A Comparative Study of Reader versus Writer Responsibility in Persian and English Research Articles

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Abstract. This study explored the effect of culture and disciplinary conventions on how Persian and English researchers organize their research articles, using two text organizing features of previews and reviews. Sixty-four research articles from Mathematics and Environmental Science (32 articles from each field), written by Persian and English speakers were analyzed. The results showed that both culture and disciplinary discourse can influence the way researchers organize their research articles. The texts analyzed highlight the prevalence of the writer-responsible rhetoric. The most significant contribution of the present study is to assist teachers to acquaint their students of academic writing courses and novice researchers with proper perspectives on how to write in accordance with the standards of the target discourse community.

Keywords: Persian and English Researchers, Reader and Writer Responsibility.

1. Introduction

For decades, Hinds' [1] typology of languages has inspired a lot of contrastive rhetorical studies. To him, solidarity is the main characteristic which differentiates a writer-responsible language from a reader-responsible one. In English rhetoric, which is believed to be writer-responsible, the writer provides the reader with the rhetorical cues and transition statements, so that the reader can perceive the logical harmony of the text [2]. Hence, it provides the reader with considerable support and equips him with clear guidance to the structure of the text using transition statements, clear explanations for puzzling propositions, and discernible organization of the text [3].Since a reader-responsible language does not include enough transition statements, as Hind found that the reader is left to ferret out the connection between each part of the text and the text as a whole. Therefore, the reader is obliged to sort and evaluate the loosely connected hints on his own, without the writer's assistance (Noor, 2001).

Numerous studies carried out in the field of academic writing, especially on research articles, reveal that cultural impacts appears to be more pronounced in written communication. In a way, contrastive rhetoric assumes that different languages have different rhetorical preferences [4]. Accordingly, Metadiscourse, as an off-shoot of contrastive rhetoric, is considered to be useful in distinguishing the cultural impacts. Since Metadiscourse is highly context-dependent and it can reflect both the standard and expectancy of the people who use it in a particular context. [5].

However, in spite of the importance of Metadiscourse in academic writing, its role is less explored in academic Persian rhetoric. Studies and investigations about the use of Metadiscourse in Persian not only lack variety but also are limited in number. Most of the studies carried out in this area have concentrated on a special category of Metadiscourse, hedges and boosters, especially in soft sciences. More precisely, this article will investigate the nature and function of previews and reviews also called endophorics in Hyland's (2005) taxonomy. Consequently, this research may illuminate some cross-linguistics and cross-disciplinary relationships between the two languages and disciplines in focus.

2. Method

2.1. Selection of Disciplines

A Preliminary study was conducted on various RAs representing several disciplines as well as interviewing some academic professionals and finally two disciplines, Mathematics and Environmental Science were selected for investigation. Therefore, the results of the present research could, with sufficient care, be generalized to these two disciplines only.

2.2. Selection of Articles

Materials in this work consisted of 64 research articles, published between 1999 and 2009, representing the two academic disciplines of Mathematics and Environmental Sciences. This study used two groups of articles in each discipline: articles published in international journals written by English native speakers, and articles published in Iran written by Persian native speakers. To accomplish this purpose, the most prestigious journals were decided upon. All main parts of the articles including abstract, introduction, method, discussion, and result sections are analyzed in this study. Table 1 displays the number of selected articles in each language and discipline.

Table 1 : Number of Articles in Each Language and Discipline

	Persian	English	Total
Mathematics Articles	16	16	32
Environment science Articles	16	16	32
Total	32	32	64

2.3. Instrument

In this research, two Metadiscourse elements of Mauranen's [6] Metadiscourse taxonomy, previews and reviews which are presented under one term endophorics markers– in Hyland's [7]Metadiscourse classification, were used as the instrument to analyze and compare the materials. Hyland's taxonomies, especially his last classification of Metadiscourse are trustworthy, since they are based on his works on disciplinary discourse, studying different aspects of Metadiscourse [8] for years. Hyland's (2005) taxonomy is basically a model of academic discourse which views it as a link between texts and disciplinary, social or professional cultures. More importantly, it emphasizes the notion of social interaction in academic genres as a text-based phenomenon (Hyland, 2000; Hyland & Tes, 2004 [9].

2.4. Levels of Metadiscourse

In order to distinguish Metadiscourse elements from propositional content, the study is extended to analyze the articles in detail by identifying the referential aspects of previews and reviews based on the distance over which it operated and the scope the text was referred to. Bunton's [10] classification, the only classification available for levels of Metadiscourse is used in this study.

2.5. Procedure

Within the time span (1999-2009), 653 published research articles were gathered from well-grounded Iranian and international journals representing the two academic disciplines in focus, Mathematics and Environmental Science. Then word count was run on the corpora to have a rough estimate of the quantity of the data. Finally, 64 articles were selected, 32 from each discipline, 16 in Persian written by native Persian speakers, and 16 in English written by English native speakers. Preliminary analysis for previews and reviews started by choosing around 20 percent of the total data, and we separately searched for these Metadiscourse markers, aiming to reduce the degree of subjectivity involved in textual interpretation made by one individual. In the next phase of the study, all articles were read one by one and instances of previews and reviews along with their distance and scope were identified. In order to eliminate any possible mistakes, misunderstandings etc, this stage was repeated at least four times. Finally, inferential statistics were employed and the results of four stages were compared carefully to arrive at the significance of the possible similarities or differences.

3. Results

3.1. Cross-linguistic Analysis

Table.2: Frequency and Percentage of Previews and Reviews in Persian and English RAs

	Persian		English	
	f	%	f	%
Previews	529	69.1	494	67.0
Reviews	237	30.9	243	33.0
Total	766	100.00	737	100.00

Assuming that no significant cross linguistic difference exists between the writing conventions of Persian & English, irrespective of the disciplines, Persian RAs from both disciplines were compared with English RAs.

In general, the figures suggested that more instances of the metatextual elements, previews and reviews were exploited in Persian corpora. In the other words, a total of 766 cases of the selected elements in Persian RAs against 737 instances in English articles were found.

However, more specifically, Persian writers tend to use previews (69.1%) slightly more than their English counterparts (67.0%). In contrast, English researchers showed more tendencies towards using reviews (33.0%) than Persian authors (30.9%). In both languages, previews were exploited more than double the number of reviews. However, the chi-square amount with 0.398 level of significance, 1 degree of freedom and critical value of 3.841 did not show a significant difference between the rhetorical conventions of Persian and English languages, considering the meta textual elements under analysis (X^2= 0.713).

3.2. Analysis of Mathematics RAs

Table 3 presents the results of the cross-linguistic analysis wherein Persian and English Mathematics RAs were compared. The results brought some facts to light about the rhetorical and linguistic conventions in this disciplines.

Table.3: Frequency and Percentage of Previews and Reviews in Mathematics RAs

	Persian Mathematics		English Mathematics	
	f	%	f	%
Previews	257	66.9	249	67.5
Reviews	127	33.1	120	32.5
Total	384	100.00	369	100.00

Descriptive analysis in Table 3 indicates that, more instances of the metatextual elements were identified in Persian Mathematics papers than in English ones. Nevertheless, when the metatextual elements are taken into account individually, a close similarity is apprehended in the frequency of their use by both groups of researchers. In other words, considering the metatextual categories selected, previews were employed more frequently than reviews in all mathematics articles in both languages. As a matter of fact, the total previews were approximately twice the number of reviews in both languages. Peterlin Pisanski [11] has reported the same results considering the Mathematics RAs in her study, wherein previews were employed twice the reviews. Nevertheless, the chi-square amount with the 0.95 level of significance, 1 degree of freedom and critical value of 3.841 did not show a significant difference between Persian and English Mathematics RAs, considering the metatextual elements under analysis (X^2= 0.026).

3.3. Analysis of Environmental Science RAs

The information displayed in Table 4 demonstrates the results of the analysis carried out on Persian and English Environmental Science RAs, observing the cross-linguistic writing styles and relationships.

Table.4: Frequency and Percentage of Previews and Reviews in Environmental Science RAs

	Persian ES		English ES	
	f	%	f	%
Previews	272	71.2	245	66.6
Reviews	110	28.8	123	33.4
Total	382	100.00	368	100.00

Persian Environmental Science RAs: Persian ES

English Environmental Science RAs: English ES

The figures in this table exhibit the same course very analogous to the results of the Mathematics RAs. Metatextual elements, relatively, appeared more frequently in Persian articles (382) than they did in English papers (368). However, when metatextual elements are considered more specifically, a higher level of previews were recognized in Persian articles (71.2%) than in their English counterparts (66.6%). On the other hand, more reviews were identified in English RAs (33.4%) than in the Persian papers (28.8%). However, of the two metatextual elements, previews occurred more often than the reviews in both Persian

and English languages. In fact, the previews employed exceeded the double number of reviews. This difference is more noticeable in Persian corpus, though. Anyhow, the chi-square amount with 0.140 level of significance, 1 degree of freedom and critical value of 3.841 did not show a significant difference between Persian and English Environmental Science RAs, regarding the metatextual elements under analysis (X^2= 2.177). Once again, the chi-square amount is less than the critical value (3.841) which reassures us to confirm the view that there is no significant cross-linguistic difference between the writing conventions of Mathematics and Environmental Science RAs.

3.4. Cross-disciplinary Analysis

Table 5 manifests the results of the cross-disciplinary analysis in which rhetorical conventions of the two disciplines are compared assuming that there is no significant cross-disciplinary difference between writing conventions of Mathematics and Environmental Science RAs.

Table.5: Frequency and Percentage of Previews and Reviews in Mathematics and Environmental Science RAs

	Mathematics		Environmental Science	
	f	%	f	%
Previews	517	68.8	506	67.2
Reviews	235	31.2	247	32.8
Total	752	100.00	753	100.00

Here, almost no disparity was observed between the two disciplines in using the selected metatextual elements under analysis. That is, there were 752 instances of the previews and reviews in Mathematics RAs and 753 instances of the same elements in Environmental Science papers. As revealed in the table, more instances of previews and fewer instances of reviews were identified in both disciplines. That is, in both disciplines the number of previews was almost twice as large as the number of reviews.

However, on the one hand, previews occurred more frequently in Mathematics RAs and on the other hand, reviews occurred more often in Environmental Science articles. Anyway, chi-square amount with 0.519 level of significance, 1 degree of freedom and critical value of 3.841 did not show a significant difference between Mathematics and Environmental Science RAs, considering the metatextual elements under analysis (X^2= 0.416).

4. Discussion

The purpose of the study was to investigate how culture and disciplinary rhetoric might have an impact on the academic world of research article writing. It is declared that although disciplinary conventions shape a framework for researchers on how to write and organize their RAs, cultural differences would influence the way authors accomplish this task (Mauranen, 1993). From one standpoint, prosperous academic writing depends on Metadiscourse, as it demonstrates to what extent researchers are watchful of both their readers and the content (Hyland, 2005). From another viewpoint, English native speakers, compared to speakers of other languages, are considered as successful writers (Hinds, 1987; Hyland, 2005; Mauranen, 1993; Peterlin Pisanski, 2005, 2007) [12]. Therefore, a lot of studies have been carried out on Metadiscourse in an attempt to scrutinize the effect of culture on academic writing (e.g., Crismore et al.,[13]; Dahl, [14]; Mauranen, 1993; Peterlin Pisanski, 2005, 2007). These studies have clarified interesting facts about cross-linguistic, disciplinary similarities and differences. The present study was aspired to make amends for the shortcomings of research on the nature of academic Persian rhetoric by focusing on text organizing metatextual categories, previews and reviews.

4.1. Cross-linguistic Differences between Persian and English

Assuming that, there is no significant difference between the writing conventions of Persian and English, RAs from both languages were compared irrespective of the disciplines. The findings did not show any significant cross-linguistic differences between the two languages (Table 2). However, more instances of previews (69.1) were identified in Persian articles than the English ones (67.0). On the other hand, more review elements were identified in English articles (33.0) than the Persian papers (30.9). The difference was not meaningful in both cases, though. In general, previews were used almost twice more than the times

reviews were employed. Consequently this result leads the study to argue cautiously that regarding the previews and the reviews, academic Persian has inclinations towards a writer responsible rhetoric. Of course, the study has not taken the initiative in reaching this conclusion, but it has followed the usual route. It is a general routine in studies on Metadiscourse to label a language as a reader responsible one if it represents low frequency of metatextual elements and attribute it to a writer responsible rhetoric when it represents high frequency of Metadiscourse units in comparison to their frequencies in English texts (e.g., Clyne[15]; Dahl, 2004; Eggington[16]; Peterlin Pisanski, 2005).

4.2. Cross-disciplinary Differences between Mathematics and Environmental Science RAs

Interestingly, although Mathematics is considered as pure science and Environmental Science is assumed to be an applied science, no significant quantitative cross-disciplinary difference was recognized. Besides, considering the examples presented earlier in this chapter, no meaningful difference in variety and style of the selected metatextual elements was detected. These resemblances were attributed to the fact that both Mathematics and Environmental Science originate from the same parent discipline. According to Becher's [17] taxonomy of "Knowledge and Culture by Disciplinary Grouping" and Hyland's "Continuum of Academic Knowledge", both Mathematics and Environmental Science could be categorized under the hard science discipline. However, endophorics are an important aspect of writing in hard science disciplines. Since new information is acknowledged by empirical evidence in hard Sciences, [18], it seems that it is difficult to analyze articles in hard science and simply read off previews, reviews and endophorics markers. However, on the whole, from the selected metatextual categories, previews were put to use more frequently than reviews. In fact, in both disciplines, the number of previews was twice as large as the number of reviews. This result is partly in agreement with the results of Peterlin Pisanski's (2005) article in which previews were recognized to be double the time of reviews in Mathematics Ras. . This disparity is more noticeable in Mathematics Ras, though. As stated earlier in this chapter, the reason could be that since Ras are not very long texts, researchers takes it for granted to foretell than to review and re-mentioning what has been said earlier seems redundant (Peterlin Pisanski, 2005).

5. Conclusion

In conclusion, the present study demonstrated that previews and reviews have an even distribution across English and Persian languages on the one hand, and in Mathematics and Environmental Science RAs, on the other hand. Persian authors tend to use almost the same amount of metatextual elements, which is very cautiously interpreted as the inclination of the academic Persian language towards writer-responsible rhetoric in using previews and reviews in the studied disciplines. Furthermore, no significant difference was recognized between Mathematics and Environmental Science RAs in using previews and reviews which was attributed to the fact that belonging to the same origin, hard science, has prompted the authors to follow similar disciplinary rhetorical style. In general, it is suggested that both first language background and disciplinary writing conventions could have affected the results.

However, regardless of the relative regularities of academic genres, first language culture may affect the way the researchers write due to the fact that Metadiscourse is employed in different writing cultures distinctly (Hyland, 2005; Mauranen, 1993). Also, it is believed, despite the fact that differences in writing would always be there and a great deal of them are rooted in culture, the first language influences could be either positive and facilitating or negative and hindering as Canagarajah [19] found. In the light of the results of the study, it is cautiously suggested that Persian language/culture could have a positive influence, at least in the domain of previews and reviews and taking the selected disciplines into consideration, which has enabled the researchers to communicate effectively within their discourse community by following the standards of disciplinary writing practiced by their English counterparts. Nevertheless, it is recommended that these results ought to be interpreted with great consideration due to the limitations of the study, limited articles and disciplines.

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