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Research Article

"Only Leave the Household When It's Absolutely Necessary": A Study of Stance and Engagement Markers in COVID-19 Related CMC

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Abstract

The aim of this cross-cultural research was to investigate stance and engagement markers, as persuasive devices, in English and Persian COVID-19 related captions on Instagram pages posted by health organizations in the United States and Iran. To this end, 740 captions were randomly collected from 6 American and Iranian health organizations' accounts on Instagram from March 2020 to March 2021. The data were then analyzed for stance markers (i.e., hedges, boosters, attitude markers, and self-mentions) and engagement markers (i.e., reader-pronouns, directives, questions, shared knowledge, and personal asides), and the findings were discussed in light of the theory of metadiscourse. The findings showed differences in the use of persuasive devices between English and Persian corpora. While self-mention and hedges were the frequent stance markers in the English corpus, booster and attitude markers were frequently found in the Persian corpus. Moreover, reader pronouns and directives were the most frequently used engagement markers in English and Persian. In addition, the overall use of stance markers was higher than engagement markers in the two corpora, meaning that the Instagram users adopted a more writer-oriented approach.

Keywords: computer-mediated communication, COVID-19, cross-cultural study, engagement, Instagram, metadiscourse markers, stance.

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Introduction

The role of technology and especially social platforms came to the fore during COVID-19 when public health organizations were the most reliable sources to announce what researchers found, how certain they were about treatment veracity and authenticity, and to provide their perspective into how people should act in such mysterious situations. Recent census on the number of social media users display that nearly 66% of the world population (about 3.8 billion) use social media (Kemp, 2020). The significance of reliable communication with people during public health emergencies was highlighted in the 2020 COVID-19 pandemics (Lazarus et al., 2022) when social platforms, such as Instagram and Twitter were revealed as primary sources of information dissemination for public health (Chesser et al., 2020). Consequently, these platforms were used as a means of public health information dissemination for the general or targeted population (Hyland-Wood et al., 2021). Sharif et al. (2021) reported that social media users were following health rules about COVID-19 three times more than non-users, and Cato et al. (2021) added that the users who checked the social media on a daily basis were presumably taking protective and social distancing behavior measures. Since then, several researchers in applied linguistics have turned their attention to the use of language in this time. Publications varied from research into the most frequent verbs and nouns in the media (e.g., Jiang & Hyland 2022), to non-verbal politeness (e.g., Ghaffori, 2022), and to critical discourse analysis studies of newspapers (Orts & Vargas-Sierra, 2022) or reasoning by religious leaders (Abe et al., 2022) during COVID-19.

In this study, Hyland's (2005a) model of stance markers (i.e., writer's position toward a proposition) and engagement markers (reader's involvement in a text) is employed to investigate the persuasive language used in COVID-19 related Instagram captions. The scope of much of the literature on persuasive strategies is limited to academic writing, and there is little research on their use and variations on computer-mediated communication (CMC). This study is also significant as it compares computer-based discourse in English to that of Persian, a relatively under-researched language. Hence, the objectives are as follows: firstly, how health-related organizations share their stance and engagement with their readers in sending COVID-related information in English and Persian, and secondly, how the devices used in Instagram captions written in English and Persian are (dis)similar.

Review of the Literature

Hyland's Model of Stance and Engagement Markers

Similar to other domains, the purpose of communication on CMC seems to be persuasive: the writers wish to transmit their ideas/positions towards a proposition /opinions to the reader, and use rhetorical devices to involve a reader into a text. This is shown by previous empirical studies reporting that persuasiveness in CMC is similar to other means of communication such as printed text (Hill & Monk, 2000) or face to face communication (Matheson & Zanna, 1988). Persuasive languages have broadly been studied from different perspectives, such as appraisal theory (Martin & White, 2005), evaluation theory (Hunston & Thompson, 2000), and metadiscourse (Hyland, 2005a).

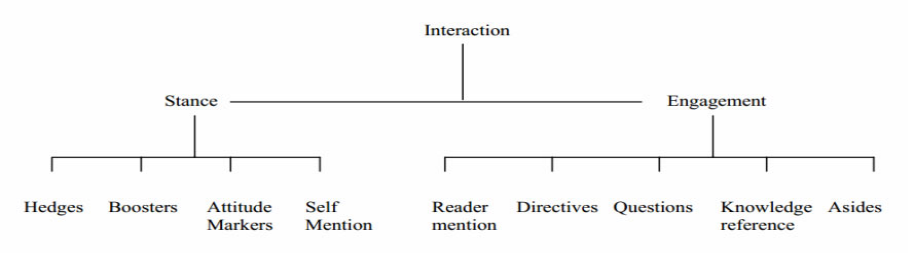
Having a persuasive function, metadiscourse markers are used by the speakers and writers to express intentions more effectively, and therefore to better understand their attitude and emotions. A plethora of research acknowledged that metadiscourse markers play a key role in persuasive and argumentative research (Kitjaroonchai & Duan, 2019), and it originated from the idea that communication is aimed not only at exchanging information but also leading the comprehension of information to receivers and guiding them through the text (Hyland, 2005b). Metadiscourse is often discussed under Hyland's (2005a) model of interaction which consists of two broad categories of stance and engagement markers (Hyland, 2005a). Stance is defined as the writer's "textual voice […] and includes features which refer to the ways writers present themselves and convey their judgments, opinions, and commitments" (Hyland, 2005a, p. 176), whereas engagement is understood as the way "writers acknowledge and connect to others, recognizing the presence of their readers, pulling them along with their argument, focusing their attention, acknowledging their uncertainties, including them as discourse participants, and guiding them to interpretations" (Hyland, 2005a, p.176). According to Hyland (2005a), these two devices represent two sides of the same coin, and they help speakers/writers to facilitate the interpersonal dimension of discourse.

For Hyland, an effective piece of writing has some linguistic resources of stance and engagement, where *stance* refers to writer's concern to display their commitments to the text, to express their attitude and to stance their position, and it is realized in a text by features of hedges, boosters, attitude markers and self-

mentions (Hyland, 2001, 2005a) (see Figure 1).

Figure 1

Hyland's (2005a) Model of Interaction



Hedges are words that make things more or less unclear and described as the linguistic resources, such as *could, probably, possible*, etc., which show the writer's assessment of the text and reduce their commitment to a proposition (Fu, 2012). Hedges are elements which indicate that an assertion is based on the writer's possible thinking rather than assured knowledge and refuses commitment to a proposition (Hyland, 2005a). Hedges can be realized by a number of linguistic features, such as modal auxiliary verbs, modal lexical verbs, modal phrases in the form of adjective, nominal, and adverbial, approximaters of degree, quantity, frequency and time, introductory phrases, if clauses, and compound hedges (Salager-Meyer, 1997). Opposite to hedges, boosters are devices, such as *surely* and *definitely* employed to concentrate on certainty about a proposition by reinforcing a claim (Gillaerts & Vande de Velde 2010), expressing full authorial commitment to a proposition (Millan, 2008), and permitting the writers to indicate their assurance in their messages and showing involvement and unity with topic and readers as well as emphasizing shared information and authors' beliefs in their argument (Hyland, 2008). Attitude markers are words or expressions, such as *importantly, hopefully,* and *essentially* which express the writer's opinion (Gillaerts & Vande de Velde, 2010). Attitude markers show a writer's emotional attitude, such as agreement, surprise, significance, and disappointment rather than liability and can be communicated by means of attitude verbs, sentence adverbs, and adjectives (Hyland 2008). Through **self-mention**, "the authors put themselves explicitly on stage" (Gillaerts & Vande de Velde, 2010, p.131). The authors utilized first-person pronouns/possessive adjectives to make a link between themselves and the content

of the text and to express their authorial identity in their discourse (Hyland, 2005a).

On the other hand, *engagement* refers to a position where the writer brings the readers into the writing by focusing their attention and involving them into the text, and it is realized by personal pronouns, directives, questions, shared knowledge, and personal asides (Hyland, 2001, 2005a). Hyland (2005b) suggests two motivations for the use of engagement markers: the first purpose is to accept the need to sufficiently fulfill the reader's expectations of disciplinary cohesion and inclusion. Authors use the readers' pronouns and interjections to address readers as participants in an argument. Second, it aims to involve placing the readers rhetorically into the discourse at points where there is a possibility of objections and guides them to certain judgments with questions, directives, and references to shared knowledge.

Reader pronouns**,** such as *you* and *your* are used to invite the audience into a discourse. These pronouns might be used rarely in some writings; instead, there is huge attention in binding the readers and the writer together through the use of general *we* (Hyland, 2008). Directives are utterances that guide the reader to take an action or to see things in a way formed by the writer (Hyland, 2002). Hyland (2005a, 2005b, and 2008) claimed that directives command the readers to do something and can be expressed by imperatives and a model of obligation, such as *should, must,* and *ought to*. Moreover, directives might also be performed by predicative adjectives whose function is to express the author's evaluation of necessity (e.g., It is necessary/important to understand…), and can address the readers to be engaged in three types: textual acts (guiding them a discussion, etc.), physical acts (instructing them to carry out or perform something, etc.), and cognitive acts (getting them understand something in a certain way, etc.) (Hyland, 2005a). Questions are used to create a sense of vicinity and engagement with the reader. Questions function as a dialogic involvement whose purpose is to engage and invite the interlocutor into "a discourse arena where they can be led to the writer's viewpoint" (Hyland, 2001, p. 569). Shared Knowledge is identified by specific devices leading readers to learn something as familiar or accepted (Hyland, 2008). In fact, authors utilize shared knowledge to convince the readers to agree with them (Hyland, 2005a). Finally, personal asides allow the writers to communicate with the readers without deviation by intruding the argument in brief to suggest a comment

on what has been said (Hyland, 2008). Personal asides show something of the author's personality and willingness to directly suggest an idea. Moreover, they can also be realized as a crucial reader-oriented approach (Hyland, 2005a).

As stated by Hyland (2005a, p. 175), a writer's decision to select either of rhetorical resources (i.e., stance or engagement) is "socially situated in a disciplinary or institutional context" since it constitutes one's evaluation about what is acceptable or persuasive in a particular discourse community depending on how knowledge is taken into account (Qiu & Jiang, 2021). Hence, studies on stance and engagement markers are of significance in that they can enhance our understanding of how a given speech community presents their values and shapes their talk to make the interaction meaningful (Hyland, 2005a). Moreover, author's selection of either stance or engagement features would determine the types of text: a text is more writer-oriented when the rhetorical stance resources of hedges, boosters, attitude markers and self-mention are abundant, and it is more reader-oriented where it holds more engagement features of reader pronouns, directives, questions, and knowledge appeals in the text (Hyland, 2001).

Previous Studies

"Writing is a cultural object" (Moreno, 1997, p. 5), that is to say languages have their own unique way of rhetorical conventions (Connor, 1996). This can also suggest variations in the use of metadiscourse across cultures and genres. This intrigues many, for example Iranian researchers, to use Hyland's model of stance and engagement to compare how persuasive language is presented in English and Persian languages in different genres, such as research articles (e.g., Hashemi & Hosseini, 2019; Rezaee & Ghobadi, 2021), master/doctoral theses (e.g., Mirshamsi & Allami, 2013), newspaper editorials (e.g., Babapour & Kuhi, 2018), to name a few. These studies conform to Hyland's statement that the use of metadiscourse markers varies with language, culture, and context variations. For example, in a comparative study of English and Persian newspaper opinion columns, Babapour and Kuhi (2018) reported that the occurrence of hedges and self-mentions was higher in English whereas boosters and attitude markers were used more frequently in the Persian corpus. They further reported that the writer's cultural and linguistic preferences as the point of difference. Moreover, Farnia and Shirzadkhani (2023) found that while self-mentions and attitude markers were used more frequently in

English motivational speeches, boosters and attitude markers were the most frequently used stance expressions in Persian motivational speeches. As with engagement markers, reader pronouns and directives were used frequently in the two corpora. They also reported that their findings confirm Hyland's (2005a) statement that the use of metadiscourse markers pertains to the socio-rhetorical context in which they are used.

In another comparative study on English and Persian university lectures, Kahkesh and Alipour (2017) found that engagement markers and self-mentions were used more frequently in the two corpora. They also reported that metadiscourse markers occurred more in English university lectures than in the Persian ones. Moreover, they described metadiscourse markers as a valuable rhetorical tool in the process of persuasion in university lectures. In a comparative study of English and Persian research articles in applied linguistics, Hashemi and Hosseini (2019) found that while attitude markers and boosters were used frequently in Persian corpus, hedges and self-mentions were the most frequently used stance expressions in English corpus. In addition, they reported that English authors used stance features more frequently than Persian authors.

With the widespread use of technology, new lines of research have probed the occurrence of stance and engagement on social platforms, such as Twitter and Facebook. For example, Chiluwa's (2015) analyses of Boko Haram's Tweets showed that self-mention and attitude markers occurred frequently in the radicalist discourse. Chiluwa (2015) reported that self-mention was generally used as a negotiation of group identity, hence, representing the extremist groups in the corpus, and attitude markers were frequently used in radicalist discourse to "express triumph, satisfaction, pride, hate and anger" (Chiluwa, 2015, p. 15). In another CMC-based study, Herzuah's (2018) analysis of status messages on WhatApp displayed that self-mention (i.e., representing stance markers), reader pronouns and directives (i.e., representing engagement markers) were used frequently in the corpus.

Since 2020 pandemic, several researchers have investigated how COVID-19 could affect people's daily and academic discourse. For example, Zou and Hyland (2023) investigated the use of the stance markers in research articles. This study highlights COVID-19 virus circumstances and the findings showed that the

use of hedges, boosters, and self-mention in the highlights was remarkably significant. Comparing English medical research articles with newspaper opinion column related to COVID-19, Shen and Tao (2021) reported that although the two corpora were similar in the frequency order of stance markers (i.e., hedges, boosters, self-mentions and attitude markers), medical research articles used hedges and self-mentions significantly more than newspaper opinion articles, and the occurrence of boosters and attitude markers were significantly higher in newspaper opinion article.

Previous research which were carried out studied persuasive devices in different genres and topics using Hyland's model. They showed that the use of stance and engagement markers varies with variations of genre and language. Hence, this research is based on the premise that the findings derived from comparative cross-cultural studies can provide insights into the cultural and linguistic differences between English and Persian. Moreover, few studies compared rhetorical choices used to express writers' stance and engagement markers on CMC between these two languages during COVID-19.

Method

The popularity of social network platforms on CMC, such as Instagram has soared among more than three billion users in 2019 (Statista), helping the information to be widely disseminated. Instagram is a popular social network among individuals, non-profit organizations, and even authorities who share news as well as future events, announcements, or decisions. The interactivity and anonymity features of social network enable users to spare their thoughts in various forms, such as comments, images, emoticons and smileys (Association for Progressive Communications, 2015).

The data of the present research were collected from three English health-related Instagram accounts (i.e., CDCGOV, UNICEFUSA, AMERICAN RED CROSS) and three Persian health-related Instagram accounts (i.e., WHOIRAN, UNICEFIRAN, IRANIAN_RCS) from March 2020 to March 2021. In Iran, the breakout of COVID 19 and the consequent pandemic started in March 2020, hence, the captions posted within a year by these three pages were observed closely. It is noteworthy that the owners of these pages had the authority to prescribe people about the measures they should take under the circumstances of the pandemic.

As one of the most popular social media websites, from January 2021, Instagram has offered a platform for its 1.22 billion users to broadcast their information and share their videos and photos. The application permits these users to share their photos and videos with a caption under the posts online (Lee & Chau, 2018). Totally, 740 COVID-19 related captions were chosen from 3281 captions, 359 of which were in English and 381 in Persian Instagram accounts (Table 1 and Table 2). It is worth mentioning that all these captions were the descriptions in the accompanying illustration/picture posted on Instagram.

Table 1

Corpus Information

English corpus		**Persian corpus**	
Name of the pages	***Number of the selected posts***	***Name of the pages***	***Number of the Selected posts***
CDCGOV	117	WHOIRAN	43
UNICEFUSA	140	UNICEFIRAN	41
AMERICANREDCROSS	102	IRANIAN_RCS	297
Total	359	Total	381

Table 2

Number of Pages, Posts, and Words in English and Persian Corpora

Corpora	Number of Instagram pages	Number of posts	Number of words
English corpus	3	359	19,708
Persian corpus	3	381	35,083
Total	6	740	54,791

The data were converted into a plain text and inserted into AntConc version 3.5.7 for analysis (Anthony, 2018). AntConc is a free concordancing program which can be used to find words or phrases as well as to take the occurrence of keywords into account in a corpus. the document was uploaded into Antconc, and the data were analyzed based on Hyland's (2005a) model of stance and engagement (Table 3). The corpus was coded once by the software and subsequently checked manually by the researchers.

Table 3

Hyland's (2005a) Model of Stance and Engagement Model

Category	Function	Example
Stance	conveys the writer's opinions, judgments, and commitments.	
Hedges	Withhold writer's commitment to proposition and open dialogue.	apparently, doubt, assume, estimate, probably, from my perspective, in most cases, in my opinion, suggests, may
Boosters	emphasize writer's certainty and assurance in proposition and close dialogue.	definitely, it is clear that, beyond doubt, obviously
Attitude markers	Express writer's emotional attitude to proposition.	admittedly, unfortunately, correctly, dramatic, hopefully, appropriate
Self-mentions	Explicit reference to author(s).	the author, I, me, we, our, mine, my self
Engagement	explicitly builds a rapport with reader	
Reader mentions	suggest the explicit ways of bringing readers into a discourse.	we, our, you, your
Questions	bring the addressee into an area where they can be led to writer's view.	rhetorical questions
Directives	direct the readers to engage in these types of activities (textual acts, cognitive acts, and physical acts).	all imperatives and obligation modals (have to, must, should)
Shared knowledge	ask readers to know something as familiar or accepted.	well known, obviously, you know, apparent
Personal Asides	address readers directly by interrupting the arguments in brief to suggest a comment.	by the way, as I believe, you may notice

Results

Overall Distribution of Stance and Engagement Markers

The distribution of stance and engagement markers in the English and Persian corpora is shown in Table 4. Since the size of the two corpora was different, a normalized frequency in 1000 words was reported for the ease of comparability of the two English and Persian corpora. Results of the study demonstrated that the

occurrence of stance markers (1408 and 1353 in English and Persian, respectively) is higher than engagement markers (924 and 732 in English and Persian, respectively) in the two corpora, indicating that the written captions adopted a writer-oriented approach (when the rhetorical stance resources of hedges, boosters, attitude markers, and self-mention are abundant).

As shown in Table 4, the frequencies of metadiscourse markers in English and Persian corpus are 2332 and 2085, respectively. Notably, the use of stance and engagement markers is almost twice in 1000 words in English (118.32 per 1000 words) compared to Persian corpus (59.43 per 1000 words), suggesting the idea that their writers employed more persuasive devices to express their attitude, provide evidence, and make a connection to the reader.

Table 4

The Overall Distribution of Stance and Engagement Markers across the Corpus

Device			English Corpus				Persian Corpus			
			F	%		Per 1000 words	F	%		Per 1000 words
				Per device	Per corpus			Per device	Per corpus	
Stance	**S**	Hedges	417	29.6	17.9	21.15	305	22.55	14.60	8.69
		Boosters	222	15.75	9.50	11.26	453	33.50	21.70	12.91
		Attitude markers	337	23.95	14.50	17.09	431	31.85	20.70	12.28
		Self-mentions	432	30.7	18.50	21.92	164	12.10	7.85	4.67
		Total	1408	100			1353	100		
Engagement	**E**	Reader pronouns	446	48.25	19.10	22.63	445	60.80	21.35	12.68
		Directives	406	43.95	17.40	20.60	172	23.50	8.25	4.92
		Questions	45	4.85	1.90	2.28	81	11.05	3.90	2.30
		Shared knowledge	4	0.45	0.15	0.20	29	3.95	1.40	.82
		Personal asides	23	2.50	1	1.16	5	0.70	0.25	0.14
		Total	924	100			732	100		
Total			2332		100	118.32	2085			100

Note: F= Frequency, %= Percentage

Table 4 shows that self-mention (30.70%, 21.92 per 1000 words) followed by hedges (29.60%, 21.15 per 1000 words) were the most frequently used stance features in English corpus, while boosters (33.50%, 12.91 per 1000 words) and attitude markers (31.85%, 12.28 per 1000 words) were the most frequently used stance features in Persian corpus. As with engagement markers, the analysis revealed that reader pronouns (22.63 per 1000 words in English and 12.68 per 1000 words in Persian) and directives (20.60 per 1000 words, and 4.96 per 1000 words in Persian) were the most frequently used engagement features in both corpora. Moreover, shared knowledge and personal asides were the least frequently used markers across the two corpora.

Results of inferential statistics are shown in Table 5. As shown in the table, despite the difference between the two corpora, results of chi-square analysis reveal that there is no statistically significant difference in the use of stance features in the two corpora. On the other hand, analyses show that there is a statistically significant difference in the use of engagement features in the two corpora. That is the number of engagement markers was higher in English corpus than Persian. Moreover, the overall comparison between two corpora displays statistically significant differences between the two corpora. In other words, the number of stance and engagement features was statistically higher in English compared to Persian corpus.

Table 5

Results of Chi-square Test

	Features	English		Persian		Total		χ^2	Sig.
		F	F	F	%	F	%		
Stance	Hedges	417	57.8	305	42.2	722	100.0	17.374	.001
	Boosters	222	32.9	453	67.1	675	100.0	793053	.001
	Attitude markers	337	43.9	431	56.1	768	100.0	11.505	.001
	Self-mentions	432	72.5	164	27.5	596	100.0	120.510	.001
	Total	1408	51.0	1353	49.0	2761	100.0	1.096	.295

Engagement	Reader pronouns	446	50.1	445	49.9	891	100.0	.001	.973
	Directives	406	70.2	172	29.8	578	100.0	94.734	.001
	Questions	45	35.7	81	64.3	126	100.0	10.286	.001
	Shared knowledge	4	12.1	29	87.9	33	100.0	18.939	.001
	Personal asides	23	82.1	5	17.9	28	100.0	11.571	.001
	Total	924	55.8	732	44.2	1656	100.0	22.267	.001
	Total	2332	52.8	2085	47.2	4417	100.0	13.812	.001

Distributions of Stance Features

Hedges. The findings showed that hedges were used in English corpus (17.9%, 21.15 per 1000 words) more than Persian corpus (14.60%, 8.69 per 1000 words). The frequent use of modality markers, as noted by Halliday and Matthiessen (1999, pp. 525-526), "where the interactants present different aspects of their own judgments and opinions, exploring the validity of what is being said and typically locating it somewhere between the positive and negative poles." Differently put, due to the unknown and unpredictable nature of COVID-19 virus, English and Persian health authorities used hedging devices on their Instagram to lower their degree of certainty about the proposition. Examples from the two corpora are as follows:

(1) Growing evidence <u>suggests</u> the virus <u>can</u> spread.

(2) پمپ بنزین <u>می‌تواند</u> یکی از پرخطرترین مکان‌های <u>احتمالی</u> برای انتقال #ویروس_کرونا باشد.

A gas station <u>can</u> be one of the most <u>possible</u> dangerous places to transmit #corona_virus.

In the above examples, hedges are expressed by means of modal lexical verb *suggest,* modal auxiliary verb *can*, and nominal modal phrases *possible.* The function of hedges is to express the author's uncertainty about a proposition (Hyland, 2005a). Example (1) showed that the authors may have expressed their feelings of hesitation and doubtfulness on any narration about COVID-19, and as noted by Hyland (2005a), it provides the readers more space to give their own

interpretation of the proposition.

Boosters. The analysis revealed that the occurrence of boosting was lower in English (9.50%, 11.26 per 1000 words) than Persian corpus (21.70%, 12.91 per 1000 word). As the opposite of hedging, boosting functions to "allow writers to express their certainty in what they say and to mark involvement with the topic and solidarity with their audience" (Hyland, 2005a, p. 179). Exemplified below are some instances from the corpus.

(3) As a human being, I think we all need to help each other because we never know what cards we'll be dealt with.

(4) ***تاکید*** *براینکه کرونا بعنوان ویروسی عالم‌گیر یک موضوع سیاسی نیست،صرفا یک بیماری‌ست و* ***بشدت*** *تحت تاثیر مراودات فرهنگی،اجتماعی واقتصادی قرار دارد*

The emphasis on Corona as a universal virus is not a political issue, it is merely a disease, and it is strongly influenced by cultural, social, and economic interactions.

In the examples above, different types of boosters were used to express certainty towards the propositions. In example (3) the users employed the verb *know* and *think* and the adverb *never* to indicate their certainty about vaccination and the need to help each other during COVID. Also in example (4), the noun *emphasis* and adverb *strongly* were used to express their stance and boost the proposition.

Attitude Markers. The findings showed that attitude markers accounted for 14.50% (17.09 per 1000 words) in English and 20.70% (12.28 per 1000 words) in Persian corpus. Examples from the corpus are as follows:

(5) Only leave the household when it's absolutely necessary**.**

(6) *با توجه به اینکه متاسفانه اعتماد اجتماعی نسبت به نهادهای رسمی تا حدودی مخدوش شده است، بازیابی این اعتماد می‌تواند در شرایط فعلی موثر باشد*

Given that, unfortunately, social trust in official institutions has been somewhat damaged, restoring this trust can be effective in the current situation.

Attitude markers express the writer's affective stance, such as expressing their surprise and agreement. In example (5), the adverbial phrase *only*, *absolutely necessary* and in example (6), the adverb unfortunately and the adjective effective are employed to "express a position and suck readers into a conspiracy of agreement so that it can often be difficult to dispute these judgments" (Hyland, 2005a, p.9).

Self-mention. The analysis revealed that self-mention occurred in English corpus (18.50%, 21.92 per 1000 words) more than Persian corpus (7.85%, 4.67 per 1000 words). Examples from the corpus are as follows:

(7) Our commitment to those who need it most is unwavering during #COVID19.

(8) We all live together regardless of our nationality.

(9) *توصیه ما این است که اگر به خدمات واکسیناسیون دسترسی دارید، شک نکنید و از فرصت استفاده کرده و طبق برنامه واکسن کودکتان را بزنید.*

Our advice is that if you have access to the vaccination services, do not hesitate and use the opportunity to vaccinate your child according to the schedule

As shown in examples (7) and (8) above, the subject pronoun *we* and possessive adjective *our* were used to "present propositional, affective and interpersonal information" (Hyland, 2005a, p. 10). Moreover, in example (8), the use of inclusive *we* is an attempt to bind the writer and the reader together. According to Hyland (2005a, p.11), the use of *inclusive we* "sends a clear signal of membership by textually constructing both the writer and the reader as participants with similar understanding and goals". In example (9), the explicit use of *We* indicates the authors' desire as a health-related authority to explicitly express their stance toward the importance of home-orders, and child vaccination.

Engagement Markers

Reader Pronouns. The analysis revealed that reader pronouns accounted for 19.10% (22.63 per 1000 words) of English corpus and 21.35% (12.68 per 1000 words) of the Persian corpus. Examples from the corpus are as follows:

(10) Think about your own family and what you would want others to do to help you if you needed it.

(11) *شما الگوی رفتاری کودک خود هستید*

You are your own child's role model.

The use of reader pronouns shows the authority' attempts to voice their concerns about the COVID-19 situations. In examples above, the possessive pronoun *your* and the subject pronoun *you* explicitly engage the reader with the proposition, and acknowledge their presence.

Directives. Directives are interpersonal devices that emphasize the explicit presence of both writer and reader and show how the attention of a reader is being

directly captured (Hyland, 2005a). The findings showed that directives were used in English (17.40%, 20.60 per 1000 words) more than Persian corpus (8.25%, 4.92 per 1000 words). Below are some examples:

(12) Clean and then disinfect frequently used surfaces.

(13) We must remember the pivotal role that vaccines have played, and continue to play, in public health.

(14) ***به خاطر داشته باشید*** *که به جلوی ماسک یا صورت خود* ***دست نزنید*** *و دستهایتان را بلافاصله پس از برداشتن ماسک* ***بشویید***.

Remember not to touch the front of your mask or face and wash your hands immediately after removing the mask

Example (12) represents a directive which instructs the readers to do some physical activity (e.g., cleaning and disinfecting) in the world, and example (13) indicates the importance of remembering the role of vaccine in public health. Also, in example (14) above, the imperative was used to direct the readers to carry out some actions. Directives are mainly indicated by an imperative (Hyland, 2005a).

Questions. The findings showed that questions were used in English corpus (1.90%, 2.28 per 1000 words) more than Persian corpus (3.90%, 2.30 per 1000 words). Some examples from the corpus are as follows:

(15) Has #COVID19 put your work life or school life on hold**?** Use this pause to get prepared for possible community spread. Start with a plan for your home.

(16) *بعداز کرونا و در دوران نقاهت چه‌کار کنیم؟دوران #نقاهت به زمانی گفته می‌شود که بیمار تقریباً سلامت خودرابه دستآورده، ولی هنوز به بهبودی کامل نرسیده است.بیماران کرونایی بعد از ترخیص، نیاز به مراقبت‌های خاص و ویژه دارند، چون تا دو هفته احتمال حامل بودن ویروس را دارند و همچنین احتمال بازگشت بیماری در این افراد بسیار بالا است. اما اقدامات مورد نیاز در دوران نقاهت پس از #کروناچیست؟*

*What to do after coronation and in recovery**?***

The #recovery period is the time when the patient has almost regained his health, but has not yet fully recovered. Corona patients need special care after discharge, because they have the possibility of carrying the virus for up to two weeks. Also, the

*probability of the disease returning in these people is very high. But what are the measures needed during recovery after #Corona**?***

In the examples above, starting a caption with a question could imply an attempt to arouse the reader's interest and encourage him/her to seek an answer to a speculative question. In these forms of opinion, the writer usually replies to the question immediately, opening and closing the dialogue (Hyland, 2005a) as observed in the example above.

Shared Knowledge. The findings showed that shared knowledge occurred in 0.15% (0.20 per 1000 words) of English corpus and 1.40% (0.82per 1000 words) of Persian corpus. Examples are as follows:

(17) As you know being home all the time can be hard. Find tips to support the health and well-being of yourself and your children while you're home together.

(18) *ما آمادگی داریم **با توجه به تجربیات دانشمندان** خود در زمینه بیماری کووید۱۹ با دانشگاه ها و مراکز علمی و تحقیقاتی کشور سوئیس همکاری داشته و تجربیات خود را در این زمینه به اشتراک بگذاریم.*

We are ready to share the experiences of our scientists in the field of COVID-19 disease with universities and scientific and research centers in Switzerland.

In the examples above, the use of shared knowledge devices may imply an attempt to "actually construct readers by presupposing that they hold such beliefs, assigning to them a role in creating the argument…" (Hyland, 2005a, p.13). This was achieved by the use of some known references (i.e., *as you know; based on the experiences of our scientists), which* were used to make the readers accept something as known and familiar.

Personal Asides. The analysis revealed that personal asides were used in 1% (1.16 per 1000 words) of English corpus and 0.25% (0.14 per 1000 words) of Persian corpus. Examples from the corpus are as follows:

(19) *#Coronavirus affects the whole world, and that means you're not alone in this challenging time*.

(20) *هلال احمر باید خود را برای بدترین شرایط آماده کند. **یعنی** حداقل یک دوره زمانی ۶ماهه و کار با جمعیت میلیونی که نیاز به غربالگری دارند،(اگرچه مبتلا به ویروس هم نباشند) در نظر بگیرد.*

The Red Crescent must prepare for the worst. That is, consider at least a 6-month period of work with millions of people who need screening (even if they are not infected).

In examples (19) and (20) above, the devices were used to respond to the active audience by making an interruption and giving clarification.

Discussion

Results of the study showed more frequent use of stance features in the dataset compared to the lower frequency of engagement markers. This can be a sign of writer-oriented discourse (Hyland, 2001a). The findings of this study are in accordance with previous comparative studies in other genres in which authors used stance features in a similar pattern and order, suggesting that regardless of the genre (i.e., social platforms or academic domains), writer's linguistic choices are at least partly governed by their culture. and it is evident in their writing styles.

For instance, the overuse of hedges in corpus on CMC is similar to the findings of other comparative English and Persian studies in other genres, such as research article (e.g., Ebadi, et al., 2015; Hashemi & Hosseini, 2019), motivational speeches (e.g., Farnia & Shirzadkhani, 2023), master/doctoral theses (e.g., Mirshamsi & Allami, 2013), university lectures (Kahkesh & Alipour, 2017), and newspaper opinion articles (Babapour & Kuhi, 2018). This indicates that Americans prefer to use more expressions of doubt and uncertainty in their rhetorical and interactive discourse compared to their Iranian counterparts.

In expressing opinions about COVID-19, while English users adopted hedging devices to reduce their force and express probability, Iranian users utilized more boosting devices on their Instagram when sending instructions or asking people to take preventive measures. This is in line with Babapour and Kuhi's (2018) study of English and Persian newspaper opinion columns and Farnia and Shirzadkhani's (2023) study of motivational speeches in which booster was the most frequently used devices in Persian corpus. The frequency of boosting devices in Persian compared to English might conform Alghazo et al.'s (2021, p.8) statement that variation in the frequency and use of modality markers may be associated with "the standard of writing in the two languages", probably stemming from the structure of those languages.

Moreover, Iranian authorities in Persian corpus significantly used attitude markers more significantly to make an explicit expression of the attitude of health organizations in their communication. The overuse of attitude markers in Persian over English corpus also suggests that Iranians are more affective and emotional than English writers (Hashemi & Hosseini, 2019). This is consistent with previous findings in other genres, such as newspaper opinion columns (Babapour & Kuhi, 2018) and motivational speeches (Farnia & Shirzadkhani, 2023).

Furthermore, the overuse of English self-mention in this study is in accord with similar studies on social networks such as Twitter (Chiluwa, 2015) and WhatsApp status (Herzuah, 2018) and could be taken as a piece of evidence corroborating social platform writers' tendency to claim their authorial identity. Moreover, the overuse of self-mention in English over Persian corpus replicated previous findings (e.g., Babapour & Kuhi, 2018; Farnia & Shirzadkhani, 2023; Hashemi & Hosseini, 2019), where Hashemi and Hosseini (2019) asserted that it is more related to the author's culture to decide to report one's voice or prefer to report others' voices.

As with engagement markers, the findings show that reader pronouns and directives were used more frequently in the two dataset. This is line with previous studies, like Farnia and Shirzadkhani's (2023) study of spoken discourse and Herzuah's (2018) statuses on WhatsApp. The highly frequent use of reader pronouns on CMC text-based interactions may suggest that the use of these linguistic devices is topic and context-dependent whereas the use of reader pronouns is rare in academic research articles due to the author's decision to imply a separation between the writer and the reader (Hyland, 2008). The Persian and English Instagram users were found to directly involve the reader in the discourse. The Instagram users engaged the readers by frequent use of *you*, *your*, and *inclusive we* in order to invite all members of their community to take actions to control the disease. As noted by Hyland (2001, p. 557), the overuse of reader pronouns "often carry an interactive and encompassing meaning, which shows that writers are able to identify with readers, anticipating their objections, voicing their concerns, and expressing their views".

The extensive use of directives in English corpus presupposes the presence of the users (i.e., health authorities) along with the explicit engagement of the

reader, since *directives* were used to involve the readers in *physical acts* by "carrying out some action in the real-world" (Hyland, 2008, p. 10), such as washing their hands, keeping distance from others, wearing a mask, etc. It is worth noting that due to the unknown nature of COVID-19, the function of directives in the corpus was to move their audience in a particular direction, to bring their attention to the topic, and to emphasize important preventive points during the pandemic. Moreover, Persian users employed question devices significantly more than English users. That is, Persian users employed questions to "establish a niche" (Hyland, 2001, p. 569), to invite readers to attend to unresolved COVID-19 related problems, and to help them to understand the value of the question. Then they explored the issue through the writers' immediate response.

Furthermore, shared knowledge and personal asides showed a reverse order of frequency in English and Persian corpora. While Persian users employed explicit signals to refer the readers to something familiar, English users utilized personal asides to provide a comment on what has been said. Following COVID-19 news and updates was a common practice during the pandemic, and Persian users employed more shared knowledge to lessen the imposition on the reader to agree with directives. Hence this involves them with some apparently naturalized boundaries of understanding through shared knowledge. Moreover, as a reader-oriented strategy, English users significantly used more personal asides to "express their personality and willingness to intervene explicitly to offer a view," reinforcing a dialogic relationship (Hyland, 2001, p.561).

Moreover, the findings approved Hyland's (2000) statement that the use of metadiscourse differs with variation of contexts, and the distribution of its features is highly dependent on the norms and expectations of those who employ it in a specific setting. For instance, while the occurrence of personal asides is rare in research articles (Hyland, 2001), they were found in the corpus, meaning that, as Hyland (2005a) noted, metadiscourse markers function to represent social purposes of writers.

Conclusion

The aim of this study was to investigate the use of metadiscourse markers in computer-mediated communication during the COVID-19 outbreak. During this

time, many health-related organizations built on computer-mediated communications and social platforms as a venue to broadcast the latest news, offer guidelines, respond to users' questions/concerns, invite them to take preventive measures, and send them stay-at-home orders and physical distancing guidelines. Adopting a cross-cultural comparative approach and using the model of stance and engagement (Hyland, 2005a), the persuasive language used in English and Persian health-related organization Instagram accounts during COVID-19 were investigated. The findings showed that all stance and engagement features were present in both English and Persian corpora despite variations in the distribution of stance markers in the two languages: hedges and self-mentions were the most frequently used stance markers in English corpus whereas boosters and attitude markers were used frequently in Persian corpus. Despite the difference, there were no statistically significant differences in the overall use of stance features between English and Persian. As with engagement markers, reader pronouns and directives were used significantly more in English than Persian corpora. Moreover, the overall findings show that stance and engagement features were used significantly more in English than Persian corpus. Lastly, a comparison of the use of stance and engagement markers in other domain suggests that their use is context and topic dependent: while the use of self-mention and reader pronouns is rare in research articles, they were frequently found on social networks.

Despite the findings, there are some limitations to the study. First, the data were collected from health-related authorities, and more diversified pages, such as those of nurses and physicians, or education system should be considered. Moreover, as the data were collected from Instagram, it is recommended that future research use other social platforms to investigate the use of stance and engagement markers. Additionally, further studies can be carried out to contrast the use of persuasive devices in similar topics across different genres such research articles and social platforms

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