

A Cross-cultural Analysis of Metadiscourse in ELT and Theoretical Linguistics Research Articles by Native English vs. Iranian Academic Writers

Mahboobe Salek

Islamic Azad University,
Tehran South Branch,
mahboobeh.salek@yahoo.com

Massood Yazdanimoghaddam

Islamic Azad University,
Garmsar Branch,
mym1300@gmail.com

Abstract: *Metadiscourse markers as rhetorical devices refer to ‘self-reflective linguistic expressions’ (Hyland, 2004) that make the writers more powerful in interaction. Since metadiscourse is a rhetorical device, it could be different based on the user’s culture and mother tongue. In this study, three groups of research articles including native English (NE), native Persian (NP), and non-native English (NNE) articles (written by Iranian academics) were analyzed based on Hyland and Tse’s (2004) taxonomy plus two metadiscourse strategies by Abdi et al. (2010). The difference between the two cultures of English and Persian represented in texts was examined in terms of the impact of English as L2 on the non-native English research articles written by Iranian academic writers. To find the significant difference among the three corpora, the researchers used chi-square test. The findings of analyzing about 9000 lines of 26 published research articles on ELT and theoretical linguistics revealed the native Persian academic writers used interactive metadiscourse markers in their L1 writings more than the native English and non-native English academic writers (Iranian) whereas they used the least number of interactional metadiscourse (with the exception of self mentions). It was interesting that Persian academic writers used the most number of interactional metadiscourse markers when they wrote in L2 (English). Regarding the other variable of the study i.e. gender, the findings further proved no relevance between gender and metadiscourse markers utilized by the native English and native Persian academic writers. Finally, it was revealed that NP research articles were the clearest and the most comprehensible articles because they consisted of the majority of interactive markers in contrast to NE and NNE research articles.*

Keywords: *collapsers, disclaimers, functions of language, genre, interactional metadiscourse, interactive metadiscourse.*

1. INTRODUCTION

The term ‘metadiscourse’ was coined by Zellig Harris in 1959 to offer a way of understanding language in use and to guide a receiver’s perception of a text (Hyland, 2005a, p. 3), but it was first adopted in discourse studies in the middle of the 1980s. In 1985, Williams referred to metadiscourse in terms of the style lists and presented several kinds of metadiscourse. His seminal definition of metadiscourse was ‘discourse about discourse, intended to direct rather than inform readers’. Williams and Lautamatti’s studies were a kind of basis for research into metadiscourse. Later on, metadiscourse was defined as self-reflective linguistic expressions referring to the evolving text, to the writer, and to the expected readers of that text (see Hyland, 2004). Drawing on the variety of existing definitions on metadiscourse (MD), different taxonomies of metadiscourse have been presented, too. But, because of the fact that each scientific theory or opinion reveals its pros and cons through the time, other specialists such as Vande Kopple, Crosmore, Hyland, Adel, etc. tried to change and improve the presented taxonomies of metadiscourse. In recent taxonomies of metadiscourse, Hyland and Tse (2004) classified metadiscourse markers as interactive resources (containing transitions, frame markers, endophoric markers, evidential markers, code glosses) and interactional resources (consisting hedges, boosters, attitude markers, engagement markers, and self mentions). By using the mentioned markers, professional writers must establish an appropriate balance between ‘topic-based’ discourse and ‘human-face’ discourse (Thetela, 1997; cited in Hyland, 2005a, p. 195). Topic-

based propositions in a text refer to the subject matter under discussion while human-face discourse, as a complementary part of the text, is related to the interaction between the current writer(s) and readers. To be familiar with the ways of communicating with readers in a text, we, as writers, should know communication devices such as metadiscourse markers. Awareness of these markers helps speakers or writers to boost their ability in speech or writing. In this field, Hyland (2005a, p.195) stated that ‘metadiscourse provides a link between texts and disciplinary, social or professional cultures’. In fact, since the 1980s linguists have become increasingly aware that interpersonal features are ubiquitous and even the most objective-looking written text is not without its interactional dimension (Mauranen, 2010, p. 14). Since then, a large quantity of research has confirmed that there are interactions between writers and readers in the written texts. Good authors, as Hyland (2005a) argued, are writers who are better able to imagine how their readers will respond to their texts because they are familiar with the conventions and expectations operated in particular settings (p. 197-8). In other words, there is a need for writers to have appropriate schemata involving the readers’ needs and expectations. These schemata could be different based on the subject matter, participants’ culture, purpose of writing, audience, and some other factors which engender differentiation among parts of a research article and consequently among their metadiscourse features. Swales (1996), also, in his contrastive rhetoric study claimed that there are culture-specific patterns in writings which writers use, based on their different cultures (p. 90). The main aim of this study is to find cultural differences in the English and Persian RAs on ELT and theoretical linguistics and then the influence of English as L2 on the non-native English articles written by Iranian academic writers.

1.1 Research Questions

Owing to the fact that two different societies have two different cultures and this variety becomes visible in people’s language –spoken or written– rhetorically, we attempt to answer the following questions empirically:

1. Is there any cultural difference between interactive and interactional metadiscourse markers used in native English, native Persian, and non-native English research articles on ELT and theoretical linguistics?
2. Is there any correlation between gender and metadiscourse (interactive and interactional) features used in native English and native Persian research articles?
3. To what extent do academic writers of divergent cultural communities differ in using interactive and interactional markers?

These questions have been answered based on analyzing about 9000 lines of three groups of NE, NP, and NNE research articles in English and Persian languages.

1.2 Hypotheses

Until now, we have tried to explain the importance of metadiscourse markers in writings and realized that what our aims of this study are. In this part according to the raised questions in preceding section, the succeeding null hypotheses have been put forward:

H01: There is not any cultural difference between interactive and interactional metadiscourse markers used in native English, native Persian, and non-native English research articles on ELT and theoretical linguistics.

H02: There is no correlation between gender and metadiscourse (interactive and interactional) features in NE and NP research articles.

Minor H01: There is no relevance between gender and metadiscourse features in NE articles.

Minor H02: There is no relevance between gender and metadiscourse features in NP articles.

2. METHODOLOGY

2.1 Corpora

As it was mentioned, three kinds of corpora consisting of native English research articles (NE), native Persian research articles (NP), and the last one non-native English research articles (NNE) written by non-native English (Iranian) academic writers were opted to compare metadiscourse

markers in two English and Persian cultures. It is worth mentioning that the authors took account of the writers' mother tongues and tried to find some articles written by writers whose mother tongue was Persian owing to the fact that Iran is a multilingual country and it may have had influence on the way of thinking.

2.2 Instrumentation

Because of the fact that metadiscourse markers are multifunctional and they should not refer to the external world, both automatic searching procedures and manual analysis were done to avoid error. Ädel (2006) appropriately remarked on the importance of human intervention in computer-assisted studies in order to interpret the data within the research context. Analysis, then, should be based on a common taxonomy between the two languages (i.e English and Persian). We select Hyland and Tse's taxonomy (2004), as a clear-cut classification of MD, to distinguish and classify metadiscourse markers in three groups of research articles. This taxonomy was explained more clearly by Hyland in his book entitled 'metadiscourse' in 2005. What we must mention here is that we made use of two metadiscourse strategies 'collapsers' and 'disclaimers' introduced by Abdi et al. (2010) alongside Hyland and Tse's. Collapsers are the reverse act of code glossing that help to avoid undue repetition which makes a text long (Abdi et al., 2010, p. 1673). On the other hand, disclaimers often include negative particles, like 'no', 'not' and 'only', and are often used after engagement markers, like 'note that' or 'it should be noted that', both to promote the truth of propositions and to ward off any probable critique on the part of imagined audience (ibid, p. 1676). Abdi et al. (2010) claimed words like 'but', 'except', 'of course' are disclaimers even when we acknowledge the limitations of studies, we make use of disclaimers as well.

2.3 Procedure

Introducing as a kind of genre by Swales (1981, 1990), Mauranen (1993) and Connor (1996), 'research article' was selected in this study as a genre in order to analyze metadiscourse markers. The author examined 26 research articles –with 3000 lines for each corpus (totally 9000 lines) – written by native English, native Persian and non-native English (Iranian) academic writers to find differences between English and Persian cultures and to find the interference of L1 in using metadiscourse. Regarding the fact that language and culture should be the same in each corpus, the researchers chose these articles randomly based on their writers' names and affiliations. Also, to measure the number of used MD in relation to the propositional content and to recognize their types, there are various ways to measure MD. Crismore et al. (1993) enumerated four ways of measure including propositional analysis in which semantic units are counted, T-unit analysis which is syntactic, morpheme analysis, and lastly line density which is an appropriate measure used in the study of MD. Then, we chose six NE, ten NP, and ten NNE research articles (26 articles) based on the line density method i.e. about 3000 lines for every corpus in this study, 9000 lines in total. These articles are on ELT and theoretical linguistics published over ten-year time span (from 2002 to 2011).

After taking into account all the above mentioned details during the process of selection, in order to increase the reliability of the results, the chosen articles were double-checked and the consistency of rating or reliability increased after passing about one month from the first analysis (i.e. following an intra-rating procedure, $r_{xy} = 0.84$).

Last but not least, so far we have known metadiscourse analysis should be done based on the functions of linguistic items rather than their meanings, locations, etc.; hence it is not easy to avoid overlaps. Wherever linguistic items were multifunctional and metadiscourse markers overlapped each other, we considered all their functions. For instance, some expressions such as 'I think' based on the context were considered as hedge and attitude marker simultaneously while 'I' is a self mention, too.

3. RESULTS AND DISCUSSION

As we said earlier, we looked for any differences in the quantity of used metadiscourse categories in three corpora based on Hyland and Tse's (2004) model of metadiscourse plus two metadiscoursal strategies: collapsers and disclaimers. To clarify the probable difference in our first question and prove or reject the first null hypothesis, we made use of chi-square tests

because, according to Hatch and Farhadi (1981, p. 165), when we measure nominal variables, we are concerned not with *how much* but with *how many* or *how often*. In this study, our data is frequency counts rather than scores and there is no relationship among the frequencies of subcategories coming in the following tables¹. Independent or major variable, in this part, is culture (English and Persian) and metadiscourse markers are our dependent variables observed and measured to determine the effect of culture. The following table will give you descriptive statistics of interactive metadiscourse markers and its subcategories separately in our three corpora:

Table 1. *The frequencies of interactive subcategories in three corpora*

		Interactive						Total
		Transitions	Frame Markers	Endophoric Markers	Evidentials	Code Glosses	Collapsers	
Group interactive	NE	386	232	84	293	429	98	1522
	NP	341	382	225	298	685	121	2052
	NNE	435	296	182	346	445	81	1785
Total		1162	910	491	937	1559	300	5359

As we see in the above table, the number of interactive markers was considerably high in NP group while code glosses, transitions, and evidentials were more frequently used interactive metadiscourse markers. We can, also, see a dramatic difference between the frequency of code glosses, frame markers, and endophoric markers used by native English and native Persian academic writers.

To avoid complication in reporting the results, the value of Chi-square (X^2) for each major category was presented in a separate table. First of all, the value of chi-square for interactive sources employed in NE, NP, and NNE research articles is about $X^2 = 123.8$ with $df = 10$, but, there is a significant difference between interactive markers used in three corpora because the probability level for rejecting the null hypothesis equals zero ($\alpha = 0.05$):

Table 2. *Chi-Square Test for interactive sources*

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	123.801	10	.000
N of Valid Cases	5359		

In order to have a clear look, the following graph displays the frequency of all subcategories of interactive metadiscourse in three mentioned corpora:

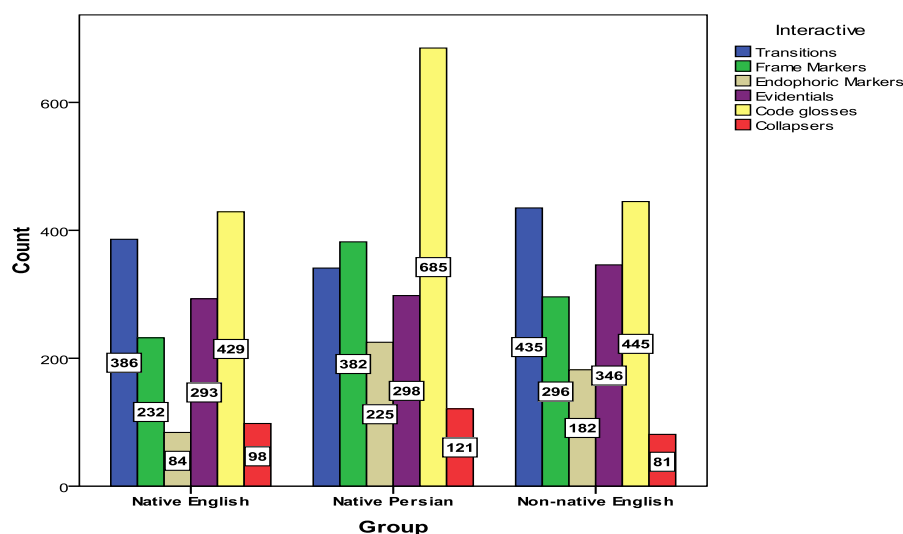


Figure 1. *Bar graph of interactive markers in NE, NP, and NNE articles*

¹. Native English, in these tables, is abbreviated to NE. Native Persian and non-native English are presented with NP and NNE, respectively.

A Cross-cultural Analysis of Metadiscourse in ELT and Theoretical Linguistics Research Articles by Native English vs. Iranian Academic Writers

As we can see in figure 1, the subcategory of code glosses was the most frequent one in all NE, NP, and NNE articles although the frequency of code glosses in NP articles was dramatically more than two other groups. This fact is true about the frequency of employed frame markers as well. Also, the figure indicates that Iranian academic writers used endophoric markers more than native English writers. Collapsers, out of this graph, occurred much less frequently than others.

Also, the same process of calculating chi-square value was done for interactional markers used in the three groups of research articles:

Table 3. The frequencies of interactional subcategories in three corpora

		Interactional						Total
		Boosters	Hedges	Attitude Markers	Self Mentions	Engagement Markers	Disclaimers	
Group interactional	NE	176	167	146	58	124	61	732
	NP	110	97	146	102	122	58	635
	NNE	165	284	177	140	204	48	1018
Total		451	548	469	300	450	167	2385

In the interactional part, the non-native English speakers (Iranian) used MD markers more than other academic writers. The native English speakers attained the second rank in using interpersonal markers while hedges, attitude markers, and boosters are the most common markers in this part. Based on table 3, there are sharp differences between the frequency of hedges, self mentions, and engagement markers used by the non-native English speakers (Iranian) and their frequencies used by the natives. To know about existing significant difference among the three groups of articles we calculated Pearson Chi-Square for the interactional sources as well:

Table 4. Chi-Square test for interactional sources

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	84.051	10	.000
N of Valid Cases	2385		

Concerning the interactional category ($X^2 = 84.05$), there is a significant difference between interactional metadiscourse markers used in NE, NP, and NNE research articles as well (Asymp. Sig. < 0.05). The next graph is the status quo of different interactional subcategories of metadiscourse used by the native and non-native academic writers:

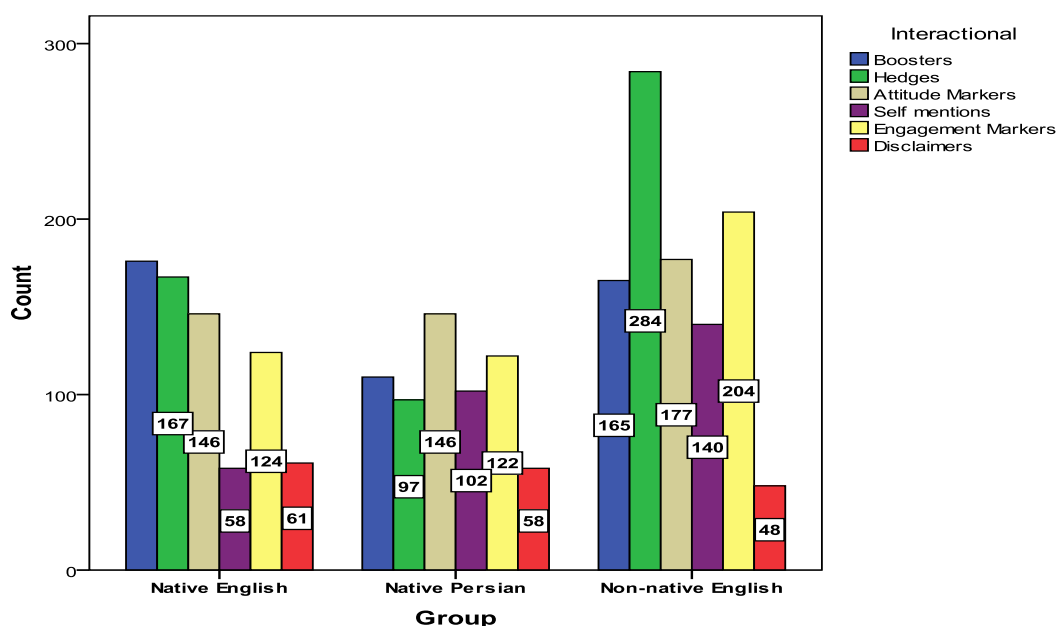


Figure2. Bar graph of interactional markers in NE, NP, and NNE research articles

By taking a look at figure 2, we can realize that there is a significant difference among the use of hedges, self mentions, engagement markers, and boosters. We can say only there was a rough

approximation in attitude markers and disclaimers used by the three groups of writers. In other words, interactional metadiscourse was definitely used differently in our corpora.

To investigate the second null hypothesis and its minor null hypotheses, our variables changed to gender (male and female) as independent variable and MD markers (interactive and interactional) as dependent variables used in NE and NP research articles. The following t-test revealed that we need a non-parametric test:

Table 5. One-Sample Kolmogorov-Smirnov Test for MD markers used in NE articles

		Interactive		Interactional	
		Males	Females	Males	Females
Number		25	4	25	4
Normal Parameters	Mean	8.5533	9.9583	4.0600	5.1250
	Std. Deviation	13.12914	12.75436	5.48881	6.99653
Most Extreme Differences	Absolute	.267	.392	.320	.314
	Positive	.267	.392	.320	.314
	Negative	-.266	-.279	-.239	-.247
Kolmogorov-Smirnov Z		1.335	.783	1.601	.628
Asymp. Sig. (2-tailed)		.046	.572	.012	.826

Because the quantity of p is less than 0.05 (if only one of p value for male or female is less than 0.05, it will be enough to use non-parametric test), it is obvious that it is not a normal distribution thus we need some non-parametric test such as Mann-Whitney Test to prove or reject the second null hypothesis. Initially, the first minor null hypothesis about metadiscourse markers used in NE articles by male and female academic writers was examined:

Table 6. Mann-Whitney Test for MD markers used in NE articles based on gender

	Interactive MD	Interactional MD
Mann-Whitney U	41.500	50.000
Wilcoxon W	366.500	60.000
Z	-.538	.000
Asymp. Sig. (2-tailed)	.590	1.000

Based on table 6, there was no relevance between gender and MD markers used in NE research articles and therefore the first minor null hypothesis was approved. In spite of no relevance between gender and used metadiscourse markers, the number of used interactive markers in NE articles was nearly twice the number of used interactional markers:

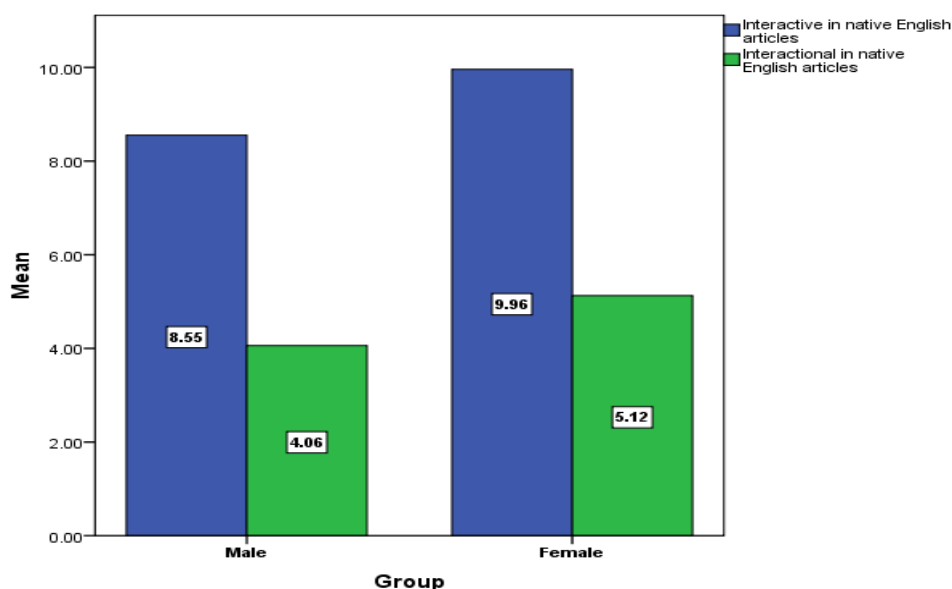


Figure 3. Bar graph of interactive and interactional MD based on gender in NE articles

In this part, the mentioned correlation in the second minor H0 was examined:

Table 71. One-Sample Kolmogorov-Smirnov Test for NP articles

Persian Articles		Interactive		Interactional	
		Males	Females	Males	Females
Number		21	24	21	24
Normal Parameters	Mean	10.1349	5.3819	2.9365	1.8403
	Std. Deviation	14.75105	5.65738	4.83002	1.82606
Most Extreme Differences	Absolute	.336	.236	.373	.269
	Positive	.336	.236	.373	.269
	Negative	-.260	-.202	-.272	-.157
Kolmogorov-Smirnov Z		1.540	1.158	1.709	1.317
Asymp. Sig. (2-tailed)		.017	.137	.006	.062

Again, it did not enjoy a normal distribution ($p > 0.05$) so we needed Mann-Whitney Test to prove or reject the second null hypothesis.

Table 8. Mann-Whitney Test for interactive and interactional MD based on gender in NP

	Interactive MD	Interactional MD
Mann-Whitney U	242.000	228.500
Wilcoxon W	473.000	459.500
Z	-.228	-.536
Asymp. Sig. (2-tailed)	.820	.592

Based on what we explained earlier, no relevance was revealed among gender and interactive and interactional resources used in NP articles. Another important matter was that the number of used interactive markers in NP articles was nearly three times more than the number of used interactional markers regardless to gender issue. The following bar graph puts on view the situation so clearly:

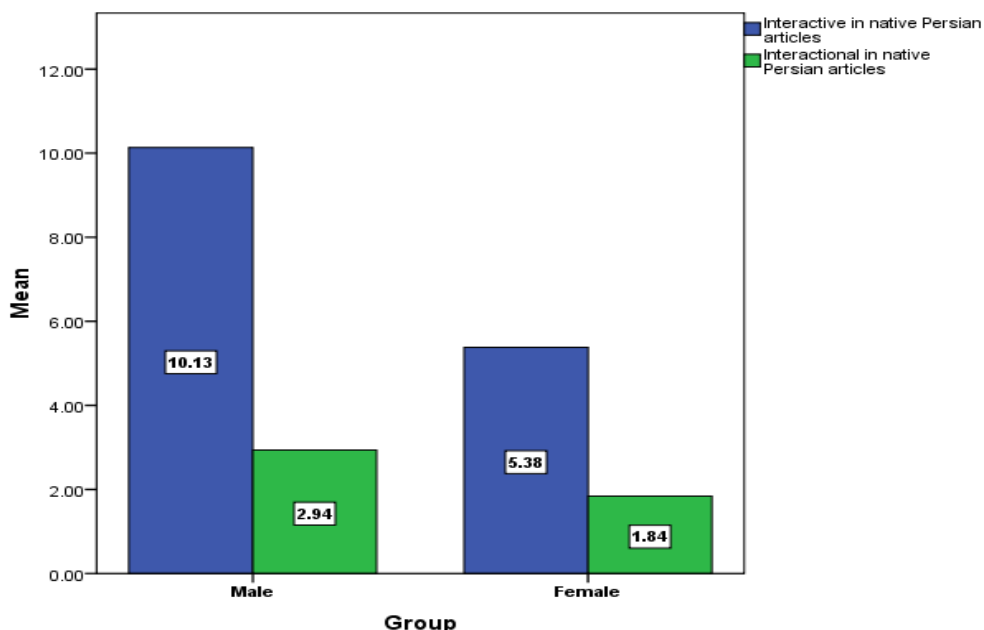


Figure 4. Bar graph of interactive and interactional MD based on gender in NP articles

Drawing on the result, the second null hypothesis was approved and we could find that both English and Persian males and females used interactive markers more than interactional ones.

3.1 Discussion

To make a study of metadiscourse, the researchers intend to discuss the statistically proved differences and similarities between two English and Persian languages and cultures. Moreover, they intend to find a qualitative answer to the third question: To what extent do academic writers of divergent cultural communities differ in using interactive and interactional markers?

The first point obtained through examining NE, NP, and NNE published research articles is about interactive markers. Some subcategories of interactive markers such as code glosses, transitions, and frame markers were significantly more frequent. These three subcategories, as Abdi et al. (2010) said, mainly serve the function of making the texts clearer and more comprehensible to the audience. In fact, they are means of minimizing the processing efforts of readers (p. 1674). It is worth mentioning that the kind of subject matter can be effective in how to write. For instance, the high number of code glosses in NP articles can be the effect of the discipline (theoretical linguistics) in which writers are to speak about language items so they have to separate them by some punctuation and special forms of writing (e.g. italic or bold). Hence, we can conclude that:

(a) NP research articles consist of the majority of interactive markers in contrast to NE and NNE articles so they are the clearest and the most comprehensible articles. The pattern has an effect on Iranian's L2 (English) writings in a way that the number of interactive markers in NNE research articles is more than NE articles.

In all, (a) is part of the answer to the fourth question about the extent of interactive and interactional markers used by academic writers of divergent cultural communities obtained from 9000 lines of NE, NP, and NNE research articles.

Through taking a close look at the findings related to each group of articles we should say that each native group of academic writers (native English and native Persian) has a different way of thinking because they use different interactional subcategories as rhetorical means. In this study, although the types of interactive markers used by the native English, native Persian and non-native English writers were slightly different, there was a big difference in the types of interactional markers. That is, for example, while the native English academic writers mainly employed boosters, hedges, and engagement markers, the native Persian writers utilized attitude markers, self mentions, and boosters. Moreover, the order of most frequent interactional MD among the non-native English (Iranian) academic writers follows this order: hedges, engagement, and attitude markers. Self mentions besides attitude markers and engagement markers are used to make participants and writer's feelings visible. They are valuable rhetorical means whereby different academic identities can be presented (Abdi, 2002). These findings are an approval for the fact that different cultures have different rhetorical thought patterns in their writings:

(b) high number of self mentions, engagement and attitude markers in NNE research articles indicates that participants are visible in Iranian's Persian articles while this pattern is more dominant in their L2 writings. Moreover, the number of attitude markers is relatively the same so all three groups write about their affections, opinion and judgments in a nearly same manner.

To understand better the meaning of each subcategory as a kind of rhetorical device, the authors put Swales's (1998) words that 'hedging is an important device for establishing a good interaction with readers' (cited in Rabassi, 2009, p. 210). Even, Hyland said that hedges show writer's perspective towards his or her propositions and audience (1998, p. 79). So, hedging, we think, means being honest more than being polite though the two functions are very close (Abdi et al., 2010, p. 1675). One interesting thing in this study is that the non-native English (Iranian) academic writers used hedges more than the NP and NE writers. It means:

(c) Iranian academic writers are more cautious and modest when they write in L2 (English).

The positive influence of hedging expressions on the reader's attitude had been experimentally proven by Crismore & Vande Kopple (1997), who carried out a survey of the reader's perception of a scientific text about a controversial issue (cited in Malášková, 2011, p. 146). They showed that a hedged text is more favorable than the same text with omitted hedging expressions.

In addition to hedges and attitude markers, boosters were mainly used by the writers, too. Unlike hedges, boosters are resources that suggest the writer feels somehow confident to accept the commitment on the grounds that the evidence is convincing (Abdi et al., 2010, p. 1675). Thus, the role of hedging and boosting is well documented in academic prose as communicative strategies for conveying reliability and strategically manipulating the strength of commitment to claims to achieve interpersonal goals (Hyland, 2005c, p. 175). In this study, the quantities of hedges and boosters in NE research articles were 176 and 167, in NP articles were 110 and 97, and finally in NNE articles were equal to 167 and 284, respectively. These numbers tell us that:

(d) the mentioned balance among objective information, subjective evaluation and interpersonal negotiation does not happen in NNE articles.

What comes to our mind based on what was mentioned about hedges and boosters is that we, as academic writers, can use them not only to report truly information about the subject matter but also to respect our readers' point of view while speaking about our opinion. In a nutshell, we can say that the variability in the results of metadiscourse studies is not unpredictable and it changes based on some factors explained before.

4. CONCLUSION

So far, it is revealed that MD subcategories can be seen in all writing (indicating the universality concept of metadiscourse) while their numbers are different based on writers' culture. Other researchers with different cultures like Spanish, Finnish, Italian, etc. proved this difference as well. Also, we can see the difference between the number of interactive and interactional markers in three groups of articles.

Within all three groups of NE, NP, and NNE research articles, interactive metadiscourse markers were used more than interactional resources. In our opinion, since chances of using conjunctions, sequencers, punctuation, and evidentials are more than some types of the interactional MD, in most of the time we can see interactive resources more than interactional resources. In a long length text, for instance, we need connectors to link each sentence to the others and to make a coherent text although it is relative and by increasing in opportunities for interactive MD in long text articles, a chance of using interactional MD will expand as well. Another reason for this result is the ease of using some types of interactive markers in contrast to interactional. For instance, it is easier to use some ready-to-use phrases such as 'therefore', 'as a result', 'on the other hand', etc. to cohere a text. As a consequence, we realized that native Persian academic writers used interactive metadiscourse markers more than two other groups (about 2052). This is exactly what Crismore and Abdollahzadeh (2010, p. 207) declared that 'Iranian writers and academic writers tend to use more textual than interpersonal markers'. But unlike their conclusion that 'Anglo-American counterparts tend to use more interpersonal markers', our findings showed that native Persian academic writers used interpersonal markers in their L2 writing more than the two other groups. Collapsers, also, as a strategy of interactive category help writers to write in brief and avoid redundancy. On the other hand, the native Persian academic writers used the least number of interactional metadiscourse in their Persian articles while they used the most number of interactional metadiscourse in their L2 writings (English).

Second, using some interactive markers such as code glosses, transitions, and frame markers make the texts clear and comprehensible to the audience through minimizing the processing efforts of readers. As a conclusion, writer-responsible tradition is obvious in both NP and NNE articles on ELT and theoretical linguistics because of the significant number of code glosses and frame markers though the effect is more powerful in NP articles.

Next, the difference among the quantities of interactional markers in three groups of articles reveals the cultural difference between the two languages. The results indicate that while the native English academic writers mainly employ boosters, hedges, and engagement markers, the native Persian academic writers utilize attitude markers, self mentions, and boosters. As mentioned before, the more self mentions, attitude markers and engagement markers are, the more visible participants (writer and readers) are in a text. Thus, the Persian academic writers are more visible in their writings than the English academic writers and this is probably because of the norm of clitics in Persian language.

Also, more self mentions than evidentials indicate that writers rely more on their personal opinions than other authorities. In this study, the non-native English (Iranian) academic writers used more evidentials while all of the three groups of academic writers prefer using authorities' opinions to their personal opinions. The authors presume this process is so natural in scientific texts because they are based on empirical evidence.

Engagement and setting relationship with readers in a text is another issue which should be noticed. Indeed, self mentions and engagement markers help to develop interaction. This fact is

true about hedges because as Swales (1998) argued ‘hedging is an important device for establishing a good interaction with readers’ (cited in Rabassi, 2009). In this research we realized that Iranian academic writers used self mentions, engagement markers, and hedges in their English writing more than NE and NP academic writers to have a successful interaction with readers.

REFERENCES

- Abdi, R., Tavangar Rizi, M., & Tavakoli, M., (2010). The cooperative principle in discourse communities and genres: A framework for the use of metadiscourse. *Journal of Pragmatics* 42 (2010), 1669–1679
- Abdollahzadeh, E. (2001). Native and non-native writer’s use of textual metadiscourse in ELT papers. Unpublished master thesis, Tehran University, Tehran, Iran.
- Ädel, Annelie (2006). *Metadiscourse in L1 and L2 English*. John Benjamins Publishing Company Amsterdam.
- Connor, U. (1996). *Contrastive rhetoric: cross-cultural aspects of second-language writing*. Cambridge: Cambridge University Press.
- Crismore, A. (1984). The rhetoric of textbook: metadiscourse. *Journal of Curriculum Studies*, 16(3), 279-296.
- Crismore, A. and Abdollehzadeh, E. (2010). A Review of Recent Metadiscourse Studies: The Iranian Context. *Nordic Journal of English Studies*, 9(2), 195-219.
- 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).
- Fairclough, N. (1995). *Critical discourse analysis: the critical study of language*. London and New York: Longman.
- Hatch, E. & Farhadi, H. (1981). *Research design and statistics for applied linguistics*. Rowley, Mass: Newbury House.
- Hyland, K. (1998). *Hedging in scientific research article*. Amsterdam: John Benjamins Publishing Company. Retrieved January 20, 2013 from book.google.com
- Hyland, K. (2004). Disciplinary interactions: metadiscourse in L2 postgraduate writing. *Journal of Second Language Writing* 13 (2004) 133–151.
- Hyland, K. (2005a). *Metadiscourse Exploring Interaction in Writing*. London: Continuum
- Hyland, K. (2005c). Stance and Engagement: A Model of Interaction in Academic Discourse. *Discourse Studies* 7, 173-192.
- Hyland, K. (2010). Metadiscourse: Mapping Interactions in Academic Writing. *Nordic Journal of English Studies*, 9(2), 125-143.
- Hyland, K., & Tse, P. (2004). Metadiscourse in academic writing: A reappraisal. *Applied Linguistics*, 25(2), 156–177.
- Kaplan, R. B. & Grabe, W. (1996). A modern history of written discourse analysis. *Journal of Second Language Writing* 11 (2002), 191-223.
- Malášková, Martina (2011). Hedging in Research Articles: Humanities and Social Sciences Compared. In J. Schmied & C. Haase (eds.), *Academic Writing in Europe: Empirical Perspectives*, pp. 143-156
- Mauranen, A. (2010). Discourse Reflexivity - A Discourse Universal? The Case of ELF. *Nordic Journal of English Studies*, 9(2), 13-40.
- Markkanen, R., Steffensen, M. S., & Crismore, A. (1993). Quantitative Contrastive Study of Metadiscourse: Problems in Design and Analysis of Data. In J. Fisiak (Ed.), *Papers and Studies in Contrastive Linguistics*. Poznan: UAM.
- Rabassi, T. (2009). English-only conferences: What did a non-native speaker expert note? *English as an International Language Journal*. Volume 5, 2009, 198-216
- Richards, J. C. & Schmidt, R. (2002). *Longman dictionary of language teaching and applied linguistics* (3rd ed.). UK: Pearson Education Limited
- Silva, T. (2006). *Writing in a Second Language*. In Berns, M. & Brown, K. (Eds.) (2010), *Concise Encyclopedia: Applied Linguistics* (pp. 233-240). Elsevier Ltd, The Boulevard, Langford Lane, Kidlington, Oxford, OX5 1GB, UK.
- Swales, J. (1990). *Genre Analysis: English for Specific Purposes in Academic and Research Setting*. Cambridge: Cambridge University Press.

A Cross-cultural Analysis of Metadiscourse in ELT and Theoretical Linguistics Research Articles by Native English vs. Iranian Academic Writers

- Vande Kopple, W. J. (1985). Some Exploratory Discourse on Metadiscourse. *College Composition Communication*, Vol. 36, February 1985, 82-93.
- Vande Kopple, W. J. (2002). Metadiscourse, Discourse, and Issues in Composition and Rhetoric. In E. Barton and G. Stygall (Eds.), *Discourse Studies in Composition* (Vol. 91-113). Hampton Press Inc., Cresskill, NJ, pp. 91–144.
- Williams, Joseph, M. 1981. *Style: Ten Lessons in Clarity and Grace*. Chicago: University of Chicago Press.