard deviations

IMs	L2I			L2O			L1O		
	Token	%	Mean (SD)	Token	%	Mean (SD)	Token	%	Mean (SD)
Hedges	1,389	23.34	13.67 (4.72)	2,042	23.09	20.09 (4.50)	1,219	17.68	11.97 (3.31)
Boosters	1,696	28.50	16.53 (5.31)	3,605	40.77	35.45 (9.21)	2,140	31.03	20.99 (4.05)
Attitudes	632	10.62	6.22 (3.01)	965	10.91	9.47 (3.91)	1,099	15.94	10.78 (2.74)
Self-mentions	1,535	25.80	15.02 (6.94)	1,718	19.43	16.97 (10.41)	2,030	29.44	19.89 (5.75)
Directives	698	11.73	6.82 (3.36)	512	5.79	5.08 (3.05)	408	5.92	4.00 (2.09)
Holistic IMs	5,950	100	58.26 (16.88)	8,842	100	86.07 (19.86)	6,896	100	67.63 (10.76)

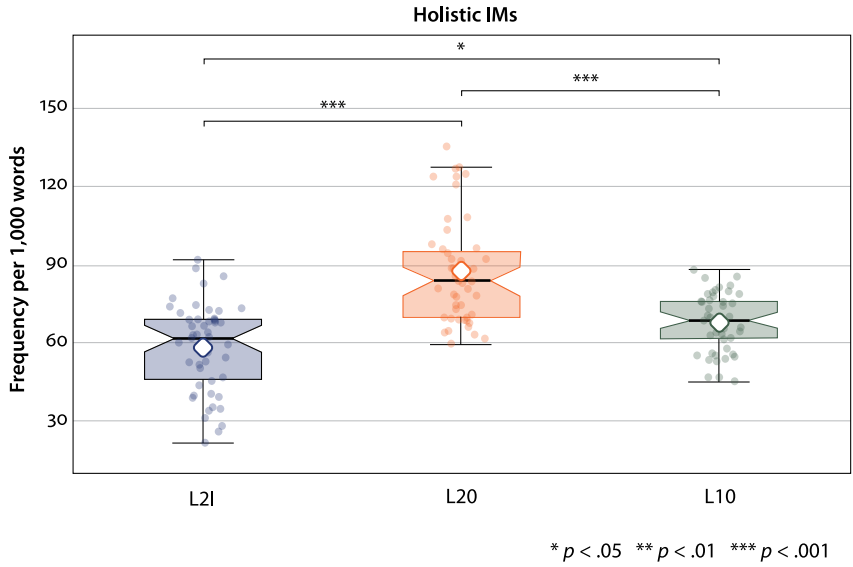

Figure 1. Holistic usage of interactional metadiscourse (IM) across L2I, L2O, and L1O

Table 4. Differences in mean values of IMs between L2I, L2O and L1O. Arrows indicate the direction of difference; asterisks (*) denote significance ($p < .05$) based on the (Dunn-)Bonferroni correction

IMs	L2I vs L1O	L2O vs L1O	L2I vs L2O
Hedges	>	>*	<*
Boosters	<*	>*	<*
Attitudes	<*	<*	<*
Self-mentions	<*	<*	<
Directives	>*	>	>*
Holistic IMs	<*	>*	<*

4.1 Hedges

The frequency of hedge usage in L2 interpreting closely aligns with that observed in L1 English speech (Table 4 and Figure 2). However, L2 speakers in L2 production contexts show a statistically significantly higher use of hedges ($p < .05$) than L1 English speakers. Furthermore, when comparing the two constrained speech types, hedge usage is significantly more frequent ($p < .05$) in L2 spontaneous speech than in the interpreted language. As shown in Table 5, L2 interpreters tend to overuse modal verbs and modal adverbs such as *maybe* (39 occurrences,

LL = 17.59), *may* (201 occurrences, LL = 12.91), and *would* (349 occurrences, LL = 3.63), compared with their L1 counterparts. In contrast, L2 spontaneous speakers more frequently use conversational hedges such as *a bit* (93 occurrences, LL = 41.09), *basically* (67 occurrences, LL = 39.76), and *quite* (132 occurrences, LL = 30.98) as shown in Table 6. The only overlapping overused item between the two groups is *maybe*. Notably, both L2I and L2O speakers underuse epistemic adverbials such as *likely* and *nearly*, which are entirely absent in the L2I corpus and appear only once or three times, respectively, in L2O, compared to 13 and 10 instances in L1O. In Examples (1a) and (1b), L2 interpreters use *maybe* and *would* to convey uncertainty and reduce the speaker's epistemic commitment, while L2 spontaneous speakers employ *a bit* twice to soften the directive speech act and reduce the assertiveness of topic initiation.

(1) a. Another major problem *maybe* you *would* feel about this when the quorum bell is ring, you are asked to return to the chamber. (L2I)

b. Now, Ellie, let's talk *a bit* about you mentioned earlier about following the U.N. sustainability goals. So you guys have come up with your own new world, development, sustainability, vision 2030, tell us *a bit* more about this.... (L2O)

Table 5. Overused and underused hedges in constrained corpora (L2I), with raw frequencies (RF), normalized frequencies (NF), and log-likelihood (LL) values compared to L1O

Overused	L2I RF (NF)	L1O RF (NF)	LL	Underused	L2I RF (NF)	L1O RF (NF)	LL
maybe	39 (0.37)	2 (0.02)	17.59	likely	0 (0.00)	13 (0.13)	7.88
may	201 (1.93)	105 (1.02)	12.91	nearly	0 (0.00)	10 (0.10)	6.06
would	349 (3.35)	274 (2.66)	3.63	virtually	0 (0.00)	9 (0.09)	5.46
most of the	10 (0.10)	2 (0.02)	2.50	potentially	0 (0.00)	7 (0.07)	4.24
alleged	4 (0.04)	0 (0.00)	2.39	apparently	0 (0.00)	5 (0.05)	3.03

Table 6. Overused and underused hedges in constrained corpora (L2O), with raw frequencies (RF), normalized frequencies (NF), and log-likelihood (LL) values compared to L1O

Overused	L2O RF (NF)	L1O RF (NF)	LL	Underused	L2O RF (NF)	L1O RF (NF)	LL
a bit	93 (0.88)	5 (0.05)	41.09	may	60 (0.57)	105 (1.02)	5.80
basically	67 (0.64)	0 (0.00)	39.76	nearly	1 (0.01)	10 (0.10)	3.79
maybe	65 (0.62)	2 (0.02)	31.98	not always	0 (0.00)	5 (0.05)	3.05
quite	132 (1.25)	28 (0.27)	30.98	likely	3 (0.03)	13 (0.13)	3.01
a little bit	31 (0.29)	2 (0.02)	13.06	broadly	1 (0.01)	6 (0.06)	1.76

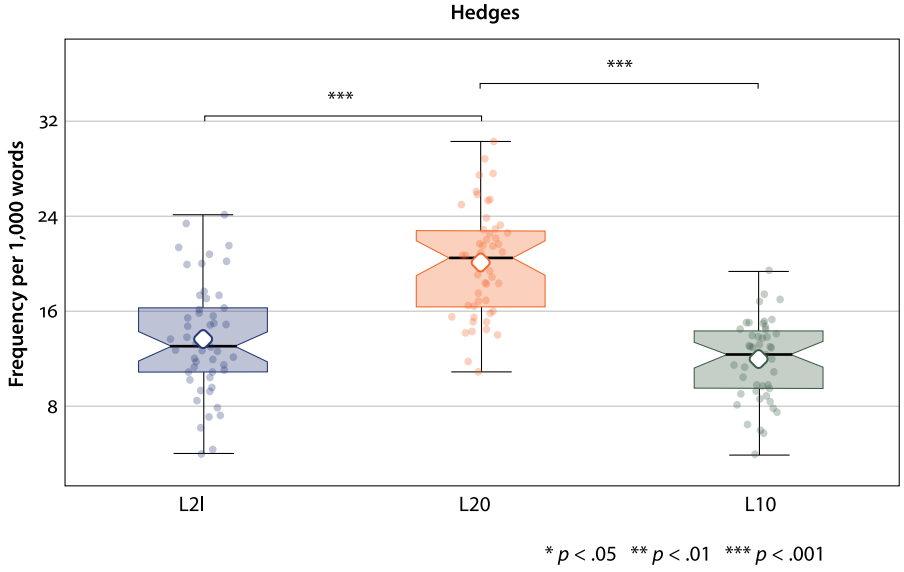

Figure 2. Statistical description of hedges in the three corpora

4.2 Boosters

As shown in Table 4 and Figure 3, there is a statistically significant divergence ($p < .05$) in booster usage across groups: L2 interpreters use significantly fewer ($p < .05$) boosters than L1 English speakers, whereas L2 English producers exceed both groups in frequency ($p < .05$). Tables 7 and 8 list the boosting items that are overused and underused, along with their raw frequencies (normalized) and log-likelihood values in the constrained corpus compared to the non-constrained counterpart. As shown in Table 7, L2 interpreters tend to overuse emphatic boost-

ing expressions such as *in fact* (49 occurrences, LL = 8.80) and *maximal* (22 occurrences, LL = 2.39), compared with their L1 counterparts. In contrast, L2 spontaneous speakers more frequently use conversational intensifiers such as *very* (582 occurrences, LL = 55.02), *actually* (332 occurrences, LL = 108.54), and *especially* (47 occurrences, LL = 14.08), as shown in Table 8. Both constrained (L2I and L2O) speaker groups underuse more formal boosting adverbs such as *absolutely* and *particularly*, with L2I using *absolutely* only twice (compared to 96 times in L1O, LL = 50.91) and L2O using it 15 times (LL = 29.36). In Example (2a), L2 interpreters use *in fact* repeatedly to emphasize the importance and urgency of the message, thereby strengthening the assertiveness of the claim. L2 spontaneous speakers, by contrast, employ lexical boosters such as *actually* and *very* to intensify their evaluations and underscore the perceived strength of the relationship between ideas (Example (2b)).

(2) a. And *in fact* these two fires have brought out the urgency and necessity of this Bill. But I'm worried that in this meeting, we may not have enough time to scrutinize and pass this Bill. *In fact*, this Bill is instrumental and *in fact* the cornerstone for our work in the future. (L2I)

b. We *actually* have always seen that mental health is *very* much related to financial difficulties. (L2O)

Table 7. Overused and underused boosting items, along with their raw frequencies (RF), normalized frequencies (NF), and log-likelihood (LL) values in the constrained corpora (L2I) compared with L1 speaker output (L1O)

Overused	L2I RF (NF)	L1O RF (NF)	LL	Underused	L2I RF (NF)	L1O RF (NF)	LL
in fact	49 (0.47)	14 (0.14)	8.80	absolutely	2 (0.02)	96 (0.93)	50.91
substantially	5 (0.05)	0 (0.00)	2.99	particularly	4 (0.04)	50 (0.48)	20.32
exclusive	4 (0.04)	0 (0.00)	2.39	extreme	4 (0.04)	34 (0.33)	11.90
maximal	22 (0.21)	9 (0.09)	2.39	very	159 (1.53)	253 (2.45)	9.79
more and more	3 (0.03)	0 (0.00)	1.79	whole	16 (0.15)	54 (0.52)	9.61

Table 8. Overused and underused boosting items, along with their raw frequencies (RF), normalized frequencies (NF), and log-likelihood (LL) values in the constrained corpora (L2O) compared with L1 speaker output (L1O)

Overused	L2O RF (NF)	L1O RF (NF)	LL	Underused	L2O RF (NF)	L1O RF (NF)	LL
actually	332 (3.16)	42 (0.41)	108.54	absolutely	15 (0.14)	96 (0.93)	29.36
very	582 (5.53)	253 (2.45)	55.02	indeed	5 (0.05)	54 (0.52)	21.08
especially	47 (0.45)	7 (0.07)	14.08	committed	2 (0.02)	34 (0.33)	15.25
more and more	10 (0.10)	0 (0.00)	5.93	clearly	8 (0.08)	45 (0.44)	12.70
whole	85 (0.81)	54 (0.52)	2.76	particularly	18 (0.17)	50 (0.48)	7.09

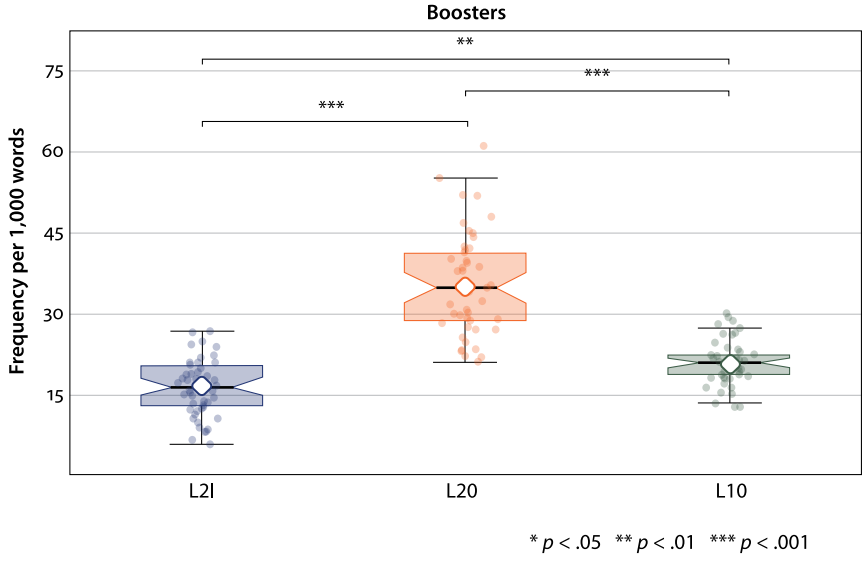

Figure 3. Statistical description of boosters in the three corpora

4.3 Attitude

Empirical data (see Table 4, Figure 4) reveal a significant disparity ($p < .05$) in the use of attitude markers between constrained and unconstrained speech. Notably, both L2 interpreted and L2 original texts employ fewer attitude markers than L1 English speech, although L2 original texts exhibit significantly higher usage than L2 interpreting ($p < .05$). Table 9 and Table 10 outline the differences in attitude marker usage between L2 interpreters and L2 spontaneous speakers in comparison to L1 English production. In the L2I corpus, evaluative adjectives such as

cruel (44 occurrences, LL = 20.38), *misleading* (10 occurrences, LL = 5.98), and *sufficient* (31 occurrences, LL = 5.47) occur more frequently than in L1 speech. By contrast, L2O speakers favor more general and affective evaluative terms. Lexical items such as *interesting* (74 occurrences, LL = 30.78), *unique* (26 occurrences, LL = 3.60), and *nice* (24 occurrences, LL = 9.34) are overrepresented, indicating a more subjective and informal evaluative style characteristic of spontaneous spoken interaction.

For example, in Example (3a), the L2 interpreter incorporates evaluative terms such as *cruelty* and *sufficient* to express both moral concern and frustration with legal inadequacy. In contrast, Example (3b) features a spontaneous L2 speaker employing *interesting* as a generalized stance marker. Rather than conveying a specific evaluation of a person or policy, the term serves to signal attentiveness and introduce a perspective.

(3) a. But if he was charged way *cruelty* to cat, then the maximum imprisonment would only be three years. I feel helpless. I don't know whether the police was trying to help the cat. Or is it because of the limitation of the legislation? And that the maximum sentence would not be *sufficient*. (L2I)

b. *Interesting*. So you only have 4 seconds to give a good impression or a *bad* impression to somebody. (L2O)

Table 9. Overused and underused attitude items, along with their raw frequencies (RF), normalized frequencies (NF), and log-likelihood (LL) values in the constrained corpora (L2I) compared with L1 speaker output (L1O)

Overused	L2I RF (NF)	L1O RF (NF)	LL	Underused	L2I RF (NF)	L1O RF (NF)	LL
cruel	44 (0.42)	2 (0.02)	20.38	great	24 (0.23)	102 (0.99)	22.89
misleading	10 (0.10)	0 (0.00)	5.98	important	53 (0.51)	151 (1.46)	21.72
sufficient	31 (0.30)	9 (0.09)	5.47	extreme	4 (0.04)	34 (0.33)	11.90
honorable	8 (0.08)	0 (0.00)	4.78	essential	2 (0.02)	21 (0.20)	8.02
favorable	7 (0.07)	0 (0.00)	4.19	fantastic	0 (0.00)	13 (0.13)	7.88

Table 10. Overused and underused attitude items, along with their raw frequencies (RF), normalized frequencies (NF), and log-likelihood (LL) values in the constrained corpora (L2O) compared with L1 speaker output (L1O)

Overused	L2O RF (NF)	L1O RF (NF)	LL	Underused	L2O RF (NF)	L1O RF (NF)	LL
interesting	74 (0.70)	5 (0.05)	30.78	properly	3 (0.03)	26 (0.25)	9.28
nice	24 (0.23)	2 (0.02)	9.34	excellent	0 (0.00)	15 (0.15)	9.16
bad	21 (0.20)	3 (0.03)	6.44	outstanding	0 (0.00)	10 (0.10)	6.11
unique	26 (0.25)	9 (0.09)	3.60	effective	15 (0.14)	40 (0.39)	5.34
worry	24 (0.23)	8 (0.08)	3.50	abusive	2 (0.02)	15 (0.15)	5.00

4.4 Self-mentions

As shown in Table 4 and Figure 5, both constrained speech types display significantly lower ($p < .05$) instances of self-mention compared to L1 English speech, with no statistically significant difference ($p > .05$) between the two constrained varieties. Tables 11 and 12 present the overused and underused self-mention items in constrained corpora compared with L1 English. L2 interpreters do not overuse any self-mention expressions (Table 11), whereas L2 spontaneous speakers demonstrate an overuse of the pronoun *I* (1,472 occurrences, LL = 0.0483), as shown in Table 12. Both L2 groups underuse a range of self-mention items compared to L1 speakers, particularly possessive pronouns such as *my* and *mine*. Example (4) illustrates the L2 spontaneous speaker's frequent reliance on *I* as the primary form of self-reference. The speaker uses *I* repeatedly across multiple clauses, such as *I love the place, I was born, I grew up*, and *I would like*, which highlight a strong presence of personal stance and experiential framing.

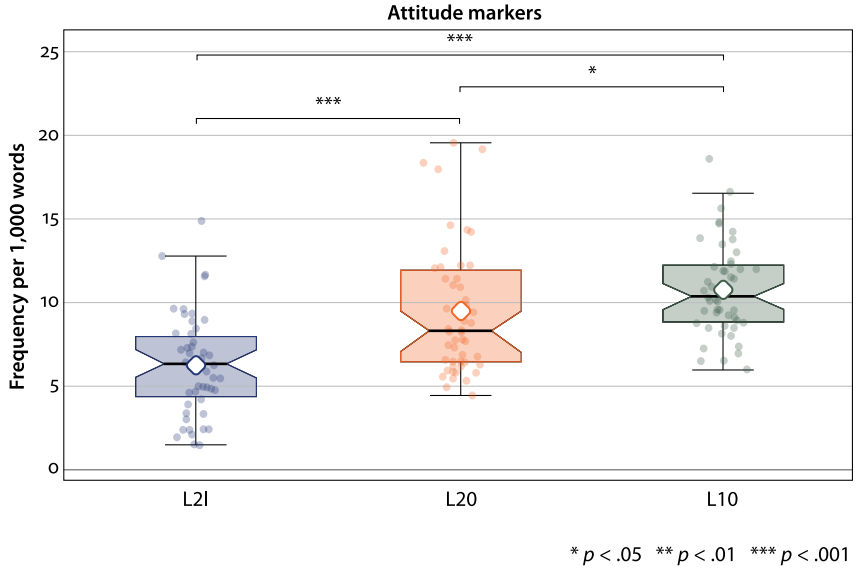

Figure 4. Statistical description of attitude markers in the three corpora

(4) Well, *I* love the place that this is the place *I* was born and *I* grew up. *I* would like to no travel to outside, but *I* don't want to know to leave the place. But if the situation get, very, very difficult, and *I* think, well, everyone have to think of other options. But *I* hope that you know the situation will get well. (L2O)

Table 11. Overused and underused self-mention items, along with their raw frequencies (RF), normalized frequencies (NF), and log-likelihood (LL) values in the constrained corpora (L2I) compared with L1 speaker output (L1O)

Overused	L2I RF (NF)	L1O RF (NF)	LL	Underused	L2I RF (NF)	L1O RF (NF)	LL
				my	191 (1.84)	498 (4.83)	62.82
				mine	0 (0.00)	6 (0.06)	3.64
				me	88 (0.85)	117 (1.13)	1.91
				I	1,353 (13.00)	1,425 (13.82)	1.13

Table 12. Overused and underused self-mention items, along with their raw frequencies (RF), normalized frequencies (NF), and log-likelihood (LL) values in the constrained corpora (L2O) compared with L1 speaker output (L1O)

Overused	L2O RF (NF)	L1O RF (NF)	LL	Underused	L2O RF (NF)	L1O RF (NF)	LL
I	1,472 (13.99)	1,425 (13.82)	0.05	my	172 (1.64)	498 (4.83)	74.77
				me	96 (0.91)	117 (1.13)	1.09
				mine	4 (0.04)	6 (0.06)	0.19

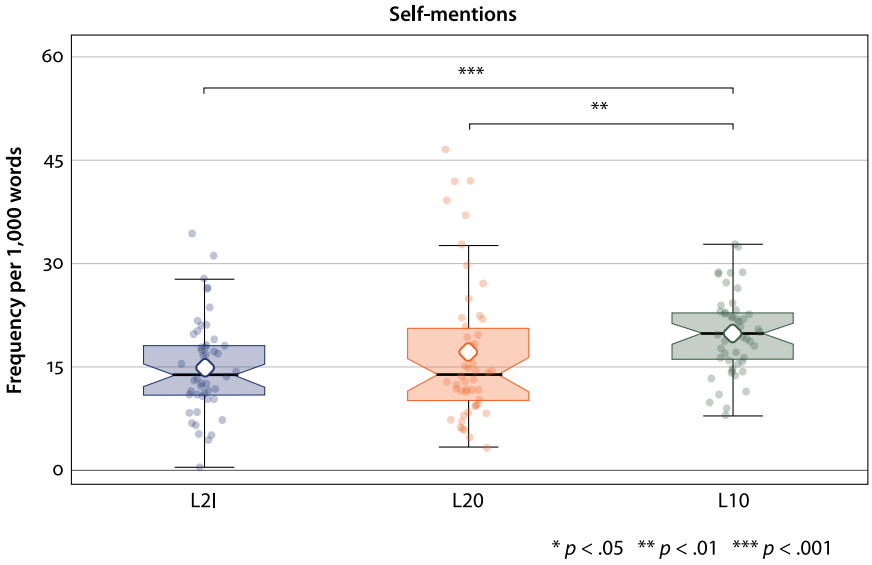

Figure 5. Statistical description of self-mentions in the three corpora

4.5 Directives

L2 interpreters use significantly more directives than L1 English speakers ($p < .05$), while L2 speakers in spontaneous speech do not show statistically significant differences from L1 speakers (Table 4 and Figure 6). As shown in Table 13, L2 interpreters markedly overuse directive modals such as *should* and *have to* compared to L1 English speakers. Spontaneous L2 speakers similarly overuse *have to* (aligning with L2I patterns) and additionally prefer *need to* (156 occurrences, LL = 6.71; see Table 14). Conversely, both groups underuse certain modals, such as *ought* and *must*. The modal *must* appears only 47 times in L2I and 37 times in L2O, compared to 71 instances in L1O. *Ought*, by contrast, is entirely absent from both L2I and L2O corpora, though it occurs four times in L1O. In Example (5a), the

L2 interpreter employs both *should* and *have to* to establish normative expectations and reinforce institutional obligations. In Example (5b), the L2 spontaneous speaker uses *have to* in a technical explanation to convey necessity.

(5) a. Air-conditioning *should* be standard feature in school but the government's really resorting to Noise Abatement Grant and other grant to help the schools to pay for the electricity charges. But the subsidies is not really enough. In many cases, the schools *have to* collect fees from the parents and to pay for the electricity charges. (L2I)

b. If you produce everything in your country, it means that a smartphone that works, for example, right today, we'll *need to*, for example, a hundred parts. So this is very important issues that I think manufacturers *have to* look at. (L2O)

Table 13. Overused and underused directive items, along with their raw frequencies (RF), normalized frequencies (NF), and log-likelihood (LL) values in the constrained corpora (L2I) compared with L1 speaker output (L1O)

Overused	L2I RF (NF)	L1O RF (NF)	LL	Underused	L2I RF (NF)	L1O RF (NF)	LL
have to	212(2.04)	51 (0.49)	45.32	ought	0 (0.00)	4 (0.04)	2.42
should	312(3.00)	139 (1.35)	28.87	must	47 (0.45)	71 (0.69)	2.23
				need to	78 (0.75)	92 (0.89)	0.56

Table 14. Overused and underused directive items, along with their raw frequencies (RF), normalized frequencies (NF), and log-likelihood (LL) values in the constrained corpora (L2O) compared with L1 speaker output (L1O)

Overused	L2O RF (NF)	L1O RF (NF)	LL	Underused	L2O RF (NF)	L1O RF (NF)	LL
have to	167 (1.59)	51 (0.49)	27.24	must	37 (0.35)	71 (0.69)	5.03
need to	156 (1.48)	92 (0.89)	6.71	should	100 (0.95)	139 (1.35)	3.13
				ought	0 (0.00)	4 (0.04)	2.44

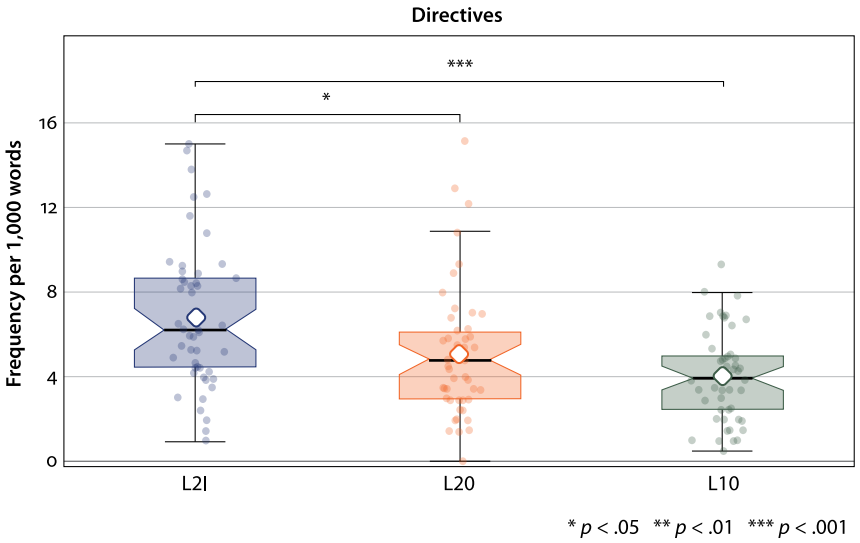

Figure 6. Statistical description of directives in the three corpora

5. Discussion

The quantitative analysis reveals statistically significant variation in the use of interactional metadiscourse markers across different types of language production. Notably, constrained speakers (i.e. L2 interpreters and L2 spontaneous speakers) demonstrated selective convergence, particularly in their reduced use of attitude markers and self-mentions compared to L1 speech. However, notable divergences also emerged. L2 interpreters exhibited markedly lower frequencies of interactional metadiscourse features in oral output relative to L1 English speech. In contrast, L2 spontaneous speech showed an opposing trend, with significantly higher frequencies of these markers than those observed in unconstrained L1 speech. This bidirectional discrepancy suggests that constrained speakers adapt their L2 communicative strategies in a context-sensitive manner.

Constrained language varieties consistently exhibit marked reductions in two stance-related features, attitudinal markers and self-referential expressions, when compared to L1 English speech. The pattern observed for L2 interpreters may be attributed to a tendency toward linguistic risk-aversion, driven by the heightened professional accountability inherent in simultaneous interpreting (Pym, 2015). Unlike L1 original speakers, who possess greater communicative agency and the authority to stand by their own rhetorical commitments, interpreters are generally expected to operate under a mandate of neutrality. They are professionally liable

for any perceived misrepresentation or over-commitment in high-stakes settings (Monacelli, 2009). In professional interpreting contexts, this linguistic restraint may reflect interpreters' institutional mandate to prioritize objective neutrality over expressive subjectivity (Maryns, 2015). By contrast, L2 speakers are not institutionally bound to the same degree of stance-detachment, yet they also exhibit reduced use of these features, albeit to a lesser degree. Their employment of attitudinal markers and self-referential expressions is significantly lower than that of L1 speakers, but remains higher than that of interpreters. This intermediate pattern may reflect an effort to balance the persuasive potential of such features with the rhetorical risks they pose in politically sensitive settings.

Unlike interpreters, L2 speakers have the latitude to position themselves through stance-taking language and may strategically deploy or withhold such features depending on audience expectations and communicative objectives. This contrast is salient when examined through the lens of involved versus informational speech. Both attitudinal markers and self-reference belong to the involved category, functioning to convey speaker presence and subjectivity (Biber, 1988; Chafe, 1982). The lower frequency of stance-taking resources serves to maintain discursive detachment, an outcome likely shaped by the intersection of institutional power dynamics and professional role expectations in high-stakes political contexts (Huang & Sang, 2024), where speakers must operate within tightly constrained communicative frameworks. While interpreters show a more restrained use of these stance-related elements, L2 speakers use them more frequently. This contrast is consistent with the differing role expectations and communicative constraints associated with their respective contexts. The resulting speech patterns therefore reflect not merely linguistic constraints but strategic adaptations to sociopragmatic pressures.

Despite notable commonalities, important divergences emerge between L2 interpreters and autonomous L2 speakers. In constrained communicative contexts, L2 English interpreters exhibit a higher frequency of hedges compared to L1 English speakers, although this difference does not reach statistical significance. This non-significant yet elevated hedge frequency aligns with Götz's (2021) findings that interpreted English tends to contain more hedging. However, it contrasts with Magnifico and Defrancq's (2017) observation of substantially higher hedge frequencies in interpreted speech relative to original speech. One potential explanation for this discrepancy lies in differences in institutional settings and language pairs across the studies. The present data, drawn from Hong Kong's Legislative Council, reflect a political context that may impose more stringent institutional constraints on interpreters than the European Parliament plenary sessions examined by Magnifico and Defrancq (2017). Variations in institutional conventions, role expectations, and communicative norms likely shape the degree

of pragmatic flexibility available to interpreters. Moreover, the contrast between Cantonese–English interpreting in this study and the French–English interpreting analyzed in the earlier research may also account for differences in both the frequency and functional realization of hedging.

Beyond cross-study contrasts, hedge usage may also vary due to the distinct cognitive and operational demands faced by L2 interpreters and autonomous L2 speakers. Interpreters work under the intense pressure of real-time simultaneous translation, which prioritizes the delivery of propositional content and increases the likelihood of omitting less essential discourse-pragmatic features (e.g. hedges). As Magnifico and Defrancq (2017) demonstrate, time-constrained processing often marginalizes non-propositional elements under cognitive load. In contrast, L2 speakers engaged in spontaneous speech production encounter different cognitive conditions, enabling them to allocate more resources to managing interpersonal linguistic strategies. The elevated hedge usage observed among L2 speakers may reflect a strategic response to linguistic insecurity in high-stakes political speech (Labov, 1966). Unlike interpreters, autonomous L2 speakers are not bound by fidelity requirements and therefore possess greater pragmatic agency. This allows them to externalize uncertainty through hedging, drawing on a broader repertoire of interpersonal resources to manage propositional precision, cross-cultural pragmatics, and institutional facework. These dynamics form a complex cognitive-operational ecology that demands continuous coordination of lexical retrieval, phonological encoding, and pragmatic monitoring (Levelt, 1992). Within this framework, hedging functions both as a fluency-preserving mechanism and as a strategy for mitigating propositional risk.

Another notable divergence between L2 interpreters and L2 speakers lies in their contrasting use of boosters and directives, which both signal assertiveness and control in spoken language. L2 interpreters, operating under institutional imperatives to avoid misrepresentation (Yao et al., 2024), exhibit a marked reduction in booster usage along with an increase in directive expressions. The restrained use of boosters may reflect a deliberate linguistic strategy to moderate absoluteness in linguistic outputs (Ren & Wang, 2023). The relatively restrained use of hyperbolic or categorical language in interpreted output may be associated with a lower incidence of strongly committed formulations, which is compatible with the risk sensitivity of high-stakes institutional settings. The higher frequency of directives in L2 interpreted English may be understood as a functional adaptation to the communicative needs of the target audience. As discourse-organizing and audience-orienting devices (Hyland, 2005a), directives have the potential to guide listeners through key discourse moves, mitigating the cognitive processing effort for a target audience who may share fewer background references or contextual assumptions with the speaker than the original source-language audience

(Dayter, 2020). This functional trade-off between reduced boosters and increased directives is consistent with Gile's (1995) Effort Models, which suggest that pragmatic reinforcement can help reduce cognitive load and minimize ambiguity during real-time processing.

In contrast, L2 spontaneous speakers tend to overuse boosters and employ fewer directives. This pattern likely reflects a different communicative logic that is less constrained by fidelity norms and more oriented toward asserting stance and projecting credibility through intensification. Their reliance on boosters may also reflect differences in linguistic proficiency that influence access to a broader repertoire of rhetorical strategies. L1 English speakers, by comparison, benefit from fully automatized linguistic competence and stronger metapragmatic awareness. As a result, they are able to use a wider range of strategies, including modal hedging, indirectness, and context-sensitive intensifiers, to express epistemic certainty without relying heavily on boosters. These contrasting patterns should not be interpreted as a shared tendency toward L2 simplification. Instead, they represent a redistribution of linguistic resources shaped by communicative roles, cognitive demands, and institutional expectations.

Drawing on Van Dijk's (2002, 2006) sociocognitive framework of discourse production, this account assumes that speakers construct personalized mental models of communicative events and then employ linguistic strategies to selectively project these cognitive representations into discourse. For interpreters, this process entails not only conveying the content of the source speech but also navigating institutional expectations and audience orientation within the target context. Their mental models are shaped by real-time processing constraints and professional norms, both of which influence their deployment of metadiscourse. In contrast, L2 speakers operate under a different set of sociocognitive conditions. Their mental representations are guided less by fidelity to a source text and more by their own communicative intent. These linguistic behaviors can be understood through the lens of Flavell's (1979) metacognitive theory, which frames language production as a dynamic regulatory process. The observed patterns point to an interconnected cognitive architecture in which speakers engage in continuous metacognitive monitoring, integrating three key components: (1) stored metacognitive knowledge, including awareness of communicative constraints and institutional conventions; (2) real-time metacognitive experiences, encompassing moment-to-moment sensitivity to production challenges; and (3) goal-directed regulatory strategies shaped by task demands. This integrated system aligns with contemporary models of bilingual language control (Calabria et al., 2018), in which executive functions mediate between competing linguistic systems and adapt to evolving communicative requirements.

These interpretations should also be considered in light of several aspects of the present study. First, the interpreted data are drawn from Cantonese-to-English interpreting, and further research involving other language combinations and interpreting directions would help establish the broader applicability of the findings. Although both L2 subcorpora represent advanced L2 English use in institutional settings, more detailed information on individual differences in English proficiency, such as prior exposure to English-medium education, was not available for systematic analysis. The subcorpora also differ somewhat in communicative setting and degree of preparedness. The L1O and L2I subcorpora are both drawn from institutional debate settings, whereas the L2O subcorpus consists of televised interviews with a less scripted format. In addition, the study focuses on the sociopolitical context of Hong Kong, and some of the observed patterns may be shaped by its particular institutional and cultural context. Finally, as the analysis focuses on political spoken discourse, future research could examine whether similar patterns emerge in other communicative contexts.

The analytical approach also offers several directions for further development. Because AVA-based retrieval is form-based, the interpretation of individual items still benefits from contextual examination to distinguish interactional metadiscourse from propositional uses. The manual validation conducted in this study supports the overall patterns identified, while more extensive contextual annotation could provide a finer-grained account of token-level functions. For the same reason, audience-directed pronouns were not treated as a separate category, as their communicative functions are often context-dependent and not always evident from transcripts alone. Future research could build on the present analysis by extending it to other language combinations, interpreting directions, and communicative contexts, as well as by incorporating more detailed information on speaker proficiency and closer matching of corpus materials in terms of preparedness. Such extensions would help further test the robustness and scope of the patterns observed here.

6. Conclusion

This study investigated the use of interactional metadiscourse across constrained language varieties, specifically interpreted speech and L2 original production, in comparison to L1 English. While some overlap is observed, the findings reveal that different speaker groups adopt linguistic strategies shaped by their communicative roles and cognitive constraints. Although both interpreter and L2 speaker groups consist of non-native English users, interpreting imposes distinct cognitive demands. It requires the simultaneous processing of semantic content and syntac-

tic restructuring, along with the bidirectional transformation of meaning across two linguistic systems. These operations must be carried out under real-time conditions, substantially increasing cognitive load relative to monolingual L2 speech tasks. Such pressures suggest that the observed variation in metadiscourse usage is not merely a consequence of generalized L2 effects. Rather, it reflects systematic adaptations to the differing demands of simultaneous interpreting and spontaneous speech production.

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