Metadiscourse strategies in Persian research articles; Implications for teaching writing English articles

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Abstract

In order to develop an understanding of the rhetorical conventions in the Persian language and to find out the metadiscursive cultural norms of Iranian writers in their native language writings, it is necessary to probe into the implicit rhetorical features of academic writing which has so far eluded a comprehensive systematic characterization. Metadiscourse marking, which is supposed to be one of the important rhetorical aspects in the writing process, is shown to be susceptible to cultural mentalities. Therefore, in this study an attempt is made to explore interactive and interactional metadiscourse strategies use by the Persian writers in the genre of research articles (RAs). For the purpose of this study, a corpus of 60 Persian research articles from social and natural sciences was selected for a close qualitative manual analysis. It appeared that, though globally similar in many ways, different IMRD sections of RAs which follow different cognitive genre types use interactive and interactional strategies differently. Also, the conventions of the two sciences appeared to be weirdly different. The findings are analyzed and implications are drawn for the teachers and learners of writing research articles in English for Academic Purposes (EAP) classes. It is argued that without such characterizations it would be very difficult to gather an idea of the current rhetorical trend in Persian language so that a comparison can be made with any target language conventions in teaching and learning foreign languages.

Introduction

Discourse communities adopt and invariably modify some conventions, from stylistic to rhetorical, in order to clearly frame the communication between the members. Therefore, it is generally believed that entering a discourse community requires detailed knowledge and appreciation of the trends in that community (Swales, 1990; Bizzell, 1992). Such knowledge is said to enrich communicative competence and thereby facilitate recognition of the membership within the community. In fact, the lack of awareness and competence in the writing practices of relevant discourse communities is the main reason why membership seeking individuals are turned down by the gatekeepers (Hyland & Hamp-Lyons, 2002).

It is also widely recognized that academic discourse community in general and disciplinary communities in particular are firmly established with a multitude of linguistic and non-linguistic sophistications. As such, the multilingual members of the community manifest more or less similar patterns of behavior in order to sustain their membership in their relevant communities. Meanwhile, in the communication-rich era any discourse community uses several established ways of communication, which gives rise to various genres (Swales, 1990). Among many, research article is supposed to be a clearly outlined genre of communication in academic discourse community.

A wealth of research initiated by the contrastive rhetoric of Kaplan (1966) have tried to compare the rhetorical styles of different cultures (Connor, 1996) in different genres of communication in order to inform the native speakers of various languages who want to communicate by other members of the discourse communities through the lingua franca of English. From among many rhetorical options in research articles, metadiscourse marking is considered as an effective and extensively used one which significantly contributes to the fluent flow of argument.

Table 1. *An Interpersonal Model of Metadiscourse (Hyland, 2005, p. 49)*

Category	Function	Examples
Interactive	**Help to guide the reader through the text**	**Resources**
Transitions	express relations between main clauses	In addition; but; thus; and
Frame markers	refer to discourse acts, sequences or stages	finally; to conclude; my purpose is
Endophoric markers	refer to information in other parts of the text	noted above; see figure; in section 2
Evidentials	refer to information from other texts	according to X; Z states
Code glosses	elaborate 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

Put simply, metadiscourse is a cover term that refers to an array of self-reflective expressions used to negotiate interactional meaning in a text, assisting the writer to express a viewpoint and engage with readers as members of a particular community (Hyland, 2005). According to Hyland, rhetoricians, applied linguists, and composition theorists agree on using metadiscourse to refer to various linguistic tokens employed to guide or direct a reader through a text so that both the text and the writer's stance is understood. Metadiscourse in general and the interactional side of it in particular (see Table 1, above) is of

high significance in that it deals with culturally susceptible options. In fact, metadiscourse is inevitably linked to the mentalities of writers and it seems that it is quite challenging to get rid of such mentalities and follow the conventions and mindset of relevant discourse communities.

Metadiscourse has been studied extensively from various perspectives and for various purposes (e.g., Buttny, 2010; Dafouz-Milne, 2008; Mey, 2005; Guillem, 2009; Nassaji, 2008; Simin and Tavangar, 2009).). Also, quite many studies have embarked on contrastive analysis of Persian and English texts (eg, Jalilifar & Alipour, 2007; Marandi, 2003) which have shown differences between Iranian and English writers.

It is also worth mentioning that within the past forty years or so, trends in ESP in general, and EAP in particular, have come a long way (e.g., register analysis, skill-based teaching, etc.) to finally opt for genre-based teaching of writing where the concepts like social and cognitive genre and rhetorical structure plays a significant role in teaching writing (Basturkmen, 2006; Bruce, 2003, 2005).

However, despite a wide interest in such analyses, no effort is made to characterize different sections of the popular social genre of RA which allegedly have different cognitive genre (see Bruce, 2003) in Persian RAs. Mainly motivated by the need to find out how a native culture could develop independently of the global community and also to provide a better metadiscursive image of the conventions followed by Persian writers in writing Persian articles, it was thought beneficial to carry out a genre and section-specific characterization of Persian academic writing produced by Iranian scholars. The results of this study can be a contribution to contrastive rhetoric which can help prospective Iranian writers in other languages to develop a conscious awareness of engraved rhetorical options.

Therefore, this study will analyze Persian research articles written by Iranian scholars to discover and discuss the distribution pattern of metadiscourse markers. We will more specifically try to find out how such markers are distributed in different section of RAs and also in natural and social disciplines, the two areas presumably favoring different inquiry paradigms.

Methodology

A group of RAs from the so-called 'natural' and 'social' sciences (NS and SS, respectively) disciplines were taken to be the corpus of the study. We remind that RA was chosen to be examined for three reasons. First, RA is an outstanding and widely used genre of communication among academia. Second, the rejection of Iranian writers' articles in international scholarly journals are generally said to be due largely to generalization problems. Finally, Iranian writers have recently shown a stronger tendency to join their relevant disciplinary community around the world, mostly through writing RAs, probably because publication is more considerably appreciated in hiring, promotion and continued employment in recent regulations (Belcher, 2007).

With regard to the inclusion of natural and social disciplines, it should be noted that since the two branches are generally associated with different research paradigms (Guba and Lincoln, 1994), it was thought that a sort of paradigmatic identity could prompt different rhetorical choices and, hence, different ways of using quantitative metadiscourse markers.

To build the corpus of the study, classified and cluster random sampling were used. In order to ensure a reasonable coverage across sciences, we randomly selected six disciplines, that is, sociology, education and counseling to build the social sciences corpus (SSC) and opted for chemistry, biology and medicine to collect the natural sciences corpus (NSC). Then, five articles from two to three journals in each discipline were randomly selected. On the whole 60 journals were selected which amounted to 250000 words.

The recent taxonomy of metadiscourse formulated by Hyland (2005), which appeared in Table 1, was taken as the basic model. Hyland's model was preferred for (a) being recent, simple, clear and inclusive, (b) building on previous taxonomies, and (c) more easily lending itself to this research purposes.

The formal realizations of metadiscursive strategies were developed through the translation of the list of markers as suggested in the appendix of Hyland's (2005, pp. 218-224) book. The canonical criteria for the identification of metadiscourse, as outlined by Hyland and Tse (2004, p. 159), were applied for this purpose. They suggested

three key principles that should be present in order to qualify an item as an MM:

- that metadiscourse is distinct from propositional aspects of discourse;
- that the term metadiscourse refers to those aspects of the text that embody writer-reader interactions; and
- that metadiscourse distinguishes relations which are external to the text from those that are internal.

In order to ensure appropriate translation and also observation of the above three criteria in identifying MMs, and also to have a more reliable result, the corpus was reviewed by an expert colleague and the results were averaged out.

Results and Discussion

The corpus was analyzed and the following results were obtained. The manual and qualitative search for the ten metadiscourse strategies made available the data that appears in Table 2 below.

The highest frequency is underlined (separately for interactive and interactional strategies) in any row and boldfaced in any column in Table 2. That is, the most frequently employed strategy in any section is underlined, and any section which attracted the highest number of a certain strategy is shown by boldfacing the relevant row.

Table 2. *The Distribution of Metadiscourse Markers in Different Parts of Research Articles across Sciences*

		Interactive						interactional						G-total
		Tra	Fra	End	Evi	Cod	Total	Hed	Boo	Att	Sel	Eng	Total	
SSC	I	509	275	27	963	152	1926	60	195	50	0	23	328	2254
	M	171	369	30	369	59	998	9	29	11	3	15	67	1065
	RD	**895**	**674**	609	686	164	**3028**	300	425	39	0	51	815	**3843**
	T	1575	1318	666	2018	375	5952	369	649	100	3	89	1210	7162
NSC	I	447	200	36	**1151**	**188**	2022	164	195	69	17	5	450	2472
	M	123	264	201	245	86	919	41	36	0	8	12	97	1016

	RD	740	347	**764**	<u>786</u>	104	**2741**	**321**	**492**	**98**	**50**	**56**	**1017**	3758
	T	1310	811	1001	<u>2182</u>	378	5682	526	723	167	75	73	1564	7246
	I	956	475	63	**<u>2114</u>**	**340**	3948	224	<u>390</u>	119	17	28	778	4726
	M	294	633	231	<u>614</u>	145	1917	50	<u>65</u>	11	11	27	164	2081
TC	RD	**1635**	**1021**	**1373**	1472	268	**5769**	621	**<u>917</u>**	**137**	**50**	**107**	**1832**	7601
	T	2885	2129	1667	4200	753	11634	895	1372	267	78	162	2774	14408

As seen in Table 2, interactive metadiscourse is used over four times more than the interactional one in the corpus, which shows that the interactive resources are invaluable tools for Iranian writers in producing Persian RAs. The interactive strategies are employed for a variety of purposes including signposting the flow of arguments, framing, referring to other sections, citing and glossing. This trend is also at work in English research articles produced by native speakers (Abdi, 2011).

The highest number of transitions and frame markers is seen in the RD section of SS articles, while the highest number of evidential and code glosses is found in the Introduction section of NSC. The SS writers felt more need to signpost and frame their arguments while discussing their findings, whereas NS writers invested more on citing and providing gloss while paving the way for their studies in the introduction sections. In the meantime, the highest number of endophoric marking resources is seen in the RD section of NSC that reveals the frequent need to refer to the other sections and parts in the articles.

It is interesting to see that all interactional strategies appear most highly in the RD section of NSC. This reveals that Iranian writers' interaction with their text and audience in the NS is much more considerable as compared to the one in the SS. In the meantime, it is surprising to see that SS writers who deal with the so called soft and subjective sciences emphasize their propositions approximately as equally as NS writers who are involved in the so called hard and more objective studies.

Meanwhile, it is rather weird to see that while the metadiscursive conventions of Iranian native writers in the two sciences tend to converge in their employment of interactive resources in the different subsections, a notable contrast is seen in the use of interactional ones. As an example, while in both sciences the RD section hosts the highest number of interactional metadiscourse (except for attitude markers in the SSC), they notably disagree in frequencies. That is, in the SSC no self-mentions were found compared to the 50 times occurrence in the NSC, and the attitude markers were used less than half times as in the NSC as compared to the SSC. The difference is more remarkable in the Introductions and Methods, specifically in the use of hedges, attitude markers and self-mentions. The pattern followed by Iranian writers appears to be different from native English writers as reported in Abdi (2011), Marandi (2003), Jalilifar and Alipour (2007).

The findings of this study are yet more insightful when analyzed in terms of the overall dispersion of interactive and interactional markers through the subsections in both the NSC and SSC (Table 3). Ignoring the strategies, a surprising distribution model of metadiscursive features appears to be at work among writers which urges them to use about %50 of the markers in the RD section, about %30 of them in the Introductions, and finally about %15 in the Methods. Only a notable deviation from this hypothetical model is seen in the use of interactional metadiscourse among the SS writers where about %10 less use of markers in the Methods which is added to the RD section.

Table 3. *The Distribution (%) of Metadiscourse in Different Sections of Research Articles*

	SSC			NSC			Total		
	Interactive	Interactional	Total	Interactive	Interactional	Total	Interactive	Interactional	Total
I	32.36	27.11	31.47	35.59	28.77	34.12	33.94	28.05	32.80
M	16.77	5.54	14.87	16.17	6.20	14.02	16.48	5.91	14.44
RD	5087	67.35	53.66	48.24	65.03	51.86	49.58	66.04	52.76
Total	100	100	100	100	100	100	100	100	100

Viewed from a different perspective (Table 4), it can be seen that although on the whole interactive metadiscourse is used more than four times compared to the interactional one, the difference is highest in the Methods of the SSC (%93.71 versus %6.29) and lowest in the RDs of the NSC (%72.94 versus % 27.06). This finding shows the highest interaction of the writers and the audience in the RDs among NS writers and the lowest attempt to establish such a relationship in the Methods of the SSC. The fact that Iranian NS writers are more interactional than SS ones is against the norm of English research article writers where the relationship is vice versa (Abdi, 2011). It seems that although positivism, first introduced as the scientific method for hard and natural sciences, took some time to find its way into social and human sciences, yet its principles are so engraved in the social science researchers' mentality that notwithstanding the green light to the new interactive research paradigms among natural science scholars, the predominant axiom of objectivity is still lingering among Iranian social science writers. The result is surprising on the grounds that the writers in the broader discourse community, roughly represented by the native English writers, more eagerly departed the objectivity canon of positivism in the face of new interactive models such as constructivism and critical theory (Guba & Lincoln, 1994).

Table 4. *The Distribution (%) of Interactive and Interactional Metadiscourse in Research Articles*

	SSC			NSC			TC			
	I	M	RD	I	M	RD	I	M	RD	Total
Interactive	85.45	93.71	78.80	81.80	90.45	72.94	83.54	92.12	75.90	81.75
Interactional	14.55	6.29	21.20	8.20	9.55	27.06	16.46	7.88	24.10	19.25
Total	100	100	100	100	100	100	100	100	100	100

It should be mentioned that due to the difference in nature and the cognitive genre (Bruce, 2003) of different subsections, it was not unexpected to find that the distribution of metadiscourse markers both in the interactive and interactional category was found to be significantly different in the SSC, NSC and the total corpus (Table 5, below).

Table 5
Chi-square Values of Comparing Introduction, Method and Results and Discussion Sections of Research Articles

	SSC	NSC	TC
interactive	1041.06	889.34	1914.97
interactional	714.71	826.41	1539.3
d.f.: 2	level of significance: 0.01	χ^2 critical value: 9.21	

5. Conclusion

This study investigated the use of metadiscursive features among Iranian writers of RAs from social and natural sciences. It appeared that there are significant differences between two groups of writers in the use of metadiscursive features. Also it was made clear that interactional metadiscourse is employed four times less than the interactive ones which is a significantly different proportion compared to native English writers. All in all, it seems that Iranian writers of natural and social sciences act differently which is not surprising due to the difference in the nature of the two sciences. However, the difference is much more than the conventional difference which could be seen among other members of the disciplinary community.

It can be concluded that the different convention at work among Iranian writers in the use of metadiscursive strategies in the two canonical branches of science reflect the inherent difference in the nature of the two sciences, while the difference between Iranian and English authors support the claim show that the national culture is a determining factor (Dahl, 2004) in controlling the linguistic and rhetoric choices among academia.

The result of this study could be of particular interest to EAP teachers when dealing with academic writing. This study provides an image of the Iranian writers so that it can be considered against the backdrop of advanced academic writing. The findings could also be of interest for ethnographic researchers as it characterizes a rhetorical trend of Iranian writers

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