

Study of Metadiscourse in ESP Articles: A Comparison of English Articles written by Iranian and English Native Speakers

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Abstract. This study aims to examine the use of interactive and interactional metadiscursive features in ESP articles written by Iranian and English native speakers. The analysis is based on a corpus of 15 research articles from Persian-written and 15 from English-written in ESP field. The selected corpus was analyzed through the model suggested by Hyland (2005). Results of the study showed that both groups used interactive and interactional features in their articles. In both groups, writers used an interactive metadiscourse more than an interactional one. Moreover, there were significant differences on the particular occurrence of some categories in interactive and interactional features.

Keywords: Metadiscourse; ESP articles; Iranian writers; English writers

Introduction

Hegemony of English language in the academic world of knowledge has attracted researchers to publish their valuable findings in English international databases (Flowerdew, 1999). Due to this tendency, there has been a great appeal of mastering the article writing genre to convey their findings as clear as possible.

Students of English as a Foreign Language (EFL) find writing not only a significant but also more demanding task to master than oral skills (Marandi, 2002). Therefore, conscious awareness of the rules and conventions helps the researchers to communicate as effective as possible in academic discourse. Consequently, various aspects of article writing were taken into consideration. From organizational pattern aspect the idea of contrastive rhetoric was suggested (Kaplan, 1966). From lexico-grammatical and cross-linguistic/cultural perspective aspect features like tense choice, transitivity structures (Martinez, 2001) and citation practices (Hyland, 1999) accompanied by the use of metadiscursive elements were investigated.

Metadiscourse awareness helps the writer to imagine himself as a reader or a "self-reflective linguistic material referring to the evolving text and to the writer and imagined reader of that text" (Hyland & Tse, 2004; p. 156). In other words metadiscourse is "writing about the evolving text rather than referring to the

subject matter" (Swales, 1990; p.188). The writer is thus motivated to explicitly organize his discourse, engage the reader and signals his attitude properly (Hyland, 1998).

Consequently, there is a need for ESL/EFL writers to learn organizing their text properly and guide their readers through it to avoid any probable misunderstanding. Therefore, the present study was motivated to uncover metadiscourse patterns EFL articles written by Iranians both in English those written by native speakers of English. In fact, this study hopes to heighten Iranians' awareness of English underlying organizational patterns.

Review of Related Literature

Since the introduction of metadiscourse features, linguists has taken a deep look into existing social communication between writer and readers of a text rather than exclusive use of language for conveying meaning. The work of Zellig Harris was a starting point in this realm and the concept of metadiscourse was later developed by Hyland (cited in Vande Kopple, 2002). Consequently, various metadiscourse taxonomies including Crismore et al. (1993), Hyland's taxonomy (1998, 1999), Vande Kopple's revised taxonomy (2002), and Hyland's revised taxonomy (2004) have been designated to scrutinize different texts.

It is also worth mentioning that study of metadiscourse has not been exclusively limited to any special field. In fact, it has been investigated in the various fields of study and in different languages. Moreover, a large number of studies (Abdollahzadeh 2003; Crismore et al. 1993; Mauranen 1993) has shown that the rhetorical use of metadiscourse in writing may be cultural based which means metadiscourse usually vary from one language and culture to another ones. Therefore, researchers have been likely to compare the use of metadiscourse in two or more languages in different genres and conduct comparative studies. In this regard, some cross-linguistic studies which compare the use of metadiscourse in English and Persian are reviewed briefly here.

The early work of Marandi (2000) addressed the introduction and discussion sections of 30 master's theses written after 1990 by Persian-speaking and English-speaking graduate students. Analysis of the first 1000 words in each section showed that textual metadiscourse subtypes were used significantly more in the introductions but that interpersonal metadiscourse subtypes were used more in the discussion sections. In addition, the findings revealed that, of all groups, the native speakers of Persian used text/logical connectors the most while the native speakers of English used them the least.

Later in 2003, Abdollahzadeh focused on use of interpersonal metadiscourse. He studied discussion and conclusion sections of 65 articles (32 articles by native speakers of English and 33 by Iranian academics writing in English) published during the years 2000-2002 in the field of English Language Teaching (ELT). The findings suggested a statistically significant difference between native and non-native writers in their use of interpersonal metadiscourse. The Anglo-American writers used more certainty and attitude markers than the Iranian academics.

Rahimpour (2006) investigated metadiscourse use in the discussion sections of 90 (British and US) English and Persian applied linguistics research articles. The study was conducted on three groups of 30: those articles written in English by Iranians as non-native speakers of English; those in Persian written by Iranians; and those written by native speakers of English. Application of Hyland's (2004) model suggested that writers of all three groups of applied linguistic discussion sections used all sub-types of metadiscourse. Transitions and hedges were the most frequently used subtypes. Native speakers of English used significantly more textual metadiscourse than the two groups of Iranian writers did. Furthermore, textual metadiscourse was used significantly more than interpersonal metadiscourse by all groups.

In another study, 90 discussion sections of applied linguistics research articles were examined by Faghih and Rahimpour (2009). Adaptation of Hyland's (2004) model on three types of texts: English texts written by native speakers of English, English texts written by Iranians (as non-natives of English), and Persian texts written by Iranians showed that native speakers of English employed more interactional metadiscourse than Iranians did. Frame markers and code glosses were used more by Iranians (as both native speakers of Persian and non-native speakers of English) than native speakers of English. Comparing both groups of Iranians, they found that evidentials, code glosses, attitude markers, engagement markers, and self-mentions were used more when Iranians wrote in Persian. On the other hand, transitions, frame markers, endophoric markers, hedges, and boosters were used more when they wrote in English.

A more recent work of Firoozian Pooresfahani, Khajavy and Vahidnia (2012) on interactive and interactional metadiscoursal features of English articles in applied linguistics and engineering in the light of Hyland's (2005) model showed that writers in both groups used interactive and interactional features in their research articles. Engineering writers used more code glosses and endophoric markers, and less sequencers and topicalisers than applied linguistics writers. There was a significant difference between the two groups in use of logical markers and evidential. Regarding interactional engineering writers used more hedges and self-mentions, and less attitude markers and boosters than applied linguistics writers.

In addition to these studies there are still a number of studies which focused on stance and engagement markers (Taki & Jafarpour, 2012), hedges and boosters (Jalilifar, 2011), and directives (Jalilifar & Mehrabi, 2014).

Due to the importance of a relatively new concept of metadiscourse, studies of metadiscourse have not received the attention they deserve (Crismore & Abdollahzadeh, 2010). Although a number of studies have examined metadiscourse in applied linguistic articles (As mentioned above) and social, political sciences and ELT books (for a review of such articles see Crismore & Abdollahzadeh, 2010), there is also a notable absence of specific studies on English for Specific Purpose (ESP) articles. Therefore, this study attempts to

investigate the use of interactive and interactional metadiscourse features in English ESP articles written by Persian speakers and those written by native speakers of English.

Method

Corpus

This study entails the total number of 30 articles which were published from 2000 to 2011 in the field of ESP. The reason that articles were chosen in this field was familiarity of the current author with the field and avoidance of probable misunderstandings. The articles were selected by means of random sampling which helped the researcher overcome the problem of idiosyncrasy of writers' styles. The articles were selected from famous and recently published journal issues. The researcher did her best to select the articles as diverse an array of subjects as possible to be able to increase the external validity of the results. Later, the articles constituted 2 groups of 15 which were labeled as:

- A) English articles: These articles were written by native speakers of English.
- B) Inter-language articles: It encompassed English articles written by native speakers of Persian.

Procedure

Data collection took approximately two months to complete. The sample was formed by the random selection of 30 articles in the field of English for specific purposes. To provide a valid comparison, discussion sections of articles were analyzed. It is believed that the discussion is a section in which interactional metadiscourse markers (e.g., directives) are most likely to appear (Siami & Abdi, 2012). Another reason for the selection of discussion sections was the length of the articles and the fact that the introduction sections being much shorter than the discussions which may not provide enough data.

As Crismore *et al.* (1993) mentioned line density is an appropriate measure used in the study of metadiscourse studies and pointed that the 1000-word approach is the usual method. They further pointed out that the 1000 words could be taken from the beginning, the end or the middle of the discussion section. Therefore, only the discussion sections of the articles were investigated for the types and amounts of metadiscourse.

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 a intra-rating procedure, $r_{xy} = 0.84$).

For the purpose of this study, a recent metadiscourse classification formulated by Hyland and Tse (2004) and Hyland (2005) was taken as the model (Table 1).

Table 1: An interpersonal model of metadiscourse (Hyland and Tse, 2004: 169; Hyland, 2005: 49)

Category	Function	Example
Interactive	Help to guide the reader through the text	Resources
Transitions	express relations between main clauses	in addition; but; thus; and
Frame markers	discourse acts, sequences or stages	finally; to conclude; my purpose is
Endophoric markers	information in other parts of the text	noted above; see figure; in section 2
Evidentials	information from other texts	according to X; Z states
Code glosses	propositional meaning	namely; e.g.; such as; in other words
Interactional	Involve the reader in the text	Resources
Hedges	withhold commitment and open dialogue	might; perhaps; possible; about
Boosters	emphasize certainty and close dialogue	in fact; definitely; it is clear that
Attitude markers	expresses writers' attitude to proposition	unfortunately; I agree; surprisingly
Self mentions	explicit reference to author(s)	I; we; my; me; our
Engagement markers	explicitly build relationship with reader	consider; note; you can see that

As metadiscourse is inherently a fuzzy and a functional category and that the metadiscursive expressions can be multifunctional and context dependent (Adel, 2006), both automatic searching procedures and manual analysis were done to avoid error.

Result and Discussion

Comparison on interactive metadiscourse features in English ESP articles written by Persian and native English writers

To find the differences in utilization of interactive metadiscourse categories, frequency of each category was counted and separately for both groups.

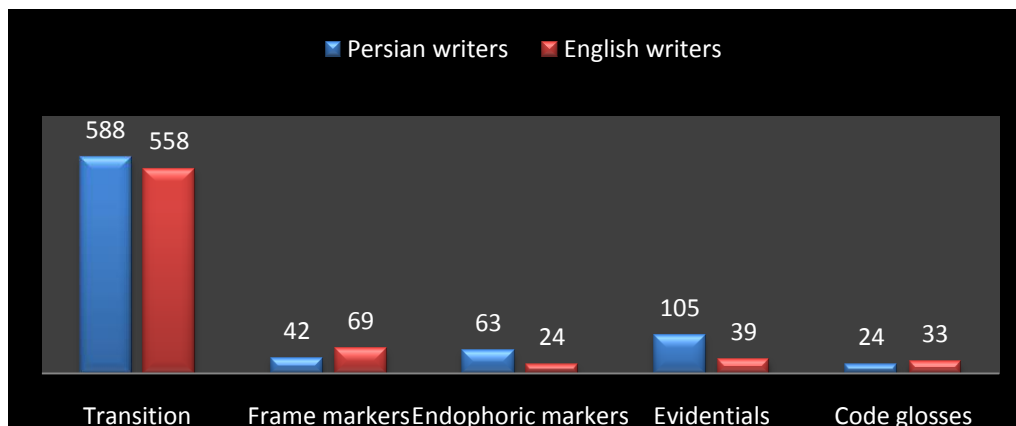


Figure 1. Bar graph of interactive metadiscourse in ESP articles written by Persian and native English writers

As it can be seen in Figure 1, both groups enjoyed application of metadiscourse categories in their articles among which transition was used more and code glosses were used less than the other categories. A close look at frequencies showed that Iranian writers' use of transition, evidential, and endophoric markers outweigh their English counterparts. Native English writers, however, used frame markers and code glosses more than Persian ones.

In total, Persian ESP writers applied more interactive metadiscourse categories than English ones, but the result of study showed that this difference was not significant. Therefore, in line with Firoozian Pooresfahani, Khajavy, and Vahidnia (2012), writers in both groups make explicit the relationship between two independent discourse units almost equally.

Based on Table 1, there was a statistically significant difference between two groups in use of Endophoric markers ($\chi^2=11.53$, $p<0.05$). It implies that Persian writers guide their readers and provide enough information for them to avoid ambiguity. Moreover, the use of Endophoric markers which links the previously mentioned facts helps the readers not to be misled.

Table 2. Chi-square test for endophoric markers

Endophoric markers	Observed N	Expected N	df	X ²	Sig.
Articles by Persian writers	63	41	1	11.53	0.01
Articles by English writers	24	41			

There was also a statistically significant difference between two groups in use of evidentials ($X^2=18.62$, $p<.005$). Therefore, evidential are used more frequently by English authors than Persian writers. It shows that English authors use more support and justification for their argumentation (Noorian & Biria, 2010). This

implies that authoritative proofs are backbone of articles by English writers which confirms the previous finding of Pishghadam and Attaran (2012).

Table 3. Chi-square test for evidentials

Evidentials	Observed N	Expected N	df	X ²	Sig.
Articles by Persian writers	105	72	1	18.62	0.001
Articles by English writers	39	72			

4.2. Comparison on interactional metadiscourse features in English ESP articles written by Persian and native English writers

The frequency of interactional metadiscourse (Figure 2) disclosed interesting quantitative similarities and differences between the two sets of data.

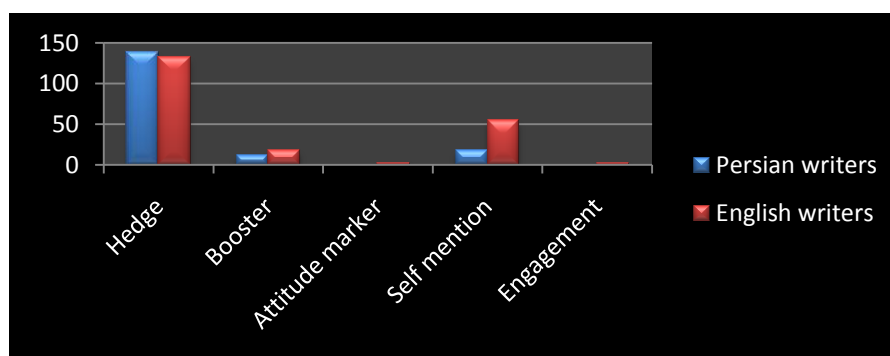


Figure 2. Bar graph of interactional metadiscourse in ESP articles written by Persian and native English writers

As it can be seen in Figure 2, interactional metadiscourse as well as interactive metadiscourse were observed in the writings of both groups. Persian writers mostly employed hedges in their articles, and did not enjoy using attitude markers and engagement ones. Regarding English writers, hedges and self mention categories were used more than other ones, respectively. Although English writers utilize attitude markers and engagement in their writing but the number was not noticeable.

Among various categories of interactional metadiscourse, results of chi-square test (Table 4) showed that there is a statistically significant difference between two groups in use of self-mentions ($X^2=18$, $p<.05$). Based on this, English authors use self-mentions more than Persian authors. Self-mentions show self-references and self-citations. It suggests that English writers explicitly give reference to themselves more than Persian authors. This can be due to some cultural issues. Iranian people tend to be indirect (Kaplan, 1966; Hofstede, 1991; Pishghadam &

Attaran, in press), therefore, Iranian writers probably consider self mention as an inappropriate strategy while English writers felt more comfortable using self-mentions.

Table 4. Chi-square test for self mention

Self mention	Observed N	Expected N	df	X ²	Sig.
Articles by Persian writers	18	36	1	18	0.000
Articles by English writers	54	36			

Conclusion

This paper was an attempt to examine metadiscourse features in English ESP articles written by Iranian and native English writers. It also aimed to investigate the similarities and differences between the two sets of articles regarding the use of interactive and interactional metadiscourse categories and to compare these two groups in using these categories. The results revealed that both groups enjoy application of interactive as well as interactional metadiscourse categories; however, English writers outperform Persian authors in both groups numerically. Regarding interactive metadiscourse categories, the quantitative analysis of data revealed significantly statistical similarities (in the case of transition, frame markers, and code glosses) and differences (in the case of endophorica markers and evidential) between the ESP articles written by English and Iranian writers. With regard to interactional categories, there was no significant difference among categories of interactional metadisocurse except for self mention. Along with Mauranen's (1993) research self mention expressions were employed more frequently by the American writers as they tend to signaling of their personal presence in academic texts. Moreover, Crismore (1989) mentioned that the use of self mention brought about reader-writer solidarity which promotes comprehension. Manifestly, readers must keep in mind that a study such as the present one has its own restrictions. A lager samples is needed to be examined cautiously. Another associated limitation is the lack of comparison between experienced and inexperienced writers of English and Persian, making it impossible to show the significant interaction effect between language and culture.

References

- Abdollahzadeh, E. (2003). *Interpersonal Metadiscourse in ELT Papers by Iranian and Anglo-American Academic Writers*. Paper presented at the International Conference on Multiculturalism in ELT Practice at Baskent University, Turkey.
- Adel, A. (2006). *Metadiscourse in L1 and L2 English*. Philadelphia: John Benjamins.
- Crismore, A., Markkanen, R., & Steffensen, M. S. (1993). Metadiscourse in persuasive writing: A study of texts written by American and Finnish university students. *Written Communication, 10*(1), 39-71.

- Crismore, A. (1989). *Talking with readers: Metadiscourse as rhetorical act*. New York: Peter Lang Publishers.
- Crismore, A., & Abdollahzadeh, E. (2010). A review of recent metadiscourse studies: the Iranian context. *NJES*, 9(2), 195-219.
- Faghih, E., & Rahimpour, S. (2009). Contrastive rhetoric of English and Persian written texts: Metadiscourse in applied linguistics research articles. *Rice Working Papers in Linguistics*, 1, 92-107.
- Firoozian Pooresfahani, A., Khajavy, G. H., & Vahidnia, F. (2012). A contrastive study of metadiscourse elements in research articles written by Iranian applied linguistics and engineering writers in English. *English Linguistics Research*, 1(1), 88-96.
- Flowerdew, J. (1999). Problems in writing for scholarly publication in English: The case of Hong Kong. *Journal of Second Language Writing*, 17, 243-364.
- Hofstede, G. (1991). *Cultures and organizations: Software of the mind*. London: McGraw-Hill.
- Hyland, K. (1998a). *Hedging in scientific research articles*. Amsterdam: John Benjamins
- Hyland, K. (1999). Academic attribution: Citation and the construction of disciplinary knowledge. *Applied Linguistics*, 20(3), 341-367.
- Hyland, K. (2004). Disciplinary interactions: Metadiscourse in L2 postgraduate writing. *Journal of Second Language writing*, 13, 133-151.
- Hyland, K. (2005). *Metadiscourse: Exploring interaction in writing*. Oxford: Continuum.
- Hyland, K., Tse, P. (2004). Metadiscourse in academic writing: a reappraisal. *Applied Linguistics*. 25 (2), 156-177.
- Jalilifar, A. (2011). World of attitudes in research article discussion sections: A cross-linguistic perspective. *Journal of Technology & Education*, 5(3), 177-186.
- Jalilifar, A., & Mehrabi, K. (2013). A cross-disciplinary and cross-cultural study of directives in discussions and conclusions of research articles. *Iranian Journal of Language Teaching Research* 2(1), 27-44.
- Kaplan, R. B. (1988). Contrastive rhetoric and second language learning: Notes toward theory of contrastive rhetoric. In A. C. Purves (Ed.), *Writing Across Languages and Cultures* (pp. 275-304). Newbury Park, CA: Sage Publication.
- Marandi, S. (2002) *A contrastive EAP rhetoric: Metadiscourse in Persian vs. English* (Doctoral dissertation). Tehran University, Iran.
- Martinez, I. (2001). Impersonality in the research article as revealed by analysis of contrastive structure. *English for Specific Purposes*, 20, 227-247.
- Mauranen, A. (1993). Contrastive ESP rhetoric: Metatext in Finnish-English Economics texts. *English for Specific Purposes*, 12, 3-22.
- Noorian, M., & Biria, R. (2010). Interpersonal metadiscourse in persuasive journalism: A study of texts by American and Iranian EFL columnists. *Journal of Modern Languages*, 20, 64-79.
- Pishghadam, R., & Attaran, A. (2012). Rhetorical patterns of Argumentation in EFL journals of Persian and English. *International Journal of Research Studies in Language Learning*, 2(1), 81-90.
- Pishghadam, R., & Attaran, A. (in press). A sociological look into speech act of swearing: A comparison of Persian and English languages. *Studies in Language and Translation*.
- Rahimpour, S. (2006). *Contrastive Rhetoric of English and Persian Texts; Metadiscourse in Applied Linguistics Research Articles*. Unpublished Master's thesis, University of Mashad.
- Siami, T., & Abdi, R. (2012). Metadiscourse strategies in Persian research articles: Implications for teaching writing English articles. *Journal of English Language Teaching and Learning*, 9, 165-176.
- Swales, J. (1990). *Genre analysis. English in academic and research settings*. Cambridge: Cambridge University Press.
- Taki, S., & Jafarpour, F. (2012). Engagement and stance in academic writing: A study of English and Persian research articles. *Mediterranean Journal of Social Sciences*, 3(1), 157-168.
- Vande Kopple, W. J. (2002). Metadiscourse, discourse, and issues in composition and rhetoric. In F. Barton & C. Stygall (eds.), *Discourse studies in composition*. Cresskill, NJ: Hampton Press, 91-113.