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## How Metadiscourse Enhances Cross-Cultural Risk Communication in Public Health Emergencies: Evidence from Reciprocal Letters between Chinese and U.S. Universities

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### Abstract

Public health emergencies threaten societal well-being, making effective risk communication essential. Universities, through established international networks, serve as key actors in cross-border public health collaboration. This study examines how Chinese, and U.S. higher education institutions deployed metadiscourse in reciprocal letters during the COVID-19 pandemic to construct cross-cultural risk communication. Analysis of 14 letters shows that interactional markers—including self-mentions, engagement markers, and boosters—were prioritized to foster dialogic engagement, convey empathy, and reinforce trust. Cultural differences shaped rhetorical strategies: U.S. universities favored factual framing and explicit self-references, reflecting low-context, evidence-based norms, whereas Chinese universities employed literary framing and attitude markers to project an emotionally supportive and collective voice. Despite these differences, both sets of letters emphasized collaboration, mutual support, and collective responsibility, illustrating how crises can activate collectivist orientations across cultural contexts. The findings highlight the significance of cultural and institutional factors in shaping cross-cultural risk communication and offer insights for designing trust-building, culturally sensitive messaging during public health emergencies.

**Keywords:** public health; risk communication; metadiscourse; cross-cultural communication; university

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### 1. Introduction

Public health emergencies threaten not only human life but also everyday routines and social order. In such contexts, risk communication is central to emergency management: it does more than transmit information, helping instead to align public understanding with scientific knowledge, reduce anxiety, and support collective action. Discourse lies at the heart of this process. It provides practical guidance, while simultaneously conveying reassurance, care, and solidarity. Risk communication discourse is therefore both functional and relational, shaping behaviour as well as social connection (Dai & Li, 2025).

Universities occupy a distinctive position in public health crises. As densely populated communities, knowledge institutions, and hubs of international exchange, they must respond to heightened risks under conditions of uncertainty. Their communication needs to combine accuracy with

openness, authority with empathy, and information delivery with dialogue. At the same time, universities are expected to protect staff and students while maintaining teaching, research, and international partnerships. Despite this complexity, university risk communication has received limited scholarly attention, especially with respect to how discourse is organized and what communicative purposes it serves.

This study explores reciprocal letters between Chinese universities and their partner institutions in the United States during the COVID-19 pandemic, with a focus on discursive practices in cross-cultural risk communication. It addresses three key research questions: (1) how universities strategically deploy metadiscourse to construct risk communication in the context of a public health crisis; (2) whether, and in what ways, patterns of metadiscourse usage differ between Chinese and U.S. institutional letters; and (3) how these differences are shaped by cultural contexts and, in turn, influence the communicative meanings conveyed and the institutional personas constructed in crisis communication.

Risk communication refers to the real-time exchange of information, advice, and opinions between experts or authorities and individuals who are exposed to threats to their survival, health, economic security, or social well-being. Its primary objective is to enable affected populations to make informed decisions that mitigate the impact of such threats and to adopt appropriate protective or preventive behaviors (WHO, 2020).

Emerging from the field of crisis management in the 1980s (Coombs, 1995), risk communication has gradually expanded to encompass a wider range of societal risks, including environmental disasters and terrorism (Kellens et al., 2013; Rogers et al., 2007). Within the public health domain, risk communication is increasingly understood as operating at the intersection of science communication and emergency response, providing a means of balancing technical rationality with public concerns and emotions (Glik, 2007).

Health risk communication, as a core component of public health management, extends well beyond the mere technical transmission of information. Rather, it constitutes a form of discourse practice that is profoundly shaped by cultural norms, social contexts, and linguistic structures. In recent years, linguistics and discourse analysis have become indispensable for unpacking the complexity of health risk communication. For example, analyses of Swedish risk assessments reports demonstrate that lexical choices play a crucial role in shaping perceived relationships between governmental actors and the risks they address (Månsson et al., 2015). Similarly, studies of doctor-patient interactions suggest that perceptions of health risks and related behaviours are largely constructed—and, to some extent, constrained—through discourse (Jones, 2013). Other research indicates that health-promotion discourse may activate individual agency and foster practices of self-regulation (Petersen, 1996). Empirical studies have shown that the effectiveness of healthcare interventions is closely linked to the quality of linguistic communication between professionals and patients (Candlin & Candlin, 2002). Furthermore, crisis response strategies shape public attitudes towards institutions, while communicative framing can either amplify or attenuate these effects (Claeys & Cauberghe, 2014).

Metadiscourse functions as an internal linguistic mechanism that shapes the organization of a text. Both interactive and interactional metadiscourse devices are strategically used in textual or visual risk communication messages to engage and involve the audience (Giordano & Marongiu, 2021; Muganda, 2024). For example, during the COVID-19 pandemic, governments were more likely to use frame markers, transition markers, and attitude markers than hospitals, thereby constructing an image that was both rational and emotionally compelling. In contrast, hospitals employed more boosters, creating an image of being more determined and confident (Yang, 2021). In public health posters issued during the COVID-19 crisis, reader pronouns and directives were the most frequently used interactional metadiscourse devices. These elements directly engaged the audience and guided them toward actions that would help ensure the adherence to health-protective measures (Al-Subhi, 2025).

The existing literature indicates that discourse-analytic research has substantially enhanced our understanding of how risk is socially constructed. Health risk communication operates not simply as a channel for the transmission of information, but as a discursive process through which trust and risk perceptions are shaped, thereby influencing behavioral responses and, ultimately, communicative effectiveness. At the same time, health risk communication constitutes a key site for the production and negotiation of power relations, cultural meanings, and social identities.

Nevertheless, the discourse of risk communication in public health emergencies remains insufficiently explored and calls for more systematic investigation. With regard to communicative actors, existing research has focused predominantly on national-level institutions and individual actors such as officials and experts, whereas the cross-cultural dimensions of risk communication have received comparatively limited scholarly attention. Against this backdrop, this study examines higher education institutions as key communicative actors, analyzing their cross-cultural risk communication practices. By analyzing the use of metadiscourse markers in the reciprocal letters, it aims to identify the socio-pragmatic functions of risk communication and to inform the design of trust-enhancing cross-cultural health risk messages.

## 2. Materials and Methods

Case studies are particularly suited for addressing “how” or “why” questions, especially when the researcher has limited ability to influence events and aims to examine a contemporary phenomenon situated in a real-world context. (Yin, 2009, p. 1). This study aims to explore how higher education institutions in China and the U.S. employ distinct metadiscourse strategies to construct cross-cultural risk communication during a public health crisis, and why such differences emerge. By adopting a case study design, the analysis captures the factors influencing institutional crisis communication at the meso-level from a cross-cultural perspective.

As key institutions at the intersection of academic life and community engagement, universities occupy a central position in public health risk communication. They are tasked with constructing and disseminating health-related information while maintaining effective communication with a diverse range of stakeholders, including students, faculty, staff, parents, and the wider public. Owing to this institutional complexity, universities provide a typical and representative context for examining institutional communication in health crisis situations.

The materials for this study were gathered from the Sogou WeChat platform (<https://weixin.sogou.com>). A keyword search using terms "partner university," "partner institutions," "COVID-19," "novel coronavirus," "reciprocal letters," "letters," and "United States" yielded a total of 87 publicly available entries. After removing 46 irrelevant entries, 7 incomplete letters, 2 duplicates or broken links, and 14 entries that did not include U.S. university letters, the remaining valid entries were 12. These 12 entries report on the correspondence between 12 pairs of Chinese and U.S. universities. Among these, 4 pairs have full correspondence from both sides, 3 pairs provide only Chinese letters, and 5 pairs provide only U.S. letters. To ensure comparability, the number of Chinese and U.S. letters was balanced. Ultimately, 14 letters were retained for analysis, comprising 4 pairs of correspondence (8 letters in total), 3 Chinese letters, and 3 randomly selected U.S. letters. The letters were labeled as follows: A-D for the 4 pairs with full correspondence (1 for Chinese letters, 2 for U.S. letters); E1-G1 for the 3 Chinese letters; and H2-K2 for the 3 U.S. letters. (Table 1)

**Table 1.** Letter Coding and Language Used

Letters from Chinese universities		Letters from U.S. universities	
Code	Language Used	Code	Language Used
A1	Chinese	A2	Chinese
B1	Chinese	B2	English
C1	English	C2	Bilingual
D1	English	D2	English
E1	Bilingual	H2	Bilingual
F1	English	J2	Chinese
G1	English	K2	English

Before annotation, the two authors discussed and aligned their understanding of metadiscourse markers to ensure consistent application of the coding criteria. Following Hyland's framework (Hyland, 2005), metadiscourse markers are classified into two broad categories. The first, interactive metadiscourse, functions to guide readers through the text by organizing information and clarifying relationships among ideas. Writers select these markers based on assumptions about readers' prior knowledge and cognitive processing, thereby structuring the discourse in ways that support comprehension and interpretation. This category includes transitions, frame markers, evidentials, endophoric markers, and code glosses. The second category, interactional metadiscourse, focuses on the interpersonal dimension of writing. It allows authors to express their stance toward propositions and to actively involve readers in the construction of meaning. These markers are inherently evaluative and participatory, signaling attitudes and degrees of reader engagement. Subcategories include hedges, boosters, attitude markers, self-mentions, and engagement markers.

Each author then independently identified and annotated metadiscourse markers in risk communication letters using NVivo V.14. Inter-rater reliability was assessed using Cohen's Kappa, which yielded a value of 0.91, indicating a high level of agreement between the annotators. Any disagreements were resolved through discussion until consensus was achieved. Based on the quantitative results, the study examines how metadiscourse combines the classical appeals of ethos, pathos, and logos to foster supportive cross-cultural communication in public health emergencies.

### 3. Results

A total of 498 instances of metadiscourse markers were identified in the 14 analyzed letters (Table 2), with 270 occurrences in the Chinese university letters and 228 in the U.S. university letters (Table 3).

**Table 2.** Frequency of metadiscourse markers across the 14 analyzed letters

	A1	A2	B1	B2	C1	C2	D1	D2	E1	F1	G1	H2	J2	K2	Total
<b>Transitions</b>			1	3	2	1		1	1	1	2	6		4	22
<b>Frame Markers</b>	16	7	9	9	8	8	7	7	8	8	12	7	4	4	114
<b>Endophoric Markers</b>	2	1	1		1				2	1	3	1			12
<b>Evidentials</b>	2	3				2	1	2		2	1	2		2	17
<b>Code Glosses</b>			1					1						1	3
<b>Hedges</b>				3				2	1			2	1	1	10
<b>Boosters</b>	12	5	6	2	6	2	1	2	15	4	9	5	3	4	76
<b>Attitude Markers</b>	9	6	5	1	4	3	4	1	4	6	1	9	2	5	60
<b>Selfmentions</b>	9	12	3	8	4	6	4	4	4	5	2	13	5	4	83
<b>Engagement Markers</b>	14	7	10	5	12	6	5		7	6	6	15	4	4	101
<b>Total</b>	64	41	36	31	37	28	22	20	42	33	36	60	19	29	498

Results show that interactional metadiscourse markers (n = 338) appear significantly more frequently than interactive metadiscourse markers (n = 168). This pattern holds across letters from both Chinese and American institutions. Letters from Chinese institutions contain 178 interactional

markers compared with 92 interactive markers, while letters from American institutions feature 160 interactional markers and 76 interactive markers. More specifically, within the interactive category, frame markers are the most commonly used (n = 114). Within the interactional category, the most frequently employed subtypes are engagement markers (n = 101), followed by self-mentions (n=83), boosters (n = 76) and attitude markers (n = 68). (Table 3)

**Table 3.** Frequency and distribution of metadiscourse markers

Type		Letters from China		Letters from the U.S.		Total	
		Frequency	%	Frequency	%	Frequency	%
<b>Interactive Metadiscourse</b>	Transitions	7	1.41	15	3.01	22	4.42
	Frame Markers	68	13.65	46	9.24	114	22.89
	Endophoric Markers	10	2.01	2	0.40	12	2.41
	Evidentials	6	1.20	11	2.21	17	3.41
	Code Glosses	1	0.20	2	0.40	3	0.60
	<b>Subtotal</b>	<b>92</b>	<b>18.47</b>	<b>76</b>	<b>15.26</b>	<b>168</b>	<b>33.73</b>
<b>Interactional Metadiscourse</b>	Hedges	1	0.20	9	1.81	10	2.01
	Boosters	53	10.64	23	4.62	76	15.26
	Attitude Markers	33	6.63	27	5.42	60	12.05
	Self-mentions	31	6.22	52	10.44	83	16.67
	Engagement Markers	60	12.05	41	8.23	101	20.28
	<b>Subtotal</b>	<b>178</b>	<b>35.74</b>	<b>152</b>	<b>30.52</b>	<b>330</b>	<b>66.27</b>
<b>Total</b>	<b>270</b>	<b>54.22</b>	<b>228</b>	<b>45.78</b>	<b>498</b>	<b>100.00</b>	

The prominence of interactional metadiscourse reflects the communicators' heightened awareness of their audience. This is often conveyed through self-reference (e.g., "I"), direct address of the recipient (e.g., "Respected Executive Vice President"), or collective references encompassing both parties (e.g., "we," "everyone"), which contribute to a more dialogic tone. The inclusion of boosters (e.g., "especially," "strongly") and attitude markers (e.g., "grateful," "firmly believe") further intensifies the emotional resonance and reinforces mutual confidence in a context fraught with risk.

When comparing correspondence from Chinese and U.S. institutions, the letters originating from China (n = 270) contain a higher overall number of metadiscourse markers than those from the United States (n = 228), a pattern that holds for both interactive (92 vs. 76) and interactional (178 vs. 152) categories. This indicates greater attention to discourse organization and reader engagement in the Chinese documents. Despite a lower total marker count, two types are more prominent in the U.S. letters: evidentials (11 vs. 6), reflecting frequent reference to national, state, or institutional policies and media reports contextualizing pandemic-related teaching adjustments, and self-mentions (52 vs. 31), suggesting a stronger emphasis on author presence.

#### 4. Discussion

The following section adopts Aristotle's classical rhetorical framework (Aristotle, 2007)—ethos (appeals to credibility), pathos (appeals to emotion), and logos (appeals to logic)—to examine how different types of metadiscourse markers contribute to rhetorical functions in the open letters. By mapping the statistical results of metadiscourse usage onto this tripartite model, we explore how each type of appeal is discursively constructed and fulfilled in the context of cross-cultural risk communication.

##### 4.1 Logos: Logical Appeals

Logical appeals in discourse involve the use of reasoning and evidence to substantiate arguments. This typically includes the presentation of facts, data, justifications, and structured reasoning (Lu, 2025). In written texts, such appeals are often realized through interactive metadiscourse, which serves to guide the reader's understanding of the text and subtly steer them towards the author's intended perspective. Essentially, logical appeals aim to align the reader's thought process with that of the writer (Hu & Li, 2018).

Analysis reveals that both Chinese and U.S. letters predominantly utilize frame markers and evidentials to introduce new discourse segments and signal the closure of preceding semantic blocks.

**Example 1.** *We sincerely thank you for the heartfelt sympathy and genuine concern you have expressed on behalf of your university's faculty and students. At present, in response to the rapid development of the pandemic in the United States, and in accordance with the requirements of the CDC and the Ohio state government... (letter A1)*

In this letter from a Chinese university, the transition from the greeting to the discussion of the broader social context is facilitated by the temporal frame marker "at present," which not only orients the reader but also introduces a new thematic focus. Through such framing, the text effectively guides the reader's interpretative trajectory in a coherent and structured manner.

Notably, evidentials may simultaneously function as frame markers.

**Example 2.** *The news about the coronavirus situation in China is heartbreaking. Please be assured that we will do our best to take care of the students already here at Kent throughout this difficult time. (letter D2)*

U.S. university D2 opens a new discourse frame by referencing news reports about the COVID-19 situation in China. By invoking external information sources, the letter demonstrates awareness of the situation in China and provides a rationale for its supportive stance and actions. This reliance on externally verifiable information enhances the credibility of the message.

Chinese universities also frequently draw on external texts to establish new discourse frames. However, unlike U.S. universities, which tend to reference factual information as evidentiary support, Chinese institutions more often invoke literary discourse. These literary references serve not only as framing devices but also as rhetorical resources that add cultural depth and stylistic refinement to the communication.

**Example 3** *"Though oceans are wide and mountains divide, our hearts will ever unite". We deeply understand that this is a difficult and challenging moment for you, your colleagues and students. We would appreciate it if you could convey our sincere greetings to all your colleagues. Inextricably bounded together to face this epidemic, we hope that we go firmly hand in hand to overcome the difficulties together. "山川异域，湖海同舟"，我们深刻理解对于您、您的同事和学生而言，这是一个艰难和充满挑战的时刻，请您向各位同仁转达我们诚挚的问候。"休戚相关，唇齿相依"，面对这场疫情，希望我们携手并进，共克时艰。 (letter E1, Bilingual)*

Chinese university E1 employs two metaphors that function as frame markers. The first metaphor conceptualizes geographically distant nations as sharing the same boat, mapping the natural domain onto the social domain to convey shared challenges despite physical separation. The second metaphor compares bilateral relations to the interdependence of lips and teeth, drawing on the bodily domain to emphasize mutual reliance in overcoming adversity. Together, these metaphors frame the crisis as a shared experience and legitimize expressions of empathy and solidarity.

The contrast between these practices reflects broader cultural orientations in risk communication. The frequent use of facts and evidence in U.S. institutional correspondence aligns with the strong emphasis on evidence-based communication in U.S. risk communication culture (Covello, 2021, p. 78). In contrast, the preference for literary discourse in Chinese correspondence highlights the cultural value placed on emotional resonance. In the Chinese context, literary language is widely regarded as fulfilling both aesthetic and pragmatic functions. Discourse-analytic research on domestic Chinese risk communication has shown a marked increase in the use of literary expressions during the COVID-19 pandemic (Dai & Li, 2025). Beginning a message with literary discourse

establishes a culturally grounded context, signaling shared historical memory and value systems, thereby fostering affective resonance in subsequent communication.

When such discourse practices are extended from domestic to cross-cultural risk communication, however, potential communicative risks may arise. Given differences in cultural background and lived experience, international audiences may find it difficult to interpret culturally specific metaphors. To mitigate the risk of ineffective communication, two strategies appear particularly salient.

First, because metaphor comprehension is grounded in shared experience, employing metaphors rooted in globally accessible experiences can help ensure interpretive alignment. Seasonal metaphors, for example, are used by both Chinese and U.S. universities as frame markers to convey the expectation that adversity will pass and a hopeful future will follow.

Second, communicators should carefully consider their audience. When cultural distance is substantial and familiarity with culturally embedded metaphors cannot be assumed, it may be advisable to avoid literary expressions. As illustrated in Letter E1, the English version does not directly translate the “lips and teeth” metaphor but instead replaces it with an explicit formulation emphasizing unity and collective struggle. Conversely, when the communicative partner demonstrates cultural knowledge and affinity, the strategic use of literary discourse may enhance mutual understanding and relational solidarity.

**Example 4** 寒冬已去，春花可期！*The harsh winter has passed, and the spring flowers can be expected.* (Letter A1)

**Example 5** “千里同好，坚于金石”。我深信，贵我两校守望相助、共克时艰，一定会早日战胜疫情，延续两校的合作。*“Though separated by a thousand miles, we share the same ideals and are steadfast as gold and stone.” I firmly believe that our two universities, standing by each other and working together through these difficult times, will surely overcome the pan-demic soon and continue our collaborative endeavors.*” (Letter A2, Bilingual)

Chinese University A1 initially employs a seasonal metaphor to express confidence and optimism, and the responding U.S. university reciprocates not only by writing in Chinese but also by invoking a classical Chinese metaphor. By framing bilateral relations as “steadfast as gold and stone,” the U.S. institution affirms the durability and value of a partnership grounded in shared values, thereby echoing the Chinese university’s expression of confidence and future-oriented optimism and foregrounding mutual support and encouragement as essential resources for overcoming adversity. By doing so, the response aligns itself symbolically with the cultural and rhetorical framework established by its Chinese counterpart.

#### 4.2 Pathos: Emotional Appeals

Emotional appeals are designed to elicit affective responses—such as hope, sympathy, anger, or anxiety—in order to establish a connection with the audience and enhance communicative effectiveness.

In the context of the COVID-19 pandemic, these appeals take on an especially crucial role in cross-cultural communication. Public health crises often place individuals in states of heightened emotional distress, including anxiety, fear, anger, and uncertainty. In such situations, relying solely on logical explanations or rational persuasion may fall short—or even backfire—potentially causing recipients to perceive the communicator as detached or lacking empathy.

These emotional appeals are primarily conveyed through interactional metadiscourse markers, such as boosters, attitude markers, and engagement markers, all of which work together to strengthen the interpersonal resonance of the text. For example,

**Example 6.** *I firmly believe that through mutual support and solidarity, our two universities will surely overcome the pandemic at an early date and continue our collaboration.* (Letter A2)

The use of “firmly” and “surely” serves to amplify the tone, conveying strong conviction and emotional intensity. The phrase “our two universities,” which simultaneously references both the

speaker and the recipient, reinforces mutual trust and fosters empathy. The underlying goal is to instill confidence in facing the pandemic together while offering emotional support to the recipient.

#### *4.3 Ethos: Appeals to Credibility*

Ethos refers to the rhetorical strategy of enhancing persuasiveness by emphasizing the speaker's credibility, moral character, or professional authority. It often involves constructing the speaker's image and ethical stance within the discourse.

Although both Chinese and U.S. universities employ self-referential markers to establish appeals to ethos, a clear contrast emerges: U.S. letters exhibit higher frequencies of self-mentions than their Chinese counterparts. This difference reflects not merely stylistic variation but is deeply embedded in cultural orientations and established communicative traditions in health crisis contexts.

Firstly, the tradition of risk communication in the United States places a premium on the explicit identification of the acting agent, which is seen as central to clarity and accountability (Sellnow et al., 2017). Frequent self-references serve to continuously activate the speaker as a distinct entity, thereby signaling the institution's presence in both emotional support and practical action.

Secondly, the prevalence of self-mentions in American letters aligns with the low-context communication style characteristic of U.S. culture. In low-context cultures, information must be made explicit in the message itself rather than inferred from the surrounding context (Hall, 1976). Accordingly, repeated self-mention markers function to reaffirm the speaker's stance, attitudes, and responsibility, ensuring that recipients can clearly identify the source of support and action without relying on background knowledge.

Thirdly, self-referential language operates as a linguistic indicator of individualism versus collectivism. Languages that allow subject pronoun omission tend to be associated with collectivist cultures, whereas non-omissible subject pronouns correspond to more individualist cultures (Kashima & Kashima, 1998). In line with this, U.S. university letters, reflecting a prototypical individualist context, rely heavily on explicit self-references, whereas Chinese letters, from a collectivist cultural context, show fewer such markers.

It is generally assumed that individuals from collectivist cultures favor group-oriented self-descriptions, whereas those from individualist cultures tend to use more self-focused expressions (Bochner, 1994). However, our statistical analysis indicates that in both Chinese and American university letters, collective references such as *we* occur more frequently than individual references such as *I*.

***Example 7. Our two institutions have enjoyed strong partnership and collaboration in the past few years and we hope that this global pandemic will not only strengthen our bonds but allow us to find ways to ensure our student academic success continues to remain strong. Our collective prayer continues to be for a rapid containment and cure of the infection, as well as a successful operation to assist those individuals and families affected by it. (Letter K2)***

In a letter from U.S. University K, collective self-references—including *we*, *us*, *our* and *collective prayer*—foreground the institutional voice rather than individual authors. This approach both reinforces the explicit identification of the institutional actor and conveys a collaborative, action-oriented stance during the health crisis.

This observation resonates with prior research indicating that cultural tendencies toward individualism or collectivism are not static but may shift in response to historical and social circumstances (Dai & Li, 2025; Lomas et al., 2023; Mohammad et al., 2022). Supporting this dynamic perspective, the pathogen-prevalence hypothesis posits that collectivist tendencies are strengthened over time through recurrent infectious disease exposure (Fincher et al., 2008), a claim substantiated by cross-cultural evidence (Cashdan & Steele, 2013; Ma, 2021). Notably, empirical studies on COVID-19 suggest that even a single epidemic can elevate behaviors reflecting collectivist values, with marked increases in collectivist language following the outbreak (Han et al., 2021). The frequent use of collective self-reference in American institutional letters provides convergent evidence

that situational factors such as a health crisis can activate and amplify collectivist behaviors, even within predominantly individualist cultural contexts.

## 5. Conclusions

This study investigates the use of metadiscourse in inter-university communication across cultures during a public health emergency. Findings indicate that interactional metadiscourse markers were employed far more frequently than interactive markers, reflecting a deliberate effort by the communicators to engage their audience and establish a dialogic, interpersonal connection. Specifically, the letters extensively utilized self-mentions, engagement markers, and boosters, which reinforced relational bonds and contributed to a conversational tone. Through these devices, the senders conveyed genuine care for recipients, fostering empathy and collaboration—an especially crucial function in crisis communication, as it helps alleviate public anxiety and build trust.

Despite these consistencies, socio-cultural factors shaped distinctive patterns in the correspondence of Chinese and U.S. universities. In the low-context communication culture of the U.S., combined with explicit expectations for identifying the speaking entity in risk communication, U.S. institutions employed self-mention markers more frequently than their Chinese counterparts. Notably, during the health crisis, U.S. universities made greater use of collective self-references rather than individual-oriented references, suggesting that the uncertainty generated by public health emergencies may heighten attention to interdependence and group responsibility. This observation aligns with the pathogen-prevalence hypothesis, supporting the notion that exposure to infectious disease can reinforce collectivist tendencies in affected contexts.

Cultural orientations also shaped the selection of framing devices. U.S. universities frequently drew on factual reports and news as frame markers, whereas Chinese universities more often employed literary discourse to introduce new information. This contrast reflects broader cultural orientations and discursive traditions in risk communication: the U.S. emphasis on evidence-based communication versus the Chinese preference for emotionally resonant discourse.

Overall, both Chinese and U.S. letters demonstrate proactive and sophisticated metadiscourse use, reflecting careful discourse construction and a strong intent to engage readers. Both sets of letters emphasize collaboration, mutual support, and confidence in overcoming the crisis, but cultural differences are evident in the rhetorical strategies: Chinese letters use literary frames, boosters, and attitude markers to construct an emotionally supportive and inspiring voice, whereas U.S. letters rely more on factual frames, transitions, and self-mentions to convey a rigorous, rational, yet collectively oriented persona.

Based on these findings, this study offers practical implications for non-governmental diplomacy, particularly in the context of academic and educational exchanges during global crises. Universities function as key non-state actors in international relations, and their communicative practices can contribute to trust-building, solidarity, and cross-cultural understanding. The analysis demonstrates that interactional metadiscourse resources function to establish interpersonal connection and convey solidarity and emotional support. Moreover, culturally grounded rhetorical strategies play a crucial role in audience reception: references to culturally resonant literary discourse may foster psychological proximity and shared identity among Chinese audiences, and boosters that emphasize certainty can mitigate anxiety under conditions of uncertainty. In contrast, explicit self-referential positioning and evidence-based discourse enhance perceived expertise and credibility among U.S. audiences. These findings suggest that culturally sensitive metadiscursive strategies can enhance the diplomatic and relational functions of academic communication, offering practical guidance for universities and other non-governmental actors seeking to cultivate dialogue, trust, and cooperation during transnational crises.

While this study provides insights into the patterns of metadiscourse in Chinese and U.S. university letters and the cultural contexts influencing them, it has several limitations. Although a comprehensive search of publicly available online sources was conducted, the number of cases

meeting the study's criteria remains limited due to the specialized nature of inter-university reciprocal letters, which are often restricted to internal circulation. Nevertheless, the selected cases represent the best possible set of publicly accessible examples, making the sample as comprehensive as feasible within the constraints of this genre. Furthermore, this study focuses exclusively on reciprocal letters between Chinese and U.S. universities. Whether these findings generalize to inter-university communications in other national or cultural contexts remains unexamined, and future research is necessary to explore their broader applicability.

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