Text-Organizing Metatext in Research Articles: An English-Persian Contrastive Analysis

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Abstract

This study investigates the use of two selected metatext categories, previews and reviews, in English and Persian research articles (RAs). The distribution of previews and reviews in five major sections of the articles in both languages was also examined. Sixteen RAs from the field of economics (8 in English and 8 in Persian) were analyzed according to a set of criteria established in advance, and the quantitative results of the analysis were further examined statistically. The results showed that the number of occurrences of the selected metatext categories in English RAs is larger than that in Persian RAs. Although the two languages roughly follow the same pattern of distribution of previews, this is not the case for reviews.

Introduction

The idea that the rhetorical structures of texts in different languages might vary greatly, and that such variation should be taken into account in language teaching programs has received considerable attention since it was first proposed by Kaplan (1966). The term contrastive rhetoric was introduced by Kaplan (1966) for the first time and it was influenced by Sapir-Whorf hypothesis that proposes a close connection between language and our view of the world. It has been hypothesized that each language and culture has unique rhetorical conventions and that they negatively interfere with L2 writing (Grabe & Kaplan, 1989; Kaplan, 1966, 1972, 1988). The two principal questions raised by the Kaplan hypothesis concern whether the ascribed differences actually exist, and whether the difficulties with discourse structure experienced by second language learners are attributable to interference (or negative transfer) from the first language (Moreno, 2004).

This study deals with the first of the above two questions raised by the Kaplan hypothesis and, in particular, we want to see whether cross-cultural differences actually exist in one aspect of rhetoric, namely metatext.

The term metatext, or metadiscourse is used to refer to "the linguistic material in texts, whether spoken or written, that does not add anything to the propositional content but that is intended to help the listener or reader organize, interpret, and evaluate the information given" (Crismore, Markkanen, & Steffensen, 1993, p. 40). The present study follows studies such as Crismore et al. (1993), whose purpose was to investigate cultural (and gender) variations in the use of metadiscourse by student writers in the United States and Finland.

In previous research, the concept of metatext has not always referred to exactly the same type of phenomena. For example, Mauranen (1993) limits the notion of metatext to its text-organizing role, which roughly corresponds to Halliday's (1973) textual function. Mauranen leaves aside interactive elements, such as expressions of the author's attitudes and certainty, which would correspond more closely to Halliday's (1973) interpersonal function. Mauranen (1993) uses the term metatext rather than metadiscourse and defines it as "text about the text itself"", saying it comprises those elements in text which at least in their primary function go beyond the propositional content. In other words, Mauranen (1993) explores those metatextual elements which primarily serve the purpose of textual organization, such as connectors (as a result), reviews (so far we have assumed that. . .), previews (we show below that. . .) and action markers (the explanation is. . .). The present study follows Mauranen's (1993) categories of metatext, in this case previews and reviews, being textual in function, for the analysis of the articles.

In her study, Mauranen (1993) explored cultural differences between texts written in English by Finnish and Anglo-American writers with respect to the use of metatext in papers from economics journals. The results indicated that Anglo-American writers use more metatext than Finnish authors do. Based on these results, Mauranen argues that Anglo-American writers show more interest in guiding and orienting readers, and they make their presence felt in the text more explicitly than Finnish authors do when writing in English. This indicates that the works of Anglo-American writers reflect a more reader-oriented attitude, a more positive notion of politeness, and a generally more explicit textual rhetoric. Consistent with this interpretation, Finnish writers show a more negative kind of politeness and a greater tendency towards implicitness in their English for academic purposes (EAP) writing. She concludes that, although Finnish rhetorical strategies can be perceived as polite and persuasive in Finnish, their use may result in unintentionally inefficient rhetoric when transferred into English.

Similarly, Valero-Garces (1996) carried out a contrastive text-linguistic study of rhetorical differences on texts written by academics with different cultural backgrounds, but using the same language: English as a means of expression. The study was based on some previously published articles comparing English with other languages (Clyne, 1987; Mauranen, 1993), but in a different context in order to

determine whether the results derived from the comparison between texts written in English by native speakers and non-native speakers coincide. As a result of analyzing the data, he agreed with Mauranen that, despite a relative uniformity of academic papers imposed by requirements of the genre, there is intercultural variation in the rhetorical preferences of writers.

Dahl (2004) took a doubly contrastive approach and investigated writer manifestation in three languages, English, French and Norwegian, and three disciplines, economics, linguistics and medicine, in order to see whether language or discipline is the most important variable governing the pattern of metatext in academic discourse. His corpus consisted of 180 refereed research articles within those languages and disciplines. His findings suggested that the language variable was the most important one within economics and linguistics where, using much more metatext than French, English and Norwegian showed very similar patterns; while, within medicine, all three languages displayed a uniform pattern of little metatext. He concluded that English and Norwegian were both representatives of writer responsible cultures, while French represented a reader responsible culture. With regard to discipline, he suggested that since economics and linguistics had a less formalized research article text structure and to some extent created their findings through argumentation in the text, national culture would be more important than it was in medicine, where the Introduction–Method–Results–Discussion (IMRD) structure is globally implemented and the research data to a greater extent are given outside the text.

In 2004, Moreno developed further his own model (1998) for the comparison of the metatext employed in English and Spanish to signal premise–conclusion intersentential coherence relations. The study did so by focusing on the types and preference of the use of retrospective cohesive mechanisms employed in premise–conclusion metatext to label the premise from which the upcoming conclusion is to be drawn. Variability was sought in different aspects of the label arriving at the following conclusions: (1) With regard to the extent to which authors make explicit reference to the stretch of discourse from which the upcoming conclusion is to be drawn, Spanish academics showed a greater tendency towards the use of fuzzy labels, (2) the overall distribution of the lexical range of labels was also different, with English showing a greater tendency towards the use of non-metalinguistic labels. Retrospective labels had a greater tendency to add interpersonal meanings in English both (3) through the label itself and (4) its modification, and (5) the various ways in which modifiers in retrospective labels add ideational meaning seemed to be distributed differently.

Fakhri (2004) investigated the rhetorical properties of Arabic research article introductions using Swales' CARS model. It was shown that Arabic introductions were varied in terms of their organization, resulting in a hybrid rhetorical structure: A few of them included features proposed in the CARS model, while the majority differed substantially. It was also shown how the main features of Arabic discourse such as repetition, high-flown, and ornamented expressions interact with rhetorical aspects of introductions.

In line with the above studies, some investigations ascribed the variations in rhetorical structures not to differing languages or cultures, but to the role of the disciplinary contexts which shaped the rhetorical and textual features of research texts in different languages. In fact, they were more concerned with Kaplan's second question; whether the difficulties with discourse structure experienced by second language learners are attributable to interference (or negative transfer) from the first language.

For example, Petrice (2005) explored the role of contrastive rhetoric (CR) in writing pedagogy in the context of a monolingual class, in this case a group of students from the Russian Federation studying at an English medium university in Central Europe. The study compared students' argumentative essays written before and after a short writing course to address cultural differences in writing in a non-prescriptive, exploratory, manner. The comparison focused on a culturally based textual element: the thesis statement. The analysis revealed that the essays written after the course displayed higher occurrence of thesis statements, more uniformity in the position of the thesis statements and less variation in the thesis statement sentence structure and lexical choices. The paper concluded that the findings from CR studies could therefore be seen as pointers to general tendencies, whose relevance needed to be assessed in the context of a concrete teaching situation. The study emphasized that the small culture of the writing classroom, with its specific characteristics, should be the basis for decisions about the implications of CR findings for a particular group of students.

Similarly, Yakhontova (2006) demonstrated the role of disciplinary context in shaping the common rhetorical and textual features of research texts in different languages and, more broadly, problematized the validity of straightforward sociocultural explanations of rhetorical differences frequently used in the literature. The research was based on the contrastive genre analysis of English and Slavic (Ukrainian and Russian) conference abstracts in the field of applied mathematics. The features compared included rhetorical moves revealed and identified by reference to Swales' CARS model, their textual distribution, the paragraph organization of the texts, the syntactic structure of titles, and the use of personal pronouns I/we. The findings of the investigation compared with previously obtained results in the domain of applied linguistics showed essential interdisciplinary variation between the two sets of data. These somewhat questioned interpretations of rhetorical differences were entirely based on the role of external determinants and highlighted the importance of established traditions in various academic disciplines and cultures.

Although most of the studies in contrastive rhetoric confirmed Kaplan's hypothesis that each language and culture has unique rhetorical conventions, some studies have yielded different results. Ouauicha (1986) investigated the structure of argumentative texts written by Americans and Moroccans in both Arabic and English. The investigation focused on the transfer of argument structure from the native language to the target language as well as the backwash effect of the target language on the mother tongue. One hundred argumentative compositions written by American and

Moroccan students from freshmen to graduates in both Arabic and English by each language group were analyzed. The findings indicated that (a) there was no significant correlation between language and argument structure in that the same structures were observed in both languages as used by their native speakers; (b) the thesis/substantiation structure with an implicit or explicit warrant was present in both language groups; (c) The linear/non-linear modes of reasoning did not distinguish between the groups because instances of both were found in both groups, and (d) differences were noticed in audience awareness and emotional appeals for persuasion. The American subjects showed the latter two aspects significantly more often than did the Moroccans. The study concluded that those features were more a result of training than of linguistic determination.

Similarly, Moreno (1997) carried out a study assuming that, despite a relative uniformity of research articles (RAs) imposed by the requirements of the genre, there would be significant intercultural variation in the rhetorical preferences of national cultures. Its aim was to find evidence for or against this assumption. To do so, it focused on one micro-level feature of text rhetoric, the use of causal metatext (or text about text) in orienting readers in the interpretation of cause-effect intersentential relations (CEISRs). An empirical contrastive analysis of 36 RAs in English and 36 RAs in Spanish on business and economics written by native speakers of each language was carried out. In fact, the results showed that both language groups seemed to make CEISRs explicit with similar frequency. In addition, they used similar strategies for expressing CEISRs, as reflected in the amount of emphasis given to the causal relation, the basic mechanism of coherence used and the choice of peripheral or integrated signals. Moreover, those strategies appeared similarly distributed. The only differences across the two languages were shown in their tendencies towards verbal or nominal anaphoric and anaphoric-*cum*-cataphoric signals. Thus, overall, the results tended to suggest that it was the writing conventions of the RA genre, and not the peculiarities of Spanish and English writing cultures, that govern the rhetorical strategies preferred by writers to make the CEISR explicit and the frequency with which these are made explicit.

Unlike Many studies of contrastive rhetoric which had confirmed that Japanese writers prefer an inductive style negatively transferred to ESL writing, Kubota's (1998) study found similarities in rhetorical patterns used by good Japanese and English L1 writers. This study investigated whether individual Japanese students use the same discourse pattern in L1 and ESL writing and how each individual's use of similar/dissimilar patterns affects the quality of ESL essays. University students in Japan wrote one essay in Japanese and another in English. A total of 22 students wrote on an expository topic, and 24 students wrote on a persuasive topic. Each participant was interviewed later about their writing and views on rhetorical styles. Both Japanese and ESL essays were evaluated in terms of organization and ESL essays were also rated in terms of language use. The location of the main idea and the macro-level rhetorical pattern were coded for each essay. Results showed that about half of the writers used similar patterns in L1 and L2. Results also revealed a positive

correlation between Japanese and ESL organization scores, but no negative transfer of culturally unique rhetorical patterns was observed.

In addition to the above-mentioned studies confirming or rejecting Kaplan's hypothesis, a third group of studies have looked deep into the hypothesis itself and challenged the underlying concepts of Kaplan's hypothesis.

Atkinson's (2004) influential paper deals with an underdeveloped notion in the EAP sub-discipline of contrastive rhetoric: culture. It argues that a better conceptualization of contrastive rhetoric needs to include a better conceptualization of culture. After engaging with the complex question ''What is culture?'' the paper moves on considering four sets of current issues regarding the concept of culture: (1) received culture versus postmodern culture versus cultural studies culture, (2) culture as product versus culture as process, (3) culture in the head versus culture in the world, and (4) big culture versus small culture. The paper calls for greater attention to the concept of culture in contrastive rhetoric studies. It states that the view of culture most widely assumed in accounting for textual forms and practices is overwhelmingly a received one. As a result, real problems arise: (a) cultures have been unproblematically conflated with national entities; (b) internal consistency and consensuality within cultures have been assumed, together with differences between or across them, and (c) CR practitioners have neglected the place of unequal power relations and the role of conflict in describing cultural influences and processes.

Liebman (1992) tried to update contrastive rhetoric to accommodate the new process rhetoric. He believed that an expanded contrastive rhetoric focuses not only on finished written products, but also on the contexts in which writing occurs and on the processes involved in its production. He expressed two limitations which existed in the early theory and research of contrastive rhetoric. First, contrastive rhetoricians had a narrow view of rhetoric, considering only the organization of finished texts. Second, they had a narrow view of Western rhetoric. After discussing these limitations and pointing out the need for a richer view of the contrasts between the rhetoric of different cultures, this article reports on a survey of Japanese and Arabic ESL students to investigate how writing is taught in different cultures. The survey reveals that rhetorical instruction does differ in these two cultures: In Japan, instruction emphasizes the expressive function of writing, whereas in Arab countries, it emphasizes the transactional function.

Despite different studies contrasting the rhetorical structure of English and other languages, few studies, if any, have conducted contrastive analyses on the rhetorical structures of English and Persian. Basically, except for a few studies (e.g., Yarmohammadi, 2004a, 2004b), there is little known about the rhetorical structures and writing conventions of the Persian language in the first place. As a result, studies into intercultural variations in the rhetorical preferences of Persian and English are rare. Hence, this paper can be considered as an attempt to fill in a very small part of this large gap in the contrastive studies of English and Persian.

Like Mauranen (1993), the present study assumes that, despite the relative uniformity of research articles (RAs) imposed by the requirements of the genre, there may be intercultural variation in the rhetorical preferences of the Persian and English writing cultures regarding the use of metatext in English and Persian research articles. The present study differs from Mauranen's in that it explores how academics from both cultures write in their L1s.

In his influential paper on a new language typology based on reader versus writer responsibility, Hinds (1987) suggested that languages differ in attributing responsibility for effective communication to either the writer (speaker) or the reader (listener), distinguishing between reader-responsible and writer-responsible languages.

So far, no research data on reader versus writer responsibility in Persian is available. In fact, the use of metatext in Persian has not yet been systematically analyzed. On the other hand, as the literature in the previous section revealed, the results of most studies show that metatext is often used more frequently and more systematically in English-language texts written by native speakers of English than in texts in other languages.

The first aim of the present paper is to analyze the use of metatext in English and Persian economics research articles, focusing on the categories used for 'prospective and retrospective discourse labeling' (Mauranen, 1993, pp. 156–157), sometimes referred to as 'previews and reviews' (e.g., Crismore & Farnsworth, 1990; Mauranen, 1993) or endophoric markers (Hyland, 2000) in order to provide some insights into the question of reader versus writer responsibility in Persian language/culture. The analysis is based on the assumption that, because of their text-organizing function, the selected metatext categories are typically used more frequently in a writer-responsible language/culture, since they contribute to the explicitness of text organization and subsequently to the clarity and coherence of a text. As its collateral aim, this study investigates the distribution of previews and reviews in five major sections of the articles in both languages.

More specifically, this study tries to answer the following questions:

1. Is there any difference in the use of metatext categories, previews and reviews, in English and Persian economics research articles?
2. Is there any difference in the distribution of metatext categories, previews and reviews, in five major sections—abstract, introduction, method, results and discussion, and conclusion—of English and Persian economics research articles?

Method

Corpus

The corpus used in this contrastive analysis is composed of 16 research articles (RAs) listed in Appendix A. The criteria for selecting the articles are as follows:
- *Discipline*. The field of economics was chosen since we were relatively familiar with them. For each language, 8 articles were selected.
- *Year of publication*. All the English articles were published in 2006 and all the Persian articles in 2006-2007.
- *Journal*. All the English articles are from *Journal of Applied Econometrics*, and all the Persian articles from *Pajuheshnameh-e Eqtesadi (Economic Research Review)*.
- *Length*. The articles vary in length ranging from 2,243 to 9,968 words.

Procedure

Mauranen's (1993) categories of metatext, being textual in function, were taken as a starting point for the analysis of the articles in the corpus. According to Mauranen (1993), previews are used to look forward, anticipating, summarizing or referring to a later stage of the text, whereas reviews look back, repeating, summarizing or referring to an earlier stage of the text.
The following sentences are instances of English and Persian previews and reviews from the corpus. (The articles used in the analysis are listed in the Appendix section)

English examples of preview:

1. In Sections 2, the econometric model will be introduced and parameter estimation and testing, including diagnostic checks, are discussed (Lanne, 2006).
2. This paper proposes a new method for constructing confidence bands for multivariate IRFs in the presence of highly persistent variables (Pesavento & Rossi, 2006).
3. In this section we introduce the multivariate mixture autoregressive model (Lanne, 2006).
4. The GARCH-in-mean process is given by the following equations (Bali & Peng, 2006).

Persian examples of preview:

5. *Dar in tahqiq yek model-e eqtesad-e kalan moarrafi mishavad* [In this research a macro economic model is introduced] (Rostami 1386).
6. *Dar ghesmate baadi model-e shomare-ye (1) va model-e shomare-ye do moarrefi mishavand* [In the next section, model number (1) and model number (2) will be introduced] (Hosseini, 1386).
7. *Olguye moarrefi shode baray-e gheymat neez be surate zir ast* [The introduced pattern for price is also as follows] (Kazerooni & Rostami, 1386).

8. *Dar in bakhsh adabiyyate mowzu dar do ghesmat mowrede barrasi gharar migirad* [In this section the literature review on the topic will be investigated in two parts] (Rahnamai Roodposhti, 1386).

English examples of review:

9. As discussed in section 2.2, using critical values from the X distribution is not valid (Lanne, 2006).
10. It also avoids the problems associated with the use of disagreement on news as mentioned above (Lahiri & Liu, 2006).
11. Next, we tested for random coefficients as assumed in model (Lahiri & Liu, 2006).
12. As stated before, property C proves to be essential (Donald, Paarsch, & Robert, 2006).

Persian examples of review:

13. *Hamantowr ke pishtar onvan shod nerkh-e sud-e sepordeha dar inja naqsh taghir-e meqyas-e hazine-e estefade ra ifa mikonad* [As was previously mentioned, the rate of the benefits of the money saved plays the role of changing scale of the use expense] (Davoodi, 1386).
14. *Tamamiye mavarede fowgh mitavanad zamine saz-e motaleat-e ati gardad* [All the above points can provide the opportunity for future studies] (Davoodi, 1386).
15. *Natayej-e bedast amade neshan dad ke m1 va m2 janeshin-e yekdigar hastand* [The results showed that m1 and m2 replace each other] (Davoodi, 1386).
16. *Nemudarhay-e bala niz dastan-e moshabehi ra dar zehn tadaiee mikonand* [The above figures also associate the same story in mind] (Davoodi, 1386).

The present contrastive analysis is based on a functional approach, which, according to Mauranen (1993, p. 47), is "particularly suitable for text-linguistic comparisons because it allows linguistic expressions to be grouped according to their textual function even if the groupings do not form consistent classes in terms of grammatical form or by a semantic criterion." The analysis is based on comparing elements with the same function in both languages.

Since the basic hypothesis of the study is a quantitative one, the analysis is focused on a quantitative comparison, although the qualitative aspect is very much emphasized in all parts of the analysis, with a set of qualitative criteria used for examining the rhetorical patterns studied.

The material is analyzed in three stages. In the first stage, all the complete texts are read and analyzed; the purpose of the first stage is to identify instances of previews and reviews within the texts. The second stage involves examining the referential characteristics of the elements identified as previews and reviews according to the criteria described below and the processing of quantitative data for the individual

texts. The third stage of analysis includes a parallel comparison of the quantitative results.

To improve the objectivity of the analysis, a set of criteria according to which the possible instances of previews and reviews in the text were classified was established. The first criterion was the distance of metatextual reference. Bunton (1999) discusses the levels of metatext along with four levels of distance of metatextual reference. In the present analysis, all the four levels, that is, immediate, local, section and chapter, were included. The second criterion was the scope of metatextual reference. Bunton (1999) distinguishes five levels of scope of metatextual reference: sentence, paragraph, section, chapter, and thesis for a reference to the thesis as a whole. In the present analysis, instances of all five levels are included. The third criterion was the level of explicitness. Mauranen (1993) distinguishes between two levels of explicitness: high and low. In the present analysis, both levels were considered. Also, only previews and reviews occurring within the main part of the texts (not footnotes, endnotes, captions, etc.) were considered in the analysis.

Results

With regard to the first question of the study, whether there is any difference in the use of metatext categories, previews and reviews, in English and Persian economics research articles, Table 1 shows the total number of previews and reviews for each part of the corpus. The absolute numbers show that there are far more previews and reviews in the English RAs than in the Persian RAs. On the whole, previews are used more than reviews.

Table 1. Number of Previews and Reviews in the Corpora

	Preview	Review	Preview + Review
English	419	356	775
Persian	220	124	344
Total	639	480	

Table 1 gives us insights into the order of magnitude of the collected raw data. However, since the length of the RAs is varied, the numbers of previews and reviews occurring in the individual RAs are further analyzed.

The figures given in Table 2 are the relative frequencies expressed as the percentage that the number of occurrences represents in relation to the number of words in each corpus. The number of words in each corpus was calculated using the word count tool.

Table 2. Relative Frequency of Previews and Reviews as Percentage

	Number of words	Preview	Review	Preview + Review
English	57,770	0.72	0.61	1.34
Persian	33,322	0.66	0.37	1.00

The results in Table 2 show very similar trends to the results in Table 1. The selected metatext categories occur more frequently in the English economics RAs (1.34 percent of the total number of English words) than in Persian economics RAs (1.00 percent of the total number of Persian words). Of the two metatext categories, previews occur more frequently than reviews in each language.

Table 3 shows the distribution with respect to the second research question, whether there is any difference in the distribution of metatext categories, previews and reviews, in five major sections, that is, abstract, introduction, method, results and discussion, and conclusion of English and Persian economics research articles. The numbers are the relative frequencies expressed as the percentage that the number of occurrences in each section represents in relation to the total number of previews and reviews in each corpus.

Table 3. Relative Frequency in Relation to the Total Number of Reviews and Previews

		Abstract	Introduction	Method	Results & Discussion	Conclusion
English	*Previews*	6.6	27.4	28.1	37.2	0.4
	Reviews	0.2	2.5	33.7	47.1	16.2
Persian	*Previews*	13.1	32.7	29.5	19	5.4
	Reviews	1.6	8.0	29.8	41.1	19.3

As Table 3 shows, the relative frequency of both previews and reviews in the English RAs is the most in the 'results and discussion' section. The relative frequency of previews in the English RAs is the least in the 'conclusion' section and the relative frequency of reviews in the English RAs is the least in the 'abstract' section. On the other hand, unlike English RAs, the relative frequency of previews in the Persian RAs is the most in the 'introduction' section; while, like English RAs, the relative frequency of reviews in Persian RAs is the most in the 'results and discussion' section. Like English RAs, the relative frequency of previews in the Persian RAs is the least in the 'conclusion' section and the relative frequency of reviews in Persian RAs is the least in the abstract section.

However, since the lengths of the sections in RAs vary, chances of the occurrences of reviews and previews are higher in longer sections of the RAs, like 'results and discussion.' Hence, it was decided to calculate the relative frequencies expressed as the percentage that the number of occurrences represents in relation to the number of words in each section of each corpus. Results are shown in Table 4.

Table 4. Relative Frequency in Relation to the Number of Words in Each Section

		Abstract	Introduction	Method	Results & Discussion	Conclusion
English	*Preview*	2.65	1.68	0.54	0.65	0.04
	Review	0.09	0.13	0.55	0.70	1.42
Persian	*Preview*	2.02	0.46	0.90	0.70	0.32
	Review	0.13	0.06	0.51	0.85	0.65

According to Table 4, and unlike Table 3, the density of previews is the highest in the 'abstract' section of both English and Persian RAs (2.65 and 2.02 respectively), that is, in proportion to their lengths, abstracts include the highest number of previews. On the other hand, previews have the least density in the 'conclusion' section of both English and Persian RAs (0.04 and 0.32 respectively).

With regard to reviews, the patterns are not the same in the two languages. In English RAs, reviews have the highest density (1.42) in the 'conclusion' section; while, in Persian RAs, like what we had in Table 3, this density is the highest (0.85) in the 'results and discussion' section. The least density of reviews in English RAs is observed in the 'abstract' section (0.09); while, in Persian RAs, the least density of reviews can be found in the 'introduction' section (0.06).

In English RAs, as we move from 'abstract' to 'conclusion', the relative frequency of previews decrease and that of reviews increase. However, this is not the case in Persian RAs.

Discussions and Conclusions

The findings revealed that the relative frequency of previews and reviews was higher in English RAs than that in Persian RAs. This ratio is in accordance with the hypothesis that the use of metatext is more frequent in English, which may be due to favoring writer responsibility in the British and American style of writing. According to Hinds (1987), "English has been called a writer-responsible language, meaning that the writer makes explicit the connections between propositions and ideas in the text so that readers do not need to infer these connections on their own" (p. 145). Hence, compared to the English language, Persian could be considered a less 'writer responsible' language.

In both languages the number of previews is larger than the number of reviews. As Peterlin (2005) states:

> This opens the question why the authors consider advance labeling more useful for the intelligibility and clarity of a text. They may feel their readers will retain much of what they have read (the texts are fairly short) and find explicit reference to what has been said redundant. Advance labelling seems less redundant, since readers cannot predict on their own what is to follow (p. 315).

With regard to the distribution of reviews and previews in different parts of the RAs, the results were contradictory. The relative frequency of reviews and previews in relation to the total number of these metatext categories in each corpus (English and Persian RAs) revealed that in English RAs the highest frequency was found in the 'results and discussion' section. This can be easily accounted for by considering the fact that this section was the largest section in nearly all the English RAs examined in this study. As a result, the chances for reviews and previews to occur in this section were the highest. However, this was not the case in Persian RAs. In these articles, previews had the highest frequency in the 'introduction' section and reviews occurred most frequently in the 'results and discussion' section. The largest part of the articles is devoted to the 'introduction' section in nearly all the Persian RAs, and since 'introduction' is the first section of the articles after 'abstract', that is, the beginning section, the chances that previews occur most frequently in this section are the highest. Reviews occur more frequently towards the end of the RAs and since here in Persian RAs the 'results and discussion' section is usually longer than the 'conclusion' section, the chances for reviews to occur most frequently in the 'results and discussion' section are the highest.

However, the relative frequency of reviews and previews in relation to the number of words in each section showed a different result. Both in English and Persian RAs, abstracts included the highest percentage (2.65 and 2.02 respectively) of previews in proportion to their lengths. This can be explained by the fact that in abstracts we refer to almost all sections in the article and; moreover, regarding the shortness of this section, abstracts become the location of previews with the highest density.

However, the two languages did not share the same pattern with respect to the density of reviews. In English RAs, reviews had the highest density (1.42) in the 'conclusion' section; while, in Persian RAs, this density (0.85) was the highest in the 'results and discussion' section. The English pattern can be easily explained by the fact that in 'conclusion' we review the whole sections of the article and, since it is a rather short section, the density of reviews become the highest in this part. However, the pattern of reviews in Persian RAs is a little bit difficult to explain. The highest density of reviews in the 'results and discussion' section in the Persian RAs might be due to the act of referring to the charts, figures and tables which can be found mostly in this section. Another explanation can be the limited sample of texts analyzed for this study. In fact, it must be emphasized that the results of the study presented here may

not be representative of Persian or English academic writing in general. Mauranen (1993) explains the nature of text linguistic analyses, claiming that:

> [I]nvestigating text-linguistic variables involves an intensive analysis of texts where the co-text is taken into account and the roles of the phenomena studied are interpreted in relation to the developing text. Entire texts must be taken into account in order to capture writers' rhetorical strategies, and this limits the number of texts that can be included in the analysis. The number of occurrences for any item therefore remains small, and cannot be expected to achieve statistical significance even if quantified (p. 49).

In fact, although most of the results we came up with in this study seem to be reasonable and confirm previous studies, they should still be treated with caution. To generalize the results, much more research with larger samples of texts needs to be carried out in this respect. In addition, future studies should investigate the distribution of the metatext categories of review and preview in RAs in more than one field of study, and in this way provide a more representative sample of both English and Persian RAs.

Despite the limitations mentioned above, the findings of the present study can serve as a starting point for further contrastive analyses of the use of metatext in Persian and English RAs. Furthermore, the results of the analysis can be useful from a practical point of view, especially in EAP teaching for Persian students and in academic writing itself. Publishing RAs in international journals in English is obviously very important to Iranian researchers; however, many of them may not be aware of possible differences in rhetorical conventions between English and Persian, and may consequently use Persian writing conventions in their English RAs. This is exactly what Mauranen (1993) pointed out:

> [B]y breaking grammatical and lexical rules, a writer conveys the impression of not knowing the language, which may in mild cases be forgiven and in serious cases cause basic breakdown of comprehension; by breaking rules of a text-linguistic type, a writer may appear incoherent or illogical; finally, by breaking culture-specific rhetorical rules a writer may seem exotic and command low credibility (p. 263).

The foremost area of application of the results of studies like the present on genre analysis is English for Specific Purposes (ESP) and such studies can contribute to the developments of ESP. In the domain of writing, the results of the present study can demonstrate the language discrepancy and how writings may evolve to answer the social needs. In writing courses, EFL teachers can benefit from the results of the study in the way that the learners are made aware of language discrepancy in regard to rhetorical structures. Additionally, the results of the study can help second and foreign language learners not only to read more effectively and get more out of the text but also provide them with a framework to write like a native speaker of that language. (Baram-Tsabari & Yarden, 2005; Beck, 2004; Cheng, 2006, 2007 & 2008;

Freedman, 1993; Hyland, 2002; Ramanathan & Kaplan, 2000; Swales, 1985, 1990; Zhu, 2004). One needs to be familiar with the conventions used by native speakers before being able to exploit them for special effects. The results are particularly helpful for the reader accessibility, usability, simplification and facilitation.

Analysis of discourse and other features of any given genre in the field can provide course designers with a manageable and meaningful framework within which to construct courses that can offer the learner tools with which to engage in any of the structurable aspects of the professional life. The complexities of a genre and the evolutionary changes which can occur need to be taken into consideration when teaching genre conventions to apprentices with different language backgrounds and when applying generalized models in research, especially if the models are taken from the literature.

All in all, this study could be considered as a launching pad for future research in contrastive rhetoric of English and Persian which has been abandoned and forgotten especially by Iranian researchers in TEFL and linguistics, who are most responsible for the development of the future trends in this field.

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Appendix

Corpora

<u>*English Research Articles*</u>

1. Bali, T. G. & Peng, L. (2006). Is there a risk-return tradeoff? Evidence from high-frequency data. *Journal of Applied Econometrics*, *21(8),* 1169-1198.
2. Co, C. Y., Landon-Lane, J. S. & Yun, M. S. (2006). Inter-state dynamics of invention activities, 1930-2000. *Journal of Applied Econometrics*, *21(8),* 1111-1134.
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7. Lanne, M. (2006). Nonlinear dynamics of interest rate and inflation. *Journal of Applied Econometrics*, *21(8),* 1157-1168.
8. Pesavento, E. & Rossi, B. (2006). Small sample confidence intervals for multivariate impulse response functions at long horizons. *Journal of Applied Econometrics*, *21(8),* 1135-1155.
<u>*Persian Research Articles*</u>
1. Kazeruni, S. A, & Rostami,N.(2007). Asarat-e namotagharen-e navasanat-e nerkh-e arz bar towlid-e vagheiee va gheimat dar iran. [The asymmetrical effects of exchange fluctuations on actual production and price in Iran]. *Pajuheshnameh-e Eqtesadi, 25(2),* 177-193.
2. Hosseini, S. S., & Suri, A. R. (2007). Bar avord-e karaiee-ye bankhay-e iran va avamel-e moasser bar an [Estimating the efficiency of the banks in Iran and the factors affecting it]. *Pajuheshnameh-e Eqtesadi, 25(2),* 127-153.
3. Jafari Samimi,A., Elmi, Z., & Sadeghzadeh Yazdi, A. (2007). Barrasi-ye rabeteh-e towzi-e daramad va taghazay-e pul dar iran [The study of the relationship between income distribution and money demand in Iran]. *Pajuheshnameh-e Eqtesadi, 25(2),* 75-96.
4. Ghurchian, N. G., & Karbasian, M. (2007). Barrasi-e nezam-e modiryyat-e sazeman-e gomrekhay-e jahan dar gharn-e bisto yekom be manzur-e eraay-e olguy-e monaseb dar keshvar [The study of world customs management in 21st century with the purpose of presenting a suitable model in Iran]. *Pajuheshnameh-e Eqtesadi, 25(2),* 47-71.
5. Rahnemaarudposhti, F. (2007). Barrasi va arzyabi-ye karkard-e arzesh-e afzudeh-e eghtesadi va arzesh-e afzudeh-e bazar jahat-e arzyabi-ye amalkard-e eghtesadi-e

sherkatha [The evaluative study of economic added value efficiency and market added value for the evaluation of the economic performance of the companies]. *Pajuheshnameh-e Eqtesadi, 25(2),* 157-173.

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