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Research Paper

Disciplinary and Cross-Cultural Variation of Stance and Engagement Markers in Soft and Hard Sciences Research Articles by Native English and Iranian Academic Writers: A Corpus-based Analysis

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Abstract

Drawing on a corpus-based approach, this study analyzed two different sub-corpora including Non-Native English-Speaking (NNES) and Native English-Speaking (NES) sub-corpus. There were 60 research articles from soft sciences including Applied Linguistics, Sociology, Economics and hard sciences including Chemical Engineering, Electrical Engineering, and Biology. To examine the frequency of stance and engagement markers in the two sub-corpora separately, MAXQDA software was utilized. Several Chi-square tests were run to investigate the differences found in the frequencies of the two groups. The results demonstrated that writers of different fields of study and from different cultural backgrounds exerted varying degrees of authorship and interaction in their texts. Regarding disciplinary variation, it was found that the researchers in soft disciplines used more stance and engagement markers than the ones in hard disciplines. With regard to cross-cultural variation, native academic writers preferred to draw more on interactional markers than non-native Iranian academic writers. The findings of the present study offer implications to academic writers from different fields of study and different cultural backgrounds so that they become cognizant of their own presence in texts and their interaction with readers based on the use of stance and engagement markers.

1 Introduction

Academic writing has been viewed as a social process in which authors can exert authorship in their texts and build rapport with their readers. This enterprise has been considered as "a persuasive endeavor" which puts emphasis not only on constructing texts, but also on establishing social relations using language (Hyland, 2005a, p. 173). Accordingly, one of the features of scientific discourse in the current academic milieu is how authors represent themselves and interact with their readers, with the former achieved via stance markers and the latter by engagement markers (Hyland, 2005a, 2005b). By applying these linguistic devices, writers can make their presence more or less tangible in their texts and establish effective interaction with their audience depending on a myriad of factors including the rules of the disciplinary community to which they belong (e.g., Hyland, 2005a; McGrath & Kuteeva, 2012) and the L1 and cultural context in which they write (e.g., Çandarlı, Bayyurt, & Marti, 2015; Xu & Nesi, 2019; Yang, 2014). According to Hyland (2008a), the use of stance and engagement markers is a context-dependent matter in a way that authors draw on these markers based on the context, be it discipline or culture, in which they are positioned.

The claim that discipline exerts influence on the linguistic choices of academic writers has been corroborated by many studies (Hyland, 2001, 2002a, 2005a). According to Hyland (2002b), "academic writing is not a single undifferentiated mass, but a variety of subject-specific literacies" (p. 352). In this sense, academicians draw on various linguistic devices that are compatible with the expectations of their disciplinary communities (Işık-Taş, 2018). Furthermore, the realization of science-based knowledge is profoundly rooted in culture-specific beliefs and norms resulting in a variety of intellectual styles of presentations and interactions in scientific discourse (Abdollahzadeh, 2011; Shaw, 2003). In this specific context and following the literature (e.g., Dontcheva-Navratilova, 2021; Shaw, 2003; Xu & Nesi, 2019), L1 is considered as the representation of culture since L1 writing strategies, L1 rhetorical structures, and cultural conceptualizations are evident in L2 written discourse (Connor, 1996, 2004; Dahl, 2004;

Kaplan, 1966; Sharifian, 2009). In this regard, L1 plays a pivotal role in the way writers delineate an expression of themselves as members of a disciplinary community and in the way they demonstrate interaction with their audiences. Along the same line, a number of studies have emphasized that the linguistic choices of writers are highly influenced by their L1 and this claim can be supported by studies that compare authors writing in English as an additional language and the ones writing in English as their first language (Dontcheva-Navratilova, 2021; Lafuente-Millán, 2014; Xu & Nesi, 2019).

Despite the plethora of studies on stance and engagement markers, little is known about the use of stance and engagement markers in English-medium research articles (henceforth RAs) of different disciplines written by Iranian NNES academics and also the differences between English native speakers and Iranian non-native speakers of English in terms of the use of these markers at the same time. Considering the latter, it is indicated that the variation in rhetorical structures of texts written by non-native speakers of English is not merely discussed in terms of grammatical and semantic features of different languages rather it can be attributed to differences in reader-writer interactions created by culture-specific conventions (Hyland, 2008b) and the "phenomenological differences between the cultures" in which authors are engaged (Kaplan 1976. p. 17). Accordingly, an in-depth analysis of how L1 and cultural background of writers exert influence on the construction of L2 texts merits attention (Atkinson, 2003; Connor, 2004). The current study will contribute to this line of enquiry by adopting a corpus-based approach. Therefore, the aims of this study are twofold: 1) To investigate the use of stance and engagement markers in Iranian-authored English RAs across six different fields of study, 2) To examine the influence of culture on the use of stance and engagement markers by considering Native English-Speaking (NES) and Non-native English-Speaking (NNES) academic writers.

2 Theoretical Background

2.1 Cross-cultural Variation in Written Communication

Regarding the influence of culture on writing, two opposing positions can be witnessed, one focusing on the universality of academic writing (Widdowson, 1979) while the other stressing the cultural differences of textual patterns (Clyne, 1987; Kachru, 1983). Favoring the second view, Mauranen (2001) asserts that texts are "cultural products" (p, 53) which represent the social interactions occurring in a specific culture. As Kaplan (1966) asserts, specific language cultures exert influence on L2 writing since non-native writers employ L1 writing strategies while writing in L2 (Connor, 1996, 2004; Cumming, 1989) and accordingly, rhetorical structures of writers' culture are manifested in their L2 texts (Connor, 1996). In the same line, Sharifian (2003, p. 204) proposes the notion cultural conceptualizations defined as "representations that are distributed across the minds in a cultural group" which are constructed by participation in the same cultural context are normally represented in language. Accordingly, there is a two-way interaction between language and cultural conceptualizations since we communicate our conceptualizations through language and on the other side, the linguistic elements we use affect the ways we shape our conceptualizations (Sharifian, 2009). Given that, in utilizing English as an international language, the cultural conceptualizations of individuals from different L1 backgrounds affect the way they write in English as their L2 (Sharifian, 2009). Therefore, writers from different L1 and different cultural conceptualizations may draw on different conventions of L2 writing, which requires in-depth analysis of how culture impacts upon ones' L2 writing structures (Atkinson, 2003).

In his intercultural rhetoric approach, Connor (2004, p. 293) regards writing as a "socially situated" practice in which the norms of cultural and disciplinary community affect the degree of interaction and collaboration, contextual

expectation of audience, and degree of explicitness in the text. Considering the academic writing, the variation in the discourse is attributed to cultural values of writers (Duszak, 1997), which affect different aspects of L2 writing including responsibility over the claims, text organization, evidence presentation, and voice (Steinman, 2003). Moreover, Kaplan (1990) remarks that presenting and supporting evidence to persuade readers are heavily dependable on the culture of the writer. To put it succinctly, "an academic text reflects the social self-image of the writer and his/her perception of the readership" (Duszak, 1997, p. 13). The self-image is witnessed in the writers' use of stance markers and the readership is reflected in the employment of engagement markers in written texts, which are the foci of the present study.

2.2 Hyland's (2005a) Model of Interaction

The present study is premised on the interaction model proposed by Hyland (2005a). Given the fact that the focus of the present study was on stance and engagement markers, and that Hyland's (2005a) model offers an interactional model which includes both stance and engagement markers and their sub-categories, his model was adopted for the purpose of this study (Figure 1).

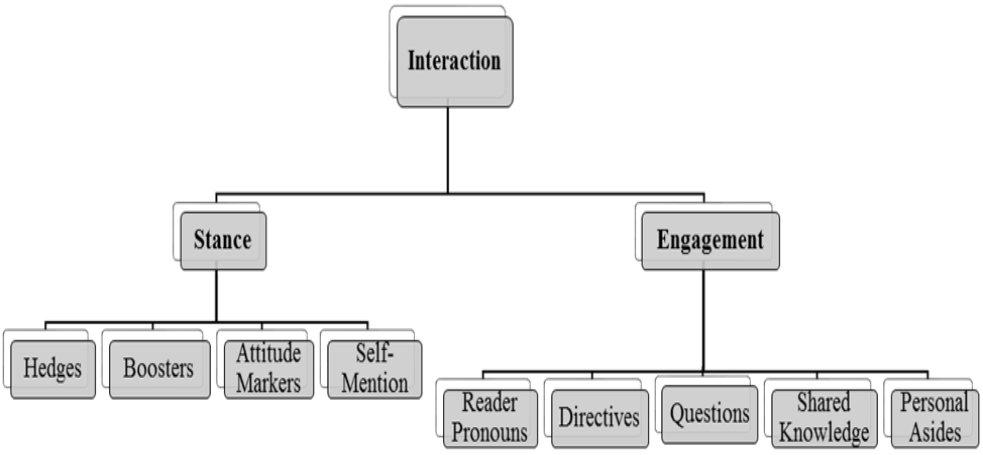

Figure 1 Key resources of academic interaction. (Adopted from Hyland, 2005a, p. 177).

According to Hyland (2005a), stance can be defined as "the ways writers present themselves and convey their judgements, opinions, and commitments" (p. 176). Stance markers are the "writer-oriented features of interaction" (Hyland, 2008a, p. 9). As outlined by Hyland (2005a), there are four stance markers including hedges, boosters, attitude markers, and self-mentions. Put succinctly by Hyland, hedges (e.g., possible, may) help writers avoid shouldering the responsibility of their claims, boosters (e.g., obvious, surely) represent writers' degree of certainty about the statements, attitude markers (e.g., interesting, surprisingly) allow writers to express their attitudes toward the information, and self-mentions (e.g., I, we) represent first person pronouns and possessive adjectives in a text which signal the presence of the writer.

On the other hand, engagement is "an alignment dimension where writers acknowledge and connect to others, recognizing the presence of their readers" (Hyland, 2005a, p. 176). Hyland contended that writers attempt to engage with their readers in five ways including reader pronouns, personal asides, appeals to shared knowledge, directives, and questions. According to him, reader pronouns (e.g., you,

reader) are "the most explicit way that readers are brought into a discourse" (p. 182), personal asides (e.g., by the way) help writers offer explicit comments on the shared information, appeals to shared knowledge (e.g., normally, of course) reflect readers' familiarity and understanding of the common conceptions based on disciplinary conventions, directives (e.g., it's important to, let's) are a form of imposition on readers to do something and to believe something, and questions are renowned for arousing the readers' veritable desire to accompany the writer throughout the text. Below a short review of literature on cross-disciplinary and cross-cultural differences in the use of stance and engagement markers is presented.

3 Literature Review

A steady stream of research on the use of stance and engagement markers in academic writing is witnessed in recent years (Hyland, 2005a; Hyland & Jiang, 2016; Xu & Nesi, 2019) and there have been a number of studies reporting cross-disciplinary and cross-cultural differences in terms of the use of stance and engagement markers in RAs. Hyland (2002a), as one of the prominent figures of the field, focused on the role of first-person pronouns in academic writing. It was found that the use of these pronouns was more evident in RAs of soft disciplines than the ones in hard disciplines. Hyland (2002b), in another study, interviewed expert writers of eight disciplines and analyzed 240 RAs. His results revealed that the writers of hard sciences were more reluctant to make their texts personal than writers of humanities and social sciences. Later, Hyland (2008a) investigated the use of stance and engagement markers in eight disciplines and the results indicated that the humanities and social sciences used these interactional markers more than the science and engineering fields—to adopt more direct positions in their claims and to establish effective interactions with readers.

As for the influence of culture on the use of stance and engagement markers, Martínez (2005) investigated the differences between articles produced by NES writers and RAs produced by NNES Spanish writers in different sections of biology articles. The results suggested that the overall frequency of first-person pronouns used by NES writers was more than the frequencies used by NNES writers. Moreover, Abdollahzadeh (2011) compared the interpersonal metadiscourse in articles written in English by Anglo-American and Iranian academic writers in the field of applied linguistics. He reported that English writers used more interpersonal markers than did Iranian writers.

In a similar vein, Lafuente-Millán (2014) also examined the frequency of engagement markers in a corpus of business management articles written in two different languages of English and Spanish. It was revealed that Spanish scholars drew more on engagement markers. Çandarlı et al. (2015) also investigated the use of stance markers in English essays written by Turkish and American students. Their results indicated that the frequency of these markers in English essays written by Turkish students was comparably close to the frequency of these markers in essays produced by American students. In a more recent study, Işık-Taş (2018) focused on the frequency of first-person pronouns in the sociology RAs written by Turkish and NES authors published in international and local journals. The results revealed that English and Turkish writers publishing in international journals used first-person pronouns more than Turkish authors publishing in local journals.

In another recent study, Dontcheva-Navratilova (2021) explored the use of engagement markers in linguistic and economic RAs written by Anglophone and Czech authors. The results revealed cross-disciplinary variations with the linguistic RAs using more engagement markers then economics RAs. However, the cultural variation was not highly significant with the two cultures differing significantly only in the use of appeals to shared knowledge which was used more by Czech scholars in order to emphasize the common knowledge and shared conventions between writers and readers. Moreover, there were significant differences in terms of the sub-categories including reader pronouns and types of directives in the locally-published RAs written by Czech scholars and

internationally-published RAs authored by Anglophone scholars.

In brief, the majority of studies conducted on cross-cultural and cross-disciplinary variation demonstrate that academic writing is not created in vacuum, but various subject-specific literacies are involved (Hyland, 2002b) and that "writing is a social act that can occur within particular situations" (Hyland, 2009, p. 26). Therefore, the analysis of how and to what degree the use of interactive features in the RAs of authors from different cultural and disciplinary backgrounds differ provides useful insights for novice and experienced scholars and also native and non-native academicians on how interactions occur in academic discourse. However, there have been few studies focusing on all elements of both stance and engagement markers across soft and hard disciplines RAs written by native and Iranian non-native academic writers. Thus, the current study will contribute to this line of enquiry by exploring stance and engagement markers used in the RAs of soft and hard sciences written by native and non-native academic writers. We addressed two research questions in this study:

1. What are the differences between Iranian academic writers of soft and hard disciplines in their use of stance and engagement markers in English RAs?

2. How do native speakers of English and Iranian non-native academic writers of English differ in terms of stance and engagement markers in their RAs?

4 The Study

4.1 The Corpora

RAs of soft and hard disciplines were selected to compare the patterns of self-representation and interaction across different disciplines in two different cultures. Applied Linguistics, Sociology, and Economics were selected as representatives of soft sciences and Chemical Engineering, Mechanical Engineering, and Biology were selected as representatives of hard sciences (Becher & Trowler, 2001; Hyland, 2002b; Hyland, 2005a). In order to use RAs that are representative of each field, we selected journals suggested as top-tier high-ranking in each discipline. To ensure the quality of each journal, Scientific Journal Ranking (SJR) was first searched and then the selected journals were checked with specialists from each discipline. The journals selected from different disciplines are listed in Appendix A.

The main corpus of the present study included 120 RAs consisting of 60 papers selected from two different sub-corpora. The first sub-corpus of this study was comprised of RAs written by NES writers. This sub-corpus was designated as 'NES sub-corpus'. To find the articles written by NES academics, top-tier journals of each field were browsed and then 10 articles written from 2010 to 2019 were selected from each discipline randomly. In order to determine if the writers were native speakers of English, we drew on some criteria including the authors' names, institutional affiliations, e-mail addresses provided in RAs, and where they had studied. The articles selected were all written by researchers who had studied and worked in English-speaking countries based on online information. Although it was difficult to identify the nativeness of researchers based on their names and affiliations, it was assumed that the articles were sample models of standard English since they were all published in top-tier journals (Lafuente-Millán, 2014). These criteria were not solely decisive in determining the writers' originality; however, they helped us make a more accurate decision.

The second sub-corpus of the study belonged to those Iranian writers who had published in international journals. This sub-corpus was designated as 'internationally-oriented NNES sub-corpus' to emphasize the fact that this sub-corpus included nonnative-authored RAs that are published in international English-medium journals. To find RAs written by Iranian writers, we first decided on the journal and then the word Iran or Iranian was searched in the content list of each journal. Then, we checked their names, institutional affiliations, email addresses, and where they had studied. Subsequently, 10 RAs that were published from 2010 to 2019 were selected randomly form each discipline. Selecting this corpus was less demanding since the authors were familiar with Iranian names and their affiliations.

It is worth mentioning that all sections of the articles, except for tables, references, and footnotes, were included in the corpus since authors may draw on interactional markers in different sections of articles such as introduction, methodology, or discussion. The length of each article ranged from 8,000 to 12,000 words depending on the discipline and journal from which it was selected. As shown in Table 1, the final corpus of this study consisted of approximately 1,273,685 words in total, including 747,056 words from RAs in the NES sub-corpus and 526,629 words from RAs in the internationally oriented NNES sub-corpus.

Table 1 Corpus Characteristics

The Sub-corpora	Number of Documents	Number of Words
The NES Sub-corpus	60	747,056
Internationally Oriented NNSE Sub-corpus	60	526,629
The Main Corpus	120	1,273,685

4.2 Corpus Analysis Procedure

The two sub-corpora were explored for stance and engagement markers using MAXQDA software which is designed for use in qualitative, quantitative, and mixed-method researches. We first decided to use Nvivo 10, but its preliminary corpus analysis did not yield comprehensive results which would best cover all the purposes of our current research. For instance, the software was not case-sensitive, which was a requirement for the analysis of self-mention (I) or the imperatives as a sub-category of directives. Accordingly, to count the frequency of interactional markers, MAXQDA, which allows for analyzing large amounts of text, was utilized. MAXQDA has several features including the function to sett up our own dictionary to investigate the corpus with reference to specific words, using keyword-context function to specify the textual function of selected words, being case-sensitive, being able to recognize phrases—which was helpful in our analysis of word combinations such as *of course, we know that*—and displaying the frequency of selected words visually. Moreover, MAXQDA has an easy-to-use exporting option of the entire data into other statistical software for further statistical analysis.

First, a dictionary including stance and engagement markers was created. The stance and engagement markers found in the literature were extracted. For this purpose, Hyland's studies were checked completely to find the engagement markers (Hyland & Jiang, 2016) and stance markers (Hyland, 2000, 2005). In general, 291 features including stance and engagement markers (Appendix B) were examined in the two corpora. After creating the dictionary containing stance and engagement markers, RAs were incorporated into MAXQDA to count the frequencies of each marker. Once the corpora were examined, the frequencies of interactional markers in each corpus were calculated. It should be noted that some of the corpus were checked in MAXQDA manually. For instance, the use of imperatives (e.g. look at Table…) was checked by one of the researchers to reach a more reliable result. In an instance, the use of phrases such as *'It is known that'* were examined manually to make sure that phrases were accurately taken into account by the software.

In brief, the analysis was done in two separate phases. In the first phase, the frequencies of the markers were calculated across hard and soft disciplines and then in order to investigate whether the differences observed between the two corpora in terms of frequency of stance and engagement markers were

significant or not, Chi-square tests for independence were run. In the second phase, the frequencies of the markers in hard and soft science NES sub-corpus were compared with the frequencies found in those of NNES sub-corpus by first calculating the frequencies and then running Chi-square tests to determine the significance of the differences found in the frequencies.

5 Results

The results below report the disciplinary variation among soft and hard disciplines Iranian-authored RAs and cross-cultural variation between English native and Iranian non-native English academic writers in terms of their use of stance and engagement markers. In all the following tables, the frequencies have been normalized to 10,000 words to make cross-corpora comparison possible. As Biber, Conrad, and Reppen (1998) stated "normalization is a way to adjust raw frequency counts from texts of different lengths so that they can be compared accurately" (p. 263). For instance, the total frequency of stance markers in the corpus of NNES Applied Linguistic (103871 words) was 444. However, after normalization per 10000 words, the frequency was 42. Normalization was done as the size of corpora may slightly differ based on the following formula:

$$\frac{\text{Frequency of each marker}}{\text{Number of words in the corpus}} * 10000$$

5.1 Disciplinary Variation

In response to the first research question, Chi-square test analyses were run in order to compare Iranian soft and hard disciplines academic writers in their use of stance and engagement markers in their RAs. Table 2 displays the frequencies of the total number of stance and engagement markers used in these soft and hard disciplines RAs. The results showed that both stance markers (soft=586, hard=286) and engagement markers (soft=136, hard=61) were used in Iranian authored soft disciplines RAs more than hard disciplines RAs.

Table 2 Frequencies of Stance and Engagement Markers in Iranian Soft vs. Hard Disciplines RAs

		Observed	expected	Residual
Stance Markers	Soft Disciplines	586	436.0	150.0
	Hard Disciplines	286	436.0	-150.0
	Total	872		
Engagement Markers	Soft Disciplines	136	98.5	37.5
	Hard Disciplines	61	98.5	-37.5
	Total	197		

In order to see whether the differences observed between soft and hard disciplines RAs were significant or not, Chi-square tests were run. The results of Chi-square indicated that stance markers ($\chi^2(1)=103.21$, p=.000, Cohen's w=.363 representing a moderate effect size) and engagement markers ($\chi^2(1)=28.55$, p=.000, Cohen's w=.380 representing a moderate effect size) were significantly used more in soft disciplines RAs than hard disciplines RAs.

Following that, in order to compare the sub-categories of stance and enagagement markers, Chi-square tests were run separately on each sub-category. Regarding the stance markers, four separate analyses of Chi-square were run in order to compare soft and hard disciplines in their use of self-mentions, attitude markers, hedges, and boosters. Based on the results displayed in Table 3, it can be concluded that all stance markers including self-mentions (soft=108, hard=50), attitude makers (soft=75, hard=38), hedges (soft=256, hard=119) and boosters (soft=147, hard=79) were used more in

soft disciplines RAs than hard disciplines RAs written by Iranian academic writers.

Table 3 Frequencies of Stance Markers in Iranian Soft and Hard Disciplines RAs

Table 3
Frequencies of Stance Markers in Iranian Soft and Hard Disciplines RAs

Stance Markers		Observed N	Expected N	Residual
	Soft Disciplines	108	79.0	29.0
Self-mentions	Hard Disciplines	50	79.0	-29.0
	Total	158		
	Soft Disciplines	75	56.5	18.5
Attitude Markers	Hard Disciplines	38	56.5	-18.5
	Total	113		
	Soft Disciplines	256	187.5	68.5
Hedges	Hard Disciplines	119	187.5	-68.5
	Total	375		
	Soft Disciplines	147	113.0	34.0
Boosters	Hard Disciplines	79	113.0	-34.0
	Total	226		

Furthuremore, based on Chi-square test analyses, it can be concluded that all stance markers including self-mentions ($\chi^2(1)=21.29$, p=.000, Cohen's w=.367 representing a moderate effect size), attitude makers ($\chi^2(1)=12.11$, p=.001, Cohen's w=.327 representing a moderate effect size), hedges ($\chi^2(1)=50.05$, p=.000, Cohen's w=.365 representing a moderate effect size), and finally boosters ($\chi^2(1)=20.46$, p=.000, Cohen's w=.300 representing a moderate effect size) were significantly used more in soft sciences RAs than hard sciences RAs witten by Iranian academic writers.

Regarding engagement markers, five separate Chi-square test analyses were run in order to compare RAs of soft and hard disciplines in their use of reader pronouns, personal asides, appeals to shared knowledge, questions, and directives. Based on the results displayed in Table 4, it can be concluded that all engagement markers including reader pronouns (soft=44, hard=15), personal asides (soft=4, hard=3), appeals to shared knowledge (soft=23, hard = 11), questions (soft=5, hard=0) and directives (soft=60, hard=32) were more used in soft disciplines RAs than soft discipline RAs written by Iranian academic writers.

Table 4 Frequencies of Engagement Markers in Iranian Soft and Hard Disciplines RAs

Engagement Markers		Observed N	Expected N	Residual
	Soft Disciplines	44	29.5	14.5
Reader Pronouns	Hard Disciplines	15	29.5	-14.5
	Total	59		
	Soft Disciplines	4	3.5	.5
Personal Asides	Hard Disciplines	3	3.5	-.5
	Total	7		

	Soft Disciplines	23	17.0	6.0
Appeals to Shared knowledge	Hard Disciplines	11	17.0	-6.0
	Total	34		
	Soft Disciplines	5	5.0	.0
Questions	Hard Disciplines	0		
	Total	5a		
	Soft Disciplines	60	46.0	14.0
Directives	Hard Disciplines	32	46.0	-14.0
	Total	92		

a. This variable is constant. Chi-square test cannot be performed.

Based on the results of Chi-square test analyses for the use of engagement markers in soft and hard disciplines RAs, it can be concluded that reader pronouns were significantly used more in Iranian soft disciplines RAs than hard disciplines RAs ($\chi^2(1)=14.25$, p=.000, Cohen's w=.491 representing a moderate to large effect size), although personal asides were used more in soft disciplines RAs than hard disciplines RAs, the difference was not a significant one ($\chi^2(1)=.143$, p=.705, Cohen's w=.142 representing a weak effect size), appeals to shared knowledge were significantly used more in Iranian soft disciplines RAs than hard disciplines RAs ($\chi^2(1)=4.23$, p=.040, Cohen's w=.352 representing a moderate effect size), the frequency of questions for the hard disciplines RAs was zero hence, Chi-square test was not run for questions, and finally directives were significantly used more in soft disciplines RAs than hard disciplines RAs ($\chi^2(1)=8.52$, p=.004, Cohen's w=.304 representing a moderate effect size).

5.2 Cross-cultural Variation

In order to answer the second research question, Chi-square test analyses were run to compare native English and Iranian academic writers in their use of stance and engagement markers in their RAs. Table 5 displays the frequencies of stance and engagement markers used in NES and Iranian NNES corpora. The results showed that stance markers (NES corpus=1577, NNES corpus=872) and engagement markers (NES corpus=385, NNES corpus=197) were used more by NES academic writers than NNES academic writers.

Table 5 Frequencies of Stance and Engagement Markers in NES and NNES RAs

		Observed	expected	Residual
Stance Markers	NES Academic Writers	1577	1224.5	352.5
	NNES Academic Writers	872	1224.5	-352.5
	Total	2449		
Engagement Markers	NES Academic Writers	385	291.0	94.0
	NNES Academic Writers	197	291.0	-94.0
	Total	582		

The results of Chi-square indicated that stance markers (χ^2 (1)=202.95, p=.000, Cohen's w=.287 representing an almost moderate effect size) and engagement markers (χ^2 (1)=60.72, p=.000, Cohen's w=.323 representing a moderate effect size) were significantly used more in RAs written by NES academic writers than the ones written by NNES writers.

Following that, four separate Chi-square test analyses were run in order to compare native and non-native academic writers in their use of self-mentions, attitude markers, hedges and boosters. Based on the results displayed in Table 6, it can be concluded that all stance markers including self-mentions (NES corpus=337, NNES corpus=158) attitude makers (NES corpus=213, NNES corpus=113), hedges (NES corpus=648, NNES corpus=375), and boosters (NES corpus=379, NNES corpus=226) were used more by NES academic writers than NNES academic writers.

Table 6 Frequencies of Stance Markers in NES and NNES RAs

Table 6
Frequencies of Stance Markers in NES and NNES RAs

Stance Markers		Observed N	Expected N	Residual
Self-Mentions	NES Academic Writers	337	247.5	89.5
	NNES Academic Writers	158	247.5	-89.5
	Total	495		
Attitude Markers	NES Academic Writers	213	163.0	50.0
	NNES Academic Writers	113	163.0	-50.0
	Total	326		
Hedges	NES Academic Writers	648	511.5	136.5
	NNES Academic Writers	375	511.5	-136.5
	Total	1023		
Boosters	NES Academic Writers	379	302.5	76.5
	NNES Academic Writers	226	302.5	-76.5
	Total	605		

Based on the results of Chi-square test analyses for the use of stance markers in native and non-native academic writers' RAs, it can be concluded that all stance markers including self-mentions (χ^2 (1)=64.72, p=.000, Cohen's w=.362 representing a moderate effect size), attitude makers (χ^2 (1)=30.67, p=.000, Cohen's w=.306 representing a moderate effect size), hedges (χ^2 (1)=72.85, p=.000, Cohen's w=.266 representing a weak to moderate effect size), and finally boosters (χ^2 (1)=38.69, p=.000, Cohen's w=.253 representing a weak to moderate effect size) were significantly used more by NES academic writers than NNES academic writers.

Five separate Chi-square tests were run in order to compare native and non-native writers in their use of reader pronouns, personal asides, appeals to shared knowledge, questions and directives. Based on the results displayed in Table 7, it can be concluded that all engagement markers including reader pronouns (NES corpus=126, NNES corpus=59), personal asides (NES corpus=14, NNES corpus=7), appeals to shared knowledge (NES corpus=69, NNES corpus=34), questions (NES corpus=10, NNES corpus=5), and directives (NES corpus=166, NNES corpus=92) were more used more by NES academic writers than NNES academic writers.

Table 7 Frequencies of Engagement Markers in NES and NNES RAs

Engagement Markers		Observed N	Expected N	Residual
Reader Pronouns	NES Academic Writers	126	92.5	33.5
	NNES Academic Writers	59	92.5	-33.5

	Total	185		
	NES Academic Writers	14	10.5	3.5
Personal Asides	NNES Academic Writers	7	10.5	-3.5
	Total	21		
	NES Academic Writers	69	51.5	17.5
Appeals to Shared knowledge	NNES Academic Writers	34	51.5	-17.5
	Total	103		
	NES Academic Writers	10	7.5	2.5
Questions	NNES Academic Writers	5	7.5	-2.5
	Total	15		
	NES Academic Writers	166	129.0	37.0
Directives	NNES Academic Writers	92	129.0	-37.0
	Total	258		

The results of Chi-square test analyses for the use of engagement markers in native and non-native academic writers' RAs indicate that reader pronouns were significantly used more by NES academic writers than NNES academic writers (χ^2 (1)=24.26, p=.000, Cohen's w=.362 representing a moderate to large effect size), although personal asides were used more in NES corpus than NNES corpus, the difference was not a significant one (χ^2 (1)=2.33, p=.127, Cohen's w=.333 representing a moderate effect size), appeals to shared knowledge were significantly used more by NES academic writers than NNES academic writers (χ^2 (1)=11.89, p=.001, Cohen's w=.339 representing a moderate effect size), although questions were used more in NES corpus than NNES corpus , the difference was not a significant one (χ^2 (1)=1.66, p=.197, Cohen's w=.332 representing a moderate effect size), and directives were significantly used more by NES academic writers than NNES academic writers (χ^2 (1)=21.55, p=.000, Cohen's w=.290 representing an almost moderate effect size).

6 Discussion

6.1 Disciplinary Variation

The findings in the current corpus analysis research demonstrated that soft disciplines RAs had more stance and engagement markers than the ones in hard disciplines. In this sense, linguistic elements found in RAs are constrained by the conventions of the discourse community for whom they have been written. The findings of the present study are in line with Hyland (2005a) who believed that "rhetorical practices are inextricably related to the purposes of the disciplines" (p. 187) which implies that patterns of representing one's self and engaging the readers in RAs is a discipline-related issue with most of the time writers of soft sciences and humanities representing themselves more directly and explicitly than the writers of science and engineering fields. As Hyland (2018) states, disciplines "have a very real existence for those who work and study in them" (p. 29). Accordingly, in hard sciences knowledge construction is based on the empirical evidence and it is also "cumulative and tightly structured" (Hyland, 2005a, p. 188). As Hyland (2018) puts it, in hard sciences the discourse community puts emphasis on the research itself and neglects the importance of researcher; hence, the role of author is downplayed in RAs of hard disciplines to emphasize the importance of the knowledge and content which are conveyed throughout the text. However, in humanities and soft sciences, writers have a wide variety of readers so "personal credibility, and explicitly getting behind arguments" are more important in having a persuasive discourse (Hyland, 2005a, p. 188). In this sense, writers are expected to express ideas in a way which allows different interpretations from different perspectives due to the open nature of soft disciplines (Becher & Trowler, 2001). Moreover, due to the flexible

nature of soft sciences, academic writers tend to use more stance markers (Abdi, 2011), while hard science academic writers present the arguments more rigidly due to the factual nature of their disciplines (Becher & Trowler, 2001).

Regarding the frequencies of each stance marker, hedges were the most frequent marker in both hard and soft sciences; however, RAs of soft disciplines enjoyed higher frequencies of hedges in comparison to hard disciplines RAs. This is comparable with Hyland (1998, 2005a, 2008a) who indicated that hedges were used more frequently in soft sciences to show lower degrees of certainty toward the claims and this implies the fact that academicians attempt to present facts and their claims with caution. Following hedges, RAs of both disciplines enjoyed considerable rate of boosters. Boosters were found more in soft disciplines RAs than their counterpart hard discipline RAs and this is in line with Vázquez Orta and Giner (2009) in that they observed more boosters in marketing RAs in comparison to the ones in mechanical engineering and biology. In addition, this is consistent with Hyland (2008a) who reported more usage of boosting elements in RAs of soft disciplines. Indeed, sociological aspects of each discipline affect the use of these interactional markers in a way that RAs of soft sciences present more imprecise results requiring stronger and clearer supports from the writers which results in the use of boosters. However, authors of hard disciplines report the results more precisely; hence, they do not need to draw on boosters to convince their readers. However, there are a considerable number of boosters used in hard sciences to ensure the readers of the credibility of the results.

Results also revealed that self-mentions in soft disciplines RAs are used significantly more than the ones in hard disciplines. This may underline the fact that academicians of soft sciences prefer to infuse their voice into the text while the academicians of hard sciences avoid doing so and try to efface their voice from RAs. The findings of the present study are supported by Hyland (2001) in that he argues that academicians of hard sciences refrain from presenting themselves and instead put emphasis on the objectivity of the results by believing that the data should be reported irrespective of the subjective view points of the author. However, higher rates of self-mentions in soft sciences offer a stronger expression of authors' presence to present the less solid results with more responsibility and confirmability. This is also consistent with Hyland (2018) who believes academicians of soft disciplines are encouraged "to present their own 'voice' and display a personal perspective, suitably supported with data and intertextual evidence" (p. 174). However, writers of hard sciences avoid using self-mentions to "highlight the phenomena under study, the replicability of research activities, and the generality of the findings" (Hyland, 2008a, p. 17).

Attitude markers were the least frequently-used markers in both disciplines; however, their frequency was higher in soft disciplines RAs and this is in line with Hyland (1998) who believes that lower frequencies of attitude markers in hard sciences reflect writers' unwillingness to wield their authority in stating the claims. In the same vein, attitude markers in hard science RAs are used to answer the questions that readers may have in mind, based on background knowledge, to satisfy readers' needs; however, soft disciplines draw on a wide range of attitude markers to reflect their affection and attitudes toward their claims irrespective of readers' background knowledge.

In addition to constructing authority and credibility by using stance markers, "writers are able to either highlight or downplay the presence of their readers in the text" by using engagement markers (Hyland, 2008a, p. 17). It was revealed that RAs of soft sciences employ more engagement markers than hard sciences RAs which is in line with Hyland (2005a, 2008a). Moreover, it was revealed that directives were the most frequently-used markers in both hard and soft sciences RAs. It is shown that the only frequent interactive feature used in engineering and sciences were directives and this may imply that hard sciences RAs are mainly short and concise; thus, using imperatives provides writers with the economy of words (Hyland, 2005a). Furthermore, it can be inferred that employing directives in RAs is a useful strategy that writers draw on to build rapport with readers either in

soft or hard disciplines. This is in accordance with Hyland's (2005c) study which revealed that the total number of directives was higher than other engagement markers in all eight disciplines of his study.

Following directives, reader pronouns had the highest frequency. According to Hyland (2005a), authors use reader pronouns "to appeal to scholarly solidarity, presupposing a set of mutual, discipline-identifying understandings linking writer and reader" (p. 188). This underlines the fact that reader pronouns are the best devices through which writers can connect to their readers and allow readers to accompany them in each section of the RAs. However, writers of hard sciences avoid using reader pronouns in their texts and it is supported by Hyland and Jiang (2016) who observed that reader pronouns are almost never used in engineering and sciences. Furthermore, Hyland (2005c) contends that knowledge construction in soft sciences is tremendously interpretive thus "proofs must appeal to the reader's willingness to follow and accept the persuasiveness of the discourse" (p. 370) and given that, authors of soft sciences draw on reader pronouns to persuade readers to accompany them throughout the texts.

Furthermore, questions were mainly found in soft disciplines RAs and this finding is supported by Hyland (2005a). Questions used in soft sciences RAs reflect the existence of audience to draw their attention to writers' statements and to persuade readers to answer the statements in advance and make themselves compatible with the arguments which is going to be followed. Hyland (2008a) also noted that questions are "almost exclusively confined to the soft fields" (p. 18). Personal asides were the least-frequent markers in both disciplines as is the case for Hyland (2005c). Differences regarding personal asides in this study were not significant. However, personal asides and appeals to shared knowledge were used more frequently in humanities than hard sciences and this may imply the fact that in soft sciences, writers depend on shared knowledge and common beliefs to express their ideas to show that writers and readers share common conceptions. As Hyland (2005c) believes, appeals to shared knowledge and personal asides are useful devices in "emphasizing shared goals and drawing the reader into the discourse as a fellow disciplinary member" (p. 368).

6.2 Cross-cultural Variation

With regards to cultural variation, the differences between NES and Iranian NNES academic writers were reported and it was revealed that using interactional markers in writing is affected by one's culture. It is believed that the conventions of academic writing differ from culture to culture (Clyne, 1991) since writers have different cultural conceptualizations which affect their use of linguistic resources (Sharifian, 2009). The two groups of writers were statistically different from each other in terms of both stance and engagement markers in a way that NES writers used more interactional markers than their counterpart NNES Iranian academics. This implies that culture can profoundly influence the linguistic choices of writers and as Yakhontova (2006) stated, "culture specific differences" are evident in writing styles of different academicians. The findings are supported by Martínez (2005) who showed that the overall frequency of first-person pronouns in NES corpus was higher than what was found in NNES Spanish corpus. This shows that native academic writers try to exert power in their texts to prove the originality of their works to the discourse community so that they can attain acceptance and recognition.

The importance of originality and focus on the individual requires having a voice in academic writing (Atkinson, 2003) and western cultures consider patterns of self-representation as a sign of "strength, confidence, and individuality" in their written texts (Steinman 2003, p.83). This finding also resonates well with Dontcheva-Navratilova (2021) whose results revealed that in comparison to RAs authored by Anglophone writers, RAs by Czech scholars used fewer first-person plural pronoun in the field of Economics, which indicated the writer-oriented approach of Czech scholars and less degrees of writer-reader interactions. The findings imply that English authors not only draw on more interactional markers, but also

construct more reader-oriented texts to help readers perceive the texts better. Emphasis on effective communication with readers in written discourse is taught to English students in their school systems (Dahl, 2004); accordingly, English writers construct more reader-friendly approaches to writing and establish higher rates of interaction with their audience (Thompson, 2001).

Moreover, the findings are supported by Abdollahzadeh (2011) who showed that English writers used more interpersonal markers than did Iranian writers. This implies that English writers aim to establish rapport with their audiences so that they can invariably convince their readers of the credibility of their claims. A reader-oriented approach may be adopted by writers drawing on monologic and dialogic views (Cmejrkovä & Danes, 1997). Western cultures favor the dialogic stance which focuses on establishing rapport with readers who can be actively engaged in the text, while Iranian scholars adopt the monologic stance stressing the rigid production of texts with an emphasis on the truth of the data. This shred of evidence is also in line with Dontcheva-Navratilova (2021) whose results indicated more frequent use of directives in the results and discussion sections of RAs authored by Anglophone academicians than their Czech counterparts, which may imply Anglophone scholars' intentions to interact and engage with a more diverse audience.

English native speaker academicians are familiar with a wide range of lexicogrammatical features of English (Xu & Nesi, 2019); therefore, by drawing on various resources they can build credible identity and construct rapport with their audience in order to "gain acceptance for their claims through a balanced demonstration of deference, humility, respect, attitudinal and assertive language to persuade readers about the validity of their arguments" (Abdollahzadeh, 2011, p. 292). Furthermore, this can also be associated with the fact that western cultures are more inclined toward individualism than Eastern cultures (Crismore, Markkanen, & Steffensen, 1993; Hofstede, 1997); hence, they employ more interactional markers to ascertain their claims more explicitly in order to represent an authoritative stance toward their claims to bolster the effect of their arguments. However, many writers from Asian countries tend to exert less authorship in their texts and also write less explicitly (Hinkel, 2002). As indicated, western cultures are individualistic in a sense that they favor direct and explicit presentation of materials while oriental societies stress the collectiveness and connectedness which accordingly make the text less assertive and the claims more flexible (Duszak, 1997).

In addition, the results imply that Iranian authors are adhering to the traditional views of objective academic writing in which authors refrain from infusing their own voice and building rapport with readers since accepting the traditional beliefs without trying to change or challenge them is a part of Iranian culture (Abdollahzadeh, 2011). This is also corroborated by Markus and Kitayama's (1991) view of self in different cultures who assert that there are two views of independence and interdependence with the former stressing "the inherent separateness of distinct persons" (p. 226) and the latter focusing on connectedness of individuals to one another. They assert that western cultures favor the independent view while individuals from interdependent cultures try to represent the traditions of their culture rather than writing to present themselves as individual selves. Thus, in the case of Iranian scholars, they are adopting the interdependent view in which traditional beliefs of writing are deemed more appropriate.

7 Conclusions

In the present study, a corpus-based approach was adopted to investigate how authors of various disciplines and from different cultures employ stance and engagement markers in their RAs. The findings of the present study reflected the differences in the distribution of these markers in the two corpora. Regarding disciplinary variation, significant differences were observed among soft and hard disciplines RAs in that writers of soft sciences drew on more interactional markers than their counterpart hard sciences' writers. In exploring the effect of culture, it was revealed that culture plays a significant role and the results implied that NES academic writers tended to use more stance and

engagement markers in their RAs than did NNES Iranian academics.

The concepts of stance and engagement markers represent the ways authors use community-tied and culture-bound linguistic devices to express their authority in texts and also to interact with their readers. Perhaps the most notable implication of the present study purports to reflect how the use of the linguistic devices in academia is dependent on disciplinary discourse to which we belong and the culture we come from to represent ourselves as successful linguists, sociologists, engineers, biologists, etc. (Çandarlı et al., 2015; Hyland, 2008a). Put simply, corpus-based approaches focusing on stance and engagement markers in RAs can help academicians understand how these interactional markers are utilized by NES and NNES academic writers across different fields of study.

With regard to the pedagogical implications of the current study, this study should make academic writers conscious of their own presence in their texts and the interaction they can build with readers based on the use of stance and engagement markers. We believe that the members of a particular discourse community should be aware of so many discipline-specific norms, preferences, and also the ways in which presence and interaction are affected by the disciplinary conventions and cultural contexts. Investigating cultural patterns of academic writing helps academicians get cognizant and conscious of both cross-cultural and cross-disciplinary variations (Steinman, 2003) and will accordingly equip writers with the knowledge to write more professionally. By making students and academics cognizant of the appropriate use of stance and engagement markers, we not only improve their understanding of disciplinary and cultural conventions but also prepare them for projecting their own arguments in their community of practice.

Pedagogically speaking, the teaching of discourse markers should be more explicitly included in university courses. Explicit instructions can be made possible through different EAP courses and also advanced writing classes in which novice scholars get familiar with the use of these markers through different reading and writing tasks in different subject areas. We also suggest that EAP instructions in Iranian context would help researchers understand the differences between their L1 and L2 rhetorical conventions.

As any other research projects, this research has also some methodological limitations as corpus-based studies do not offer examination of the hidden processes that writers employ during the use of stance and engagement markers. However, the mentioned limitation can be solved by applying more qualitative approaches such as narrative enquiries, discourse analysis, ethnographic approaches, and interviews which shed light on the perspectives of native and non-native academicians about the motives behind the inclusion of these linguistic elements. Another suggestion for future research concerns the proficiency level of the sample selected. Future studies should be directed at incorporating RAs from both students and experts in different disciplines to explore how proficiency level would affect the use of discourse markers.

References

Abdi, R. (2011). Metadiscourse strategies in research articles: A study of the differences across subsections. *Journal of Teaching Language Skills*, *3*(1), 1-16. doi: 10.22099/jtls.2012.391

Abdollahzadeh, E. (2011). Poring over the findings: Interpersonal authorial engagement in applied linguistics papers. *Journal of Pragmatics*, *43*(1), 288-297. doi:10.1016/j.pragma.2010.07.019

Atkinson, D. (2003). Writing and culture in the post-process era. *Journal of Second Language Writing*, *12*(1), 49-63. doi:10.1016/S1060-3743(02)00126-1

Becher, T., & Trowler, P. (2001). *Academic tribes and territories: Intellectual enquiry and the cultures of disciplines* (2nd ed.). Buckingham: Open University Press/SRHE.

Biber, D., Conrad, S., & Reppen, R. (1998). *Corpus linguistics: Investigating language structure and use*. Cambridge: Cambridge University Press.

Çandarlı, D., Bayyurt, Y., & Marti, L. (2015). Authorial presence in L1 and L2 novice academic writing: Cross-linguistic and cross-cultural perspectives. *Journal of English for Academic Purposes*, *20*, 192-202.doi: 10.1016/j.jeap.2015.10.001

Clyne, M. (1987). Cultural differences in the organization of academic texts: English and German. *Journal of Pragmatics*, *11*(2), 211-241.doi:10.1016/0378-2166(87)90196-2

Clyne, M. (1991). The socio-cultural dimension: The dilemma of the German-speaking scholar. In H. Shroder (Ed.), *Subject-oriented texts, language for special purposes and text theory* (pp. 49–68). Berlin: De Gruyter.

Cmejrkovä, C., & Danes, F. (1997). Academic writing and cultural identity: The case of Czech academic writing. In A. Duszak (Ed.), *Culture and styles of academic discourse* (pp. 41-62). Berlin: Mouton de Gruyter.

Connor, U. (1996). *Contrastive rhetoric: Cross-cultural aspects of second language writing*. Cambridge: Cambridge University Press.

Connor, U. (2004). Intercultural rhetoric research: Beyond texts. *Journal of English for Academic Purposes, 3*(4), 291-304. doi:10.1016/j.jeap.2004.07.003.

Crismore, A., Markkanen, R., & Steffensen, M. S. (1993). Metadiscourse in persuasive writing: A study of texts written by American and Finnish university students. *Written Communication*, *10*(1), 39-71.doi: 10.1177/0741088393010001002

Cumming, A. (1989). Writing expertise and second language proficiency. *Language Learning*, *39*, 81-141.doi: 10.1111/j.1467-1770.1989.tb00592.x

Dahl, T. (2004). Textual metadiscourse in research articles: A marker of national culture or of academic discipline?. *Journal of pragmatics*, *36*(10), 1807-1825.

Dontcheva-Navratilova, O. (2021). Engaging with the reader in research articles in English: Variation across disciplines and linguacultural backgrounds. *English for Specific Purposes*, *63*, 18-32.

Duszak, A. (1997). Cross-cultural academic communication: A discourse-community view. In A. Duszak (Ed.), *Culture and styles of academic discourse* (pp. 11-40). Berlin: Mouton de Gruyter.

Hinkel, E., (2002). *Second language writers' text: Linguistic and rhetorical features*. New Jersey: Lawrence Erlbaum Associates.

Hofstede, G., (1997). *Cultures and organizations: Software of the mind*. New York: McGraw-Hill.

Hyland, K. (1998). Persuasion and context: The pragmatics of academic metadiscourse. *Journal of Pragmatics*, *30*, 437-455.doi: 10.1016/S0378-2166(98)00009-5

Hyland, K. (2001). Humble servants of the discipline? Self-mention in research articles. *English for Specific Purposes*, *20*(3), 207-226.doi: 10.1016/S0889-4906(00)00012-0

Hyland, K. (2002a). Authority and invisibility: Authorial identity in academic writing. *Journal of Pragmatics*, *34*(8), 1091-1112.doi: 10.1016/S0378-2166(02)00035-8

Hyland, K. (2002b). Options of identity in academic writing. *ELT Journal*, *56*(4), 351-358.doi: 10.1093/elt/56.4.351

Hyland, K. (2005a). Stance and engagement: A model of interaction in academic discourse. *Discourse Studies*, *7*(2), 173-192.doi: 10.1177/1461445605050365

Hyland, K. (2005b). *Metadiscourse: Exploring interaction in writing*. London: Continuum.

Hyland, K. (2005c). Representing readers in writing: Student and expert practices. *Linguistics and Education*, *16*(4), 363–377.doi: 10.1016/j.linged.2006.05.002

Hyland, K. (2008a). Disciplinary voices: Interactions in research writing. *English Text Construction, 1*(1), 5-22.doi:10.1075/etc.1.1.03hyl

Hyland, K. (2008b). Persuasion, interaction and the construction of knowledge: Representing self and others in research writing. IJES, 8(2), 1-23. doi:10.6018/ijes.8.2.49151.

Hyland, K. (2009). *Teaching and researching writing.* London: Routledge.

Hyland, K. (2018). *The essential Hyland*. London: Bloomsbury.

Hyland, K., & Jiang, F. (2016). We must conclude that…: A diachronic study of academic engagement. *Journal of English for Academic Purposes*, *24*, 29-42.doi: 10.1016/j.jeap.2016.09.003

Işık-Taş, E. E. (2018). Authorial identity in Turkish language and English language research articles in Sociology: The role of publication context in academic writers' discourse choices. *English for Specific Purposes*, *49*, 26-38.doi: 10.1016/j.esp.2017.10.003

Kachru, Y. (1983). Linguistics and written discourse in particular languages: Contrastive studies: English and Hindi. *Annual Review of Applied Linguistics*, 3, 50-77.

Kaplan, R. B. (1966). Cultural thought patterns in inter-cultural communication. *Language Learning*, *XVI*, 1-20.

Kaplan, R. B. (1976). A further note on contrastive rhetoric. *Communication Quarterly*, *24*(2), 12-19.

Kaplan, R. B. (1990). Writing in a multilingual/multicultural context: What's contrastive about contrastive rhetoric?. *Writing instructor*, *10*(1), 7-18.

Lafuente- Millán, E. (2014). Reader engagement across cultures, languages and contexts of publication in business research articles. *International Journal of Applied Linguistics*, *24*(2), 201-223.doi: doi.org/10.1111/ijal.12019

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*(2), 224.doi: 10.1037/0033-295X.98.2.224

Martínez, I. A. (2005). Native and non-native writers' use of first-person pronouns in the different

sections of biology research articles in English. *Journal of Second Language Writing*, *14*(3), 174-190.doi: 10.1016/j.jslw.2005.06.001

Mauranen, A, (2001). Descriptions or explanations? Some methodological issues in contrastive rhetoric. In M. Hewings, (Ed.), *Academic Writing in Context* (pp. 43-54). Birmingham: University of Birmingham Press.

McGrath, L., & Kuteeva, M. (2012). Stance and engagement in pure mathematics research articles: Linking discourse features to disciplinary practices. *English for Specific Purposes*, *31*(3), 161-173.doi: 10.1016/j.esp.2011.11.002

Sharifian, F. (2003). On cultural conceptualizations. *Journal of Cognition and Culture*, *3*(3), 187-207.doi:10.1163/15685370332233 6625

Sharifian, F. (2009). Cultural conceptualizations in English as an international language. In F. Sharifian (Ed.), *English as an international language: Perspectives and pedagogical issues* (pp. 242- 253). Bristol: Multilingual Matters.

Shaw, P. (2003). Evaluation and promotion across languages. *Journal of English for Academic Purposes*, *2*(4), 343-357.doi: 10.1016/S1475-1585(03)00050-X

Steinman, L. (2003). Cultural collisions in L2 academic writing. *TESL Canada Journal*, 80-91.doi: 10.18806/tesl.v20i2.950

Thompson, G. (2001). Interaction in academic writing: Learning to argue with the reader. *Applied Linguistics*, *22*(1), 58-78. doi:10.1093/applin/22.1.58.

Vázquez Orta, I., & Giner, D. (2009). Writing with conviction: The use of boosters in modelling persuasion in academic discourses. *Revista Alicantina de Estudios Ingleses*, *22*, 219-237.doi: 10.14198/raei.2009.22.14

Widdowson, H. G. (1979): *Aspects of language teaching*. Oxford: Oxford University Press.

Xu, X., & Nesi, H. (2019). Differences in engagement: A comparison of the strategies used by British and Chinese research article writers. *Journal of English for Academic Purposes*, *38*, 121-134.doi: 10.1016/j.jeap.2019.02.003

Yakhontova. T. (2006). Cultural and disciplinary variation in academic discourse: The issue of influencing factors. *Journal of English for Academic Purposes*, *5*(2), 153-167.doi: 10.1016/j.jeap.2006.03.002

Yang, W. (2014). Stance and engagement: A corpus-based analysis of academic spoken discourse across science domains. *LSP Journal-Language for special purposes, Professional Communication, Knowledge Management and Cognition*, *5*(1), 62-78.